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SUSTAINABILITY ASSESSMENT OF THE AFRICA CHILD SURVIVAL INITIATIVE (ACSI) COMBATTING CHILDHOOD COMMUNICABLE DISEASES (CCCD) PROJECT NIGERIA, 1992

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GLOSSARY OF TERMS

AAO	A.I.D. Affairs Office/ Lagos
ACSI-CCCD	Africa Child Survival Initiative-Combatting Childhood Communicable Diseases
A.I.D.	Agency for International Development
AIDS	Acquired Immune Deficiency Syndrome
ARHEC	African Regional Health Education Center
ARI	Acute Respiratory Infection
BETTER LIFE	Better Life for Rural Women Project
CCCD	Combatting Childhood Communicable Diseases Project
CDD	Control of Diarrheal Diseases
CEC	Continuing Education Committee
CEU	Continuing Education Unit
CHAN	Christian Health Association of Nigeria
CSP	Clinical Service Providers
DFRRI	Directorate of Food, Roads and Rural Infrastructure
DPHC	Department of Primary Health Care
DPRS	Department of Planning, Research and Statistics
DSN	Disease Surveillance and Notification Form
DTU	Diarrhea Training Unit
EPI	Expanded Programme on Immunization
FETP	Field Epidemiology Training Program
FHEB	Federal Health Education Bureau
FMOHSS	Federal Ministry of Health and Social Services
GDP	Gross Domestic Product
GON	Government of Nigeria
HCW	Health Care Workers
HEU	Health Education Unit

HIS	Health Information System
IEC	Information, Education and Communication
KAP	Knowledge, Attitudes and Practices
LG	Local Government
M&E	Monitoring and Evaluation
MAMSER	Mass Mobilization for Social Justice and Economic Recovery
MCH	Maternal and Child Health
NCCCD-II	Nigerian Combatting Childhood Communicable Diseases Project, Phase II
NDHS	Nigeria Demographic and Health Survey
OPV	Oral Polio Vaccine
ORS	Oral Rehydration Solution
PCV	Peace Corp Volunteer
PHC	Primary Health Care
SAP	Structural Adjustment Programme
SDP	Service Delivery Point (Health Facility)
SMOHSS	State Ministry of Health and Social Services
SSS	Sugar Salt Solution
TBA	Traditional Birth Attendant
TT	Tetanus Toxoid
UCI	Universal Coverage of Immunizations Project
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
WATSAN	Water and Sanitation Programme
WCA	Women of Childbearing Age
WHO	World Health Organization
YF	Yellow Fever

EXECUTIVE SUMMARY

This study critically examines the factors that are likely to support or undermine the continuity of donor supported activities and benefits within the economic, political and infrastructural realities of Nigeria. The study focused on the sustainability of the Africa Child Survival Initiative-Combatting Childhood Communicable Diseases Project (ASCI-CCCD) activities in Nigeria since the initiation of U.S. Government-funded activities in December 1986. The study objectives were the following:

- To determine the availability of data required to evaluate project sustainability;
- To assess the potential for project sustainability by identifying the extent to which key criteria have been incorporated in the project design;
- To document the lessons learned in Nigeria about project sustainability and the sustainability criteria, and
- To develop recommendations for enhancing the sustainability of project activities under the proposed Nigeria CCCD-II project (1993-2000).

Sustainability was defined as the persistence of program activities or the benefits of programs three years after the cessation of donor support. For the purposes of this project, potential sustainability was defined as the potential likelihood that programs or their benefits would continue if donor support was withdrawn. The impact of program and contextual factors on sustainability was considered.

Contextual Factors

By definition, contextual factors are generally beyond the control of the project administration. In Nigeria, however, they are of great significance and are key factors in determining the probability of sustainability. Those found to be the most important in Nigeria were political and economic. Other contextual factors considered were resources, socio-cultural, and environmental issues.

Political Factors: Nigeria is an emerging democracy. The transition from military to civilian government has had an extended period of gestation and has been accompanied by significant geopolitical redefinition. In two years, Nigeria has gone from 19 to 31 states and from 360 to 589 local governments. The local governments have been given an unprecedented degree of autonomy and fiscal authority over the federal monetary subventions to their communities. The transition process has been characterized by political instability with frequent changes in local leadership and priorities, which has negatively impacted on the sustainability of CCCD supported programs.

Economic Factors: Health has not done well in the competition for funds. Since 1980, the proportion of the total federal budget allocated to health has shown a downward trend. In the face of increasingly severe financial constraints, the prospects for a near term reversal of this trend are remote. For these reasons, Nigeria's ability to finance health programs is a contextual consideration that weighs heavily against the ultimate sustainability of many of the CCCD supported programs.

Program Factors

Program factors are heavily influenced or are under the direct control of the project. Perceived effectiveness and ownership were felt to be the most important program factors. Others considered were the integration and institutional strengthening of the project; local financing and community participation; strong training programs; and the process of building constituencies through mutually respectful negotiations.

Perceived Effectiveness: One of the greatest challenges facing the Nigerian health sector is the need to enhance community perceptions of the effectiveness of primary, prevention oriented health care programs. The Primary Health Care (PHC) program is beginning to gain widespread recognition and support in part because the CCCD project activities are seen as effective by key policy makers, health administrators and recipients. This is positively affecting the potential for sustainability.

Ownership: Perceived Nigerian ownership of the CCCD project components is clear. Nigerians at the federal, state and local government levels strongly agree that CCCD project components such as Expanded Program on Immunization (EPI), Control of Diarrheal Diseases (CDD), malaria control, Health Information Systems (HIS) and training are Nigerian owned. It is locally perceived that the CCCD project components address the established needs of Nigerians, demonstrating a positive effect on the future of CCCD project sustainability.

Other Project Related Factors: The CCCD project is well integrated into the national PHC program and is plays a pivotal role in building up the institutions that deliver health services. It is supported by an effective training program. In Nigeria, local financing and community participation are closely linked to ownership and these will need to be strengthened. The process of building constituencies through mutually respectful negotiations has been an integral part of the planning process for CCCD project activities. This established process will be an important mechanism for enhancing local financing and community participation.

The Probability of Sustainability

A scale was derived in order to measure the probability of project sustainability. Individual CCCD project interventions and support strategies were rated as unsustainable, minimally sustainable, moderately sustainable, sustainable, sustainable with preserved quality or sustainable with enhanced quality. The EPI program, Training and the Health Information System were all rated most likely to be sustainable. The CDD program and the routine data components of the Monitoring and Evaluation (M&E) system scored lowest and were assessed as being in jeopardy of not being sustained.

Key Lessons Learned

Responsibility for assuring progress toward sustainability should be negotiated and fixed as a part of the project negotiation and design process.

Programs are unlikely to be sustained until there is a critical mass of technical personnel available to support them.

Projects that depend on the heavy inflow of external capital are unlikely to be sustainable.

In Nigeria, ownership is inextricably linked to financial inputs.

The CCCD training programs are providing data that is being used to enhance ownership, cost sharing and the perception of effectiveness.

Programs are unlikely to be sustained in the absence of stable leadership.

Programs are more likely to be sustained if they are planned from the "bottom up" and thus reflect community priorities.

Key Recommendations

1. Sustainability related objectives and indicators should be included in the design of future CCCD and USAID supported programs. Objectives should include an assessment of the ultimate potential for financial sustainability.

2. Future CCCD/USAID programs should include a negotiated process for a phased increase in the local absorption of project costs. Local contributions should be commensurate with the communities' ability to pay. Equity in the allocation of resources and in access to health care should be preserved.

3. CCCD/USAID should support the development of managerial and financial management capacity at the state and LG level.

4. CCCD should strengthen the capacity of the national level training program and should seek to expand the model nationwide.

5. CCCD should continue and expand its effort to rely on local technical expertise. The establishment of an FETP program should augment local technical capacities.

I. INTRODUCTION

As the United States and other industrialized nations face the uncertainties and challenges of the post-cold-war era, relationships with developing countries are being redefined in the context of a shifting global economy. Virtually all recent efforts to define a viable development strategy for sub-Saharan Africa have concluded that increased flows of international development assistance lasting well into the next century will be required. In Nigeria, historically one of the more prosperous countries, the role of donor inflows in the financing of the government development budget has been minor. Since 1980, however, donor assistance has been providing an increasing proportion of public expenditures, especially those for health and social sector development. Overseas aid accounted for 0.4 percent of public expenditure in Nigeria in 1980 and increased to 1 percent by 1987[1].

Currently, USAID/Lagos is examining its role as a bilateral donor and is developing a strategic approach to programs of assistance in health and population. One reality to be considered is that donor funding is not assured for the indefinite future. It is, therefore, appropriate to examine the potential for sustainability of USAID supported programs. This study seeks to critically examine the factors that are likely to support or undermine the continuity of donor supported activities and benefits within the economic, political and infrastructural realities of Nigeria The project staff focused on the sustainability of the ASCI-CCCD Project activities in Nigeria since the initiation of U.S. Government funded activities in December 1986. The study objectives were as follows:

- To determine the availability of data required to evaluate project sustainability;
- To assess the potential for project sustainability by identifying the extent to which key criteria have been incorporated in the project design;
- To document the lessons learned in Nigeria about project sustainability and the sustainability criteria, and
- To develop recommendations for enhancing the sustainability of project activities under the proposed N-CCCD project (1993-2000).

In previous studies, sustainability was defined as the continuation of activities and benefits achieved during the life of the project, at least three years after project funding stops.[2] In Nigeria, however, CCCD project activities are still under way and USAID/Lagos plans to initiate

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[1]World Bank 1989. *Sub-Saharan Africa: From Crisis to Sustainable Growth.* Washington, DC.

[2]Bossert, T. "Can They Get Along Without Us? Sustainability of Donor-Supported Health Projects in Central America and Africa," *Social Science and Medicine*, Vol. 30, 1990.

a follow-on project beginning in 1993[3]. Clearly, in this context, it is premature to attempt to assess the ultimate sustainability of the CCCD activities. Therefore, our focus was to determine the extent to which progress toward sustainability could be measured and to identify indicators that characterize movement toward a more sustainable program. It should also be noted that "sustainability" was not a factor considered in the original design of the CCCD project, but rather an area of focus added in response to concerns raised by USAID/Lagos and the Africa Bureau of A.I.D. in 1988-89.

[3]The Nigeria CCCD-II Project will employ an integrated approach including STD/HIV, Family Planning, and Policy Development. The proposed design was suggested in Waldeman, Cutts, Stekette and Davis, "Child Survival Programs in Africa: Suggestions for an Integrated Approach." CDC Atlanta, Georgia, 1992.

II. BACKGROUND

Nigeria's Health and Population Profiles

Nigeria is a country of remarkable diversity and challenge. It has abundant natural resources, a wealth of human capital, rich arable land, a dynamic private sector and is making progress toward the development of a diversified economy. Nigeria is the sixth largest producer of oil products. Situated in West Africa on the Gulf of Guinea, it is the fourteenth largest country on the African continent. Its land mass of 923,773 square kilometers (356,669 square miles) is home to approximately 88.5 million people. It is the most populous country in sub-Saharan Africa. There are approximately 400 distinct ethnolinguistic groups residing in over 300,000 discrete cities, villages and townships.

While Nigeria's population is increasingly becoming more urban, approximately 75 percent of the population continues to reside in rural areas, often without benefit of safe water, sanitation or electricity. Nigeria has all the required ingredients for economic and social development but is burdened by a rapidly increasing population that is creating an increasingly greater demand for health and social services. Despite its role as a leader in the development of primary health care programs, the demographic and health profile of its people continues to be among the lowest in Africa.

Population	88,500,000 (1991 Census Data[4])
Life Expectancy at Birth	Males = 49 years, Females = 52 years
Crude Birth Rate (per 1,000 population)	39 (1990 NDHS[5])
Crude Death Rate (per 1,000)	16
Total Fertility Rate (15-49)	6.011 (1990 NDHS)
Estimated Population Doubling Time	21 years (2011)
Maternal Mortality Rate (per 1,000 live births)	15
Infant Mortality Rate (${}_1q_0$)	91.4 (1990 NDHS)
Under-five mortality (${}_5q_0$)	191.0 (1990 NDHS)
Undernourished children (weight for age below -2 SD)	35.7 percent
Chronically undernourished children (height for age below -2 SD)	43.1 percent
Wasting (weight for height below -2 SD)	9.1 percent

Infectious diseases (especially parasitic, intestinal and respiratory infections) are the most common causes of illness. Pneumonia, diarrhea, measles, malaria, diphtheria, tuberculosis, cholera and polio are the most frequently reported causes of death. Motherly morbidity and mortality are

[4]Nigerian Census, National Population Commission, November 1991.

[5]Nigeria Demographic and Health Survey, 1990. Federal Office of Statistics/IRD Macro Systems.

extremely high and are the result of early marriages, frequent pregnancies and closely spaced births. Malnutrition is widespread despite Nigeria's relatively high per capita income compared to neighboring African countries.

CCCD Nigeria

The ACSI-CCCD Project is the principal Agency for International Development (A.I.D.) child survival project for Africa. In Nigeria, CCCD[6] was implemented by the Centers for Disease Control under a memorandum of understanding signed in December 1986. The current end of project date is September 1993. CCCD's purpose is to support and expand the Federal Ministry of Health's Child Survival Health Initiative, in partnership with UNICEF and the World Health Organization. The program seeks to assist the Government of Nigeria to reduce high levels of infant and childhood morbidity and mortality through the control of the most frequent causes of disability and death for which there are safe, efficient and cost-effective interventions. The project commits $14.5 million in seven major program areas (three technical intervention strategies and four support strategies), each of which was examined in this assessment:

1. Expanded Program on Immunization (EPI)
2. Control of Diarrheal Diseases (CDD)
3. Malaria
4. Training
5. Health Information Systems (HIS)
6. Health Education/Promotion Activities
7. Operational Research

Nigeria launched its comprehensive Primary Health Care initiative in August 1987 and CCCD has continued to be a steadfast partner. The project has contributed substantially to successes in extending basic public health services to the general population. As a result of these efforts, measles incidence rates declined by 73 percent between 1985 and 1991. Immunization coverage for children under the age of one reached an all-time high in 1990 (BCG. 95 percent; DPT3. 65 percent; polio3, 65 percent, and measles 70 percent, fully immunized 56 percent). There have been major advances in the establishment of health and management information systems augmented by user friendly computer support systems. Nigerian health workers have been introduced to the process of using health systems data for planning and evaluating their programs as well as for the recognition and investigation of significant disease outbreaks. The

[6]In this report, this acronym will be used to identify the ACSI-CCCD Project unless otherwise indicated.

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project has supported the establishment of four continuing education units (CEUs) in Schools of Health Technology and the development of training modules and supervisory evaluation modules. These educational units are used to upgrade the technical skills of health workers at every level.

Additionally, CCCD has implemented a major operations research program that supports relevant studies on the pathogenesis and prevention of childhood diseases. These CCCD lead initiatives have been fully integrated into the Nigerian National Primary Health Care Program and are widely credited with improving the health outlook for Nigeria's children[7].

[7] Science and Technology. PHC: Myths and realities. The Daily Times, Tuesday, February 27, 1990.

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III. STUDY METHODOLOGY[8]

The sustainability assessment team conducted a pre-project review of documents[9] and worked to develop a conceptual frame for the country study. The analytic frame that was developed included an adaptation of the criteria developed by Bossert and used in the retrospective evaluation of Health, Population and Nutrition Projects in several countries[10]. For the purposes of this study, the criteria were modified to facilitate the assessment of programs that are not completed and in some instances are still in the initiation stage. The questions asked were: What can we expect to be sustained? Is there evidence that project activities are progressing toward sustainability? Are there lessons to be learned about the processes that lead to a more sustainable program? Is the current methodology adequate to measure the potential for sustainability? The team did not attempt to evaluate the impact of the CCCD project, but this report does include comments on the effectiveness of the interventions and support strategies.

Site visits were made to Lagos, Enugu, Anambra, Oyo, Plateau, Niger and Kaduna states by a field team consisting of Dr. Stella Goings (ARC staff), Dr. Marjorie Pollack (Consultant), Madame Aissatou Lô (Consultant) and Ms. Kathleen McDavid (CCCD Staff). The team visited Nigeria for a one month period from 28 September to 25 October, 1992. Between 11 October and 17 October, the international consultants were joined by Ms. Nancy Smith and Mr. Festus Ocko (FMOH Staff), who served as counterparts. Each of these colleagues brought unique interests and technical expertise to the study and contributed to a team approach to the study.

Meetings were held with officials from key departments in Federal and State Ministries of Health, CCCD field staff and representatives of bilateral and multilateral donor agencies (USAID/Lagos, UNICEF, WHO). A comprehensive list of contacts is presented in Appendix A. Data developed by the CCCD project on the health, demographic and epidemiological profile for target diseases were examined. State and LG workplans and budgets were reviewed and extensive discussions were held with local authorities regarding their experiences, perceptions of Primary Health Care (PHC) and the CCCD project inputs to their programs. The team members visited the CEUs and primary health care facilities and inspected the EPI cold chain. Service delivery personnel and clients were also interviewed.

A compilation of data sources, comments on data availability, quality and evidence of utilization was developed and is presented in Table 1 in Appendix F. The intervention and support strategies were examined and a scale was constructed to express the team's judgments of the "likelihood" of ultimate sustainability after the withdrawal of USAID funding. These

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[8] A more extensive discussion of the study methodology is presented in Appendix F.

[9] Documents reviewed are listed in Appendix D.

[10] CDIE/AID. Sustainability Series. Sustainability of U.S. Government Funded Health Projects in Honduras, Guatemala, Zaire, Senegal and Tanzania. 1987-1990.

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judgments are supported by the team's appraisal of factors contributing to the sustainability of the project element and those factors mitigating against sustainability. The team also examined the relative importance of key project related and non-project related factors. These assessments are presented in Tables 2 and 3 in Appendix F.

The Definition of Project Sustainability

Sustainability was defined as the persistence of program activities or the benefits of programs three years after the cessation of donor supports. For the purposes of this study, potential sustainability was defined as the potential likelihood that programs or their benefits would continue if donor support were withdrawn. The adequacy of these definitions was a topic of discussion throughout the study. It may be appropriate for consideration to be given to formulating a more precise definition of sustainability that is more appropriate within the African setting. In Nigeria, it was obvious that several CCCD interventions were well integrated into the national PHC program and met all criteria for potential sustainability except for the requirement that Nigeria absorb the project costs without additional donor inputs. Clearly the absorption of all project costs by the recipient country and a continuation of the activity without a degradation of its quality and with continued benefits to the recipients is the ideal scenario. However, this may not be feasible for African countries. Nigeria may not be able to absorb project costs from national resources but may be expected to seek and obtain support from other donors to continue valued programs The team could not reach a consensus on whether the substitution of funds from other donors which replaces USAID funding and allows a program to continue and the community to continue to receive benefit is sustainability.

Key Factors Affecting Sustainability

The team identified categories of project and non-project (contextual) factors that appear to have an effect on the CCCD project and that were expected to determine the sustainability of the project (see Table 1). These were similar to the factors identified in previous studies. A more detailed discussion of the project and contextual factors is presented in Tables 2 and 3 in Appendix F.

Table 1: Factors Affecting Sustainability	
Project Related Factors	**Non-Project Related (Contextual) Factors**
1. Perceived Effectiveness	1. Economic Factors
2. Integration and Institution Strengthening	2. Resource Factors
3. Local Financing, Community Participation and Private Sector Provision of Services	3. Political Factors
4. Strong Training Component	4. Socio-Cultural Factors
5. Constituency Building Through a Process of Mutually Respectful Negotiations	5. Environmental Factors
6. Ownership	

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IV. FINDINGS

A. Availability of Data

Ideally, Nigeria's health system should be generating necessary data to enable better-informed decisions, facilitate the introduction of indicated changes, the monitoring of program implementation, and assessment of impacts. These data should be available to decision makers at all levels (including donor organizations) and should include information which would allow the systematic monitoring of progress toward more sustainable programs. The team identified a number of important data sources, which are described in Table 2. These were used to examine project sustainability[11].

Table 2: Summary of Data to Measure Project Sustainability

Factors	Sources and Types of Data Used to Measure the Potential for Sustainability
Project Related Factors: • Perceived Effectiveness	Statements by Policy Makers and Influentials Health Facilities surveys (KAP) studies Community surveys. Morbidity and Mortality Reports. Evidence that findings from OR studies and HIS data are being used in decision making
• Integration and Institutional Strengthening	Policy Documents (National Primary Health Care Policy, National Population Policy, National Nutrition Policy, National Mental Health Policy, Report of National Committee on the Establishment of Health Insurance Scheme in Nigeria, National Health Systems Research Priorities and Workplan).
• Local Financing, Community Participation and Private Sector Provision of Services	Community Surveys and Evaluation Reports. Federal, State, and LG Budgets (previous, current and proposed). Returns from Drug Revolving Funds and User Fees. Cost-Recovery Policies. Operations Research Studies. Health Information System reports from public and private sector facilities
• Strong Training Component	Policy documents. Health Facility Surveys. Special Studies (Nigeria Health Education Assessment Report).
• Constituency Building Through a Process of Mutually Respectful Negotiations	Statements by Policy Makers and Influentials. Health Facility Surveys and Evaluation Reports. Budgets and Workplans Data on Feedback and dissemination mechanisms. Evidence that HIS and OR Study results used in decision making.
• Ownership	Statements by Policy Makers and Influentials. Community Surveys. Evaluation reports. Budgets and Workplans. Cost-Recovery Policies HIS data on utilization of services.

[11] Table 2 is a condensation of more detailed information that appears as Table 1 in Appendix F.

Factors	Sources and Types of Data Used to Measure the Potential for Sustainability
<u>Non-Project (Contextual) Factors</u> • Economic Factors • Resource Factors • Political Factors • Socio-Cultural Factors • Environmental Factors	Approved budgets, allocations and appropriations for Federal, State and LG Governments. Annual reports of the Central Bank of Nigeria. Periodicals. Statements by Policy Makers and Influentials. Health Systems Research reports. Social Anthropologic studies. Studies by external agencies (World Health Organization, World Bank, International Monetary Fund, Organization of African Unity, etc.)

The ready availability and high quality of data at Federal and State level was unexpected. This was largely a result of the integration of CCCD epidemiologists into the State MOHSSs. Additionally, the development of the HIS, M&E and DPRS units is fostering the widespread recognition by Federal and State health officials that data are essential to the processes of planning, implementing and evaluating their programs. In most of the States visited, there was evidence that data are being collected and analyzed and that decisions were being made based on local data. Although there is undoubtedly room for improvement in the analytic skill of the data managers, the team concluded that the process of analyzing and using data is well under way in Nigeria at the higher levels. Data were less available at LG and the facility level due to the recent introduction of both the HIS and M&E data collection systems. Training programs were under way at the time of the visit, which should lead to an improvement in data availability, quality and utilization at LG level.

Data which are useful to measure progress toward sustainability are freely available but are not being systematically compiled or analyzed. For example, budgetary data from States and LGs could provide documentation of increasing commitment of local resources to PHC programs. The returns from Drug Revolving Funds and user charges could be used to show trends in the absorption of local costs by the community. Well-kept, up-to-data inventories of equipment at PHC facilities could be used to document progress in strengthening the PHC service delivery capacity of LGs. Current personnel registers could be used to document the impact of training programs and progress toward the development of a critical mass of trained service delivery personnel. These same registers could be used to document the extent to which personnel are retained by the health system.

One area where data were not readily available was the participation of private sector providers. Insights about the participation of the private sector could be derived from data about licenses and registration fees as well as HIS reports of services rendered by private sector providers.

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B. Contextual Factors Affecting Sustainability

Economic Considerations

Nigeria faces an uncertain economic future. Oil revenues, which are the core of the Nigerian economy, have been declining since the early 1980s, and other major exports (agriculture, mining, rubber, livestock) have suffered from unfavorable terms of trade in world markets. In an effort to stabilize the economy, Nigeria began a structural adjustment program (SAP) in 1986 and as a consequence the economic policy environment has improved and the Nigerian economy has grown by about seven percent annually since 1987. Unfortunately, Nigeria's external debt has also grown and is now rising faster than the GDP. In 1986 the ratio of debt to GDP was 51 percent. It rose to 94 percent in 1987, 112 percent in 1989 and reached a record 215 percent in 1991[12]. Much of this borrowing has taken place in order to finance expenditures in the social sector. The World Bank has encouraged borrowing to support population and health systems development. Projects such as the Directorate of Food, Roads and Rural Infrastructure (DFRRI), the Mass Mobilization for Social Justice and Economic Recovery (MAMSER) and the Better Life for Rural Women Project (BETTER LIFE) have enjoyed very liberal lines of credit. However, the overwhelming majority of debt incurred has gone to support programs and activities which are not potentially revenue generating. Investment as a percentage of gross domestic product (GDP) has fallen to below six percent from a high of 20 percent in the early 1980s Federal reserves are being depleted to service a debt burden that is continuing to increase without a corresponding improvement in the ability to repay. Nigeria is caught in a downward debt spiral.

Nigeria's revenues (oil and non-oil) are shared among the three levels of government through a complex sharing formula. Some funds are retained outright by the Federal government and the rest are deposited into the Federation Account. The allocation is then 50 percent Federal, 32 percent to the States, 15 percent for local governments and three percent for special programs. States and LGs generate their own revenues by charging user fees, income taxes, property taxes, licensing fees and vehicle fees. States are expected to share these revenues with LGs, but the sharing of funds has been sporadic.

Health has not done well in the competition for Federal funds. Since 1980, the resources allocated to health have shown a downward trend (see Table 3). The proportion of the Federal budget allocated to health has ranged between 3.5 and 1.3 percent, but in real terms the 1992 value was less than 33 percent of the allocation for 1981. The prospect for a near term reversal of this trend is remote. At the State and LG level the picture is a bit brighter with an increased percentage of local budgets being allocated to health (see Table 4). Thus the process of decentralized fiscal control is resulting in an overall increased expenditure on health. However,

[12]Central Bank of Nigeria, 1992 Annual Report.

the proportion of the total Federal budget being passed directly to the States and local governments is considerably less than 50 percent and much of the value (purchasing power) is lost with the deflation of the naira.

Table 3: Federal Allocations to FMOH (Million Naira)

Year	*Recurrent*	*Capital*	*Total*	*Percent of Total Federal Budget*	*Total in 1981 Naira*
1980	119.8	110.4	230.2	2.2	
1981	155.8	183.4	339.2	3.5	339.2
1982	143.6	186	329.5	3	229.6
1983	143.6	170	313.6	2.5	232.3
1984	139.1	51.3	190.3	1.9	101
1985	167.7	49.4	217.1	1.9	108.5
1986	239.2	81.2	320.4	2.8	152.6
1987	166.9	69.5	236.4	1.3	101.9
1988	259.9	183.2	443.2	1.8	138.5
1989	359.7	126	485.7	1.6	104.7
1990	401.1	257	658.1	1.7	118.4
1991	na	na	563.8	2.2	28.9

Source Federal Government of Nigeria, approved budgets.

The decline of the naira against the U.S. dollar (external price index) has been dramatic and well documented, but the changes in purchasing power within Nigeria (internal price index) have been less profound. Thus, while prices for imported commodities such as drugs, medical supplies and equipment have risen very rapidly, the costs of training and maintaining health personnel and facilities have increased at a much slower rate. Health workers who may have earned N500.00 in 1981 may be paid as much as N2,000.00 today, a 400 percent increase. But an imported drug which might have been obtained for N10.00 in 1981 will cost N200.00 today, an increase of 2,000 percent. Nigeria's continued heavy reliance on imported commodities, drugs, equipment and training drains the health sector's financial resources. Additionally, there are serious problems with the way the available health resources are being spent. Resources are poorly allocated; most health monies are still expended on curative care, and those funds that are

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spent on PHC programs go disproportionately to cover recurrent (personnel) costs. For these reasons, Nigeria's ability to finance health programs is a contextual consideration that weighs heavily against the ultimate sustainability of many of the CCCD supported programs.

Table 4: Percent of Budget Allocated to Health		
State/LG	1991	1992
Oyo State	4.1	na
Niger State	6.9	14.5
Anambra State	na	5.2
Enugu State	na	2.9
Plateau State	5.3	na
Egbada LG	7.7	na
Pankshin LG	18.9	na
Nsukka LG	na	7.3

Resource Factors

The availability of resources (material, commodities, human and infrastructural) are often beyond the direct control of a project and are, hence, contextual. The team felt, however, that the role of donors in providing and subsidizing health sector resources in Nigeria was significant and was greatly influenced by the donor programs themselves, thus blurring the distinction between purely contextual and project related factors.

Nigeria has taken positive steps to enhance the administrative capacity of the MOHSSs. The Civil Service Reform Act of 1988 established the size and configuration of Federal and State Ministries and reduced the numbers of trained personnel who can be transferred from departments where they have acquired technical skills. Low salaries and limited career development/training opportunities for public sector workers severely limit the ability of key ministry departments to attract and retain skilled workers.

Nigeria's 14 medical schools, 54 nursing schools, 46 specialty nursing schools, 63 schools of midwifery and 31 schools of health technology produce an abundance of trained personnel. Between 1978-1987, the number of doctors increased from 4,248 to 16,145, nurses increased

from 17,904 to 56,120 and the number of midwives increased from 13,101 to 45,852[13]. Despite this abundance, the health sector was handicapped by an inability to distribute health personnel to rural areas, difficulties in retaining trained health personnel ("Brain Drain") and variable quality in health education.

Despite significant donor inputs, Nigeria continues to have a limited health infrastructure to support its PHC programs. Health facilities and equipment are generally in poor repair or are non-functional. Supplies, disposables and drugs are dependent on imports and are thus in chronic shortage. The devaluation of the naira has had a profoundly negative impact on Nigeria's pharmaceutical industry and on its ability to maintain the supply of essential vaccines and drugs.

Political Factors

Nigeria is in the midst of a broad process of political change. During the past two years Nigeria has reformed the national civil service, elected civilian governments at State and LG levels, and initiated a democratic transition to civilian leadership in the presidency. These changes have been in the context of a realignment of the States and local governments. Nine new States and 589 local governments have been constituted, each with a civilian government and local fiscal and political autonomy.

The impact of these reforms on the organizational, administrative and service delivery capacity of the public health sector cannot be overstated. The already limited numbers of trained, State-based administrative, managerial and service delivery staff have been split to accommodate the needs of new State and LG administrations. Transfers have disrupted working relationships. Scarce resources have been shared (often grudgingly) between old and new States, leaving all poorly equipped. This is complicated by the fact that in many cases the new State and LG leaders have not viewed health as an immediate priority. Ultimately, however, this move toward decentralized local government may be expected to result in an increased governmental responsiveness to local need (including the provision of health services) and increased accountability by local authorities.

That Nigeria's health sector is emerging from this period of transition intact and with forward momentum is a tribute to the dynamic, visionary leadership of the Minister of Health and Human Services and the presence of effective supportive partnerships with international donor agencies.

Socio-cultural Factors

Nigeria is the home to more than 400 distinct ethnolinguistic groups, which greatly enhances the complexity of the health education and service delivery programs. Tribal and religious affiliations play an important role in government at every level. In the northern and

[13] The World Bank, Health Systems Fund Project Report 4/3/91.

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eastern parts of the country these tensions often erupt into armed conflict. Much of the chronic underutilization of health facilities, which handicaps the delivery of PHC services, is a consequence of these same conflicts. PHC clients are often uneasy about seeking services from facilities outside of their immediate community or from providers who speak a different language or practice a different religion. While Nigerians often observe that the nation's strength is in its diversity, the health sector struggles to meet the competing demands of many interest groups.

Environmental Factors

In the 1990s Nigeria will need to address several environmental issues. The emergence of new diseases such as AIDS and diseases of the elderly coupled with the resurgence of continuing disease problems such as malaria and tuberculosis will present serious challenges. The population is rapidly becoming more urban and older. While data were not readily available to allow for an assessment of the impact of environmental changes on the sustainability of CCCD project activities, it seems obvious that these new challenges will add to the already substantial demand for health services and further stretch scarce resources.

C. Project Related Factors Affecting Sustainability

Perceived Effectiveness

PHC is widely perceived as an effective, government led service that provides essential health services to the people of Nigeria. The team found that the CCCD project is generally perceived as effective and this is, in part, because it has achieved a high degree of integration into the national PHC program. In its assessment, the team considered four key indicators: 1) the development of national policy statements and workplans; 2) the implementation of HIS/MIS or special surveys to measure project impact; 3) the completion of operations research and special studies to assess program quality and develop solutions; and 4) the use of data to make decisions, identify problems, develop solutions and confirm the project's importance at health sector council meetings.

Policies and Workplans

Nigeria has several clearly worded policy documents that guide the implementation of the primary health care program. Foremost is "The National Health Policy and Strategy to Achieve Health for All Nigerians" launched in 1989. This comprehensive document includes maternal health, child-care and family planning and provides the conceptual framework on which the PHC program is based. It also clearly establishes the policy support for a national health information system and a national health care research (OR) program. Nevertheless, the team found areas where policies and guidelines were clearly needed but had not been formulated at any level of authority (Federal, State or local). Chief among these was the need for policies to guide the development of cost recovery programs while assuring equity in the allocation of health resources. States and LGs were, with few exceptions, attempting to implement cost-recovery programs, but were doing so without guidelines on the optimal costs (and profit margin) for

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essential drugs and services or guidelines on the utilization of funds collected from the health sector. In some cases, funds collected from health facilities were being used to underwrite other (non-health) programs. In other cases, funds were simply accumulating in accounts which could not be used to benefit the health facilities because of administrative obstacles.

The national policy regarding EPI is clear, and the integration of the CCCD project into the Nigerian program has resulted in important modifications of the national vaccination policy. For example, CCCD contributed to modifying the national vaccination policy with the addition of the OPV_0 and TT_{3-5} doses to women of childbearing age (WCA) as well as the inclusion of Yellow Fever (YF) vaccine as part of the EPI vaccines.

The policy for CDD is less clear and has recently been modified. Initially, the FMOHSS favored the exclusive use of SSS because this was seen as the more sustainable approach with less dependence on imported commodities. This has now been changed to include the use of ORS at the health facility level. Our study found, however, that this modification is poorly understood and has not been widely disseminated. Furthermore, ORS is not seen as effective by the service delivery personnel or clients interviewed during this study.

While national policies and guidelines for malaria control have been promulgated, their application at the facility level is spotty. Field visits revealed that policy guidelines are not fully implemented, especially with respect to chloroquine chemoprophylaxis during pregnancy. There is still an overuse of injectable chloroquine and non-chloroquine antimalarials. Most health facilities had national guidelines for treatment doses (25 mg/kg) posted, but there was less adherence to schedule at secondary and tertiary levels (hospitals).

Training has been given a high priority in the implementation of the FMOHSS primary health care policy. A manual, "Guidelines and Training Manual for the Development of Primary Health Care System in Nigeria," has been produced and disseminated by the FMOHSS Division of Training and Manpower Development to all SMOHSS, LGs and various schools of health technology. In contrast, health education suffers from the lack of a specific policy. Project staff felt that this gap in policy is due to a lack of clarity about the meaning and role of health education in PHC and a failure to develop comprehensive programs with effective educational interventions.

National workplans exist for the EPI, CDD and HIS programs that reflect the FMOH priorities. Clear-cut guidelines have been developed, and practices at SDPs reflect most of the guidelines. At all levels of attention (FMOH, SMOH and LG) the existence of workplans, however, did not translate to action, especially with respect to mobilization either for outreach vaccination activities or for supervision. For example, the team found early signs of health facility personnel incorporating OPV_0 dose and TT_3 dose but no real evidence of TT_4 and TT_5 doses or change in target population to WCA. CDD workplans are oriented toward training quantity and do not include an assessment of quality or programmatic impact. While the HIS is still in the early stage of its development and implementation, its workplan and priorities have been clearly established.

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The team was also concerned about the workplan development process. Some respondents suggested that donor workplans were occasionally imposed and did not always meet with FMOH, SMOH and LG priorities, leading to decreased probability of sustainability. In one case an external donor's workplan promised assistance (cold chain equipment for new LGs) that was not delivered which apparently derailed local efforts to purchase the equipment with local funds. The extent of this problem could theoretically be explored by attempting to quantify the proportion of commodity needs versus CCCD TA/training needs versus FMOH/SMOH/LG workplans.

We concluded that, in Nigeria, the existence of clear-cut national policy statements, guidelines and workplans, while necessary for sustainability, does not in itself ensure sustainability as other factors impede implementation of policies and completion of planned activities.

HIS/MIS and Special Surveys to Measure Project Impact

Nigeria has been transformed from a "data poor environment" to a "data rich environment." There are extensive efforts to collect HIS related data through routine data systems -- M&E, EPID and sentinel surveillance sites. In addition, many surveys have been conducted to further refine and validate the data. We found that data on vaccine preventable diseases were readily available. However, data on the mortality trends due to diarrheal diseases are not routinely collected or used in the assessment of CDD activities. Hospital discharge data, now being collected, promise to be a good source of retrospective data for disease trend analyses. Because hospital data are seen as useful in some areas, medical records personnel have sought out HIS personnel and requested technical assistance. Many enter their own hospital data in order to do analyses. In Enugu State, for example, the medical records personnel have been entering 1990, 1989, 1988, 1987 prior to entering 1991 and 1992 to allow for trend analyses.

Disease Surveillance and Notification (DSN) and sentinel surveillance systems are generally felt to be useful and effective by data recipients. Copies of data collected are distributed to policy makers at State and Federal ministries. National and SMOH levels now publish reports on data received and use data to stimulate interest. Niger and Plateau states have produced epidemiologic bulletins for the State. Plateau State produced a 1991 annual statistical summary in October and expects the 1992 annual statistical summary to be available in March/April. Consequently the timeliness of reporting has increased. *All indications are that there is also a perceived need for the HIS data and there is interest in institutionalizing HIS data gathering and dissemination processes.*

While CCCD provides computers, printers and a starter supply of diskettes and paper, all recipients have been purchasing supplies once the initial starter supply is exhausted. Areas that have received CCCD funded computers have been training personnel and rapidly computerizing their data bases Many have begun the routine production of reports and feedback instruments. There are anecdotal reports of other personnel in the health care delivery system (i.e., private sector providers) seeking out assistance and training and using the CCCD supplied computers for data entry and analyses related to HIS. Non-sentinel hospitals have requested assistance to

computerize discharge diagnoses to analyze trend data. CHAN (private sector) has sought CCCD assistance to develop HIS in CHAN institutions along the same lines as the national system.

However, we also found that MIS data are not presently collected systematically at all levels of attention. Vaccination distribution data and inventories are not always easily available. ORS packet inventories and distribution data are even less available than for vaccines. No information on ORS packet utilization is being collected. Similarly, information on chloroquine distribution, availability and utilization was not routinely available. Diarrheal treatment practices have only recently been included in the M&E health facility assessments. At the time of this study the design of MIS software which should address these shortcomings was still under development.

The team concluded that the HIS is definitely perceived as effective by the health care personnel at LG, SMOH and FMOH levels as well as the policy makers and this is contributing to an overall perception of CCCD program effectiveness. While FMOH officials expressed a perceived need for MIS to monitor commodity distributions and utilization as part of a system of accountability of supplies, it is unclear if this need is perceived at the SMOH or LG level. The incorporation of HIS/MIS and O.R. under the CCCD project was, at least in part, a direct response to the expressed desire of the Nigerian government to have these components included in the project. Furthermore, government officials now indicate appreciation at being able to monitor project activities through the use of HIS/MIS which is an acknowledgement on their part of project effectiveness. Dissemination of HIS and MIS data are key to program sustainability. These data will foster perceptions of program effectiveness and permit Nigerian officials to participate effectively in planning programs and negotiating support from government, the community and donor organizations.

Use of O.R. and Special Studies to Assess Program Quality

The national policy has been to support O.R. The team concluded that the O.R. studies are perceived as effective by the key policy makers in FMOH and by policy makers and administrators at SMOH. They appreciate the utility of being able to examine selected aspects of the health system to identify problems and develop or test solutions. We were concerned about the use of data by local program managers and service delivery personnel to make decisions, identify problems and develop solutions, but concluded that it was too early to assess. The availability of good data is recent -- just in the last one to two years. The team also noted the thin cadre of trained personnel, below the central FMOH, with the capacity to analyze, interpret, respond to, use and package data to be used by decision makers. This was also an expressed concern of the FMOH.

The O.R. research review committee meets quarterly as scheduled to review protocols. This committee was originally felt to be a one-man operation directed by the CCCD resident epidemiologist, but after his departure the quarterly meetings have continued and studies are still being submitted and reviewed for funding. To facilitate and stimulate the O.R. component, Medline on CD-ROM was installed at the National Medical Library. Additional evidence of the

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perceived effectiveness is the committee's seeking a subscription to the Rockefeller database of medical journals to facilitate literature searches once articles are identified via Medline searches.

New studies are continually submitted for review and funding. Of the O.R. studies approved by the CCCD project, 45 have been funded and 20 completed (44 percent). Studies are directed at CCCD target activities/programs and the results have led to policy changes. Examples of this are the studies on: the efficacy of pyrimethamine in pregnant women; effect of malaria chemoprophylaxis on the outcome of pregnancy in Zaria, and quality assurance testing of chloroquine in eastern Nigeria. Policy changes have been to recommend the initial treatment of malaria in pregnant women followed by the used of chloroquine prophylaxis (replacing the prior practice/recommendation for pyrimethamine prophylaxis); and stricter quality control guidelines for local production and sale of chloroquine. Additional studies under way address issues that would lead to programmatic/policy changes such as recommendations for vector contact reduction methods to reduce morbidity due to malaria, treatment practices for diarrhea, and acceptable weaning foods.

Special studies and surveys can also produce important unexpected information. The team found many examples where special studies seemed indicated. For example, the field visits that reviewed treatment registries at health facilities and interviewed mothers revealed the persistent use of other drugs including antibiotics and antidiarrheal agents. Observations of diarrheal management revealed HCWs do not spend time with mothers on the administration of SSS. ORS was not available at the health facility level in most areas visited so that SSS is still the primary treatment modality. As SSS is an easy preparation, one valid concern is that HCWs do not consider themselves as providing a "medication" for the diarrhea and hence feel the need to give additional medications.

One problem is the limited scope of surveys focusing on specific geographic areas and/or specific target diseases funded by different donors. There is no database at the Federal level recording all of the numerous surveys conducted in the country. One CCCD subproject, Healthcom, extensively used surveys to develop its program strategies in Niger State. In 1990 Healthcom conducted studies in Rafi and Suleja LGs (Niger State) to verify program impact after the support of PHC/EPI/Malaria health education activities.

In 1991, a 40 cluster community survey was conducted in Suleja LG. The survey, conducted by SMOH/LG health personnel, collected information on immunization coverage and knowledge and treatment practices about diarrhea and fever. A total of 1,160 mothers of children under 5 years old were interviewed. The data gathered from these studies were used in the development of the inpatient health education module to be included in the continuing education program.

A health education assessment conducted in March 1992 with CCCD support identified five major problems hindering health education in Nigeria and developed realistic and appropriate recommendations. FMOH, States, ARHEC and other players contributed to the assessment, which generated a great interest at all levels. The FMOH has already started implementing some of the

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recommendations. The assessment has helped legitimize the previously expressed views of health educators and health education practitioners.

Use of Data to Make Decisions, Identify Problems and Develop Solutions

Data generated through O.R. studies funded under CCCD assistance have been used to effect policy changes. The FMOH has recognized the importance of O.R. for the generation of data to address issues of importance to program activities. To this effect there is a draft workplan for the National Health Services Research program 1993-1997.

The team found examples of the use of HIS data for stimulating programmatic as well as policy changes. In one instance, the state EPI Coordinator showed a graph of coverages by LG to the LG chairmen. Investigations into reasons why coverages were so low in the LGs revealed that the designated EPI vehicle was often not available for EPI activities. This led to the reclaiming of the vehicles by the EPI programs. This same EPI coordinator indicated that he plans to send regular EPI data collection/analyses updates by LG to the LG chairmen to increase their awareness and support for the EPI activities in their LGs. There is some evidence that LGs are beginning to analyze their own data and use them. The development of this capability has led to SMOHs now analyzing their own data rather than sending their data to FMOH for analyses. Coverage data being used by EPI coordinators at SMOH level to increase political commitment to EPI activities is a priority. Decreasing coverages are also being used by local managers to demonstrate the need for additional resources.

Integration and Institutional Strengthening

The team examined the integration of CCCD programs at the national, State and local level into existing MOH structures. *The team concluded that all CCCD supported program activities are well integrated.* At the national level this is especially evident. There is an EPI division, a CDD division and a malaria division. Support activities were also operational and integrated at the national level. The O.R. activities have been institutionalized under the auspices of the PRS Directorate. The HIS activities have been institutionalized under the M&E division of the PHC Directorate.

In the study the team also looked for evidence of effective supervisory systems (using checklists) which decentralize technical and managerial responsibility to the peripheral level; the integration of service delivery at delivery sites; the integration at the national level into existing MOH structures, and support activities operational and integrated at the national level.

The team found the beginnings of an active supervisory system with checklists and decentralized technical and managerial responsibility at the peripheral level. Health facility assessments conducted under the aegis of the M&E division have been using checklists to assess activities within each of the programs. While extensive TA has gone into the development of supervisory checklists, the implementation has been greatly impeded by the lack of mobilization of supervisory personnel. Of all programs, EPI has the best developed awareness of supervisory

needs. Actual supervision, however, is still not optimal, as evidenced by field visits to health facilities and LGs where reviews of visitors books revealed that supervisory visits by EPI personnel were not consistent. There was minimal evidence of FMOH supervisory visits to SMOH for EPI related activities and minimal evidence of supervisory visits by any level (FMOH, SMOH or LG) related to CDD and malaria program activities. The team did not document reported supervisory visits as part of the implementation of HIS activities. Supervision of ongoing O.R. studies is provided by a designated preceptor and the Research Review Committee.

Integration of service delivery at delivery sites was seen by health personnel as desirable. At the PHC level, the same person is responsible for EPI, CDD and malaria activities. However, as the number of personnel in a health facility increases, the possibility of non-integration of activities increases. Our field visits revealed missed opportunities in health facilities that reportedly were giving vaccinations daily. A child who came for treatment of a diarrheal illness and had never been immunized would not be referred by the curative personnel to the EPI unit for vaccination that day, but rather was given an appointment to return the following week. Because of the varying population sizes served by the health facilities, not all health facilities provided regular EPI activities; some provided weekly, some monthly and some only referred children to another health facility where vaccinations were available. This lack of standardization in the delivery of services limits the integration of PHC activities and compromises the quality of care.

Local Financing, Community Participation and Private Sector Provision of Services

The team considered the relationships between local financing, community participation, the private sector provision of services and project sustainability. We looked for evidence of the assumption of project costs by the government; the implementation of fee-for-service or cost recovery programs; the private provision of CCCD project services; and donor complementarity and coordination. *The team concluded that at all levels there is an appreciation of the need to develop a sustainable base of financial support for PHC programs through local financing initiatives.* Political support for the participation of the private sector in the provision of services is growing. No amount of commitment, however, is likely to overcome the very significant short-term financial constraints faced by Nigeria. This consideration weighed heavily against the potential for the sustainability for many CCCD programs without external donor inputs.

The team did, however, find evidence of the assumption of project costs by government. In a recent study[14] commissioned by USAID/Lagos, the Government of Nigeria (GON) contribution to the Family Health Services (FHS) and CCCD Projects was estimated to be $56.6 million. This amount was significantly more than the $33.7 million expected to be contributed. Thirty-three percent of the monies were from Federal funds, 54 percent from State funds and 13 percent from LG funds. GON funds were expended on the following line items: salaries and

[14] Luck, W. Accounting for Counterpart Costs Related to Implementing Family Health Services and Combatting Childhood Communicable Diseases Programmes in Nigeria. Coker-Smith International Associates, Inc. 1992.

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wages (40.5 percent), land and buildings (17.9 percent), facilities maintenance (12.8 percent), operations (6.8 percent), vehicles (5.9 percent), equipment (4.7 percent), private sector (3.2 percent), training (1.1 percent) and IEC (0.07 percent).

Vaccine purchase was not included in the above referenced study, but the GON is committed to the purchase of all vaccines and has assumed responsibility for all vaccines but OPV (provided by Rotary International). The team noted that the vaccine purchase in 1992 was complicated by the decentralization process, with several States being late to provide vaccine purchase funds. This should be corrected with a deduction of vaccine purchase contributions at the Federal level before funds are passed to the States and LGs. There was an expressed willingness of SMOHs to budget for the purchase of cold chain equipment. One SMOH also budgeted for the purchase of vehicles for EPI use at LG level. The GON is, however, not committed to the purchase of either ORS packets or chloroquine. Local production has not been encouraged and indeed, these essential drugs are still subject to import duties.

The GON is purchasing supplies for computers (diskettes, printer cartridges and paper) and the States will be expected to assume the recurrent costs associated with their HIS/MIS units. SMOH and LGs are also expected to assume the costs of reproducing reporting forms. With the introduction of the new M&E system, these printing costs may exceed the financial resources available in many States.

At the Federal level the GON is fully committed to the O.R. program. GON created and filled a position to serve as Chairman of Research Review Committee. The team noted, however, that until this year the GON had not provided financing for O.R. studies, Research Review Committee meetings or workshops on research methodologies. In September, GON announced the allocation of 3.0 million naira to support O.R. studies. With continued support from USAID/CCCD and the World Bank (HSF loan), the short term prospects for a continuation of the O.R. program are good.

Nigerians are quick to tell you that "health is beyond value." It is clear, however, that government officials at all levels are coming to the painful recognition that health does have its costs and that the decreasing availability of public funds is having an increasingly negative effect on the provision of health services. Faced with budgetary trends over which they have little control and realizing that the lack of financial resources has impaired the ability of the health sector to function effectively, health authorities in the States and LGs visited have become interested in programs of cost recovery. When asked, these officials at Federal, State and LG level were of the opinion that costs for health services will need to be passed on to the clients, the ultimate beneficiaries. There was consensus that Nigerian communities are willing to pay for services if the quality of the services available can be upgraded. Several officials expressed a concern that indigent persons somehow continue to receive free services. Only Barkin-Ladi LG, as a part of the Bamako Initiative, had a program in place to cover costs for those unable to pay.

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Several communities have initiated cost recovery programs with drug revolving funds and/or fees for consumable items. In 1986, each of the six original focus LGs received a 100,000 naira grant for the health sector. Their experience with this seed money has been mixed. One LG lost two-thirds of its DRF funds when it was divided into three new LGs. Since then, they have operated the fund with enough profit to now have a balance of 119,000 naira. In two LGs the funds were spent for other purposes, but one of these has committed 200,000 naira (FY92) to restart their Drug Revolving Fund (DRF). The other LG has not replenished the DRF.

Many health facilities are charging for disposable needles and syringes to be used in vaccination activities. Some health facilities are charging for the health card as a one time registration fee. Health facilities are only permitted to charge for ORS packets produced locally. Those provided as UNICEF donations are given for free. Chloroquine is paid for as part of the drug revolving fund initiative.

The team found evidence that the community perceives the effectiveness of interventions enough to contribute to the cost of the program and pays attention to the vaccination schedule for return visits. Anecdotal information -- interviews of mothers encountered in rural areas along roads not close to health facilities -- revealed that not only were the children less than one (on mother's backs) vaccinated with detectable BCG scars, but mothers of seven and eight month old children, when questioned on the vaccination history of the child, stated unprompted that the child was due to return for another dose at nine months of age. EPI mobilization has markedly decreased since accelerated immunization activities ended in 1990, and although vaccination coverages have decreased they have not decreased to 1984 levels. Mothers are purchasing needles and syringes to be used in their child's vaccinations. This has occurred as a response to dull needles available at the health facilities as well as an increased awareness and fear of AIDS. In effect, this is a non-MOH cost recovery initiative.

The team found that the private sector is actively involved in the provision of project services, but there are few programs to monitor these services or assure adherence to the basic standards of practice. For example, the private sector provides and charges for vaccinations. Most of the private sector providers receive their vaccines from the GON but do not report their immunizations. Federal and State governments have not established guidelines for minimum standards of cold chain for private sector providers of immunizations. There is no cold chain inspection program for private sector facilities.

ORS packets are not readily available on the local market. There was evidence that private institutions have supplies of ORS packets and are selling them but supplies appear limited. Local production of ORS, while feasible, is unlikely to be developed without a negotiated long term commitment to ORS purchase by the GON. Chloroquine is widely available in the local markets.

Overall, the results of donor attempts to work together and coordinate their programmatic inputs have been spotty. Coordination of donor activities in EPI is good, and this effectively avoids duplication of efforts. Except for the development of the national CDD policy and several jointly sponsored workshops, there was no evidence of donor coordination in CDD or Malaria Control.

In HIS there is good coordination between USAID, WHO and UNICEF. The World Bank is just becoming involved under its HSF program and has made overtures to the other donors to facilitate coordination. The team noted that in O.R. and the HIS/MIS programs, coordination between donors was initiated by the FMOH with a national level meeting in July 1992.

Strong Training Component

ACSI-CCCD and the FMOH have realized that training is essential for the continued development and sustainability of the PHC System. In this study we examined several indicators including:

- the development and implementation of a training strategy;
- the development and implementation of a policy for continuing health education;
- the implementation of a supervisory system;
- the use of facility based training needs assessments;
- evidence that trainers have been trained in how to train, and
- evidence that project training activities are integrated into existing MOH training structures.

The team found that a training strategy for strengthening PHC and the specific programs related to the ACSI-CCCD interventions has been developed, approved and implemented in all of the CCCD focus States. The goal of the strategy is to develop and institutionalize a system of continuing education for PHC workers, to develop the capacity of the continuing education unit (CEU) staff for needs assessment, planning implementation and evaluation of training programs, and to improve the managerial, technical, supervisory and training skills of LG supervisors as well as all categories of health workers in each State. Ten training modules have been developed based on the FMOH adaptation of the WHO supervisory skills manuals. We found good evidence of training impact. For example, there was a rapid adoption of policy changes with institution of OPV_0 and TT_{3-4} when these were included in the training curriculum. We also found a good training strategy for the HIS and M&E systems with clear improvements in the timeliness of reporting after the establishment of a training program.

The team, however, did not find evidence of a specific policy for health education, and we felt that this was largely due to a lack of clarity about the meaning and role of health education in PHC and due to the failure to plan comprehensive programs that might lead to effective educational interventions. The team did find an increased awareness and acceptance of EPI in the community resulting in part from health education and social mobilization efforts. On the other hand, KAP studies showed marked deficiencies in home management of diarrheal episodes by caretakers and inaccurate doses of chloroquine given by caretakers for treatment of presumptive malaria, suggestive of deficiencies in health education activities[15].

The team found a supervisory mechanism in place to follow up training of health facility staff and village health workers. Two days per month supervisory visits are provided by CEU trainers who assess areas that need reinforcement. After six months of assistance, the responsibility for supervision shifts to the LG PHC Coordinators and State PHC Directors.

Supervision, however, seems limited to only training activities. That supervision is a way of strengthening the management of health services is poorly perceived, implemented and evaluated by mid-level, State and LG Health Officers. The FMOHSS supports the development of a supervisory system at each level, but this has not moved beyond the conceptualization stage. Some LGs have created the role of district supervisor to assist in the supervision of EPI related activities. When interviewed on the lack of supervision, the Federal, State and LG PHC officers all stress logistics problems as the primary constraints to supervision. In order to address this, ACSI-CCCD recently provided a new Cherokee Jeep to three Federal offices, each focus State, focus LGs and CEU.

While the vehicles are new and may ultimately have an impact on supervision, the team did not find evidence that clear and achievable supervisory strategies had been developed and/or implemented. Disturbingly, occasional or informal visits are perceived as supervisory visits. Barkin-Ladi LG was the only exception. This LG is using a comprehensive and well-documented supervisory mechanism for follow-up of training activities and strengthening of management of health services. We noted that Barkin-Ladi LG is implementing a comprehensive and integrated approach to PHC through the Bamako Initiative strategy. Teamwork and management of services are valued by very committed LG leaders and health workers.

The M&E PHC health facility assessments have been used to assess training needs in each focus LG. Training program development and pre-post evaluations are based on these surveys, which directly address health workers' performance and skills for conducting EPI, CDD, Malaria, ARI and supervisory programs. Niger State, after implementing a continuing education program for three years, conducted a post CEU training health facility survey in July 1990. The survey results revealed a positive impact of its program on both supervisors' and health workers' performance. Supervisors were shown to have improved in more than five performance indicators

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[15] Fegbule, Doyin. Facility-Based Assessment of the Ojo Local Government Area. Lagos State, Nigeria. August 1992, CCCD

and health workers showed improvement in immunization practices and in the treatment of diarrhea and malaria, as well as education of mothers concerning SSS mixtures.

Facility based assessment surveys conducted in Plateau and Enugu States (1991) and Lagos (1992) indicated significant improvement in technical skills related to immunization and some problems related to case management of children with diarrhea and patient education practices.

In the three CEUs visited, trainers are qualified to train and to manage and evaluate training activities. Trainers attended a weeklong orientation in Niger State followed by a two-week training of trainers workshop in Lagos directed by the ACSI-CCCD training consultant. The workshops were designed to develop training skills and familiarize the CEU staff with FMOH training materials on immunization, diarrhea and malaria. We also found that three of the four Zonal DTUs have been established. A fourth DTU is expected to be operational by the end of 1992.

The integration of training activities into existing FMOHSS structures has been problematic. The CEUs are physically situated in State Schools of Health Technology, which are the GON structures in charge of providing pre-service training for PHC. The fact is, however, that the CEUs are actually separate (well equipped and supported) units within the School of Health Technology (which is not well equipped), and this has created tensions and works against the ultimate sustainability of the units. The FMOHSS clearly intends to force the integration of these units, and this may be expected to undermine the character and potentially the quality of instruction at the CEUs.

The ACSI-CCCD intervention's curricula is integrated into the School of Health Technology Training Program for Community Health Extension Workers. Trainers of the School of Technology participate as core trainers for the CEU. While the CEU is intended to complement pre-service training, in practice they have been limited to providing training to PHC extension workers. Medical, nursing and management staff are not yet targeted by CEU, despite the perceived needs.

Constituency Building a Process of Mutually Respectful Negotiation

The team considered the extent to which nationals participate in country assessments, project development and project modification and clearly view the project as a priority. It also considered the participation of relevant agencies in project workshops and the existence of FMOHSS procedures to facilitate the inclusion of local concerns and decisions within national level plans. These indicators were thought to characterize the development of constituencies and the institutionalization of a process of mutually respectful negotiations leading to sustainable programs. *The team concluded that there is little evidence that constituencies below the Federal level are being included in the negotiation process. This was felt to jeopardize the sustainability of the CCCD interventions.*

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For each of the CCCD intervention programs there was abundant evidence that representatives from the Federal and State levels had been included in key workshops, evaluations, assessments and project planning activities. Indeed, project deadlines had been changed and workshops rescheduled to facilitate the participation of key representatives on many occasions. CCCD in general is seen as a priority. Of the various interventions, EPI and the HIS program are seen as priorities while less emphasis is placed on the CDD and Malaria Control Programs.

The FMOHSS generally assumes a leadership role in the development of key conferences and workshops, and this assures the inclusion of representatives from key agencies. One noted exception is the frequent failure to include agencies responsible for health education programs. This was most obvious in the experience of The African Regional Health Education Center (ARHEC). ARHEC is a Nigerian based organization created in 1973 with the assistance of WHO. It is a unit in the Department of Preventive and Social Medicine, College of Medicine, at the University of Ibadan and collaborated with the University of North Carolina and the Centers for Disease Control to provide in-service training for the ACSI-CCCD project in Nigeria.

While officials at the FMOHSS clearly understand the importance of integrating local concerns and decisions into national level plans, the team found little evidence that this was being done except in the EPI program. For example, none of the officials we met at the CEUs had been involved in the development of the national policy and workplan for training. None of the State or LG officials had played a role in developing national strategies for EPI, CDD, Malaria and other components of the PHC program.

Ownership

In this study, ownership was added as a sixth project related factor. We searched for evidence of the perception of local ownership; that project related decisions are being made by organizations representing local constituencies; that projects are being developed and modified by nationals, and that there is an increasing assumption of project costs by the communities receiving services.

In the Nigerian context, ownership is not a natural consequence of the constituency building and negotiation process. Years of dependence on donors following on Nigeria's history as a colonized country have made it easy for Nigerian authorities to accept the presence of project activities which may be pivotal to the success of their communities, but over which they have no control. These "donor projects" are seen as external or not owned by Nigeria. Even when a project is delivering key services and perceived to be improving the lot of the recipients, this subtle but important distinction contributes to a lack of involvement, professional commitment and to a generally laissez-faire attitude among workers at every level. Often this is manifest in permissive attitudes about wastefulness and fraud in the use of projects resources. This is not the case in projects that the Nigerian community sees as its own. Indeed, locally directed projects and programs have been demonstrated time and time again to be well run, with scrupulous attention paid to the handling of resources and the delivery or provision of services that have

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been paid for. While the team did not identify examples of projects that were being sustained because they were seen as Nigerian, there were numerous examples of projects that appeared to be unsustainable because they were not Nigerian. The team therefore chose to include this variable.

Perceived Nigerian ownership of the CCCD project components is clear. Nigerians at the Federal, State and local government levels strongly agree that CCCD project components such as EPI, CDD, Malaria control, HIS and training are Nigerian owned. The CCCD project components address the established needs of Nigerians. This is encouraging and demonstrates a positive effect on the future of CCCD project sustainability.

Another encouraging indicator of project sustainability is that organizations or bodies representing constituents assist in the CCCD project decision making process. For example, Nigerian approval of CCCD project workplans is sought. Although the process often results in approval, approval is not a foregone conclusion as illustrated in the CDD case, where the initial CCCD policy directly conflicted with established Nigerian policy. After negotiating, however, the CCCD plan was modified to fit with existing MOH policy. This occurred at the national level, so the extent to which this same process is followed at State and local levels is unclear.

A third indicator of project ownership manifests itself in Nigerian participation in project development and modification. At the national level at least, officials feel well included in the project development and modification processes. However, as far as this was investigated, Nigerians do not appear to be receiving a clear message from donors as to the extent to which Nigerians can affect project development. This is due to the fact, as one State official put it, that as long as the finances continue to be controlled by external sources, a full sense of Nigerian ownership cannot realistically be attained.

Finally, when considering increased assumption of the project by community members (beneficiaries) and by the government, CCCD seems generally to be moving in a positive direction. One finds this to be especially true at the local level, where local policy makers recognize the importance of both PHC and the need to be fiscally responsible. In places like Barkin Ladi LG, where a Drug Revolving Fund (DRF) has been established and where the community has taken charge to require patients to purchase needles and syringes for immunizations, the potential for sustainability is encouraging. Other local governments are also experimenting with DRFs. In Plateau State, an African Development Fund loan for a water project was able to free up some of the State's own money with which the State chose to purchase seven vehicles for PHC. While progress has been great, much still needs to be done in the project development stage to clarify who is responsible for assuming which costs and at what point in time.

D. The Probability of Sustaining CCCD Project Activities

The team consolidated the data collected during the study and derived a numerical measure of the probability of sustainability for each CCCD intervention and support strategy. The scores assigned by the team members are presented in Table 5A as a mean score and the range of scores. Scores were based on a scale which graded projects from "0" to "5". Zero was awarded to those program elements with no possibility of sustainability, three to programs that are likely to be sustained, and five to those with a high probability of being sustained with an optimal, high quality program.

During the scoring procedure, it became clear that individual team members attached varied levels of importance to the individual project related factors. For example, had financing not been considered, the EPI, Training and OR components would have scored well above three and would have been considered sustainable. The HIS would have been rated a four (well-sustained, quality program). To more clearly indicate the relative strengths of the CCCD program components and the degree to which the potential for sustainability for each is influenced by project related factors, a second scoring procedure was applied. The results of this scoring are shown in Table 5B. Scores ranged from "1" to "3" with a one indicating a weak influence on the potential for sustainability, a two indicating a moderate influence and three a strong influence.

The team concluded that the HIS, EPI and Training components are likely to be sustained. The Malaria and Operations Research components have greater than a modest probability of being sustained, and the Health Education and CDD components have a modest probability of being sustained. The team concluded that the M&E component is in jeopardy of not being sustained. Nigeria's ability to absorb the costs of the CCCD program components weighed heavily against the sustainability of each component. Given a modification of the definition of sustainability to permit program costs to be covered by other donor programs, each of the CCCD program elements would have been given a much higher probability of being sustainable.

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Table 5A: Probability of Sustainability

0 = No possibility of sustainability
1 = Minimal probability of sustainability
2 = Modest probability of sustainability
3 = Sustainable
4 = Could potentially be well sustained (quality program)
5 = High probability of sustained optimal program (high quality program)

Program	Sustainability Score	Factors Favoring Sustainability	Factors Mitigating Against Sustainability
Expanded Program on Immunization (EPI)	Mean score = 2.8 Range (2 - 3.5)	High level of ***perceived effectiveness*** at community and policy making levels. Having growing pains with 3 years of UCI but good understanding of these "blips" at all levels High level of ***political commitment*** Real sense of ***ownership***. Planned cost recovery efforts will help to ease financial constraints through ***local financing***.	***Economic*** considerations: difficulties in sustaining vaccine purchase and the maintenance/purchase of vehicles to support logistics ***Resources*** and logistics (ordering and supply of commodities) still weak but MIS system may be expected to strengthen this effort.
Control of Diarrheal Diseases (CDD)	Mean score = 1.9 (Range 1 - 2.5)	***Integrated*** into PHC program Strong sense of Nigerian ***ownership*** CCCD shifted policy in response to government initiative Health facilities seen as the source of care. Minimal need for reliance on external inputs. ***Local financing*** through DRFs should ultimately be able to support commodity requirements and may eventually support local manufacture of ORS sachets.	Limited community ***perception of effectiveness*** ***Weak training component***. Sachets donated thus far have not been well used. National commitment still weak and policy statements have been ambiguous regarding programmatic approach.
Training	Mean score = 2.9 (Range 2.8 - 3)	***Perceived effectiveness*** at all levels. Potential to strengthen by ***integrating*** into Schools of Health Technology. Nigerians have ***ownership*** and are paying for salaries and physical plant. ***LGs paying fees and allowances for trainees***. Expressed desire to replicate at LG level to reduce expenses. Excellent working models.	Technical skills of trainees is still sub-optimal. This creates a need for ***re-training programs*** Room for improvement in responding to Nigerian initiatives. It will be difficult to train and retain a critical mass of technical persons to support this program.

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Program	Sustainability Score	Factors Favoring Sustainability	Factors Mitigating Against Sustainability
Malaria	Mean score = 2.6 (Range 2 - 3.5)	Barkin-Ladi and Pankshin LGs are working models of ***effective programs***. Evidence that data on malaria is being used for ***decision making at the policy level.*** Significant community perception of need with ***growing perception of program effectiveness*** per KAP studies. DRFs may ease ***financial*** constraints. Too early to determine ultimate sustainability.	***Weak training program*** leads to guidelines very poorly disseminated. Program is still vertical and ***not well integrated*** at State level. Lots of work needed to fortify State level capacity and ***strengthen institutions***. DRFs still in their infancy and may be years away from sustainable ***local financing*** Necessary to overcome the inertia of routine treatment with injections
Health Information System (HIS)	Mean score = 3.4 (Range 2.5 - 4.5)	***Perceived effective*** at all levels. High sense of Nigerian ***ownership*** with States using the data for decision making. Policy makers very supportive. Units ***integrated*** well into State MOHs. HIS seen as very supportive of other programs. ***Costs*** for program may be expected to decline over time.	Requires continued ***training*** and support for e systems analysts. ***Costs*** for computers (purchase, maintenance and supplies) may ultimately be prohibitive. Unlikely that States will be able to retain ***institutional strength*** with highly computer literate, skilled technical persons in the face of incentives and opportunities in the private sector
Monitoring and Evaluation System (M&E). Including health facilities assessments and needs assessments	Mean score = 1.3 (Range 1 - 2)	Health facilities data ***perceived as effective*** and being used by decision makers. There is perceived need for data of this type and for programs to enhance quality assurance in facilities. Suggests that special surveys may be sustainable	***Cost implications*** of M&E systems composed of 8 booklets of forms make it impractical. LGs and States will be unable to reproduce forms or cope with voluminous flow of data. Manual is confusing ***Training*** and orientation seen as insufficient.

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Program	Sustainability Score	Factors Favoring Sustainability	Factors Mitigating Against Sustainability
Health Education	Mean score = 2 (Range 1-2)	***Community perceives both need and effectiveness*** of program. ARHEC is an excellent technical resource. Supported by a Federal mandate to have a trained health education officer in each LG.	***Policy makers do not fully appreciate need for or effectiveness of program.*** Little movement to establish health education facilities and policies. ***Institutional support*** still very weak. Program poorly placed in State organizational structure. ***Financial inputs*** from States/LGs very limited. There is no consensus in support of the Federal mandate. There are manpower shortages and a lack of resources for supervision and materials development undermining ***institutional strength.***
Operations Research	Mean score = 2.5 Range (1 - 4.5)	Genuine sense of ***ownership*** by FMOH participants. Seen as very ***effective*** and meeting a perceived need. ***Well integrated*** into other programs	Dependent for ***financial*** support on CCCD or other donors Nigeria may be expected to seek support from other donors for this activity but not to provide internal resources for the research agenda

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Table 5B
Scoring of CCCD Project Components for Potential Sustainability by Project Related Factors

Characteristic	EPI	CDD	Malaria	Training	HIS	M&E (NA & FA)	M&E (Routine data)	Health Ed	OR
Perceived Effectiveness	Mean = 3 Range (3-3)	Mean = 1, Range (1-1)	Mean = 2 7, Range (2-3)	Mean = 2 9, Range (2 5-3)	Mean = 2 5, Range (2-3)	Mean = 3, Range (3-3)	Mean = 1 5, Range (1-2)	Mean = 1 9, Range (1 5-2 5)	Mean = 2 3, Range (2-3)
Institutional Strengthening	Mean = 2 3, Range (2-3)	Mean = 1, Range (1-1)	Mean = 1 6, Range (1 5-2)	Mean = 2 1, Range (2-2 5)	Mean = 2 5, Range (2-3)	Mean = 2 4, Range (2-3)	Mean = 1 5, Range (1 5-1 5)	Mean = 1, Range (1-1)	Mean = 2 6, Range (2-3)
Financing	Mean = 1 8, Range (1-2)	Mean = 1 3, Range (1-1 5)	Mean = 1 5, Range (1 5-1 5)	Mean = 2 1, Range (2-2 5)	Mean = 2, Range (1 5-2 5)	Mean = 1 4, Range (1-2)	Mean = 1, Range (1-1)	Mean = 1 8, Range (1 5-2 5)	Mean = 1 1, Range (1-1 5)
Training	Mean = 2 1, Range (2-2 5)	Mean = 1 3, Range (1-2)	Mean = 1 6, Range (1-2)	Mean = 2 3, Range (2-2 5)	Mean = 2 4 Range (2-3)	Mean = 2 1, Range (2-2 5)	Mean = 1 6, Range (1-2 5)	Mean = 1 8, Range (1-2)	Mean = 2 4, Range (2-3)
Respectful Negotiations	Mean = 2 8, Range (2-3)	Mean = 2 5, Range (2-3)	Mean = 1 8, Range (1 5-2)	Mean = 2 8, Range (2-3)	Mean = 2 6, Range (2 5-3)	Mean = 1 8, Range (1 5-2 5)	Mean = 2 1, Range (2-2 5)	Mean = 1 3, Range (1-1 5)	Mean = 2 8, Range (2-3)
Ownership	Mean = 3 Range (3-3)	Mean = 2 3, Range (2-3)	Mean = 1 4, Range (1-2)	Mean = 2.9, Range (2 5-3)	Mean = 2 1, Range (2-2 5)	Mean = 2 3, Range (2-3)	Mean = 3, Range (3-3)	Mean = 1 6, Range (1 5-2)	Mean = 3, Range (3-3)

1= Weak influence
2= Moderate influence
3=Strong influence

V. LESSONS LEARNED AND RECOMMENDATIONS[16]

Responsibility for progress toward sustainability must be fixed.

While this lesson may seem self-evident, it is central to the process of evolving sustainability within USAID programs. It is captured in a well-known folk saying: *"That which is everyone's business is no one's business."* Respondents interviewed at every level expressed a good understanding of the need to enhance sustainability and seemed sincere in their stated desire to move the program in that direction. CCCD staff, CDC program officers, USAID staff and Nigerian officials at Federal, State and LG level all saw it as important but none saw it as their responsibility. It is in no one's job description. In several States and LGs there was an expressed desire to assume this role. We grappled with trying to decide how this responsibility should be assigned and concluded that there were key items to be integrated into job descriptions at each level. The team felt that assigning responsibilities and negotiating process and outcome measures as a part of the project development/negotiation process would significantly enhance the ultimate likelihood of program sustainability at EOP.

For example, Nigerian participation in the planning process is a desirable step toward sustainability. It should be the CCCD program managers' responsibility to seek and gain and enhance that participation. Enhanced financial contributions by communities enhance sustainability. This could be a negotiated responsibility for LG chairmen and State commissioners. Both lend themselves easily to the development of indicators.

Recommendation:

1. Sustainability indicators should be integrated into the project evaluation criteria for N-CCCD-II and into each negotiated sub-project. Managerial personnel should have their sustainability related tasks clearly described and their responsibilities fixed.

Programs are unlikely to be sustained until there is a critical mass of technical personnel available to support them.

Again, this observation is straightforward. No matter how good the program activity, if it depends exclusively on a single person (or a very small core of technical people) its sustainability is threatened. Institutional strengthening and capacity building are vital to program success.

[16]This section is structured in the following way: lesson learned (bold), discussion, and then the recommendation.

The country is ripe for a Field Epidemiology Training Program (FETP) to continue capacity building in the area of "data for decision making." This is necessary for further development of the HIS and strengthening epidemiologic surveillance capabilities. The HIS will only be sustainable if there is a cadre of personnel capable of using and interpreting the data generated and responding to it. Trainees could come from the cadre of Directors of Communicable Diseases in the SMOHs with plans to return as State epidemiologists. In addition, the need for a zonal epidemiologist to assist the States is recognized.

The team acknowledges the recognition of this on the part of the USAID mission and supports its inclusion in the follow-on CCCD-II project.

Recommendation:

2. The team supports the USAID initiative to establish an FETP for Nigeria under the CCCD-II project as a continuation of efforts to strengthen epidemiologic surveillance capabilities and the use of data for decision making.

Projects which depend on the heavy inflow of external capital are unlikely to be sustainable.

In 1988-1990, special immunization days were conducted at the national and State levels as part of accelerated immunization activities. This resulted in a rapid increase in vaccination coverages. The accelerated immunization initiative received heavy external financial support to cover the costs of widespread social mobilization campaigns as well as increases in the outreach vaccination activities and supervision at the State and local levels.

The accelerated immunization initiative ended after 1990, with 1991 marking a return to routine vaccination activities. Since its end, vaccination coverages have returned to levels seen immediately preceding the initiative. These observed vaccination coverage declines lead to a caution that progress made under program activities that rely upon heavy external assistance and are expensive to operate have a low probability of sustainability in the absence of donor support. While there is little debate that the accelerated activities did result in an increased community awareness of the need for immunizations, there still remains the need for continued infrastructure development to increase the access to services to a level that could sustain high vaccination coverages without significant external support.

Given the highly limited, short-term financial outlook in Nigeria, expectations of sustainability of projects upon the withdrawal of external support should be realistic. This does not preclude a precaution to evaluate the technologies supported as appropriate for the environment with costs within the grasp of Nigeria's health sector. Where local financing is not a realistic expectation, consideration should be given to the appropriateness of the proposed interventions and technologies.

Recommendation:

3. CCCD should include an assessment of the potential for financial sustainability as a criteria for evaluating program activities. Given financial constraints, lower cost strategies and project activities should be encouraged.

4. USAID should be prepared for the inevitability of some project interventions not meeting the criteria of sustainability because of economic constraints of Nigeria (and other countries). If a project activity would continue in the absence of USAID support because the government valued it significantly to seek other sources of funding, that activity may potentially be viewed as sustainable with qualifications based on financial limitations.

Donor supported programs should actively foster local ownership of projects. Care should be taken to avoid interfering with or obstructing locally motivated, potentially sustainable and community responsive primary health care initiatives.

The team regrettably encountered a few instances where well-meaning but externally motivated donor initiatives appear to have derailed local efforts. In one instance another donor organization promised equipment. Local authorities had been prepared to budget for and purchase the equipment themselves, but were told their input would be unnecessary. The promised equipment has not yet arrived and the local authorities are now having to cope with equipment shortages that could have been avoided. In another instance, a community provided funds for participation of their service delivery personnel in CEU programs. The funds used had been intended to buy new beds and mattresses for their health facility. The local authorities, while grateful for the training opportunity, felt that they had been put in a position of not being able to respond to their local community needs. Their initiative was thwarted, and they see the donor as having created a problem.

The team was impressed with the effort being made by CCCD (Kaduna) to enhance the "bottoms up" inputs into program planning. USAID's decision to expand its dialogue with local program planners will assure that program activities continue to be supportive of local initiatives.

Recommendation:

5. Efforts should continue to support local initiative and priorities. CCCD should continue to seek local input prior to the initiation of the planning process or the introduction of an externally generated workplan or program.

In Nigeria, ownership is inextricably linked to financial inputs.

There are two issues here. First, in the Nigerian context, that which is given free has no value. It is entirely possible that this has retarded community level appreciation of primary health care programs. Secondly, Nigerians believe that if they are not making a contribution to the program, it isn't theirs. We queried over 180 respondents, and approximately 100 were asked

about financial inputs and community absorption of costs. There was total unanimity of opinion: all were in agreement that Nigeria (and specifically their communities) should be making a financial contribution.

This is a significant finding with far-reaching implications; it also contrasts with evidence from several years ago when public opinion generally felt that the government should be the party largely responsible for health's financial resources. There was agreement that the community has a desire to support their PHC services, but a concern was also expressed that the indigent not be denied health care because of an inability to pay for essential services. In Barkin-Ladi LG where the Bamako Initiative is in place, it was felt that there was an enhanced sense of community ownership because of the fees and a sense of community empowerment in the provision of services for those who could not pay.

Recommendation:

6. Future CCCD/USAID programs should include a negotiated program for a phased increase in the absorption of project costs by the Federal government and the LGs. Fee for service plans, where implemented, have proven to enhance a sense of community ownership and empowerment and therefore should be extended to all LGs. Schemes should acknowledge that fees paid should be commensurate with the community's ability to pay.

The training programs are providing data that is being used effectively to enhance ownership, cost sharing and the perception of effectiveness.

In several States, it is the data prepared and presented from the training program and shared with policy makers which seems to be inspiring attitudes of ownership and pride in association with an effective program. This is impacting on the budgeting process, with Niger, Plateau, Enugu and Lagos all planning increased financial inputs for training in their 1993 budgets. Five other States have now decided to implement the continuing education strategy.

Recommendation:

7. CCCD should strengthen the capacity of the national level training program and should seek to expand the model nationwide.

Programs are unlikely to become sustainable in the absence of stable leadership.

Clearly, the process of geo-political formation under way in Nigeria has created a significant problem of unstable leadership. State and LG leadership was disrupted with the creation of new States and LGs in August 1991. The situation has yet to stabilize. For example, Suleja LG has had five LG chairmen in the last year. While this problem of Nigerian instability is a contextual factor, external to the project and beyond the control of CCCD, it has had a significant negative effect on progress toward sustainability. However, each change in leadership,

at any level, requires time, resources and energy to reorient and convince decision makers of the need to have strong, effective and sustainable PHC programs.

CCCD has also been impacted by shifts in leadership. The project has had three project managers since 1986. USAID has had three AAOs. With shifts in leaderships have come shifts in programmatic priorities. Thus CCCD was initially asked to focus nationally, then asked to shift its focus to States and recently, to concentrate on selected States and LGs. While these programmatic shifts are a consequence of progress toward a consolidated, strategic approach to USAID assistance in Nigeria, they have retarded progress toward the development of sustainable activities and in some cases confused Federal and State counterparts.

Recommendation:

8. USAID/Lagos has already responded to the management issues by developing a "Nigeria Country Strategic Plan" that should provide clear guidance for all USAID-assisted efforts through the year 2000. To compensate for changes in local political leadership, USAID should consider extended and more flexible time frames for projects to permit accommodations for the impact of geo-political changes on project implementation.

Technical assistance should always have the objective of capacity building.

The HealthCom experience in Niger State is cited. The program failed for many reasons, but one of the most important was that it relied on external consultants and an external program manager. HealthCom did not build capacity in Niger State and, as a consequence. it was not sustainable and there is very little left after substantial inputs.

Recommendation:

9. CCCD should continue and enhance its efforts to rely on local technical expertise. Where local experts lack practical experience or where unique technical abilities are required, external TA should be sought to support the development of the local capacities. Programs should avoid unnecessary reliance on external sources of TA.

The following are additional recommendations the team offers, but these do not proceed directly from specific lessons learned nor are they deemed of equivalent importance to the preceding ones.

10. USAID and CCCD should work to extend the planning process in order to facilitate a more meaningful participation of Nigerian counterparts. While good intentions were expressed by all, the reality is that unless an agenda for the planning process, fixing deadlines and responsibilities is presented with ample lead time, Nigerian participation will continue to be sub-optimal. CCCD should continue to implement its "bottom up"

approach to the development of workplans. USAID should also consider lengthening the average life of a project to allow for a more mutually respectful and fully participatory process of negotiation.

11. CCCD should seek to enhance access between the FMOH and the CCCD offices in Lagos and in the States. When possible, the establishment of offices within ministries should be pursued. This will ultimately enhance Nigerian participation and ownership of the program.

12. USAID and CCCD should consider establishing an FETP program for Nigeria. This would be a significant impetus to the training and retention of high quality technical expertise in disease control. In Nigeria there is a good probability that such a program could be sustained, and this would ultimately reduce the recurrent program costs of developing this type of capacity.

13. USAID and CCCD should consider increasing its inputs and expanding the institutional support for the CEUs. Expanding and replicating these units will support progress toward sustainability. Training programs should be extended to include doctors, nurses and support personnel in both the public and private sectors.

14. USAID and CCCD should consider providing additional resources to facilitate technical cooperation between developing Local Governments. What works well should be identified and then efforts undertaken to expand/disseminate it.

15. USAID and CCCD should consider a more active dialogue with the FMOH and the provision of assistance to support the development and dissemination of clear policy guidelines in key areas such as cost recovery, support for training units and production of ORS sachets. Diarrheal treatment guidelines and treatment standards for malaria have been developed but poorly disseminated. This threatens both the progress and sustainability of the PHC.

16 In developing evaluation criteria, care should be taken to balance process and outcome indicators. In Nigeria, the picture can be misleading if one is used without the other.

17. USAID should consider supporting a further refinement of the methodologic approach to assessing program sustainability. This might include an evaluation of the usefulness of mathematical modeling to predict the development of sustainable projects and to clarify the relationship of project and non-project related factors to the ultimate sustainability of projects.

VI. RELATIONSHIP BETWEEN FACTORS AFFECTING SUSTAINABILITY AND RECOMMENDATIONS

One outcome of an assessment such as this should be to link the recommendations with ongoing and future project efforts to promote sustainability. An attempt has been made to do this in Table 6. As might be expected, the more important recommendations, which were presented first, are ones that are linked to more than one factor.

Table 6: Sustainability Factors and Recommendations

Factors Affecting Sustainability	Recommendations
Project Related Factors: • Perceived Effectiveness	4, 14, 16
• Integration and Institutional Strengthening	1, 2, 11, 12, 14, 15
• Local Financing, Community Participation and Private Sector Provision of Services	1, 3, 4, 5, 6, 10
• Strong Training Component	2, 7, 9, 12, 13
• Constituency Building Through a Process of Mutually Respectful Negotiations	1, 5, 8, 10
• Ownership	1, 3, 4, 5, 6, 7, 8, 9, 10, 11
Non-Project (Contextual) Factors: • Economic Factors • Resource Factors • Political Factors • Socio-Cultural Factors • Environmental Factors	1, 3, 4, 6, 8, 9, 10, 16, 17

VII. SUGGESTED INDICATORS AND EVALUATION CRITERIA FOR SUSTAINABILITY

The team concluded that sustainability was a desirable objective for the CCCD program specifically and for USAID projects in general. We suggest that USAID embark on a program of sustainability that will have as its objective the development of sustainable programs which assure equity and effectively improve the health and well-being of the Nigerian people with a phased reduction of U.S. inputs (both technical and financial) over the life of each project. One strategy for furthering this objective could be the negotiation of pre-project agreements and conditions of implementation for planned USAID supported programs. While general agreement should be reached with GON on key points listed below, the strategy of negotiating agreements and conditions should become a component of the project workplan development for LG and State focused activities.

Specifically, the GON should be asked to agree to.

- A commitment to the gradual, phased assumption of the costs of primary health care by the recipients of services and their communities. This should include a commitment to pursue the involvement of the "private sector" in the development of community based "risk sharing" (insurance) schemes.

- A commitment to enhance the quality of services provided in the PHC program.

- The revision of personnel policy guidelines to facilitate the development and retention of a critical mass of skilled technical personnel in key service delivery and support systems. This revision of policies should also include the institution of competency based assessments of personnel performance as a criteria for promotion/retention of health workers.

- A commitment to a "self-liquidation" strategy in the assumption of recurrent costs by the CCCD project.

- A commitment to assure equity in the provision of primary health services.

For individual project activities, the following goals and objectives presented in Table 7 might be integrated into negotiated instruments stipulating the roles and responsibilities of recipients and donors.

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Table 7: Achieving Project Sustainability			
Goals/Objectives	**Objectively Verifiable Indicators**	**Means of Verification**	**Assumptions**
Local assumption of project costs	Budgets demonstrating increased financing of projects from locally recovered costs and local government funds.	Review of actual expenditures and returns from health sector activities.	Local political leadership will support the development of cost-recovery programs.
Development of a "critical mass" of skilled technical people to support PHC programs	Program staff rosters	Quantify numbers of trained persons working in PHC programs. This should be supported by "competency based assessments" of personnel to assure minimal levels of competence.	Local authorities will change patterns of staff assignment/posting which currently undermine the utilization of trained persons.
Local assumption of project directoral responsibilities	Numbers of approved workplans and project modifications initiated by Nigerian authorities.	Ratio of US initiated to Nigerian initiated workplans and modifications.	Nigerian authorities will assume an increasing attitude of ownership and will pursue community needs rather than political or for-profit objectives.
New project initiatives should be limited to those which could realistically be absorbed by local finances	Assessment of the potential for government and/or community absorption of costs.	Special financing studies	Nigeria's economy continues to expand. Donor programs can be coordinated and this principle applied to all externally funded initiatives.

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Goals/Objectives	Objectively Verifiable Indicators	Means of Verification	Assumptions
Equity in access to health services	Assessments of community utilization of health services and identification of underserved populations.	Specials surveys (i.e., NDHS)	Equity issues can be integrated into NDHS surveys for 1994, 1998.
Enhance community perceptions of effectiveness	Proportion of community that sees health expenditures as a good investment.	KAP and community utilization surveys	Nigerians will see improved health as desirable and as correlated with their economic well-being.
Enhanced local managerial and financial management capacity	Numbers of qualified management and finance personnel employed by States and LGs.	Counts from personnel rosters	States and LGs will provide incentives to obtain and retain the services of financial and program managers.

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APPENDIX A

LIST OF PERSONS MET

AFRICAN CHILD SURVIVAL INITIATIVE (ASCI) - COMBATTING CHILDHOOD COMMUNICABLE DISEASES (CCCD) PROJECT, SUSTAINABILITY ASSESSMENT, NIGERIA, 1992

Names of Persons Met (Alphabetical Order)

The team members gratefully acknowledge the assistance of the many dedicated health professionals whose input was critical to the generation of this report. We appreciated the cooperation and the time that was generously given by the staff of USAID/Lagos, CCCD, CDC/IHPO/Atlanta, UNICEF, WHO, the World Bank and the Federal, State and Local Governments. Without their hospitality, advice, candor, insights and suggestions this work would not have been possible.

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EPI Statistician

Gbanga Nichola Olorunnipa
CCCD Staff

Mr. Terry Robinson
Peace Corp Volunteer

Mr. Bale Mutek Rumtok
Act. Chief of Health Education

Mrs. A. S Sasetu
State Treasurer

Mrs. Mary Shemu
Director Family Health Services

Mr. Gilbert Tongwon
Guinea Worm Officer

Mrs. Janet Watson
Senior Community
Health Supervisor

Dr. J. G. Wongdem
Director, Disease Control

Dr. (Mrs.) A. C. Zwandor
Director General

Reston, VA

Atlantic Resources Corporation

Dr. Allen Jones
Project Manager

Mr. Scott Loomis
Consultant

Rosslyn, VA

Agency for International Development

Mr. David Boyd
CDC/IHPO/FSD

Ms. Connie Collins
AFR/ONI/TPPI

Mrs. Laurie Gulaid
Consultant, AID/Washington

Ms. Mary Harvey
AFR/ARTS/HHR

Dr. James Shepperd
AID/R&D/H Washington

Ms. Hope Sukin
AFR/ARTS/HHR Washington

APPENDIX B

ITINERARY

AFRICAN CHILD SURVIVAL INITIATIVE (ACSI) - COMBATTING CHILDHOOD COMMUNICABLE DISEASES (CCCD) PROJECT, SUSTAINABILITY ASSESSMENT, NIGERIA, 1992

Itinerary

Date	Events
Tuesday, September 22, 1992	**8:00 AM - 5:30 PM:** Team Planning Activities, ARC, Rosslyn, Virginia
Wednesday, September 23, 1992	**8:00 AM - 2:00 PM:** Team Planning Activities, ARC, Rosslyn, Virginia **2:30 PM - 6:30 PM:** Travel Washington, DC to Atlanta, Ga. **10:30 PM:** Arrive Sheraton Emory Inn, Atlanta Ga.
Thursday, September 24, 1992	**8:00 AM - 4:00 PM:** Team Briefing, CDC Atlanta **7:30 PM:** Depart Atlanta, GA (Goings, Lo, McDavid)
Friday, September 25, 1992	**7:30 PM:** Depart Atlanta, GA (Pollack) **8:00 PM:** Arrival Lagos, Nigeria (Goings, Lo, McDavid) Arrive team quarters at Eko Meridian Hotel at 10:30 PM
Saturday, September 26, 1992	**8:00 PM:** Arrival Lagos, Nigeria (Pollack) Arrive team quarters at Eko Meridian Hotel at 10:30 PM
Sunday, September 27, 1992	**3:00 - 6:00 PM:** Team meeting
Monday, September 28, 1992	**8:00 AM - 5:00 PM:** Team briefings at USAID/Lagos (Jim Herrington, R. Thomas). Documents review
Tuesday, September 29, 1992	**8:00 AM - 6:00 PM:** Documents Review, Meetings at FMOH and with CCCD Staff/ Lagos
Wednesday, September 30, 1992	**8:00 AM - 6:00 PM:** Documents Review, Meetings at FMOH and with CCCD Staff/ Lagos
Thursday, October 1, 1992	**8:00 AM - 6:00 PM:** Documents Review, Meetings at FMOH and with CCCD Staff/ Lagos
Friday, October 2, 1992	**8:00 AM - 6:00 PM:** Documents Review, Meetings at FMOH (Hon. Minister of Health and Dr. Okungboa) and with CCCD Staff/ Lagos
Saturday, October 3, 1992	**2:30 PM - 8:00 PM:** Team meeting and Pre-departure Dinner meeting with Mr. Herrington. Preparation for field work.

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Sunday, October 4, 1992	**8:00 AM - 5:00 PM:** Travel from Lagos to Enugu **6:00 PM - 7:00 PM:** Meeting with Dr. Olise (CCCD Epidemiologist) **7:30 PM - 8:30 PM:** Team meeting (Preparation for field work in Enugu and Anambra States)
Monday, October 5, 1992 Enugu State declares state day of mourning following Air disaster.	**8:00 AM - 2:00 PM:** Team visits to Anambra State MOH headquarters in Awka, Anambra State. Facilities assessments **2:30 PM - 7:00 PM:** Team visit to Oyi LG, Anambra State. Facilities assessments **7:30 - 8:30 PM.** Team meeting
Tuesday, October 6, 1992	**9:00 AM - 1:30 PM:** Team visits to Enugu State MOH. Facilities Assessments **2:00 PM - 6:30 PM:** Team visits to Nsukka LG. Facilities Assessments **7:30 PM - 8:45 PM:** Team meeting
Wednesday, October 7, 1992	**9:00 AM - 10:00 AM:** Discussion meetings with Dr. Olise **10:00 AM - 6:00 PM:** Travel from Enugu to Ibadan, Oyo State (Goings, Lo and McDavid) **10:00 AM - 8:00 PM:** Facilities assessments in Enugu (Pollack)
Thursday, October 8, 1992	**9:00 AM - 10:00 AM:** Visit to ARHEC (Goings, Lo and McDavid) **10:00 AM - 10:30 AM:** Orientation meeting with Dr. Adesina (CCCD Epidemiologist) (Goings, Lo and McDavid) **10:30 AM - 2:30 PM:** Meetings with officials at Egbada LG. Facilities assessments (Goings, Lo and McDavid) **3:00 PM - 5:00 PM:** Discussions of State and LG activities with Drs. Adesina and Owalabi at CCCD State Office, Ibadan (Goings, Lo and McDavid) **5:30 PM - 7:00 PM:** Meetings with LG officials at Egbada LG. (Goings, Lo and McDavid) **7:30 PM - 9:00 PM:** Dinner meeting with Dr. Adesina (Goings, Lo and McDavid) **8:00 AM - 8:00 PM:** Facilities assessments in Enugu and Anambra States (Pollack)
Friday, October 9, 1992	**9:00 AM - 2:00 PM:** Meetings with Oyo State MOH, facilities assessments. (Goings, Lo and McDavid) **3:00 PM - 5:00 PM:** Travel from Oyo State to Lagos. (Goings, Lo and McDavid) **8:00 AM - 6:00 PM:** Travel from Enugu to Lagos (Pollack) **7:30 PM - 9:00 PM:** Team dinner meeting and briefing with Jim Herrington and Jennifer Bryce.

Saturday, October 10, 1992	**9:30 AM - 10:00 AM:** Discussion of proposed team meeting with Dr. Okungboa (Goings) **2:00 PM - 6:00 PM:** Meetings with FMOH, Dept. of PHC Staff in Yaba. **7:30 PM - 8:45 PM:** Team meeting and dinner. Preparation for field work.
Sunday, October 11, 1992	**7:00 AM - 4:30 PM:** Travel from Lagos to Minna, Niger State (Goings, Lo, Okoh) **6:00 PM - 7:00 PM:** Orientation meeting with Dr. Wambai (CCCD Epidemiologist) (Goings, Lo, Okoh) **7:00 AM - 11:00 PM:** Travel from Lagos to Jos, Plateau State (Pollack, McDavid, Smith)
Monday, October 12, 1992	**8:00 AM - 8:00 PM:** Meeting with officials at Niger State MOH. Facilities assessments, CEU visit. (Goings, Lo, Okoh) **8:00 AM - 8:00 PM:** Meetings with officials at Plateau State MOH. Facilities assessments (Pollack, McDavid, Smith)
Tuesday, October 13, 1992 Niger State and LG offices closed due to strike of civil service employees.	**8:30 AM - 12:30 AM:** Visit to Suleja LG. Discussions with LG Officials (Goings, Lo, Okoh) **12:30 PM - 7:00 PM:** Travel from Niger State to Jos, Plateau State (Goings, Lo, Okoh) **8:00 AM - 6:00 PM:** Visits to Barkin-Ladi LG. Facilities assessments (Pollack, McDavid, Smith)
Wednesday, October 14, 1992	**9:00 AM - 12:30 PM:** Meetings with Plateau State MOH officials. **1:00 PM - 5:00 PM:** Visit to Barkin-Ladi LG. Discussion with LG Officials (Goings, Lo, Okoh) **1:00 PM - 7:00 PM:** Visits to facilities in Barkin-Ladi and Pankshin LGs (Pollack, McDavid, Smith) **7:30 PM - 9:30 PM:** Dinner meeting with Plateau State MOH officials.

Thursday, October 15, 1992	**8:00 AM - 10:30 AM:** Visit to CEU Zawan (Goings, Lo, Okoh) **11:00 AM - 12:00 PM:** Facilities assessment at Barkin-Ladi LG (Goings, Lo, Okoh) **12:30 PM - 3:30 PM:** Visit to Pankshin LG. Facilities assessment (Goings, Lo, Okoh) **3:30 PM - 9:00 PM:** Travel from Plateau to Kaduna (Goings, Lo, Okoh) **9:30 PM - 10:00 PM:** Orientation meeting with Dr. Maciak (CCCD Technical Advisor) (Goings, Lo, Okoh) **8:00 AM - 4:00 PM:** Facilities assessments in Pankshin LG. (Pollack, McDavid, Smith) **4:00 PM - 10:00 PM:** Travel from Plateau to Kaduna (Pollack, McDavid, Smith)
Friday, October 16, 1992	**8:30 AM - 10:30 AM:** Meeting with Drs. Maciak and Babaniyi (CCCD Epidemiologist) **10:30 AM - 12:00 PM:** Meeting with Alhaji Anka (Zone C Coordinator, FMOH) (Goings) **12:30 PM - 1:30 PM:** Meeting with Drs Maciak and Babaniyi (Goings, Lo, Okoh) **1:30 PM - 8:00 PM:** Travel from Kaduna to Ilorin, Kwara State (Goings, Lo, Okoh) **10:30 - 9:00:** Travel from Kaduna to Lagos (Pollack, McDavid, Smith)
Saturday, October 17, 1992	**6:30 AM - 11:00 AM:** Travel from Ilorin to Lagos (Goings, Lo, Okoh)
Sunday, October 18, 1992	**2:00 PM - 3:00 PM:** Team meeting, analytic exercises.
Monday, October 19, 1992	**9:30 AM - 10:30 AM:** Discussions of team activities with Jim Herrington. **10:30 AM - 6:00 PM:** Report writing **6:30 PM - 8:30 PM:** Team meeting, analytic exercises.
Tuesday, 20 October, 1992	**9:00 AM - 2:00 PM:** Meeting with Official at FMOH **2:00 PM - 4:00 PM:** Meeting with Dr. Adeniyi (ARHEC) (Goings, Lo) **2:00 PM - 7:00 PM:** Report writing
Wednesday, 21 October, 1992	**9:00 AM - 12:00:** Meetings with FMOH Official (Dr. Sorungbe) and DPRS staff. (Goings, Lo, Pollack) **10:00 AM - 3:00 PM:** Meeting with World Health Organization and UNICEF officials (Goings) **12:00 - 6:00 PM:** Report writing **6:30 - 9:00 PM:** Team meeting, analysis.

Thursday, 22 October, 1992	**8:00 AM - 8:00 PM:** Report writing, preparation for debriefing with USAID
Friday, 23 October, 1992	**10:00 AM - 12:00:** Team debriefing with USAID/CCCD staff. **12:00 - 7:00 PM:** Report writing **7:30 PM - 9:00 PM:** Team meeting and review of analytic methodology.
Saturday, October 24, 1992	**8:00 AM - 8:00 PM:** Report writing. **2:00 PM:** Lo departs for Senegal **8:00 PM:** Pollack and McDavid depart for US
Sunday, October 25, 1992	**8:00 AM - 3:00 PM:** Report writing (Goings)
Monday, October 26, 1992	**8:00 AM - 8:00 PM:** Report writing (Goings)
Tuesday, October 27, 1992	**8:00 AM - 1:00 PM:** Report writing (Goings) **1:30 - 5:00 PM:** Travel from Lagos to Abuja for CCCD Regional Meeting (Goings)
Wednesday, October 28, 1992	**8:00 AM - 10:00 PM:** Attend CCCD Regional Meeting. Presentation of preliminary results of CCCD Sustainability Assessment. (Goings)
Thursday, October 29, 1992	**6:00 AM - 11:00 AM:** Travel from Abuja to Lagos (Goings) **11:00 AM - 5:00 PM:** Report writing (Goings)
Friday, October 30, 1992	**8:00 AM - 5:00 PM:** Report writing (Goings)
Saturday, October 31, 1992	**8:00 AM - 6:00 PM:** Report writing (Goings)
Sunday, November 1, 1992	
Monday, November 2, 1992	**8:00 AM - 6:00 PM:** Report writing (Goings)
Tuesday, November 3, 1992	**8:00 AM - 6:00 PM:** Report writing (Goings)

APPENDIX C

MAP OF NIGERIA WITH KEY STATES AND LGs IDENTIFIED

TUNISIA
MOROCCO
WESTERN SAHARA
ALGERIA
LIBYA
EGYPT
MAURITANIA
MALI
NIGER
SENEGAL
GAMBIA
GUINEA-BISSAU
GUINEA
SIERRA LEONE
LIBERIA
IVORY COAST
GHANA
UPPER VOLTA
TOGO
BENIN
NIGERIA
CAMEROON
EQUATORIAL GUINEA
GABON
CHAD
SUDAN
DJIBOUTI
ETHIOPIA
CEN. AFRICAN REP.
CONGO
ZAIRE
UGANDA
RWANDA
BURUNDI
KENYA
SOMALIA
TANZANIA
MALAWI
ANGOLA
ZAMBIA
MOZAMBIQUE
ZIMBABWE
NAMIBIA
MADAGASCAR
BOTSWANA
SWAZILAND
SOUTH AFRICA
LESOTHO

AFRICA

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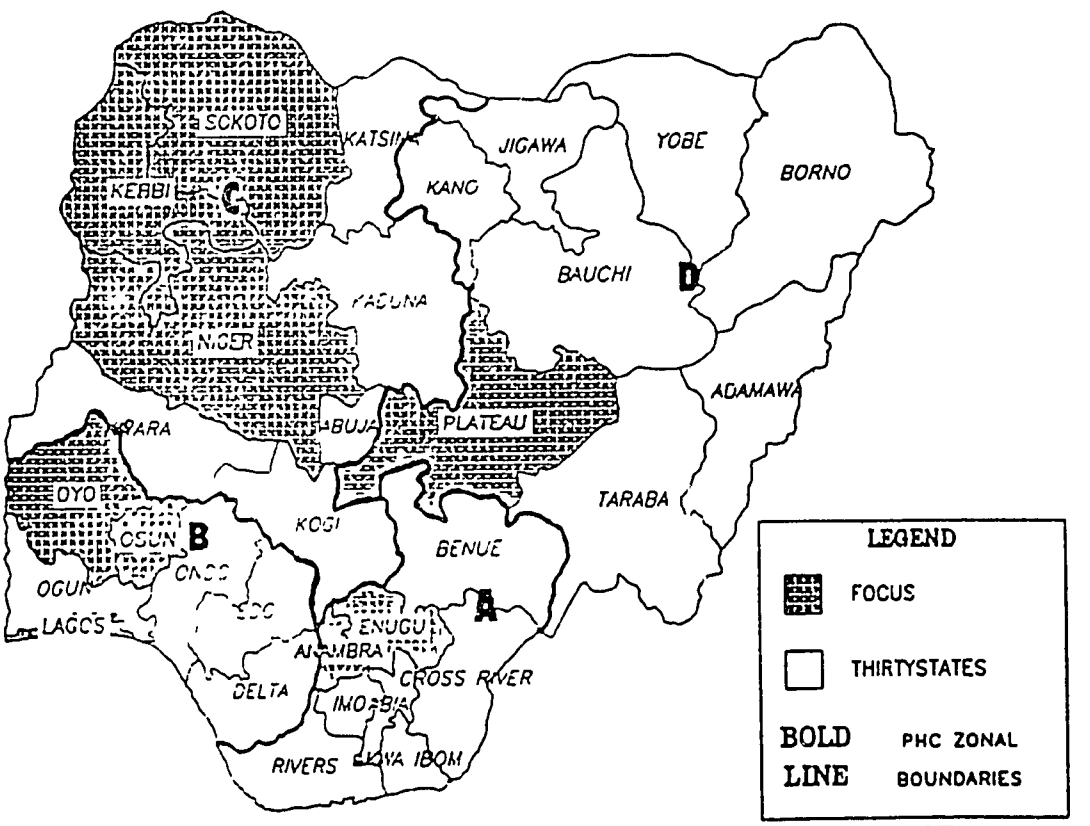
CCCD PROJECT FOCUS STATES AND FEDERAL PHC ZONES
1991



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APPENDIX D

LIST OF DOCUMENTS REVIEWED

AFRICAN CHILD SURVIVAL INITIATIVE (ACSI) - COMBATTING CHILDHOOD COMMUNICABLE DISEASES (CCCD) PROJECT, SUSTAINABILITY ASSESSMENT, NIGERIA, 1992

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APPENDIX E

SCOPE OF WORK

SCOPE OF WORK

OBJECTIVE OF THE CONTRACT

(1) Using the ACSI-CCCD Sustainability Strategy (which is incorporated into this contract in Attachment I), the contractor shall execute a series of sustainability assessments in former ACSI-CCCD countries, including Guinea, Lesotho, Malawi, Nigeria and Rwanda. The objectives of the assessment series are to:

a) Assess the sustainability of child survival activities and benefits since the completion of the ACSI-CCCD project in four countries.
b) Assess the progress made towards sustainability in one country where ACSI-CCCD project is ongoing.
c) Identify the contributing factors and/or constraints to sustainability.
d) Identify lessons learned about sustainability within and across the countries that may have application to similar development efforts.

BACKGROUND

The ACSI-CCCD Project is the Agency's primary child survival project for Africa. The goal of the project is to strengthen the ability of African countries to prevent and control major causes of childhood mortality and morbidity in Africa. Technical interventions include immunization and the control of malaria and diarrheal diseases. In Lesotho, the project also focused on the control of acute respiratory infections. Support strategies developed through the project include training and supervision, health information systems, health education and operations research.

Sustainability has been an increasing concern of project managers and implementors since the mid-1980's. With the 1988 amendment to the ACSI-CCCD project, the development of sustainable systems became formalized as a critical project objective. With expert technical assistance, an ACSI-CCCD sustainability strategy was developed and revised and is now ready for use as an assessment tool for country projects. This strategy identifies five key elements of sustainability and provides an array of indicators to be used in assessing the sustainability of ACSI-CCCD projects (see Attachment 1).

ACSI-CCCD projects have been implemented in 13 countries since 1981. Malawi and Rwanda closed out their ACSI-CCCD projects in 1988. During 1991, Guinea and Lesotho closed out their

ACSI-CCCD projects. Nigeria's ACSI-CCCD project is ongoing. As defined in the sustainability strategy, sustainability is the continuation of activities and benefits achieved during the life of a project, at least three years after project funding stops. According to this definition, sustainability of the ACSI-CCCD project can be assessed in Malawi and Rwanda. In Guinea and Lesotho, the potential for and early evidence of project sustainability will be sought. In Nigeria progress towards sustainability will be measured.

STATEMENT OF WORK

This is a completion type contract and the end product of this contract will be a sustainability report series. The series will include five country reports and one summary report on sustainability of child survival activities and benefits resulting from the ACSI-CCCD project. The individual country reports will be based on project sustainability assessments undertaken in Nigeria, Malawi, Rwanda, Lesotho and Guinea. The summary report will synthesize the findings and conclusions of the five country studies, extracting major lessons learned. To accomplish these tasks, the contractor shall provide or recruit and manage one project manager and three three-member assessment teams as described below.

The Project Manager

The contractor shall provide or recruit and manage one Project Manager to oversee the five country sustainability assessments and prepare the overall summary report. The project manager will:

1) Assist in the selection of the assessment team members,
2) Prepare for and participate in all assessment team briefings and debriefings,
3) Guide the teams in the development of specific country workplans
4) Oversee the coordination of all assessment team logistics,
5) Edit and finalize each country report,
6) Prepare a summary report synthesizing key lessons learned and providing guidance to African governments, USAIDs and other collaborating agencies on project sustainability.
7) Provide a debriefing session for AFR and other A.I.D. offices on the sustainability series and summary report.

Assessment Teams

The contractor shall recruit and manage three teams to conduct the five country-level sustainability assessments. One team will visit the Francophone countries, Guinea and Rwanda. A second team will visit the Anglophone countries, Lesotho and Malawi. A third team will visit Nigeria.

For each country assessment, the team will:

1) Review the project agreement, previous evaluation reports and other pertinent project documents,

2) Review the ACSI-CCCD sustainability strategy, the A.I.D./CDIE study entitled "Factors Influencing the sustainability of U.S. Foreign Assistance in Health 1942-1989: A Six Country Synthesis", Dec. 1990 and other related journal articles.

3) From the ACSI-CCCD sustainability strategy, select the specific indicators to be used for each country and define measurement strategies for each of the indicators selected,

4) Develop a workplan for activities to be conducted in-country, including information collection at the national level and visits to at least one district outside of the capital city,

5) Interview central level Ministry of Health (MOH) and collaborating officials, health workers at various levels of the system, observe health facilities and health worker performance and interview project beneficiaries,

6) Using the selected indicators from the ACSI-CCCD sustainability strategy and available data, assess and describe the extent to which project activities and achievements have been sustained. This includes technical effects as well as institutional effects. Findings can be summarized in table form using Attachment 1, Annex C as a guide.

7) Based on document review and country visit, address the following questions:

   a) Did the project meet the five criteria identified in the ACSI-CCCD sustainability strategy as listed below?

- Perceived technical effectiveness
- Integration into the Ministry of Health at all levels
- Budget levels born by local entities (e.g., MOH, communities)
- Strong training program
- Project negotiations conducted in an atmosphere of mutual respect

b) How did these factors contribute to project sustainability?

c) Are there other important project-related criteria necessary to achieve sustainability of project activities and benefits?

d) Are there contextual factors (i.e., factors beyond project control) that have facilitated or constrained sustainability? If so, what are they and how have they influenced sustainability?

e) Is sustainability of donor projects in these countries a realistic goal? Why or why not?

8) Identify and document lessons learned about sustainability that may have relevance for other projects/countries, and

9) After the country visits, provide a debriefing session for AFR/ONI and AFR/ARTS in Washington.

METHODS AND PROCEDURES

A preliminary outline of the Contractor and assessment team's procedures and estimated level of effort for the assessments is set forth below. Within twenty working days from the effective date of this contract, the Contractor and project manager will develop in collaboration with A.I.D. a definitive work plan for approval by the AFR/ONI/TPPI Project Officer and AFR/ARTS/HHR. The approved workplan will include a detailed schedule of the Contractors activities, assessment dates and dates for delivery of final reports.

Task	Location
Home Office: Technical and operational guidelines agreed to and work plan finalized with the contractor; assessment teams recruited; communication with missions and the Africa Bureau preparation for the team planning meeting; logistics planning; preparation and finalization of the country and summary reports and translations if required.	Washington
Assessment Team: Review project documents, participate in team planning meetings	Washington
Attend briefings by and interview regional-level project implementors at the Centers for Disease Control	Atlanta
Interview national, USAID and other donor officials, visit field sites, review available data, prepare draft report and debrief the USAIDs	Countries
Debrief AID/Washington	Washington

Timing for the Sustainability Assessments

Two teams will visit two countries and one team will visit one country. In country, the team will spend time in the capital city meeting and interviewing key officials. The team will also work in the districts visiting facilities and interviewing health workers in preparation for composing the draft report.

Current planning calls for the first team to visit Nigeria in the fall of 1992, the second team to visit Rwanda and Guinea in early 1993 and the third team to visit Lesotho and Malawi in Spring 1993. The final report will be completed by May 31, 1993.

TEAM COMPOSITION

Three-person assessment teams will be required to incorporate the necessary professional skills in (a) management and health finance, (b) epidemiology, (c) childhood communicable diseases, (d) health education and training, (e) health information systems and (f) team leadership.

French fluency will be required of the team visiting Guinea and Rwanda.

The project manager will be a senior public health official with broad experience in health policy and program development, working familiarity with the sustainability literature, excellent writing skills and fluency in spoken and written French and English.

REPORTING REQUIREMENTS

The assessment teams will provide one copy of the draft report to the USAID mission in each country two days prior to departure for review and discussion. The draft report shall include an executive summary.

The project manager with technical assistance from team members will edit and produce the final draft of the five country reports. The contractor will have 12 working days (unless otherwise authorized by AFR/ONI) following the return of each assessment team to produce final edited draft of the country reports for AFR/ONI and ARTS approval. Three copies of each report will be submitted to AFR/ONI. AFR/ONI and ARTS will review, make final editing and substantive recommendations and return the approved drafts to the Contractor within 10 working days. Upon re-editing, the Contractor will have five working days (unless otherwise authorized by AFR/ONI) to submit 10 copies of each final country report to AFR/ONI.

The suggested format for the country reports is as follows:

- Executive Summary
- Table of Contents
- Body of the report - this should incorporate elements of the scope of work, including:
    * purpose of assessment
    * methodology
    * findings with respect to sustainability of project activities and benefits,
    * discussion of the sustainability questions posed earlier in the SOW
    * broad lessons learned
- Appendices

The body of the country reports should be no longer than 40 pages. Detailed discussions of methodological or technical issues should be placed in appendices. The lessons learned should incorporate guidance for similar development efforts.

Drawing from the country reports, the project manager will prepare the draft summary report within 45 working days (unless otherwise authorized by AFR/ONI) of the approval of the last country report. The contractor will provide three copies of the draft report to AFR/ONI. AFR/ONI and ARTS will review, make final editing and substantive recommendations and return the approved draft to the Contractor within 10 working days. Upon re-editing, the Contractor will have 5 working days (unless otherwise authorized by AFR/ONI) to submit 20 copies of the final summary report to AFR/ONI.

The suggested format for the summary report is as follows:

- Executive Summary
- Table of Contents
- Body of the Report - including purpose of the assessment series, major lessons learned and overall guidance for similar development efforts
- Appendices

The body of the summary report should be no longer than 20 pages. Guidance for similar development efforts should be directed to African governments (policy makers and program managers), USAIDs and other donor colleagues. This document should be less technically oriented than the country reports with a focus on policy and programming issues.

APPENDIX F

METHODS AND STUDY INSTRUMENTS

AFRICAN CHILD SURVIVAL INITIATIVE (ACSI) - COMBATTING CHILDHOOD COMMUNICABLE DISEASES (CCCD) PROJECT, SUSTAINABILITY ASSESSMENT, NIGERIA, 1992

Methods and Study Instruments

Evaluation Objectives

This assessment focuses on the sustainability of the ASCI-CCCD Project activities in Nigeria since the initiation of U.S. Government funded activities in December 1986. Its objectives were:

- To determine the availability of data required to evaluate project sustainability
- To assess the potential for project sustainability by identifying the extent to which key criteria have been incorporated in the project design,
- To document the lessons learned in Nigeria about project sustainability and the sustainability criteria, and
- To develop recommendations for enhancing the sustainability of project activities under the proposed NCCCD project (1993-2000).

Study Methodology

The sustainability assessment team conducted a pre-project review of documents and worked to develop a conceptual frame for the country study. The analytic frame which was developed is an adaptation of the criteria developed by Bossert and used in the retrospective evaluation of Health, Population and Nutrition Projects in several countries. For the purposes of this study, the criteria were modified to facilitate the assessement of programs which are not completed and in some instances are still in the initiation stage. The questions asked were: What can we expect to be sustained? Is there evidence that project activities are progressing toward sustainability? Are there lesions to be learned about the processes that lead to a more sustainable program? The team did not attempt to evaulate the impact of the CCCD project but this report includes comments on the effectiveness of the interventions and support strategies.

A field team consisting of Dr. Stella Goings (ARC staff), Dr. Marjorie Pollack (Consultant), Ms. Kathleen McDavid (CCCD Staff), Madame Aissatou Lô (Consultant) visited Nigeria (28 September - 25 October). The U.S. consultants visited Lagos, Enugu, Anambra, and Oyo states. The international consultants were joined by Ms. Nancy Smith and Mr. Festus Ocko (FMOH Staff) who served as counterparts during site visits in Plateau, Niger and Kaduna states. Each of these collegues brought unique interests and technical expertise to the study and each contributed to what was very much a team effort.

Meetings were held with officials from key departments in Federal and State Ministries of Health, CCCD field staff and with representative of bilateral and multilateral donor agencies (USAID/Lagos, UNICEF, WHO). A comprehensive list of contacts is presented in appendix A. The team examined data developed by the CCCD project on the health, demographic and epidemiologic profile for target diseases. State and LGA workplans and budgets were examined and extensive discussions were held with local authorities regarding their experiences, perceptions of Primary Health Care (PHC) and the CCCD project inputs to their programs. The team members visited primary health care facilities and inspected the EPI cold chain. Service delivery personnel and clients were also interviewed.

Sustainability: Definition and Analysis

Sustainability was defined as the persistence of program activities or the benefits of programs three years after the cessation of donor supports. For the purposes of this exercise, potential sustainability was defined as the potential that programs or their benefits would continue if donor support were withdrawn. The adequacy of these definitions were topics of discussion throughout the exercise. Clearly additional work is required to formulate definitions that are more appropriate for the African setting. In Nigeria, it was obvious that several CCCD interventions were well integrated into the national PHC program and met all criteria for potential sustainability except for the requirement that Nigeria ultimately absorb the project costs without additional donor inputs The absorption of all project costs by the recipient country and a continuation of the activity without a degradation of its quality with continued benefits to the recipients is clearly the ideal scenario. But is this feasible in the African context and is this likely to occur in Nigeria? What if Nigeria indicates a desire to seek and is likely to obtain support to continue a program using funds provided by another donor? If this allows a program to continue without USAID inputs, and the community continues to receive benefits is the program truly sustainable? The team failed to reach a consensus on this issue.

A compilation of data sources, comments on data availability, quality and evidence of utilization was developed and is presented in Table 1. We examined each intervention and support strategy and constructed a scale to express our judgement of the "likelihood" of ultimate sustainability after the withdrawal of USAID funding. These judgements are supported by the team's appraisal of factor contributing to the sustainability of the project element and those factors mitigating against sustainability. These assessments are presented in Tables 2 and 3.

The first step in the analysis was to identify those variables which were impacting positively or negatively on the potential sustainability of the individual CCCD program interventions and support strategies. The variables that were examined and that were seen as related to the potential for project sustainability were divided into "Contextual Factors" and "Project Related Factors". The Project Related Factors (see Table 2) are those which depend on decisions made by project managers and were seen as generally flexible and controlled by the projects themselves. Contextual Factors (see Table 3) are those which are external to the project and generally (but not always) beyond the control of the CCCD and USAID project managers and designers..... and which clearly should be taken into account in future project design and in

development of implementation plans.The process of defining these variables began with the team preparation activities and continued throughout the assessment.

After completing the field work and data collection, the team undertook two scoring exercises. The first was an attempt to derive an estimate of the probability of project sustainability. The scoring scale applied was 0 = No possibility of sustainability, 1 = minimal probability for sustainability, 2 = modest probability for sustainability, 3 = likely to be sustained, 4 = likely to be sustained with quality equal to that currently supported by CCCD, 5 = high probability of sustainability with high programmatic quality (see Table 5A in main report). Although this approach was useful, there was a lack of consensus among the technical consultants regarding the adequacy of this approach. The central point of discussion was the relative importance of financial sustainability. Concern was expressed that it was unrealistic to expect that African countries in general (and Nigeria specifically) to absorb the costs of health programs and that continuations of programs with other donor support should be accepted as sustainable. In an attempt to clarify the relative importance of financial considerations to the sustainability scores, a second scoring which examined and quantified the relative importance of key project related factors was undertaken and is presented in a separate table (see Table 5B in main report).

Table 1: Availability of Data			
Data	**Availability of Data**	**Quality of Data**	**Evidence of Use**
Policy Documents Nigerian National Primary Health Care Policy	• Federal and State Ministries of Health • CCCD/FHS, UNICEF and WHO Offices	Comprehensive policy statements on Primary Health Care Objectives and Priorities	Used as a guide in program planning by federal program offices, state and LG PHC departments and donor offices.
Technical Program Policies • National Nutrition Policy • National Population Policy • National Mental Health Policy • Report of National Committee on the Establishment of Health Insurance Scheme in Nigeria • National Health Systems Research Priorities	Availability limited to Federal Ministry of Health Office, USAID/CCCD/FHS and other donors. Only the Population Policy has been disseminated to State and LG Health Departments.	Well written explicit statements of policy. Not accompanied by strategic implementation plans.	Population Policy is used as a guide in program planning by federal program offices, state and LG PHC departments and donor offices. No evidence that other policy statements are being utilized
State Specific Primary Health Care Policies	Niger State. Dissemination to LGs in planned for Nov. 1992.	Modification of the National PHC Policy which addresses local priorities.	Used by the state for strategic planning. Should be useful to LGs when disseminated.

Data	Availability of Data	Quality of Data	Evidence of Use
Statements by Policy Makers and Influentials	Policy statements provided by Enugu and Niger States. Media statement by Nssuka Local Government	Clear statements regarding the importance of primary health care. Expressed intent to absorb an increasing proportion of program costs.	Niger state intends to use these policy statements to influence the priority setting at the LG level.
Health Education/Training Health Facility Surveys	• Atlanta • Nigeria/ CCCD Annual Reports • CEU in Niger, Plateau	Very explicit graphs and tables showing health workers performance and mothers knowledge about CCCD programs.	• Used in decision making for program development at CEU • Used in creating perceived effectiveness at state decision making level
Community Surveys	Nigeria CCCD Annual Report 1991	Good source of information on mother's knowledge and treatment practices at home.	Used in designing patient education programs in Niger, Plateau, and Enugu.
Guidelines and Training Manual for the Development of Primary Health Care System in Nigeria.	• FMOH • State and LG • CEUs	Basic PHC document for orientation in PHC Provides basic guidelines for all PHC components. Heavy supervisory checklist.	Accredited and disseminated by CCCD in all focus states. LGs and CEUs used as a reference document.
Training Modules	• FMOH • CEU • LG	Very well elaborated. Easy to use at any level.	Used as training guides at CUE and LG. Model of collaboration between CCCD, WHO, and FMOH.
Evaluation Reports	• USAID Washington • CDC Atlanta • CCCD Nigeria	Explicit observations and recommendations.	Application of some recommendations

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Data	Availability of Data	Quality of Data	Evidence of Use
Nigeria Health Education Assessment Report	• CDC Atlanta • CCCD Nigeria	Comprehensive analysis of Health Education Program	CCCD is in the process of implementing recommendations.
Financial Data Current Budget	Available in each state except Anambra and in all LGs.	Well developed documents in Enugu, Oyo, and Plateau. Only draft document available in Anambra and Niger.	Used as a guide in determining expenditure authorizations. Utilization limited to commissioners and financial officers. Program officers were generally unaware of the details of budgets for programs they supervised.
Previous Budgets	Available in Plateau, Enugu, and Niger States	Printed documents. Only one or two copies available in each ministry. Copies could not be located in Oyo, and Anambra.	None.
Proposed 1993 Budget	Available in Plateau State	Draft document developed in State wide budgeting exercise	Being used to plan program activities for 1993.
Drug Revolving Funds	Data on DRF returns available in each State MOH and at each LG	Accounts kept on penciled sheets or blackboards in most cases Guidelines for handling of returns poorly defined.	None
Cost Recovery Policy	No written policy guidelines available except in Barkin Ladi LG (Bamako Initiative)	Clearly stated guidelines. Developed as a part of the Bamako Initiative (UNICEF).	Used to establish fees and drug costs for clients. Also used to subsidize fees for indigent clients.

Data	Availability of Data	Quality of Data	Evidence of Use
EPI Assessments	Trend data on measles, polio, diphtheria, tetanus, TB and pertussis available at national and state levels for morbidity, to lesser extent on mortality Sentinel surveillance system just getting underway.	Comparison of disease trends for EPI diseases with varicella (no intervention) reveals similar trends in years demonstrating decreases, suggests same influences on reporting Questionable quality for past years. Sentinel surveillance system as well as hospital medical records system will improve the quality of the data Latter may permit better retrospective trend analysis.	Minimal. Just getting under way with development of national and focus state epidemiological bulletins and annual statistical summaries. Used in training material for program specific activities.
Documentation of EPI coverage levels Documentation of changes in drop out rates	Periodic coverage surveys plus routine annual vaccination coverages	Survey quality varied depending on definitions of vaccine history. Routine data on doses administered reasonably reliable but population estimates used for denominators of rate calculations questionable (great disparity between projections from 1963 census and 1991 census). Also, different presentations of the same data use different denominators. Marked differences between UNICEF and DHS coverage surveys.	Used in evaluation of activities. Some SMOHs, some LGs and some Health Facilities (HFs) are posting their coverage targets with performance. Not consistently used. Coverages not used for vaccine supply ordering. In field found one state EPI coordinator prepared graphic presentation of EPI coverages by LG and showed to each LG chairman Use of data resulted in investigating reasons why some LGs had poorer performances and resulted in reclaiming EPI vehicles for use in program activities in the LGs.

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Data	Availability of Data	Quality of Data	Evidence of Use
CDD Evidence of mortality reduction	Data available on national level from sentinel surveillance sites but routine DSN shows paucity of mortality reporting.	Sentinel reporting units felt to be more reliable than routine surveillance system.	Data being used in evaluation documents.
Data on the availability of ORS	Data on ORS access/distribution not readily available at national level or at state and LG level Levels of distribution FMOH -> Lagos/Kano --> SMOH --> LG. FMOH can give distribution to Lagos and Kano but not to SMOH etc. Survey data do not address ORS vs. SSS from HF.	Questionable due to multiple sources of supply, some sold, some donations (UNICEF). Survey data reliable but do not differentiate types of ORT at HF level.	None other than survey reports.
Case management data	Selected KAP studies at focus LGs (Barkin-Ladi and Suleja) No national routine data system Also selected HF assessments for HCW management and home management of cases.	Survey data good.	In evaluation reports. Not used in redesign of training material or program policy needs.
Malaria Mortality statistics	Routine surveillance system less than optimal for mortality reduction analysis. Sentinel surveillance data was not available upon request and not routinely published in bulletins or reports.	Unknown	Not routinely used in monitoring program activities.
Documentation on the availability of chloroquine	Data available from KAP studies and HF assessments conducted via M&E. Not routinely collected.	Selected study data considered to be good quality.	None as yet.

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Data	Availability of Data	Quality of Data	Evidence of Use
Data on case management	Selected KAP studies and HF assessments. Available on request, not routinely published or disseminated.	Selected study data considered to be good quality.	None as yet.
Health Information System (HIS) Data on timeliness/ completeness national level reporting	Monitored by SMOHs and FMOH. Available at each level visited.	Good information on reporting completeness of LGs by SMOH and SMOHs by FMOH. LGs maintain information on reporting by HFs; SMOH by LG but not by HF; FMOH by SMOH but not by LG	Yes. Published in SMOH and FMOH epidemiology bulletins as well as annual statistical summaries and used to stimulate reporting and also to identify areas for supervisory needs
Data on feedback and dissemination mechanisms	National epidemiologic bulletin published 1991 and 1992. Distributed to all SMOHs and focus LGs Selected SMOH bulletin and annual statistical summaries published recently, extent of distribution too early to verify.	Excellent	FMOH bulletins available in each SMOH visited FMOH presentation of reporting incompleteness led to increase in reporting completeness SMOH bulletins/reports too new to assess Enugu EPI used HIS data to give feed back to LG chairmen to assist in increasing political support to activities
Evidence that HIS used in decision-making	Stated planned use of data. 1993 work plans not available to assess if data used in process. 1992 work plans prepared without benefit of extensive data analyses.	Too new to assess	Too new to assess

Data	Availability of Data	Quality of Data	Evidence of Use
Operational Research (O.R.)	Yes. Annual CCCD report lists all studies under project. Results of completed studies not widely disseminated for HCWs to review if questions arise re: national policy.	Of studies, excellent.	Malaria O.R. studies used in redeveloping national guidelines for chloroquine treatment. Quality assurance of chloroquine led to revised regulations for chloroquine production; Studies on chemoprophylaxis during pregnancy led to change in national guidelines away from pyramethemine to chloroquine. Used at national level. Not widely disseminated for use by personnel outside of national level.
Evidence that findings from O.R. used in decision-making	Yes	Excellent	Yes. See above comments on data.

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Table 2: Project Factors Affecting Sustainability and Their Indicators	
I.	**Perceived Effectiveness**
A.	Development of workplans and national policy statements
B	Implementation of HIS/MIS or special surveys to measure project impact
C.	Completion of operations research and special studies to assess program quality and develop solutions
D	Use of data to make decisions, identify problems, develop solutions and to confirm project's importance at health sector council meetings
II.	**Integration and Institution Strengthening**
A	Effective supervisory system (using checklists) which decentralizes technical and managerial responsibility to the peripheral level
B	Integration of service delivery at delivery sites
C	Integration at national level into existing MOH structures
D	Support activities operational and integrated at the national level
E	Competency bases assessments of worker performance
F.	Reliance on local technical expertise
III.	**Local Financing, Community Participation and Private Sector Provision of Services**
A	Assumption of project costs by government
B	Implementation of fee-for-service/cost recovery
C	Private provision of project services
D	Donor complimentary and coordination
IV.	**Strong Training Component**
A	Training strategy developed and implemented
B	Continuing health education policy developed and implemented
C	Implementation of supervisory system
D.	Completion of facility training needs assessments
E	Trainers trained in how to train
F	Project training activities integrated into existing MOH training structures
V.	**Constituency Building Through a Process of Mutually Respectful Negotiation**
A	Nationals participate in country assessment, project development and project modification and clearly view the project as a priority
B.	Relevant agencies participate in project workshops
C.	MOH procedures facilitate the inclusion of local concerns and decisions within national level plans
VI.	**Ownership**
A	Is there the perception of local ownership?
B.	re project related decisions being made by organizations/bodies representing local constituencies
C.	Project development and modifications originating with nationals
D.	Is there continuously increasing assumption of the project (costs, management, etc.) by community members who are the beneficiaries

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Table 3: Contextual (External, Non-Project) Factors Influencing Project Sustainability	
I.	**Economic Factors**
A.	Structural adjustment, decline in GNP and earning power
B.	Policies and activities of other donors like UNICEF and World Bank
C.	Changes in A.I.D./Washington's agenda
D.	Increasing level of urbanization
E	Progress towards industrialization and economic development
F.	Declining infrastructure (condition of facilities, roads, vehicles, etc.)
G.	Trend toward privatization
H.	Changing health priorities within Nigeria and emerging health issues (also and environmental factor)
II.	**Resource Factors**
A.	Administrative capacity of MOH, including level of training of staff and structure
B.	Generally large base of highly trained, capable health professionals
C.	Personnel turn-over and movement to private sector
D	Brain drain among the most qualified health professionals
E.	Patterns of health resource allocation
F.	Good availability of health-related data
III.	**Political Factors**
A.	Political system may change in near future, bringing a change in the political/overall agenda
B	Level of civil stability
C.	Extent to which decision making and autonomy are decentralized
D.	Heterogeneity of population, population size and size of the country (also and environmental factor)
IV.	**Socio-cultural Factors**
A.	Cultural Issues (ie. corruption)
B	Fundamentalist Islamic movement (also a political issue)
C.	Consumer preferences
V.	**Environmental Factors**
A.	Natural disasters and disease outbreaks
B.	Emerging health problems (also and economic factor)
C	Population size and heterogeneity and size of country (also a political factor)

In the following pages are presented questionnaires and other study instruments used by the team in carrying out their assessments.

Policy

- Are there written policies for PHC or specific project components (CDD, Malaria, EPI, etc.)?
- Do you have copies of these policies? If no, did you ever have a copy or see a copy?
- How are the policies developed? Who initiates the development of new policies?
- Do/Did you play a role in developing or modifying the policies?
- Do workplans and program activities reflect the policies?

- Do/Did you play a role in planning/writing or modifying the workplans?
- Have existing policies been modified to meet the needs of state/LG programs?
- Who (individual and groups) supports the goals and objectives of CCCD/PHC and who opposes them?
- Has the policy environment improved or deteriorated in the past few years? How can this be documented?
- Have there been changes in the PCH/CCCD project that reflect changes in policy in Nigeria or policy changes in the United States?
- Do donor policies have an impact on PHC programs and policies? Are these generally positive or negative? (give examples)
- What new policies are needed to enhance the PHC/CCCD Project/Programs?
- What lessons have you learned about the role of policies in shaping programs in Nigeria?

Ownership

- Do you regard CCCD as a Nigerian Project or a US Project? (Whose project is CCCD?) Why?
- What specific aspects of the CCCD Project lead you to feel this way?
- When you think of CCCD what comes to mind? (if they/we used, ask who comprises they/we)
- If you were designing a project, what could be done to ensure Nigerian ownership?
- Are national policy statements and workplans (all levels) consistent with the project?
- Are project costs being increasingly assumed by government at all levels?
- Is a fee for service system being implemented? Does it work?
- Did/Do Nigerians participate (equal team members with writing responsibilities) in country assessment, project development and project modification?
- Are project changes initiated by Nigerian and do they have to be approved by Nigerians?
- Do the MOH and Project procedures facilitate the inclusion of local concerns and decisions within national level plans?
- What recommendations do you have to increase the potential for project sustainability?

Finances

- Request copies of budgets for States and LG health departments for 1991, 1992 and 1993 (proposed). Request general budget?
- Request copies of "returns" for States and LG health departments for 1991 and 1992.
- Is the government (Federal, State or LG) absorbing an increasing proportion of the PHC/CCCD program costs? If yes, can this be documented? If no, why not?

- What is anticipated as a source of funding for PHC/CCCD activities if and when donor supports are withdrawn?
- Are there plans to recover costs for CCCD/PCH services such as EPI, ORS, etc.?
- Should the recipients of health services be asked to pay some or all of the costs for those services?
- How should the costs of health care for the indigent (those unable to pay) be supported? Who should pay?
- Are there fees or charges being levied in health care facilities in this state/LG?
- How are the returns being handled? Are there bank accounts? Who has signature authority?
- How are the funds collected being used? Who makes decisions about the use of these funds?
- Is there now or has there been a drug revolving fund? What has been the experience in this state/LG with drug revolving funds?
- What suggestions do you have for increasing the financial sustainability of the PHC/CCCD projects?

Health Education and Training

Senior Program Officers and CCCD Officials

- Is there a perceived need for health education and training?
- What has been done to meet the needs?
- Is there a policy developed and how has it been implemented?
- What has worked and why?
- What didn't work and why?
- What are the key lessons learned?
- What elements can be sustained and why?
- What are your recommendations?

Training consultants and training officers at federal, state and LG level

- Is there a training strategy?
- If yes, what is the strategy? (describe components)
- How is it being implemented?
- What worked and why?
- What didn't work and why?
- What are the lessons learned?
- What elements can be sustained and why?
- What elements can't be sustained and why?
- What are your recommendations?
- Is there a supervisory system?

- If yes, how is it implemented?
- What are the strengths and weaknesses of the supervisory system?
- What are the lessons learned?
- What recommendations do you have to strengthen the supervisory system?

Deputy Directors of PHC and Program Coordinators

- How would you rank health education within the eight components of PHC?
- Is there a policy developed for health education?
- If yes, how is it being implemented?
- Are there specific problems in your area related to a lack of health education?
- What has been done to solve the problem?
  What worked and why?
- What didn't work and why?
- What activities can be sustained and why?
- What activities can't be sustained and why?
- What recommendations do you have?
- Is there a strategy for your program?
- Describe the strategy? Is the program vertical or integrated?
- How does training influence the implementation of your programs?
- What are the problems?
- What do you recommend to solve the problems related to training?

Health Center Managers at State and LG level

- Have you developed a training/health education strategy?
- What are the different components?
- How do you implement the strategies?
- What is working and why?
- What is not working and why?
- How do you solve the problems locally?
- Are you receiving support in the area of training and health education?
- What kind of support are you receiving?
- Are you satisfied with the level of support? Why or why not?
- What elements of training/health education can be sustained at the health facility level?
- What recommendations do you have?
- Are you receiving supervisory visits?
- If yes, by whom, when and how are they conducted?
- What are the effects/results of the supervisory visits on your work?
- What are the problems with the supervisory visits?
- What recommendations do you have regarding the supervisory visits?
- Are you doing supervisory visits?
- If yes, whom do you supervise, when and how do you supervise?

- What are the results
- What are the problems?
- What recommendations do you have?

CDD

- Are there budget line items for CDD?
- Are data (both anthropological and fiscal) used in policy development and decision making?
- Has cost recovery for ORS been implemented?
- Has CDD been successful? Why or why not?
- Is priority given to CDD activities? Why or why not?
- What has worked in the way of CDD activities? Why?
- What did the PRITECH component do? Why were these activities terminated? Did other agencies pick up these activities?
- Was PRITECH successful in your mind? Why or why not?
- What input did/do you have in the design of the CDD policy/workplan, in the original design of the CDD component of the CCCD project, in any project assessments and in the CDD decision making process?
- What CDD training has taken place? Is planned? For whom?
- Are supervisory systems/follow-up visits being used to ensure effective CDD training?
- Of the successful aspect of CDD, which do you feel can be sustained without further donor support? Why?
- What do you suggest in the way of CDD activities for future projects so that they may be sustained?
- What lessons have you learned that you want to pass to others?
- How many OR studies on CDD have been conducted since the beginning of the project? What has been done with them?
- What is the use/importance given to ORS at the facility level?
- Is health worker, case management data available?
- Do supervisory training materials exist and are they being used for CDD?

Epidemiologic Assessment

- Have copies of the CCCD Annual Report been received? If so, how useful have they been?
- Have copies of the Epidemiologic Bulletin been received? If so, how useful have they been?
- Have data generated through the updated HIS been used in program planning, management and evaluation? If so, please give examples during 1991/1992 activities.
- Have data become available that have resulted in policy or program norm changes? If yes, please give examples.

Health Facility Assessment Checklist

NIGERIA 1992

State_____ LGA_____

Name of Facility_____ District_____

Type of Health Facility___ _____ Population_____

Persons interviewed: Name/title

_____ _____

_____ _____

_____ _____

Is the Health Facility connected to electricity? Y N

If yes, how many hours per day? _____

To be asked at LGA: Number of Districts in LGA _____

Number of Health Centers in LGA _____

BACKGROUND

1. Hours of operation of health facility_____

2. Personnel on staff:

Doctor _____	Midwives _____	Other _____
Nurse _____	Pharmacist_____	Auxiliary nurse ___
Laboratory_____		

3. Number of patients seen in past month:
   New cases _____ Prenatal _____
   Old cases _____ Pre-school_____

4. Average number of patients (curative) seen in a day_____

5. Last supervisory visit from:

	LGA	SMOH	FMOH
within past month	____	____	____
within past quarter	____	____	____
within past six months	____	____	____
within past year	____	____	____
more than one year ago	____	____	____

6. Are there written reports detailing the findings of supervisory visits? Y N

7. How often are supplies received? Monthly ___ Quarterly ___
   Biannually ___ As needed ___ Other _____

8. How are supplies received? Delivered ___ Picked up___
   Other (specify) _____

9. Are supplies delivered to other areas from here? Y N

10. Form of transport available: Y N type_____

11. Number of hours to travel to vaccine depot_____

12. Number of Community Health Workers trained _____

13. Is there a plan of action for the LGA? Y N
    Was it completed in 1991? Y N

14. What is the infant mortality rate in the area of influence?
    1991 _____ /1000 live births number of deaths _____
    1990 _____ /1000 live births number of deaths _____
    1989 _____ /1000 live births number of deaths _____

15. What is the childhood (1-4 year old) mortality rate?
    1991 _____ /1000 live births number of deaths _____
    1990 _____ /1000 live births number of deaths _____
    1989 _____ /1000 live births number of deaths _____

16. What is the maternal mortality rate in the area of influence?
    1991 _____ /1000 live births number of deaths _____
    1990 _____ /1000 live births number of deaths _____
    1989 _____ /1000 live births number of deaths _____

FINANCES

1. Are there charges for services or commodities? Y N
   If yes, what are the charges? _____

2. Do clients make a donation to the clinic? Y N

3. How are the funds that are collected managed?
   Kept at clinic _____ Deposited in separate account ____
   Deposited in: LGA general account ___ State account ___

4. Are there funds for clinic disposables? Y N

5. Have the fees had an impact on the numbers of clients that use the facilities? Y N

6. Supply status

	Currently in stock		Stock rupture last 12 months		Condition	
ORS packets	Y	N	Y	N	G	B
Ampicillin	Y	N	Y	N	G	E
Penicillin	Y	N	Y	N	G	E
Chloroquine Tabs	Y	N	Y	N		
Chloroquine Syrup	Y	N	Y	N		
Quinine syrup	Y	N	Y	N		
Quinine injectable	Y	N	Y	N		
Fansidar	Y	N	Y	N		
Amodiaquine	Y	N	Y	N		
Measles vaccine	Y	N	Y	N	G	E
DPT vaccine	Y	N	Y	N	G	E
Polio vaccine	Y	N	Y	N	G	E
BCG vaccine	Y	N	Y	N	G	E
Tetanus Toxic	Y	N	Y	N	G	E
Syringes 2cc	Y	N	Y	N	G	B
Syringes omega(BCG)	Y	N	Y	N	G	B
Syringes reusable (single dose)	Y	N	Y	N	G	B
Needles	Y	N	Y	N	G	B

EPI

1. Number of doses administered in 1991 or last month: (circle one)

	< 1 years	> 1 years
Population	_____	_____
Measles	_____	_____
BCG	_____	_____
DPT	1___/2___/3___	1___/2___/3___
Polio	0___/1___/2___/3___	1___/2___/3___
TT	1____/2____3/____4/____5/____ (pregnant women)	
TT	1____/2____3/____4/____5/____ (women childbearing age)	

2. Days vaccines given:

Measles	M Tu W Th F Sa Su
DPT	M Tu W Th F Sa Su
Polio	M Tu W Th F Sa Su
BCG	M Tu W Th F Sa Su
TT	M Tu W Th F Sa Su

3. Number of outreach posts _____ # Days/month at each post ____

4. Is there a follow-up system for non-compliants? Y N

5. Are sick children vaccinated or are they rescheduled for vaccination once they are well? Vaccinate ___ Reschedule __

6. Will they open a new vial of vaccine for one child or will they reschedule a child to return when there are more children to justify opening a vial? Open new vial ___ Reschedule ___

7. Do health facility personnel know recommended schedule for vaccinations? Y N

8. Are vaccination registries kept at the health facility? Y N

9. Are there special needles and syringes for EPI activities or are the same ones used for curative interventions?
   Special ___ Same ___

10. Number of syringes available for EPI_____
    Number of needles available for EPI_____

11. Maximum number of children vaccinated in one session_____

12. Is sterilization equipment available? Y N Type_____

13. Number of children vaccinated per sterile syringe_____
    Number of children vaccinated per sterile needle_____

14. Does the health facility have a thermos? Y N

15. Where are vaccines kept during vaccination session?
    On ice packs ___ In thermos ___ Other_____

16. Type of refrigerator: Electric ___ Kerosene ___ Solar ___
    Gas _____ ILR ____ Other ____ None _____

17. Is the refrigerator functioning? Y N
    How long has it been out of order? _____

18. Number of days in past month temperature recorded above 8ºC___ ____ No temperature records ____ Tº now _____

19. Are there expired vaccine vials in the refrigerator? Y N

20. Does the refrigerator need preventive maintenance? Y N

21. Are there other things in the refrigerator besides vaccines and vaccine related supplies? Y N

22. If refrigerator is kerosene or gas, has the refrigerator been non-functional due to lack of fuel during the past twelve months? Y N For how long? _____

23. What is the supply/distribution system for fuel?
    Frequency of supply _____ Amount received _____
    Picked up ___ Delivered ___ Who pays _____

24. When was the last time: the wick was changed_____
    the chimney was cleaned_____

25. Number of cases:

	1992	1991	1990	1989	1988
Measles	____	____	____	____	____
Polio	____	____	____	____	____
Neonatal tetanus	____	____	____	____	____

DIARRHEAL DISEASE

1. Number of cases of diarrhea in children less than five years old seen in past month_____ Data not available ___

2. Number of cases:
   ORS prescribed_____ N/A _____
   SSS prescribed_____ N/A _____
   treated with IVs_____ N/A _____
   antibiotics prescribed_____ N/A _____
   most common antibiotic(s) prescribed_____
   other medicines prescribed_____ N/A _____
   most common medications prescribed_____

3. How many diarrheal cases were referred to a higher level of attention in the past month?_____

4. Number of diarrhea cases with dehydration seen in past month ___

5. Are nasogastric tubes available in health facility? Y N

6. Are there posters depicting proper treatment of diarrheal episodes on the walls? Y N

7. What do the personnel recommend as a diet for a child with diarrhea? _____

8. Have staff been trained in an ORT demonstration unit? Y N

9. Number of cases:

	1992	1991	1990	1989	1988
diarrhea 0-5 years old	____	____	____	____	____
diarrheal deaths 0-5 years old	____	____	____	____	____

10-

MALARIA

1. Number of cases fever/malaria in children less than five years old seen in past month_____

2. Number of fever/malaria treated with:

chloroquine _____	N/A _____
non-chloroquine antimalarials _____	N/A _____
amodiaquine _____	N/A _____
Fansidar _____	N/A _____
Quinine PO _____	N/A _____
Quinine IM _____	N/A _____
Quinine IV _____	N/A _____

3. Number of cases of childhood malaria treated with transfusion in past month_____

4. Chloroquine dosage prescribed for presumptive malaria_____

5. Is total dose: given at once? ___ must return daily?___

6. Are records kept that permit an assessment of compliance with treatment regimen? Y N

7. Number of pregnant women given chloroquine chemoprophylaxis past month_____ N/A _____

8. Dosage prescribed for chloroquine chemoprophylaxis_____

9. How chemoprophylaxis dose given: monthly __ weekly __ other __

10. Is health facility equipped to do thick smear examinations? Y N

11. Have they seen any cases of chloroquine resistance? Y N

12. What is the management of chloroquine resistance?
    Quinine IM ___ Quinine IV ___ Amodiaquine ___
    Fansidar ___ Other _____

13. Have they seen many cases of cerebral malaria? Y N

10

14. Number of cases:

	1992	1991	1990	1989	1988
Malaria 0-5 years old	____	____	____	____	____
Malaria deaths 0-5 years old	____	____	____	____	____

ACUTE RESPIRATORY INFECTIONS

1. Number of cases acute respiratory infections in children less than five years old seen in past month_____

2. Number of cases treated with antibiotics _____ N/A_____
   penicillin _____ N/A_____
   ampicillin _____ N/A_____
   other (specify)_____

3. Number of acute respiratory infections referred to hospital for further treatment _____ N/A_____

4. Number of cases of pneumonia in children less than five years of age treated in past month _____

GROWTH MONITORING

1. Number of children less than three years of age seen for well baby visits in the past month _____ N/A _____

2. Number of children diagnosed as malnourished during the past month _____ N/A _____

3. Number of nutrition counselling interventions given during the past month _____ N/A _____

4. Is there is system for follow-up of no shows? Y N

5. Are growth monitoring curves part of all children less than three years of age records? Y N

6. Is there a supplementary feeding program? Y N
   Number of children enrolled last month _____

7. Are there posters on display depicting proper weaning foods? Y N

8. How many term deliveries were there last month? _____
   How many weighed less than 2500 gms? _____ N/A ___

HIS

1. Are diagnoses clearly written for all consultations seen in past month? Y N

2. Are treatments clearly written for all consultations seen in past month? Y N

3. Are reporting forms present in health facility? Y N
   Number of reporting forms necessary to complete _____

4. How are forms filled out? daily ___ weekly ___ monthly ___

5. Has last month's report been completed? Y N

6. Are copies of completed forms kept in health facility? Y N

7. Does health facility have copy national epidemiology report? Y N

8. Are disease outbreaks investigated? Y N
   By whom?_____

APPENDIX G

EPIDEMIOLOGIST'S REPORT

AFRICAN CHILD SURVIVAL INITIATIVE (ACSI) - COMBATTING CHILDHOOD COMMUNICABLE DISEASES (CCCD) PROJECT, SUSTAINABILITY ASSESSMENT,NIGERIA, 1992

Medical Epidemiologist's Report
with Collaboration for the Diarrheal Disease Control Program Section

EXPANDED PROGRAM ON IMMUNIZATIONS (EPI)

Overview

Of the three programs under the Primary Health Care (PHC) activities in Nigeria that the ACSI-CCCD implement, the EPI is the best developed in terms of access and coverage of the population through fixed and outreach activities, training and supervision of health care providers and support from political and policy makers at all levels of attention in the health care system.

The Expanded Program on Immunizations (EPI) began in Nigeria in 1977 as a natural follow-on to the Smallpox eradication activities in the 1960's. During the years 1978-1984, the implementation of EPI activities was slow, with coverages not exceeding 10 percent. Beginning in 1984, a new strategy was developed in a pilot Local Government Authority (LGA) - (Owo LGA, Ondo State) which specifically addressed the noted logistical, cold chain and vaccine supply constraints, as well as the lack of community awareness. Vaccination strategies included using static vaccination services at existing health facilities and weekly or monthly vaccination outreach activities at smaller health facilities not equipped with vaccine storage capabilities. The strategy was then expanded to all capital LGAs and further to all LGAs in the country.

In 1988 and 1989, special immunization days were conducted at the National and State levels (National Immunization Days - "NID" and State Immunization Days -"SID") as part of accelerated immunization activities supported by the United Nations Children's Emergency Fund (UNICEF) with additional support from World Health Organization (WHO) and the United States Agency for International Development (USAID) as well as the Federal Ministry of Health (FMOH) and the State Ministries of Health (SMOH). This resulted in a rapid increase in vaccination coverages during the period 1988-1990

The accelerated immunization initiative received heavy external financial support to cover the costs of widespread social mobilization campaigns as well as increases in the outreach vaccination activities at the SMOH and LGA levels. Assistance included provision of cold chain equipment and vehicles for mobilization of health care personnel for vaccine distribution and for outreach vaccination activities as well as supervision.

The accelerated immunization initiative went through the end of 1990, with 1991 marking a return to routine vaccination activities. Some states continued to conduct SIDs but no further NIDs were conducted.

The CCCD contributions to the EPI activities have been indirectly, through a grant to UNICEF for the purchase of vehicles, cold chain equipment and steam sterilizers and directly through the assistance in the development of a computerized EPI health information system (HIS) addressing surveillance of EPI target diseases and coverage data (begun in 1987), training and upgrading of cold chain and program management skills and in the impacting of policy changes at the national level. CCCD has also assisted the FMOH, SMOHs and focus LGAs in conducting EPI coverage and Knowledge, Attitude and Practice (KAP) surveys.

Key policy changes that have occurred with the assistance of CCCD include the addition of a dose of OPV at birth ("OPV_0"); the expansion of the tetanus toxoid (TT) target population and vaccination schedule from two doses for pregnant women, to five doses total for women in the child bearing age (WCA); inclusion of yellow fever (YF) vaccine in the childhood vaccinations, insuring the policy of one sterile needle and syringe per dose of vaccine administered.

Observations

Since the launching of the accelerated EPI activities there has been the creation of new states and LGAs, having gone from 13 to 31 states and from 304 to 589 LGAs. In 1990 alone, six new states and 35 new LGAs were created. Each geopolitical change necessitates the formation of new SMOH and LGA EPI logistics systems (vaccine storage and distribution, supervision and outreach vaccination activities). Commodity needs at the SMOH and LGA level include cold chain equipment and transportation to conduct activities (supply distribution, outreach vaccination activities and supervision).

During the course of the present year (1992), vaccine shortages were experienced at the FMOH, SMOH and LGA levels. At several points in time one or another of the key vaccines was not available in the central or state vaccine stores (TT, DPT, OPV, Bacille-Calmette-Guerin {BCG} and measles vaccines). Investigations into reasons why this occurred were not fully clear. At the FMOH level, the vaccine shortages occurred due to non-payment of the vaccine bill. It was learned that a decision was made in late 1991 that the SMOHs were to pay for their vaccines for 1992. This decision was presented to the SMOH directors at the National Health Council Meeting but was not approved by the SMOHs. As a result they did not comply with the request and the money was not available for vaccine purchase until a special Presidential dispensation was obtained in the second half of 1992. Budgetary responsibility for 1993 vaccine purchase has not been clearly defined as yet.

Field visits to health facilities revealed that while the national policy was changed to expand TT coverages to a total of five doses for WCA, in practice most areas are continuing to give two doses to pregnant women. In some areas, third and fourth doses to pregnant women have been given but this is still in the early stages. One of the reasons cited for this has been the shortages of TT at all levels within the health care system so that priority is given to pregnant women.

Ordering of vaccine needs by SMOH and LGA personnel is not routinely based on population estimates, but rather on prior vaccination performances. Thus, if vaccination performances increase, there are often insufficient vaccines available at the respective vaccine stores. For those SMOHs that have been ordering vaccines based on population estimates, the population estimates used by the SMOH are based on projections from the 1963 census. In contrast, the FMOH is using the preliminary results from the 1991 census where the population figures are approximately 25 percent less than those from the projections.

Field visits revealed that many of the health facilities had implemented a policy where mothers were purchasing the needles and syringes for use in their children's vaccination. Reasons cited for this were the blunting of the needles available at the health facilities for vaccinations and an increased awareness and fear of transmission of the Acquired Immune Deficiency Syndrome (AIDS).

Health worker practices surveys were conducted in Barkin-Ladi, Pankshin and Nsukka LGAs in 1991. Results revealed that immunization practices were well performed: 97.5 percent-100 percent of HCWs were using a sterile needle; 98.5 percent-100 percent of HCWs were using a sterile syringe; 95.9 percent-100 percent gave the correct dose and 95 percent-95.9 percent applied the vaccine to the correct site.

Lessons Learned

The post-accelerated immunization activities vaccination coverage declines leads to a caution that progress made under program activities that rely upon heavy external assistance and are expensive to operate have a low probability of sustainability in the absence of donor support. A review of the trends in EPI coverages during the period 1986-1991 shows a continuing slow trend for increase in coverages over the period with an artificial increase in coverages during the period of time there was large external donor support.

Contributing factors to the slowing of extension of EPI activities include the continued geopolitical development with the formation of new states and LGAs and the need to develop the necessary infrastructure to support the activities. The EPI activities have been "on the ground" for 15 years during which the first seven years showed minimal expansion until the strategy was changed to focus on infrastructure development. While there is little debate that the accelerated activities did result in an increased community awareness of the need for immunizations, there is still the need for continued infrastructure development to occur to increase the access to services on a routine basis to a level that could sustain high vaccination coverages without significant external support.

Deficiencies in vaccine procurement procedures led to ruptures in vaccine stocks at all levels of attention (FMOH, SMOH, LGA and health facility). The observed "top down" decision that vaccine costs would come from the SMOH budgets without adequate lead time and participation in the decision making process led to insufficient funds available to purchase 1992 national vaccine needs. At the SMOH, LGA and health facility levels, additional stock ruptures

occurred due to lack of adequate projections of vaccine needs. Stock ruptures contribute to decreased coverages by producing "missed opportunities" for provision of services when there is contact between the health sector and the population.

Discussion of Sustainability Criteria

The Nigerian government has committed to the purchase of vaccines to be used in the EPI activities. There are still "growing pains" as to which "pot" the funds will come from (FMOH vs. SMOH allotments). The EPI activities are costly, not only for the vaccines, but more so for the costs of cold chain equipment and the extensive mobilization of health care personnel necessary for vaccine and supply distribution and to bring services closer to communities. SMOHs and LGAs are starting to budget for vehicles and their maintenance to allow for above activities. The finding that mothers are beginning to purchase needles and syringes for vaccination of themselves and their children demonstrates an acceptance of vaccination services as a necessity and a first step in cost recovery of EPI related activities.

The observation that the health care personnel are personalizing the decreasing trend in EPI coverages as their faults suggests a strong sense of ownership of the program. Supervision and in-service training of personnel in the cold chain and vaccination strategies is a priority of the program. Policy decisions taken within the past 18 months have been implemented (OPV_0 and $TT_{3,5}$) supporting a strong training component in place.

Thus the criteria of perceived effectiveness, integration and institution strengthening, constituency building through a process of mutually respectful negotiation, a strong training component, and ownership have all been met. The criterion of Local financing, community participation and private sector provision of services is starting.

Recommendations

1. **Reasons behind the observed vaccine shortages at all levels of attention should be investigated and corrective measures implemented to insure that stock ruptures do not occur.**

2. **There is the need for training of HCWs at all levels of attention (FMOH, Zonal, SMOH, LGA and health facilities) on planning for vaccine needs based on population to be served rather than arbitrary estimates based on past performances.**

CONTROL OF DIARRHEAL DISEASES (CDD)

Overview

The Nigerian Control of Diarrheal Diseases (CDD) program, initiated in 1985, utilizes a three-phased strategy:

(1) reduction in disease incidence through improved availability and use of potable water as well as improved environmental sanitation;

(2) home treatment with Sugar/Salt Solution (SSS) and other home fluids to prevent dehydration. Continued breast-feeding or early introduction of appropriate food to prevent malnutrition; and

(3) health facility treatment of dehydration with Oral Rehydration Salts (ORS) and mother education in SSS fluid preparation and administration.

With the assistance of CCCD, numerous CDD workshops have been conducted to train trainers on the clinical management of diarrheal diseases, to train CDD core facilitators, to train program managers and to train health workers.

Great numbers of Oral Rehydration Treatment (ORT) corners were installed and a Diarrheal Training Unit (DTU) has been established in three of the four national zones. Work is presently well underway for the establishment of the fourth DTU in Kaduna, Zone C. In addition, CCCD assistance has gone to the upgrading and equipping of ORT corners and DTUs.

CCCD has assisted at all levels in the development of workplans and policy statements. After a 1989 in-depth program review identified several problem areas, leaders felt the need to meet to review/revise the existing CDD workplan. Representatives from WHO, UNICEF, CCCD and FMOH sat down to review and modify the 1991-1995 National CDD Workplan. The revised workplan stated that its focus is on addressing the identified needs and key problems at the LGA level to better ensure correct case management at health facilities. Some planned activities included establishing a DTU in Zone C, training of trainers in one zonal DTU, DTU training for LGA level health workers, managerial skills training, clinical management training, conducting household and health facility based surveys, and reviewing the ORS supply and distribution.

Observations

CCCD's CDD component is well integrated into the Nigerian MCH. A national CDD policy exists, however it is unclear. The policy calls for ORS use at the health facility but in practice, SSS is given priority, mainly because ORS sachets are not often available at health facilities

National, state and local workplans have been developed for CDD emphasizing large numbers of training workshops; giving little emphasis to the supervisory system necessary to ensure quality or impact of the training CDD appears to have suffered by the lack of emphasis placed on it while other health interventions, such as EPI, were receiving significantly more resources, especially funding and technical input.

All of the health facilities visited had some form of an ORT corner operating. However, the quality of the services witnessed and the fact that most facilities did not have ORS in stock, lead one to question whether the national CDD policy can be effectively implemented.

The preventive phase has seen little action to date. Health education targeted at the prevention of diarrheal episodes has been limited. The community based treatment of diarrhea through the use of SSS has only been targeted in a secondary manner, whereas the main focus has been on the health facility treatment of diarrhea.

Diarrhea cases continue to be one of the most often seen at Nigerian health facilities. The perceived need for diarrhea control is apparent, but the perceived effectiveness of the present policy is not wholly apparent to community members at the local level.

Numerous training workshops have been conducted for CDD clinical case management, supervisory skills for mid-management, program managers, and core facilitators, all of which are well integrated into the existing MOH training structure. In spite of these workshops, many of the problems identified by the 1989 CDD In-depth Program Review continue to impede further advancements in CDD. The 1989 Review found that:

(1) Many health centers and hospitals did not have ORS sachets;

(2) Only about 40 percent of health centers and hospitals used ORS/SSS as a first-line treatment;

(3) There was a harmful overuse of drugs used for treatment;

(4) Acceptable health worker performance at facilities was disappointing, with most cases of diarrhea being improperly managed.

Team observations of visits to health facilities in five states echo the Review findings.

Another area of concern in terms of training is the educational messages given to the mothers who bring their children in for treatment. Health workers who were questioned routinely explained that SSS is prepared and then given to the child. Rarely was there mention of having the mother repeat the preparation process, or recite it. Also, health workers pointed out that they advised mothers to return after 2-3 days if the diarrhea continued. Very little in the way of health education messages seem to be conveyed to the mothers. In a survey conducted in Suleja, Niger State in November 1991, 57.7 percent of the 293 mothers surveyed gave teething as the reason for the child's diarrhea, 7.2 percent identified contaminated water, and 31.7 percent did not know the reason (see Figure 1)[1].

The problems of ORS sachet supply and distribution continue to plague the CDD program. Not only are records at all levels poor (reflecting stock balances when none exist), but when ORS sachets are in stock, state and LGA officials are said to distribute the same number of sachets to each LGA or health facility, regardless of size of population. In Plateau State, one LGA official stated the last supply (200 sachets) of ORS sachets was received over three months

[1]Figures for this section appear at the end.

ago. Upon arrival at the state distribution site, the official was told the state is out of stock, and Kano, the regional supply headquarters, is out of stock as well.

Since facilities do not usually have adequate amounts of ORS in stock, health workers have relied on SSS as a first line treatment. And since SSS is not perceived by the health worker nor the mother as medicine, there is a felt need to give additional medication. As noted by reviewing health facility registers, some of the drugs used for treatment of diarrhea include septrin, flagyl, vitamin B complex, paracetemol, and cough syrups.

Data relating to CDD are hard to locate at the state and local levels. Reports including information on the number of cases of diarrhea seen, how treated, whether referrals occurred, the number of recovered cases and the number resulting in deaths were difficult to obtain from state and LGA offices. When returns are collected by the state, the LGA CDD managers rarely see the data that has been compiled, thus rarely use them to make policy decisions at the LGA level. The same is true at the state level. The new PHC sentinel surveillance system, which includes information on CDD, has recently been installed. The system is, however, experiencing growing pains and it will take some time before good data becomes available.

Figure 2 shows the trends in morbidity and mortality due to diarrheal diseases since the implementation of the program activities in 1985 from data derived through sentinel hospital reporting. During the first year following implementation there was a major decline in the case fatality rate (CFR) of diarrheal diseases in the less than five year old population. This improvement has leveled off since the first documented decline and no further progress has been seen

Of greater concern are the findings presented in Figure 3 showing the CFRs associated with the cholera activity in 1991. The observed CFR of 13 percent should be contrasted with the Latin American experience with cholera in 1991 where the observed CFR was less than 1 percent. The success in mortality reduction was attributed to well functioning CDD programs where introduction of cholera into an area was immediately followed by increased availability of ORS packets and community access to ORS as a first line treatment with the onset of symptoms. The observed absence of ORS packets at the health facilities combined with the lack of community awareness of the use of ORS probably contributed to the high CFR observed.

Lessons Learned

The high CFR observed during the cholera epidemic is an indication that the CDD program has not been effectively implemented in the country. The lack of availability of ORS packets in the health facilities on a routine basis works against the implementation of the policy to provide ORS as treatment by the Health Care Workers (HCWs).

An assessment of process indicators for evidence of strong commitment to the implementation of activities can be misleading. Extensive workshops have been conducted since the beginning of the CDD program, yet evidence is there that very few of the policies have been enacted.

The existing levels of ORS packets within the country are insufficient to meet the demands created by routine diarrheal incidence and special demands created when there is cholera activity. The concentration of efforts on the use of SSS has led to a virtual standstill in local production.

Discussion of Sustainability Criteria

The lack of availability of ORS packets at the health facility level with resultant reliance upon SSS for management of diarrheal cases has resulted in doubts on the part of the community and the HCWs of the effectiveness of the program policies and guidelines. Observations of the lack of attention paid to patients being treated in the ORT corners once the SSS has been prepared suggests weaknesses in the integration of the program activities at the operative level. Weaknesses in the institutional strengthening component are observed through the lack of supervisory activity aimed at improving HCW service delivery.

The policy of the government to rely more upon donated packets of ORS and therefore provide the medication for free probably contributes to a decreased perception of effectiveness. While there appears to be a strong training component as evidenced by the quantity of workshops conducted, the lack of implementation of the guidelines leads one to question the quality of the training to date.

The process of constituency building through a process of mutually respectful negotiation has been weakened by the difference in opinions between external CDD personnel from all agencies and the FMOH on the importance of ORS packets as a treatment modality.

Recommendations

1. **The absence of a real political commitment to CDD has slowed its progress. Unclear guidelines coupled with a lack of commitment from policy makers at all levels, but especially at the national level, have kept the CDD program from excelling. In spite of large numbers of training workshops, ORS sachets can not be found at the end of the line and HCWs are still mismanaging diarrhea cases. CCCD should focus all efforts into getting a strong national political commitment for CDD and the use of ORS at the health facility.**

2. **The national policy already calls for ORS use in the health facility, but without the guaranteed availability of ORS sachets, this policy can not be executed. CCCD should strongly encourage the re-establishment of local production of ORS sachets. The goal of becoming a regional supplier for West Africa should be considered.**

3. **Quality CDD health education and case management training is absolutely necessary in order to ensure appropriate treatment of diarrhea at the health facility and in the home. CCCD should concentrate more resources in support of health education to assist in the control of diarrheal diseases. Emphasis should be placed on quality training followed up by supervisory visits and continued education.**

NATIONAL MALARIA CONTROL PROGRAM

Overview

Recognizing that malaria continues to be one of the leading causes of morbidity and mortality in Nigeria, assistance within the malaria control program activities has been a priority intervention for the CCCD project. Close collaboration between the National Malaria and Vector Control Division (NMVCD) and the CCCD project was established.

CCCD assistance began in 1987 with conducting of training course in malaria surveillance methodologies and a series of technical conferences to review the efficacy of malaria therapy in country. Extensive efforts were made to collect data that would be used in the formulation of malaria treatment and control policies. O.R. studies on topics related to malaria treatment and control were priorities for the initial years of the O.R. assistance.

CCCD supported the development of a national guidelines for malaria treatment and control using the findings of the O.R. studies in the formation of these guidelines. Assistance was given to the development of a hospital based sentinel surveillance system for the monitoring of malaria cases and deaths as well as developing a system to monitor the spread of chloroquine-resistant malaria in the country. Initially the hospital based sentinel surveillance system was under the aegis of the NMVCD and separate from other HIS related activities. In 1991, the routine reporting of morbidity and mortality due to malaria was institutionalized as part of the overall HIS activities.

There is an ongoing study on the effectiveness of insecticide impregnated bednets (mosquito nets) supported by CCCD to address the issue of reduction of vector/human contact as a means of reducing the morbidity due to malaria.

Observations

The results of the O.R. studies on treatment efficacy and chemoprophylaxis during pregnancy were critical in the development of national guidelines for the management of malaria/suspect malaria directed at reducing the mortality due to malaria (Figure 4).

The investigation of quality assurance issues related to locally available chloroquine lead to the recognition of the need to have better quality control of pharmaceuticals especially in the light that the suboptimal doses were potentially contributing to the development and extension of chloroquine resistance.

Field visits revealed that while the national guidelines for the appropriate case management of suspected malaria had been widely disseminated, the translation into action by the HCWs was still lacking. Many HCWs were continuing to use injectable chloroquine and other non-chloroquine antimalarials in the treatment of uncomplicated suspect cases. The change in recommendation to use chloroquine for parasite elimination and then prophylaxis during pregnancy was still questioned and therefore not implemented.

At the local level, in one of the CCCD focus states, the SMOH malaria coordinator had participated in training of trainer (TOT) courses for malaria guidelines and treatment practices and three LGAs had conducted LGA specific workshops. Two of these LGAs were CCCD focus LGAs and field visits revealed that the HCWs were implementing the guidelines appropriately.

Health worker practices surveys for children with fever conducted in Barkin-Ladi, Pankshin, and Nsukka in 1991 revealed: 12 percent-56.8 percent took the child's temperature; 56.8 percent-92 percent gave chloroquine, 27 percent-55 percent gave chloroquine injections; 8 percent-10.8 percent prescribed three days of chloroquine treatment; and 0 percent-24.3 percent gave the child a sponge bath.

Lessons Learned

The lack of translation of policy and guidelines into actual practice by the HCWs most probably reflects deficits in the training and supervisory components of the malaria control program combined with the lack of dissemination of scientific data supporting the policies and guidelines. The observation that where LGA specific training of the HCWs was conducted the national guidelines were easily implemented.

Discussion of Sustainability Criteria

There is little debate that there is a perceived need for effective malaria control strategy as it continues to be a leading cause of morbidity and mortality. The use of data from O.R. studies has resulted in the acceptance of the efficacy of recommended treatment and chemoprophylaxis at the national policy maker level. There are still deficiencies in acceptance of this at the SMOH policy level and the HCW program implementor level. To address the issue

of morbidity reduction, economic considerations place serious constraints as the cost of vector reduction/elimination is out of the reach of both external funders and FMOH capacities.

Integration and institutional strengthening has occurred at the FMOH/central policy making level and for collection of HIS related data. There are still weaknesses in the integration of activities at the SMOH and LGA level. There is evidence that good training of the national guidelines can result in HCW behavioral change and acceptance of recommendations. Constituency building at the national level has been achieved and there is a sense of ownership for policy decision making and program activities.

Recommendations

1. **As malaria continues to be a major contributor to maternal and childhood morbidity and mortality, increased efforts into the implementation of the mortality reduction strategies are justified**

2. **To address the issue of morbidity reduction, continued research into locally acceptable and affordable means of reducing human/vector contact should be supported.**

HEALTH INFORMATION SYSTEMS (HIS)

Overview

During the initial assessment of the health situation in Nigeria as a preface to the development of the ASCI-CCCD project, the paucity of good reliable health related data was noted with acknowledgment of the need for special studies to identify morbidity and mortality burdens as well as programmatic coverages.

Assistance within HIS activities began in mid-1987 with the arrival of microcomputers for used in the CCCD offices around Lagos and in Kaduna. Early activities included the hiring and training of computer specialists and assistance in the developing of EPI related HIS components including computerization of vaccination activities and improvement in the existing EPI target disease sentinel reporting system. CCCD assistance was also provided for EPI/CDD coverage and KAP surveys.

The CCCD assistance has focused on the provision of hardware and software for the development of HIS activities at the FMOH level and in the CCCD project focus SMOHs and the concomitant training to develop data processing skills.

Since early 1991, a CCCD Epidemiologist has been serving as a long term technical assistant (TA) to further the development of HIS activities. Within the framework of the FMOH, there are three FMOH Departments with designated HIS activities: (1) the Department of PHC

(DPHC) Monitoring and Evaluation (M&E) Division; (2) the Department of PRS (DPRS); and (3) the Department of International Health and Communicable Diseases (DIHCD) Epidemiology Division.

The PRS system is presently in the design stage and will have the assistance of a World Bank loan. Plans include a consolidation of the FMOH other Department's M&E activities.

The CCCD assistance has been primarily to the HIS activities within the M&E Division, DPHC and the Division of Epidemiology, DIHCD. Under this assistance there have been several different activities that can be subdivided into Disease Surveillance and Notification (DSN) activities, a specific PHC HIS and a monitoring and evaluation of service provision. There are four different HIS activities being assisted by the CCCD project:

(1) PHC M&E system (Division M&E, DPHC);

(2) DSN routine monthly system (Division Epidemiology, DIHCD);

(3) Sentinel surveillance system (Division EPI/CDD/ARI, DPHC); and,

(4) Medical records reporting system (Division Epidemiology, DIHCD)

Activities within the DSN system have included the further improvement of a 40 disease notification system for monthly reporting by LGA. Software development for entering and analyzing the data by SMOH and FMOH level personnel was assisted under the CCCD project ("EPID").

To further improve the quality of disease morbidity and mortality monitoring by SMOH and FMOH personnel, the existing sentinel surveillance system was modified to include 150 sentinel sites nationwide. In the CCCD focus state, six (6) reporting institutions per state were included. Diseases monitored include the EPI target diseases (measles, pertussis, diphtheria, poliomyelitis, tuberculosis and tetanus), diarrheal diseases, malaria, cerebrospinal meningitis (CSM) and acute respiratory infections (ARI). Software development for data entry and processing was developed as part of the EPID system.

Additional efforts to improve disease morbidity and mortality trends have included the computerization of inpatient and outpatient visits at eight (8) University Teaching Hospitals. Data includes age, sex, length of hospitalization, diagnosis and outcome using the international classification of disease (ICD) codes. This activity has received both software and hardware support.

Observations

CCCD assistance in the development of a National Epidemiologic Bulletin and the development of an SMOH epidemiologic bulletin (Niger State) and the preparation and

publication of an SMOH annual statistical report (Plateau State) has led to the recommended feedback instruments of multiple evaluations and project design documents.

Visits to the focus SMOHs revealed that the state personnel were involved in the analyses of state specific data for the first time in a consistent manner and were using their data for program monitoring. One example was a table of EPI coverages by LGA was prepared and distributed to LGA Chairmen. Investigations into reasons for low coverages were conducted and revealed that the EPI vehicles were often not available to conduct EPI outreach activities. This led to the "return" of the EPI vehicles for program activities.

Reporting completeness appears to be improving with 78 percent of expected reports received by the FMOH HIS unit in 1991. Visits to the field in early October found that most health facilities had already completed and submitted their September reports.

The CCCD project personnel have been approached by the Catholic Hospital's Association of Nigeria (CHAN) to help them develop an HIS consistent with that of the FMOH. This is a major step in the incorporation of information from the private sector into the national HIS.

In focus states, the SMOH HIS personnel have been approached by personnel from hospitals (others than the sentinel University Teaching Hospitals) requesting assistance in the computerization of their discharge diagnoses to analyze disease specific trends.

The assistance to the M&E Division, DPHC has several components. There is a PHC monitoring system using NICARE (a software package) that is being developed jointly with the Family Health Services Project (FHS) and CCCD through collaboration with Management Sciences for Health. The system collects PHC program data by LGA. There are eight booklets and summary reporting forms to be used by each health facility in the LGA:

(1) village health worker performance

(2) outpatient and tracer diseases

(3) maternal and child health

(4) family planning

(5) EPI antigens administered

(7) environmental health

(8) growth monitoring

The health facility personnel are responsible for consolidating the daily recorded information into a monthly report form to be submitted to the M&E Division. The LGAs have been provided with starter booklets but are expected to reproduce copies for all health facilities in their jurisdiction.

Visits to the field revealed that the health facilities were just starting to use the booklets but not all facilities at the periphery had received them as yet.

Another component of the HIS activities has been the assistance in the development of the health facility assessments to be conducted in the 52 1986 model LGAs.

In addition there was assistance to develop baseline data and monitor PHC program activities within LGAs. The information includes data from:

(1) Facility-Based Assessment Surveys

(2) Community KAP Surveys

(3) Logistics and Quality-Assurance reviews

(4) 100 Household surveys

(5) Routine HIS reporting systems

Data from these activities will assist LGA personnel to establish priority areas for action; develop short- and long-term targets for improving services and monitor progress. At the time of this team's visit, three surveys had been completed with results released and a fourth was completed during the period of the strategy assessment.

At the time of this assessment, a consultant was in country working on the design of software to be used for the development of a management information system (MIS) for PHC commodities. Information on the inventory and distribution of commodities related to the CCCD supported PHC program activity is not always readily available.

Lessons Learned

The introduction of computer technology and training in its use has taken over and been fully accepted at all levels provided with the computers. For the first time States are analyzing their own health related data and providing feedback to the reporting units. The provision of feedback has led to policy decisions to improve the delivery of PHC services.

While Nigeria is presently undergoing the transition from a data poor environment to a data rich environment there are deficiencies in numbers of trained personnel to analyze, interpret and respond to the data generated to improve the health situation in the country. The SMOHs

do not have many trained epidemiologists. During the field visits it was learned that there had been measles activity in some of the focus LGAs and states. In one of the areas, nine of 11 reported cases (82 percent) had a history of vaccination. In another area 40-60 percent of cases had a history of vaccination. These observations need to be further investigated to verify if there has been a cold chain break in an area or if the 40-60 percent vaccinated cases is consistent with an expected vaccine efficacy of 85 percent in an area with 90 percent coverages.

While computer literacy has been fostered under the CCCD assistance, hardware maintenance skills have not as yet developed and the recipients of the hardware are very much dependent upon CCCD staff for maintenance and repair.

Discussion of Sustainability Criteria

The spontaneous solicitations for assistance in developing software for analyzing disease trends from health care workers at non-sentinel hospitals and the private sector CHAN is a strong indication of the perceived effectiveness of the HIS. The production of feedback instruments is indicative of perceived need for the data generated through the system. The CCCD assistance in HIS activities has a very strong training component making all recipients of hardware computer literate.

The FMOH and SMOHs provided with the hardware were purchasing the necessary commodities for continued use of the equipment (diskettes, print cartridges and computer paper) and were requiring that all outside persons choosing to use the systems for their analyses were required to provide their own supplies.

Thus the criteria of perceived effectiveness, integration and institution strengthening, constituency building through a process of mutually respectful negotiation, a strong training component, and ownership have all been met. The criterion of Local financing, community participation and private sector provision of services is starting.

The HIS will only be sustainable if there is a cadre of personnel capable of using and interpreting the data generated and responding to them. In addition, a cadre of personnel capable of responding to hardware maintenance and repair is crucial to continuation of activities.

Recommendations

1. **The country is ripe for an FETP type training program to continue capacity building. This is necessary for further development of the HIS and strengthening epidemiologic surveillance capabilities. The trainees could come from the cadre of SMOH Directors of Communicable Diseases to return as state epidemiologists and from the zonal offices to provide zonal epidemiologists to assist the states.**

2. **Consideration should be given to increasing CCCD assistance within the national HIS activities to provide training of non-focus SMOH personnel in the HIS data processing.**

3 **Further training of personnel at FMOH and SMOH levels to develop local hardware and software support for the HIS should be supported by the CCCD project.**

OPERATIONS RESEARCH

Overview

The ACSI-CCCD assistance in Operational Research (O.R.) activities began in 1987 with the formation of a Research Review Committee. Committee members include representation form FMOH and Zonal officers, Ministry of Science and Technology and University Medical Schools. At that time, the CCCD Epidemiologist was designated the Chairman of the Committee. The purpose of the assistance was to conduct studies that would lead to improvements in the implementation of PHC Child Survival related program activities and to strengthen research capabilities of Nigerian investigators. At the inception, guidelines for protocol preparation were prepared and have undergone periodic revisions and updates. Technical assistance was also provided through a training course on research methods held in 1988.

CCCD assistance to the O.R. activities has included the funding of approved studies with an initial proposed budget limit of US $5000 per study. Initial funding was limited to ₦20,000 but with devaluation of the Naira, the amount had increased to the present level of ₦50,000.

Upon the departure of the CCCD Epidemiologist, the position of Chairman was assumed by a Nigerian National and quarterly meetings of the Research Review Committee have continued.

Observations

During the latter part of 1990 and throughout 1991, while the Research Review Committee continued to meet, there was a decrease in the number of protocols submitted for consideration and in the completion rate of ongoing studies. This finding was noted at the January 1992 Committee meeting and the committee increased their supervisory and protocol solicitation activities resulting in a marked increase in both protocols submitted for review and in studies completed.

Meetings of the Committee are planned as one day meetings with an average of eight proposals on the agenda for review and discussion. At the August 1992 meeting there were 16

protocols submitted of which only 10 could be reviewed. As of the August 1992 meeting of the Research Review Committee, 42 proposals have been funded of which 20 (48 percent) have been completed with reports submitted. One study was terminated after review by the committee.

A review of the impact of the O.R. activities support to date reveals that several of the studies funded under this component have resulted in National policy changes. Figure 5 presents examples of studies leading to policy changes that were conducted as par of the CCCD supported O.R. activities.

One of the strong criticisms encountered about the O.R. activities is the lack of government contribution to the studies. One thing that has not been taken into serious consideration is the amount of in-kind contribution on the part of the Government and the funded researchers as well as out of pocket expenses by the researchers. At the present exchange rate, the funding of studies at ₦50,000 amounts to US $2173 per study. This amount is way below the actual minimal cost of most studies. Researchers are contributing their time with their institutions paying their salaries, the use of personnel means of transport, borrowing of computer facilities for analyses, etc. Thus there is ongoing local and government contribution to the O.R. activities.

Prior evaluations highlighted the need to integrate the O.R. activities into the FMOH. This was accomplished with the Research Review Committee Chairman as a member of the DPRS hired (effective December 1991) specifically for that purpose. Other committee members include zonal PHC coordinators and other members of the DPRS and the DPHC.

Several evaluations of O.R. activities in country have identified the lack of coordination by the FMOH of O.R. research activities supported by other projects (Family Health Services - FHS) and other agencies (UNICEF). In response to this, the FMOH convened a meeting in July 1992 "National Consultative Meeting on Health Systems Research in Nigeria in the context of Primary Health Care". Attendees included participants from Universities, Schools of Health Technology, SMOHs, LGAs, WHO, UNICEF, USAID, UNFPA, UNDP, World Bank and ODA. As a response to the meeting, the FMOH has prepare a five year workplan "National Health Systems Research Program" 1993-1997 under which there is total coordination of all O.R. activities within the FMOH. This plan is under the final stages of revision (to be submitted formally to the Minister in the last week of October) and was prepared by the DPRS in collaboration with the DPHC.

Other criticisms of the O.R. activities have surrounded the lack of dissemination of results. This is seen at present where personnel in the field question some policy changes in Malaria control program activities without having seen the studies that support these policy changes. The Committee has taken this into consideration and has planned for a national dissemination meeting to be held in January/February 1993 with participation of researchers, FMOH and SMOH personnel.

Lessons Learned

While the O.R. activities had been felt to be very much driven by the external TA, the Committee has continued to meet and has been well integrated into FMOH activities and priorities and continues to flourish with minimal external TA.

Most recommendations related to problems identified in the O.R. component during evaluations have been rapidly addressed by the Research Review Committee and the FMOH.

Discussion of Sustainability Criteria

While the FMOH has not as yet officially contributed to the financing of O.R. studies, there has been significant progress in this component of the CCCD supported activities towards a sustainable program. The FMOH has been contributing in kind with respect to personnel salary and time and has hired a person to serve exclusively as Chairman of the Research Review Committee.

Committee meetings have continued in the virtual absence of external TA. Contact with the potential research community has continued as evidenced by the continued submission of protocols for consideration. The FMOH has convened a meeting to coordinate all research activities being supported through FMOH activities. The FMOH has prepared a five year workplan for a National Health Systems Research Program recognizing formally the need for O.R. to support ongoing PHC activities.

Thus the criteria of perceived effectiveness, integration and institution strengthening, constituency building through a process of mutually respective negotiation, and ownership have all been met. The criterion of Local financing, community participation and private sector provision of services has been partially met with the contribution of private sector time and services to conduct these studies and the provision of FMOH personnel salaries to keep the Committee functioning. The criterion of Strong Training Component is met through the past conduct of running a research methodology workshop and the identified workshops for the five years (1993-1997).

Recommendations

1. **Continued support should be given to the O.R. activities. Assistance in identifying and developing sources of local funding for research studies should be conducted to allow for increasing assumption of the costs of continuing research activities by the FMOH and possibly private sector sources.**

Figure 1

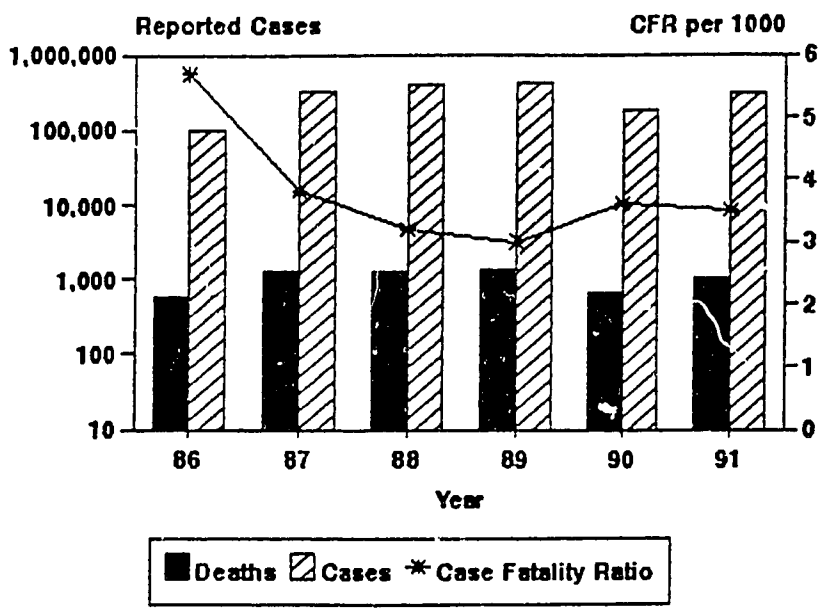
Diarrhea: Mothers' Knowledge
Suleja, Niger State, November 1991, Nigeria

	Mothers' (%)
Reason for child's diarrhea (293)	
Teething	57.7
Contaminated water	7.2
Don't know	31.7
Source of information (224)	
Clinic	45.5
Radio/TV	34.8
Friend	10.7
Village Health Worker	7.1
Educational Poster	0.4

CCCD Project Office

Figure 2

Reported Cases and Deaths due to Diarrhea, Hospitalized Children < 5 years, 1986 - 1991, Nigeria



Source: EPI/CDD Division, FMOH
CCCD Annual Report

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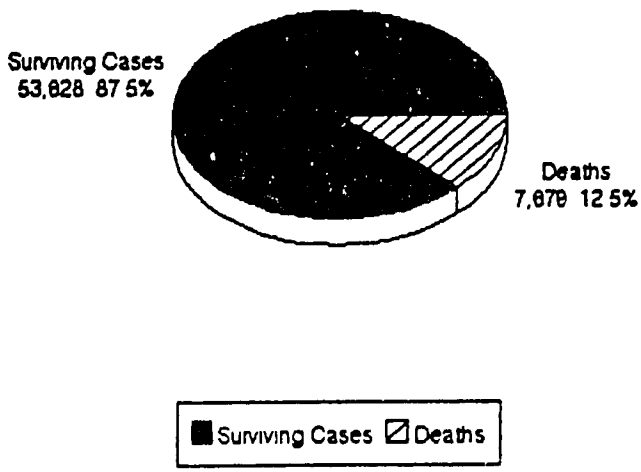
Figure 3

Reported Cholera Cases and Deaths
All Ages, Jan.- Dec. 1991, Nigeria



Source Epidemiology Division, FMOH
CCCD Annual Report

Figure 4

Studies Supported By O.R. Component That Have Lead To Policy Changes

1. Evaluation of Relative Efficacy of Antimalarial Drugs in Children Under Five Years of Age -- Dr. A. Sowounmi.

2. In vivo and In Vitro sensitivity of Plasmodium Falciparum to Pyrimethamine in Pregnant Women in Ilorin -- Prof. O. Ohunbode, Dr. B.L. Nahlen.

3. Effect of Malaria Chemoprophylaxis on the Outcome of Pregnancy in Zaria -- Prof. Lege-Cgyntoye, Dr. J.O. Emembolu.

4. Quality Assurance Testing of Chloroquine in Eastern Nigeria -- Dr. J.E. Ogbuokiri.

5. In Vivo Study of the Sensitivity of Plasmodium Falciparum to Pyrimethamine in Pregnant women in Enugu -- Dr. G.C. Iloabachie.

6. quality Assurance Testing of Chloroquine Tablets in Northern Nigeria -- Mr. T.A.S. Midala

Resultant Policy Changes:

1. Recommendation of chloroquine treatment dose of 25 mg/kg to be given over three day (10 mg/kg, 10 mg/kg, 5 mg/kg)

2. Recommendation of discontinuation of pyrimethamine for malaria chemoprophylaxis with substitution of regiment of initial chloroquine treatment (25 mg/kg over three days) followed by weekly chloroquine (5 mg/kg).

3. Quality assurance regulations for chloroquine produced for sale in Nigeria.

APPENDIX H

TRAINING REPORT

AFRICAN CHILD SURVIVAL INITIATIVE (ACSI) - COMBATTING CHILDHOOD COMMUNICABLE DISEASES (CCCD) PROJECT, SUSTAINABILITY ASSESSMENT, NIGERIA, 1992

Training and Health Education Report

Background

ACSI-CCCD supported the establishment of a Continuing Education Program (CEU) in nine focus states, starting with the Niger State Continuing Education Unit in 1989 - four States have completed the establishment of a CEU within the premises of the State School of Health Technology, five States are in the process of establishing a CEU. ASCI-CCCD support has been provided as a response to the growing need for improved technical, managerial and supervisory skills among PHC Managers and Facility Health Workers. Prior evaluation and needs assessments conducted during early stage of the project have clearly indicated the need to improve health workers performance, supervision and management of logistics system, in service delivery for diarrheal case management, immunization and malaria treatment, as well as mother's education.

In order to effectively meet training needs, a standard strategy has been developed and implemented with technical assistance input.

Several evaluations have documented a positive impact of in-service training model on both supervisor and health workers performance.

Project Related Criteria that Influence Sustainability

Training has been given a high priority in the implementation of the FMOH Primary Health Care Policy. A manual "Guidelines and Training Manual for the Development of Primary Health Care System in Nigeria" has been produced and disseminated to all SMOH, LGAs and different schools of health technology by the FMOH division of training and manpower development. The FMOH division of manpower development and training is responsible for the development, adaptation and revision of training materials; thus, ensuring that training materials are available throughout the country.

ACSI-CCCD and the FMOH have realized that training is essential for the continued development and sustainability of the PHC System. The need for training at all levels is amplified first, by the decentralization of responsibility for PHC from the State Ministries of Health to the LGA Health Departments and second, by the recent creation of new States, LGAs and districts.

ACSI-CCCD has supported the development and dissemination of program guidelines and training of program coordinators at national and state level.

ACSI-CCCD has made significant steps in ensuring the sustainability of program management, supporting the establishment of Continuing Education Units to address the pressing training needs at the State and LGA level and hereby strengthen institutional capacities.

The following indicators have been found to drive the project towards sustainability.

1. A training strategy for strengthening Primary Health Care and the specific programs related to the ACSI-CCCD interventions has been developed, approved and implemented in all CCCD Focus States (9).

The goal of the strategy is to develop and institutionalize a system of continuing education for PHC workers, to develop the capacity of the continuing education unit (CEU) staff for needs assessment, planning implementation and evaluation of training programs, to improve the managerial, technical, supervisory, and training skills of LGA supervisors as well as all categories of health workers in each State.

The continuing education system is addressing crucial performance areas for PHC workers including the LGA/PHC coordinator, the EPI/CDD manager, and the Head of Health Facility Unit. Ten training modules have been developed based on the FMOH adaptation of the WHO supervisory skills manuals.

The training programs are based on training needs assessment addressing EPI, Malaria, CDD, ARI and supervision

2. A supervisory mechanism is in place to follow up training of health facility staff and village health workers. Two days/month supervisory visits are provided by CEU trainers who assess areas that need reinforcement. After six months of assistance, the responsibility for supervision shift to the LGA PHC Coordinators and State PHC Directors.

   Supervision, however seems limited to only training activities. Supervision as a mechanism of strengthening the management of health services is poorly perceived, implemented, and evaluated by mid-level, State, and LGA Health Officers. A supervisory system for each level has been conceptualized by the FMOH but not yet fully understood and implemented at any level of the system

   When interviewed on the lack of supervision, the Federal, State and LGA PHC officers stress logistical problems as primary constraints to supervision. ACSI-CCCD recently provided a new Cherokee Jeep to three Federal Offices, each State, LGA and CEU. But at any level, a clear and achievable supervisory strategy has not been developed and implemented. Occasional or informal visits are perceived as supervisory visits. Barkin-Ladi LGA represents the only exception, using a comprehensive and well documented supervisory mechanism for follow up of training activities and strengthening of management of health services. Barkin-Ladi LGA is implementing a comprehensive and integrated approach to PHC through the Bamako Initiative strategy. Team work and management of services are valued by very committed LGA leaders and health workers. The need to determine and implement an effective supervisory mechanism has become increasingly important with the creation of new States, LGAs and districts.

3. An assessment of training needs is conducted in each focus LGA by CEU staff. Training program development and pre-post evaluations are based on facility needs assessment surveys which address health workers performance skills for conducting EPI, CDD, Malaria, ARI and supervisory programs. Niger State, with its three years implementation of continuing education, conducted a post CEU training health facility survey in July 1990. Surveys results revealed a positive impact

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of its program on both supervisors and health workers performance. Supervisors were shown to have improved in more than five performance indicators and health workers showed improvement in immunization practices and in the treatment of diarrhea, and malaria as well as education of mothers concerning SSS mixtures.

In 1991, facility based assessment surveys conducted in Plateau and Enugu States indicated significant improvement in technical skills related to immunization and some problems related to case management of children with diarrhea and patient education practices.

4. In the three CEU visited, trainers are qualified to train and to manage and evaluate training activities Trainers attended a week long orientation in Niger State followed by a two week training of trainers workshop in Lagos directed by the ACSI-CCCD training consultant. The workshops were designed to develop training skills and familiarize the CEU staff with FMOH training materials on immunization, diarrhea and malaria.

5. Initial training reinforced by follow up technical assistance at CEU have quickly improved skills in training program development, supervision, health facility surveys and planning.

   Trained LGA Health Trainers are able to train other health workers in their respective catchment area More than five hundred facility health workers have been trained by 66 LGA trainers.

6. CEUs are physically situated in State schools and Health Technology which are FMOH official structures in charge of providing needed pre-service training for PHC. The ACSI-CCCD intervention's curricula is integrated into the School of Health Technology Training Program for Community Health Extension workers. Trainers of the School of Technology participate as Core Trainers for the CEU Mutually, trainers of the CEU have training positions at schools of Health Technology

   The CEU is conceived to complement pre service training. However it has been limited to providing training to PHC extension workers. Medical, nursing and management staff are not yet targeted by CEU, despite the perceived needs.

   The fact that the CEU is actually a separate unit within the School of Health Technology is not fostering sustainability.

Non-Project Related Criteria that Influence Sustainability

The most important non-project related criteria affecting sustainability for training is the rapid and extended decentralization system in Nigeria with the new creation of States, Zonal PHC Offices, LGA and districts. All decision makers interviewed at State and LGA level recognized this new policy as a threat to sustainability in the short run, given the increasing needs for manpower development. On the other hand, frequent turnovers in leadership, particularly at LGA level creates a need for reinvesting in training to orientate new LGA leaders. These changes are hampering on one hand, ACSI-CCCD efforts in supporting training and on the other hand, are increasing needed resources to provide proper training.

An important resource related factor is the weak administrative capacity of the FMOH to disseminate training materials and revised policies to Schools of Health Technology and other educational institutions. At FMOH and SMOH, there is no systematic approach to assure that pre-service learned skills are maintained and that new skills learned are implemented.

Lessons Learned - Progress Towards Sustainability

A. Project Sustainability in Nigeria:

Looking at ACSI-CCCD training strategy in Nigeria, we have learned three lessons:

1. Effective use of data from a good training model can create perceived effectiveness, institution strengthening, cost sharing and a sense of ownership: At the state level, the CEU Training Model of Niger State is effective, simple and comprehensive enough to create effectiveness at the health facility level. Data generated show improvement of health workers performance six months following continuing education training. The difference in health workers performance between trained and untrained personnel has been utilized to augment decision makers' interest in implementing the same model in Lagos, Anambra and Plateau States The five other ACSI-CCCD Focus States will also most likely decide to implement a similar model.

   In adopting the continuing education model, States have moved (1) to develop continuing education policy, (2) to integrate the CEU into the structure of Schools of Health Technology, and (3) to provide manpower, equipment and some financial support.

   In the three States, with a CEU functioning, great attention has been received from the health commissioner, all senior level officers and program managers. The CEU are integrated into the Division of Community Health, which is in charge of coordinating PHC training at state level. Contributing to institution strengthening, a continuing education committee (CEC) has been created in each of the three states with a functioning CEU. The functions of the CEC are (1) to collaborate with the FMOH and SMOH, as well as with CCCD and other donor agencies, to improve the technical, supervisory and management skills of all health workers in the State, (2) to support the mechanism for the continuing education of all categories of health workers in the State, and (3) to give guidelines for prioritizing the components of PHC in accordance with state health policy. The full effectiveness of CEC activities is yet to be demonstrated. However in Plateau State the CEC has positively influenced a SMOH decision to provide three additional support staff to the CEU at Zawan All three States with a functional continuing education unit have budget provisions, with small variations from one state to another. In Niger, a CEU line budget is not explicit but in Plateau a budget for the CEU has been developed and submitted to the State Health Council

   Cost sharing is also effective at the LGA level. LGA's are contributing in covering transport allowances to training participants and in providing resources for training at LGA level.

   All the interviewed decision makers, program managers, CEU staff and LGA leaders agreed that the State and the LGA are able and willing to increase progressively their share for continuing education cost They also agreed that the phasing out of CCCD will not menace the survival of

the CEU because a cost sharing mechanism has been established between the States and LGAs. Another alternative would be to decentralize all follow up training to LGA level at the expense of LGAs, with the advantage of cutting training allowances and transportation costs.

2. The necessity to maintain and reinforce acquired skills through a regular supervisory system and to maintain availability of basic supplies. It is not expected that in the absence of available basic supply and supervision, the health workers will maintain and upgrade their performance. The 1991 health facility surveys in Plateau and Enugu States show insufficient health worker practices in diarrheal case management (weighing, checking skin turgor, and mother's education), in malaria treatment, and in patient education.

   Weaknesses in the areas of commodity management have been observed by the team at State, LGA, and health facility level. There is an urgent need for management training at all levels. Regular supervision based on utilization of supervisory checklists is one crucial method to help managers, trainers and health workers maintain and upgrade practices and management skills. Results from health facility surveys and community surveys will serve to direct specific CEU program activities There is a clear need to sustain continuing education achievements with a good supervisory system

3. Program success in a LGA is linked to the availability of a critical mass of health workers at the community level.

   Availability of a critical mass of health personnel at the community level is necessary to provide extended and quality health care in large communities. It is also essential to the integration of services both horizontal and vertical. In Barkin-Ladi a network of 364 health workers has played a significant role in the high level of community mobilization and participation (one health worker for 419 households). In the same LGA, 46% of health facilities provide integrated service delivery and nearly each village has a village health worker and/or a TBA serving as liaison agent to inform and mobilize the population.

Recommendations

1. Strengthen institutional supports and integration for continuing education at the State and FMOH levels, by creating a network of PHC promotors in charge of lobbying and providing orientation to Federal and State Health Development networks (Health forum and State Council). The model used in getting focus states on board for continuing education should be pursued by a Nigerian Network of PHC Promoters to reach and influence the Federal Ministry of Health in moving forward to extend the model in all the states of the federation.

2. Improve planning and negotiation approaches to influence progressive cost sharing at LGA and State level, and particularly the designating of a definite line item in the budget for continuing education. Explore possibilities of generating revenues at the CEU, for example, in providing research, training, and evaluation support to the private sector.

3. Strengthen CEU capacity in reinforcing staff training skills in management, curriculum development, research and supervision.

4. Initiate a staff training and development program to guarantee an availability of internal technical capacity for the development and supervision of continuing education nationwide.

5. Decentralize training capacity at LGA level to foster autonomy and sustainability by strengthening LGA's trainers skills.

6. Enlarge the network of trained health workers in providing training to doctors, nurses, midwives in CCCD focus programs, state program managers, LGA and SMOH managers, and LGA leaders in financial management and logistic support for PHC. A core group of private sector providers could also receive CEU based training.

Health Education

Findings

Background

Beginning in 1987, ACSI-CCCD implemented the health education support strategy with two groups, HealthCom and ARHEC. Activities included mass communication, community mobilization, community health education, and training of various groups in health education topics.

HealthCom was in charge of developing a health education and mass communication strategy aimed to modify existing child care practices through the use of modern communication technologies, social marketing, and behavior analysis. In order to carry out its strategies Healthcom has worked at three levels: At the Federal Ministry of health level to improve the capacity of the Health Education Bureau (HEB) in planning, conducting and evaluating health education programs and to improve the capacity of the HEB to produce health education messages; At the state level, Healthcom worked with Niger State to assist in the institutionalization of an effective health education capability within the state ministry of health, including the establishment of two state level committees (health communication technical committee and community mobilization committee); and

At the LGA level, with two LGAs in Niger State to develop baseline surveys used to assess the health priorities of measles, malaria and school health and to develop specific interventions. Healthcom activities phased out in 1990.

The African Regional Health Education Center (ARHEC) is a Nigerian based organization created in 1973 with the assistance of WHO. ARHEC is a unit in the Department of Preventive and Social Medicine, College of Medicine, at the University of Ibadan. ARHEC collaborated with the University of North Carolina and the Centers for Disease Control to provide in-service training for the ACSI-CCCD project in Nigeria.

Since 1987 ARHEC has conducted four annual inter-country "Health Education Planning and Management Workshops". The training consisted of a four week workshop, preceded by a needs assessment and followed by a facility visit to each participant's place of work.

ARHEC has also collaborated with Healthcom in PHC baseline household and school surveys conducted in Niger State regarding measles, malaria and school health.

Project Related Criteria that Influence Sustainability

Perceived Effectiveness

Effectiveness for health education is strongly perceived both at the decision making level and at the execution level but health education programs are not operational due to multiple factors including:

(1) Lack of development of specific policy. This is to due to a lack of clarity about the meaning and role of health education in PHC and due to the failure to plan comprehensive programs leading to effective educational interventions capable of meeting perceived effectiveness.

Limited scope of surveys focusing on specific geographic areas and/or specific target diseases funded by different donors. There is no database at the federal level recording all of the surveys conducted in the country Healthcom extensively used surveys to develop its program strategies in Niger State. In 1990 Healthcom conducted studies in Rafi and Suleja LGAs (Niger State) to verify program impact after the support of PHC/EPI/Malaria health education activities.

In 1991 a 40 cluster community survey was conducted in Suleja LGA. The survey, conducted by SMOH/LGA health personnel, collected information on immunization coverage and knowledge and treatment practices about diarrhea and fever. A total of 1160 mother of children under 5 years old were interviewed The data gathered from these studies were used in the development of the inpatient health education module to be included into the continuing education program.

A health education assessment was conducted in March 1992 with CCCD support. It has identified five major problems hindering health education in Nigeria and developed realistic and appropriate recommendations. FMOH, States, ARHEC and other players have contributed to the assessment which generated a great interest at all levels The FMOH has already started implementing some of the recommendations The assessment has contributed to legitimate the previously expressed views of health educators.

Integration and Institution Strengthening

One of the most important problems identified by the March 1992 assessment relate to integration and institution strengthening Although health education is widely envisioned as a key element for the delivery of effective public health is general, and PHC in particular, the FHEB is positioned within FMOH at the branch level, under a division, under the Department of Primary Health Care. This position restricts the capacity of the FHEB to carryout its mandated function of providing health education technical assistance across organizational lines to other PHC and FMOH programs which are organizationally paralle (or above FHEB).

There is a lack of communication and coordination at Federal and State levels. Coordination between HEB and other PHC divisions remains inconsistent despite the perception that health education is the only program cutting across all PHC programs.

Local Financing Community Participation

The assumption of cost by government is presently very poor at state and federal level. Budget allocations, if they exist, are largely insufficient to cover programs' financial needs. There is a significant lack of resources (at Federal, State, and LGA levels) allocated to materials development, supervision and training.

Donor complementarity and coordination has worked out positively with UNICEF, regarding the EPI program but generally coordination is weakened by the fact that each donor focuses on specific target problems, on diseases and provides funds to develop specific health education programs.

Capacity Building

There is an important need for manpower for health education. The staffing needs are very important at the LGA level where one health educator, (usually an environmental officer) serves a group of LGAs At the state level, there is a shortage of mid-level health education officers. To correct the health education manpower shortage, the FMOH has recently mandated each LGA to appoint a health educator. This and the perception of health education effectiveness at community level have prompted the willingness of LGAs to provide tuition to health educators to be trained at ARHEC.

Where manpower exist, there is a need for upgrading capacity building in health education. Only federal and state health education officers and few colleagues have received graduate training in health education All state health education officers interviewed have expressed training needs for their assistants, so the state can develop an adequate manpower base to face the multiple demands for health education. ARHEC expertise, willingness and mandate constitute a great opportunity for meeting training needs. However with its actual capacity to train 30 health educators a year, it will take 20 years to cover manpower needs for all 600 LGAs. Through ARHEC training and follow up strategies, there is a great opportunity for developing health educator's skills in research, planning, budgeting, securing funding, executing and evaluating health education programs.

In terms of mass communication capacities, Healthcom missed the opportunity for capacity building mainly at the state level Healthcom Project management style was not suitable for the involvement of the HEU staff in project planning and monitoring activities in a way to foster ownership. While the same observation is also true at the FMOH level, there is an acquisition of skills for material development and diffusion

Constituency Building

Constituency Building is starting up with the involvement of nationals in the country assessment of March 1992. While the initiation of the study came from CCCD, the FMOH, States and ARHEC are pleased with the approach and feel responsible for the implementation of the recommendations.

Non-Project Related Factors that Influence Sustainability

Concerning training, the most important non project related criteria affecting sustainability is the rapid and extended decentralization system in Nigeria with the new creation of States, LGAs and districts.

The need for manpower development is increasing while the economic situation is worsening. The rapid turnover in leadership, specially at LGA level is a threat in a way that vision and commitment may change with leadership

Other disease outbreaks and emerging health problems (AIDS) and prevalent chronic diseases (Onchocerciasis, Dracunculiasis) increase the resources (needed), and capacity building for health education. In the past, frequent disease outbreaks have diverted health education activities and significantly disrupted initial plans.

Cultural constraints have to be taken seriously as a threat on health education sustainability. Nigeria is a large country with very different ethnic groups and tribes, each one with its own beliefs - that makes it more difficult to implement and sustain health education programs.

Lessons Learned - Progress Towards Sustainability

Perceived Needs and Perceived Effectiveness do not necessarily lead to policy development.

In the case of health education, perceived needs and perceived effectiveness exist at all levels, particularly at the community level but at a Federal and State decision making level, strong perception of effectiveness contrast with weak support for health education.

One of the values of Technical Assistance is the creation of legitimacy.

In the case of health education, problems were identified by all health workers and MOH administrators but the participative effort in conducting the March 1992 assessment on health education has contributed to legitimate the national's views about the problems and their solutions With CCCD support, the FMOH has started implementing the recommendations with great interest.

Capacity building and Institution strengthening must be the ultimate goal of technical assistance.

Technical assistance style is critical to fostering capacity building and institution strengthening. Despite its effective mass communication and health education program, Healthcom's assistance failed to create the needed capacity building necessary for the Nigerians to keep the program alive. Healthcom Project management style did not work for program sustainability. The fact that the Healthcom project manager was located in Washington, D.C. and worked with a Nigerian resident adviser stationed in the FMOH and the lack of Nigerians involvement militated against a sense of ownership.

In contrast, the recent collaboration between FMOH and ARHEC, to assess health education in Nigeria and to implement the recommendations, has created a sense of ownership, a great interest and mutual respect between partners

Recommendation

I. Implement the recommendations prescribed by the March 1992 assessment. The problems are extensively documented and the solutions are realistic, technically feasible and are fostering sustainability. However, the implementation of the recommendations at national level should not impede the development of health education programs at the community level where the need to support the CCCD interventions with sound health education programs is urgent.

II. Expand community mobilization and health education activities by supporting training for TBA's, village health workers, and women's groups.

The success of community mobilization in Barkin-Ladi is due to the large number of trained health workers and women's group involvement.

III. Negotiate with ARHEC the priority for training CCCD focus State and LGA health educators. ARHEC is facing an intense demand for training health educators and is meeting actually one fifth of the demand at national level.

IV. CCCD should take the lead in encouraging the FMOH to coordinate donors assistance for health education. Most donors are interested in health education and the March 1992 health education assessment should constitute a working base document for all donors.