THE SUSTAINABILITY OF U.S.-SUPPORTED HEALTH, POPULATION, AND NUTRITION PROGRAMS IN ZAIRE: 1972-1988

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by

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The views and interpretations expressed in this report are those of the authors and should not be attributed to the Agency for International Development.

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PREFACE

Why are the activities and benefits of some health development assistance programs sustained while others are not? Which contextual factors seem most important for sustainability? Which project characteristics? Do some types of health programs seem inherently unsustainable? How should sustainability be defined and measured? What guidance can we offer policymakers and project and program managers? What type of research is called for?

In 1986, the Center for Development Information and Evaluation (CDIE) initiated a group of studies with special emphasis on assessing the sustainability of health project and program activities and benefits after A.l.D. funding ends. The decision to conduct these studies followed a prior set of evaluations carried out by A.l.D. in the early 1980s to try to understand more about the impact (the actual effects) of its projects and programs in the health sector. The impact evaluations show clearly that many of those activities had difficulty continuing after outside assistance was terminated. Sustainability has become an important development issue in health (as well as in other sectors) for both lender/donor countries and borrower/recipient countries.

The studies undertaken by CDIE in this area have taken several forms, including literature reviews, syntheses of existing A.l.D. evaluation reports, field studies of single completed health projects, and field studies taking a broad, sectoral, historical perspective. The present study of Zaire falls into this last category.

The Zaire report is based upon an initial desk study prepared by one of the team members that defined the central projects and areas of investigation, followed by a two-week field review by a 3-person team of evaluators in November, 1988. This study is one of the three studies in Africa, including Tanzania and Senegal, using the same basic approach and methodology. In addition, two studies were completed earlier in Latin America (Guatemala and Honduras) using a somewhat modified approach. By compiling a larger sample of cases in a range of country settings, we hope to be able to develop generalizations about different types of health projects in different types of social, economic and political contexts.

Finally, a significant body of related work by other offices in A.l.D., as well as other lenders/donors, has begun to accumulate which focuses on sustainability and adds to the issues and the discussion set forth in this study. This report does not attempt to reflect these recent works, which will be incorporated in subsequent analyses. The reader is asked to bear in mind, therefore, that we are presenting this report as an important study and set of findings in one country in the larger effort now in progress, not as the final word on the important issue of sustainability.

SUMMARY

This report is part of a series of sustainability studies implemented by the Center for Development Information and Evaluation (CDIE). These studies use a comparative historical methodology to review health, nutrition, population, and water supply and sanitation projects supported by the United States Government in five countries. The central purpose of the studies is to identify the project characteristics and contextual factors that were likely to have contributed to the continuation of project activities and benefits after project funding ceased. The Zaire Study is one of three recent studies in Africa (Tanzania and Senegal) and follows two completed studies in Central America (Honduras and Guatemala).

In Zaire, we examined nine major project series. This report focuses on the four projects completed at least 3 years prior to the sustainability study:

1) Maternal and Child Health/Family Planning Project in Kinshasa (MCH) (1972-1980),

2) the Health System Development Project (HSD) (1976-1982),

3) the Malaria Component of the Endemic Disease Control Project (PLAP) (1976-1983), and

4) the Community Health-lntegrated Rural Development Project (Salvation Army (SA)) (19811 986).

This review suggests that several contextual factors and project characteristics are related to sustainability in Zaire.

1. CONTEXTUAL FACTORS

Three contextual factors influenced sustainability in Zaire:

- Weak State: Weak state institutions have resulted in institutionalized corruption, poor planning, insufficient capacity to provide stable rules for public and private activities, and low public funding for basic public health activities, e.g., reporting, immunizations, and so forth.

- Economic Crisis: Continuing economic crisis has imposed an austerity budget limiting the capacity of the government to provide services, and for beneficiaries to pay for services.

- Weak Implementing Institutions: Projects that were

implemented by relatively strong institutions were more likely to be sustained than those implemented by weak institutions. In one sustained project, the MCH Clinics were administered by the well-run Mama Yemo Hospital which until recently was a semiautonomous institution. The other sustained project was run by an efficient PVO -- the Salvation Army. The unsustained projects were implemented by different units of the Ministry of Health, an extremely fragmented, conflictridden, centralized institution with low technical and administrative skill levels.

2. PROJECT CHARACTERISTICS

- Seven characteristics of projects were related to sustainability in Zaire:

- Project Integration: Projects that were well integrated into the normal administrative structure of implementing institutions -- the MCH Clinics of the Mama Yemo Hospital administration and the clinics of the Salvation Army -- were more likely to be sustained than those projects which were either vertically organized (PLAP) or scattered and sporadically implemented (HSD).

- Project Negotiation: Projects that were negotiated through a mutually respectful give-and take process, with significant involvement of those responsible for implementation, were more likely to be sustained than projects that appeared to be imposed by A.l.D. The MCH Clinics and the Salvation Army project were primarily designed by those responsible for implementation. The other two projects were designed by A.l.D. with little participation of national officials.

- Training Components: The two projects that were sustained had strong training components. The unsustained PLAP project had almost no training, while the HSD project trained officials who were later to contribute to primary health care activities, but did not contribute to the implementation or continuation of any activities begun during the project’s life.

- Community Participation: The two projects with significant community participation were sustained, while the two projects without community participation were unsustained.

- Financing through National Absorption of Project Costs or Cost Recovery: Both the MCH and Salvation Army projects were funded by national sources and cost-recovery

mechanisms. Both the budgetary and cost-recovery contributions were put into place during the life of the project and became increasingly important sources of income during that period. By contrast the two unsustained projects had little national budgetary contribution and no cost recovery mechanisms.

- Project Effectiveness: Projects that were perceived as effective during the life of the project were more likely to be sustained than projects that were perceived as ineffective (HSD) or had demonstrated that their approach was inappropriate (PLAP).

- Technical Assistance: Projects with strong technical assistance were more likely to be sustained.

3. FUTURE GUIDELINES FOR SUSTAINABILITY

This study suggests that, in Zaire more effort is necessary to strengthen the economic and institutional contexts of projects through a long term broad approach to health assistance, and that seven characteristics can enhance sustainability of future projects even in this difficult context:

- Integration of projects into on-going administrative structures.

- Negotiation of projects using give-and-take process.

- Include a strong training component.

- Utilize cost-recovery and other alternative financing mechanisms to support key project activities.

- Encourage community participation.

- Demonstrate effectiveness of project activities.

- Include strong technical assistance component.

GLOSSARY

ADB	African Development Bank
AIDS	Acquired Immunodeficiency Syndrome
AZBEF	Association Zairoise de Bien Etre Familiale
BOM	Bureau des Oeuvres Medicales Catholiques (Catholic Medical Bureau)
CCCD	Combatting Childhood Communicable Diseases
CDC	Centers for Disease Control
CDIE	A.I.D.'s Center for Development Information
CEMUBAC	Centre Scientifiques et Medical de l'Universite libre de bruxelles pour les Activites de Cooperation (Scientific Center of the Free University of Brussels)
CEPLANUT	Centre National d'etude et Planification en Nutrition
CNAEA	National Action Committee for Water & Sanitation
CNND	Comite National de Naissances Desirables (National Committee for Family Planning)
DMK	Departement Medical Kimbanguiste (Kimbanguist Medical Department)
ECZ	Eglise du Christ au Zaire (Church of Christ in Zaire)
EPI	Expanded Program on Immunization
FOMECO	Founds National de Medicine Sociale (National Fund for Social Medicine)
FP	Family Planning
GDP	Gross Domestic Product
GECAMINES	Generale des Carrieres et des Mines
GNP	Gross National Product
HC	Health Center
HIS	Health Information System
HIV	Human Immunodeficiency Virus
HPN	Health, Population and Nutrition
HZ	Health Zone
ICFTU	Int'l Federation of Free Trade Unions
IDD	Iodine Deficiency Disorder
IEC	Information Education and Communication
IMR	Infant Mortality Rate
INRB	Institut National de Recherche Biologique (National institute of Bilogical Research)
INS	Institut National de Statistiques
IPPF	International Planned Parenthood Federation
IRS	Institut de recherche Scientifique (Institute for Scientific Research)
ITM	Institute de Techniques Medicales (Nursing School)
JHPIEGO	Johns Hopkins Program for International Education in gynecology and Obstetric
LAPHAKI	Laboratorie Pharmaceutique de Kinshasa (Pharmaceuticals Production Unit, in Kinshasa)
LOP	Life of Project
MCH	Maternal and Child Health

MOH	Ministry of Health
MPR	Mouvement Populaire de la Revolution (the party)
NACP	National AIDS Control Program
NGO	Non Governmental Organization
NPC	National Population Committee
PEM	Protein-Energy Malnutrition
PEP	Public Expenditure Program
PHC	Primary Health Care
PIP	Public Investment Program
PLAP	Programme de Lutte Antipalludique
PPU	Population Planning Unit
PRODEF	Centrally-funded operations research project (FP)
PSC	Personal Services Contract
PSND	Projet de Services des Naissances Desirables (FP Projet)
SANRU	Soins de Sante Rurale (Basic Rural Health Project)
SNHR	Service National de l'Hydraulique Rurale
STD	Sexually Transmitted Disease
TFR	Total Fertility Rate
U5MR	Under-five Mortality Rate
UNDP	United Nations Development Program
UNFPA	United Nations Fund for Population Activities
UNICEF	United Nations Children's Fund
UNTZ	(Zaire Labor Union)
USAID	United States Agency for International Development
WHO	World Health Organization
WHO/GPA	WHO/Global Program on AIDS

1. INTRODUCTION

This report is part of a series of sustainable studies implemented by the Center for Development Information and Evaluation (CDIE) of the Agency for International Development. These country studies use a consistent comparative methodology to review health, nutrition and population projects that the U.S. government supported to determine which projects were sustained and what factors (both of the country context and the project characteristics) were related to sustainability. The Zaire Study is one of three current studies in Africa (Tanzania and Senegal) and follows two completed studies in Central America (Honduras and Guatemala).

This study of sustainability in Zaire follows an established methodology that was developed and refined in the Central American cases. The methodology defines sustainability as the continuation of a significant portion of project activities and benefits at least 3 years after the termination of U.S. Government funding. Sustained and unsustained projects were then reviewed for a series of contextual factors and project characteristics which were hypothesized to be related to sustainability. The list of variables reviewed is presented in Table 1. For more discussion of the methodology please see Appendix B. For Zaire a desk study was done to define the central projects and areas of investigation and was followed by a 2-week field visit by a three-person team of evaluators in November 1988.

Table 1: Project Characteristics and Contextual Factors Affecting Sustainability

In Zaire, we examined nine major project series. This report focuses on the four projects completed at least 3 years prior to the sustainability study:

- Maternal and Child Health/Family Planning Project in Kinshasa (MCH) (1972-1980),
- the Health Systems Development Project (HSD) (1976-1982),
- the Malaria Component of the Endemic Disease Control Project (PLAP) (1976-1983), and
- the Community Health-lntegrated Rural Development project (Salvation Army (SA)) (19811 986).

We also reviewed major ongoing or recently completed projects in order to make suggestions about the likely sustainability of the current portfolio: These projects include the Expanded Program on Immunization/Combatting Childhood Communicable Diseases (PEV/CCCD), the School of Public Health (ESP), Basic Rural Health I and ll (SANRU), Family Planning Services(PSND), and the Nutrition Planning and Area Nutrition projects (CEPLANUT). (see Appendix D for current project descriptions and conclusions)

2. USAID HEALTH PROJECTS IN ZAIRE

Before independence, Zaire had one of the most developed colonial health systems in subSaharan Africa; however, this system, almost entirely dependent on Belgian financial support was led by expatriates, and collapsed soon after independence. By 1970 much of the health care in the country was provided by nongovernmental organizations, including missionary groups, which by the 1970's were committed to developing primary health care approaches. Health activities have been plagued by the large size of the country, weak infrastructure and transportation, rapid population growth, and a pronatalist cultural context.

In the 1970s the national government accepted the primary health care approach and family planning and began a process of decentralization by creating the administrative basis for over 300 Health Zones.[1] These Zones have been progressively implemented, largely through foreign assistance, including a major continuing A.l.D. project -- Basic Rural Health Project (Projet Sante Rurale -- SANRU).

[1]In 1981 Zaire signed the African Health Charter, officially endorsing primary health care as the most effective approach to Zaire health needs.

A.l.D. support for the health sector began in 1972 with a project to develop MCH centers in the capital, Kinshasa. Working with both the government and private agencies, A.l.D. has also funded several infrastructure development and service delivery projects, as well as continuing efforts in family planning, communicable disease control, nutrition planning, and the establishment of a School of Public Health. (see figure 1)

The four major health projects for which funding had terminated at least 3 years before our study were examined for lessons about sustainability. Brief descriptions of these projects are presented in the following sections. For detailed analyses of each case see Annex C.

Figure 1: CHRONOGRAM USAID HEALTH SECTOR PROJECTS IN ZAIRE

2.1 Maternal and Child Health (Project #660-049) (1972-80)

In 1972, when it was clear that the maternity ward of the huge Mama Yemo Hospital complex was chronically overcrowded, the government decided it would have to create new facilities. With A.l.D. support, it developed a project to decentralize maternity services and to provide other MCH services, including family planning, through the creation of six MCH centers in Kinshasa.

The project appears to have been well designed and appropriate to the problems and the context. The MCH clinics were outfitted with appropriate equipment. Training was well designed. Clinic design was acceptable -- although ventilation remains a problem. The layout of services within the clinics provides for immunization, prenatal and postnatal education and consultation, delivery and post partum wards. The clinics have become a model for other maternities in Kinshasa and other major cities of the country.

2.2 Health Systems Development Project (Project # 660-057) (1976-1982)

The Health Systems Development Project was the first of a planned three-phase program to test and implement an integrated decentralized health delivery system. The inception of the project grew out of A.l.D.’s interest, based on successes with small-scale PVO projects, in refining a system for integrated health services delivery. The Health System Development Project, planned to be a 2-year project, was developed having two major objectives. First, a central level planning unit was to be developed within the

MOH. In addition, the model for the Health Zone (HZ), a primary and autonomous organizational entity for health services delivery, was to be developed and pilot tested.

Although these basic objectives were clearly in line with government health sector priorities, the specific design of the project was quite vague, being largely developed by outside consultants. Given the Zairian health sector context in 1975 when the project was designed, these objectives could have been reached only with great difficulty in the original 2-year time frame allotted to the project. Even with a 2-year extension, neither of the two project objectives was met.

2.3 Endemic and Communicable Disease Control (Project #660-0058L)(1976-1983)

The Endemic and Communicable Disease Control Project (660 0058), which was signed in 1976, was designed to have two distinct

components. One, the EPI component, was to be fully integrated into the Endemic Disease Program and to absorb the smallpox eradication administrative structure, and eventually to turn the program into an EPI program that was supported by A.l.D., WHO, and UNICEF. The project component supported the measles vaccination within the greater context of the EPI activities for six immunizable diseases. This program worked only in 14 urban centers in Zaire and utilized mobile units for the provision of services, and would later be absorbed into the CCCD project to be discussed below.

The other component was the Antimalarial Project (Programme de Lutte Antipaludique -- PLAP) which was run as a separate vertical project not attached to the Endemic Disease Program. Its national director, who remained in charge throughout the project, had been the Director of Kinshasa's Sanitation Department. The PLAP project component is particularly significant for this study since it is one of the four A.l.D. project components that no longer receives A.l.D. funding.

The PLAP was designed primarily as a pilot project which provided treatment of cases, preventive treatment for infants and pregnant women, and a home spraying and larvicide program. At the time, this was the recommended WHO and A.l.D. approach to malaria. The project had two target areas--one urban and one rural--and was to demonstrate the effectiveness and costs of the project activities for the development of a larger national antimalarial program. The project was well implemented as a pilot project and was able to clearly document the effects and costs of the different approaches to malaria in the two target areas.

During the life of the project, A.l.D. shifted its policy toward malaria, makina vector control the least preferred approach. Indeed, the pilot project demonstrated what other projects had shown around the world. The vector control approach was far too costly to be implemented as a national program in Zaire.

2.4 Community Health and Integrated Development (Salvation Army Project #660-0093) (19811986)

This project supported the health activities of a major PVO in Zaire -- the Salvation Army. The Salvation Army has over 100 clinics in operation in the country -- all of which are expected to be relatively self-supporting. The project supported the construction of a MCH central reference clinic in Kasangulu with 10 satellite clinics in the Bas Zaire region. The project assisted in the construction of all 10 satellite clinics and of the central clinic's dispensary, maternity and nutrition wards. It also provided support for 6 months for the head nurse and a vehicle for supervision of the satellite clinics. Each clinic was staffed with a nurse. The project also supported training programs for primary care, nutrition and health education, and the development of community participation from the satellite clinics. Construction

began in 1983 and was finished in 1986. The centers were expected to be self-sufficient by the end of the project.

3. WHAT WAS SUSTAINED IN ZAIRE?

Only two of the terminated projects were sustained: the MCH Centers and the Salvation Army project. The malaria component of the Endemic and Community Disease Control project and the Health Systems Development Project were not sustained.

The MCH project made lasting changes to MCH care in Zaire. The clinics are still providing the complement of services that were provided during the period of USAID. support although drugs are not distributed. Family planning services are still being provided to a relatively limited number of users. Even the educational materials developed during the period of A.l.D. assistance are still being used. The information systems developed also are still functioning, even in the absence of paper supplies. Moreover, the clinics still serve as a model for other urban MCH services and as in-service MCH training sites for health professionals.

At present, most all activities/systems set up under the Salvation Army project are being sustained. There is some indication that over time, the support of major equipment such as vehicles, X-Ray machines, etc. will pose a major difficulty. Currently, other recurrent costs are covered by user fees.

By contrast, after A.l.D. funding for the PLAP malaria project was discontinued, the project was completely dismantled. The vehicles, spraying equipment, office furniture and microscopes were turned over to the EPI Program, but were not used for malaria activities. None of the project personnel were absorbed by the EPI Program, and the director was not employed for over a year after the project terminated. Since the CCCD project, which was implemented in part as a follow-on to the EPI Project component, initially only supported immunization activities and only later adopted a malarial component, there was a period of several years before any malaria activities were implemented by the Ministry.

The Health Systems Development Project may have been A.l.D.’s most difficult and least productive HPN effort. Essentially, none of the direct project activities was sustained. The planning unit disappeared even before the project ended. The pilot health zone component never was fully implemented --although this health zone is now absorbed into the Basic Rural Health project.

A less tangible output of the project that has had continued impact on the health sector in Zaire was the long term training of four Zairian physicians. Although they did not return to a functioning planning cell within the MOH, three out of the four currently are high level administrators associated with USAID-supported primary health care and family planning programs (Basic

Rural Health and Family Planning Services).

In general, we found that sustaining projects in Zaire was more difficult than in other countries that have been studied. The projects that were sustained were relatively limited in scope and appeared to be threatened with continuing and future difficulties which may weaken their sustainability. The MCH clinics are perhaps the strongest activities that have been sustained. However, there are plans to integrate them into the Ministry of Health -- a corrupt and far weaker institution than the semiautonomous Mama Yemo Hospital administration. Furthermore, the clinics depend on material and human resources that were created for the initial project and it is unclear how these resources (especially, the highly motivated nurses) will be replaced over time. While the clinics are likely to continue to operate they currently function at a lower level of effectiveness, and probably will continue to do so.

The Salvation Army Clinics are also threatened since they depend on fee-for-service charges that have barely been able to cover basic recurrent costs. The vehicles and other equipment are already in need of replacement and no source has yet been found.

The analysis that follows reviews the hypothesized factors that were expected to be related to sustainability. We test these hypotheses with our four project cases. (see Tables 2 and 3)

Table 2: Analysis of Sustainability Determinants in Zaire: Contextual Factors

Table 3: Project Characteristics: Multiple Factors

4. CONTEXT FACTORS

We first examined the contextual factors that in earlier studies were hypothesized to be related to sustainability. (see Table 2) These factors are in general beyond the control of project designers and managers, but could be taken into account in the design and implementation of projects.

Since A.l.D. began providing assistance to Zaire's health sector in the mid 1970's, contextual factors have been relatively stable in Zaire, and thus it is not possible to examine the impact of most of the specific contextual factors on the sustainability of Zairian health projects -- the major exception being the characteristics of the implementing institutions. However, given the low level of sustained activities in Zaire, our analysis suggests that several context factors are likely to have made it more difficult to sustain project activities in Zaire than in other countries that have been studied in the sustainability series. Our analysis suggests that two context factors may explain the difference between Zaire and the Central American cases: the weak capacity of the state, and the economic deterioration.

4.1 Natural Disasters

Only one natural disaster has touched Zaire since the initiation of health sector support: the localized drought in Bas Zaire. This drought did not, however, have major implications for the sustainability of any of A.l.D.'s projects.

4.2 Political Environment

As background to the discussion of political factors that may influence the viability and sustainability of development projects, it is important to note that Zaire has traditionally been marred by severe ethnic antagonisms exemplified by the violence that lasted through the first 5 years of independence.

Since 1965 when President Mobutu took control of the government, relative political stability has been maintained, although occasional rebel activity in the mineral-rich Shaba region has slowed efforts to develop that region. These interruptions have had a negative impact on the economic prosperity of the country but have had little impact on overall political stability.

Key to Mobutu's success in maintaining control is the expansive national political party, the Mouvement Populaire de la Revolution (MPR), which supports staff throughout the nation. The MPR has achieved the objective of political stability but at the cost of an expensive bureaucracy that has been reportedly connected with widespread corruption in the nation. This, in turn, has contributed to the economic stagnation of the country.

Furthermore, the rapid turnover in personnel at the top decision-making levels of the government has had a detrimental effect on project negotiations and implementation throughout A.l.D.'s assistance history. The Minister of Health, for example, has been replaced on average every 6 to 9 months. This turnover has presented obstacles particularly during A.l.D.'s early experiences with the health sector.

Despite the relative stability of the Mobutu regime, the state in Zaire has been unable to develop sufficient capacity to establish its basic authority and responsibility throughout the national territory. This weakness has been made apparent by a generally high level of institutionalized corruption and by the continuing conflicts between the state and church-related private voluntary agencies. Institutionalized corruption has made it difficult for the state to assume its juridical and authority roles in society. It has also undermined the state capacity to implement the kinds of public health activities most states, even in free market economies, assume -- policy, reporting, planning, immunizations, promotion, and so forth.

It is in the slow process of developing this capacity through the training of officials and the building of national institutions that national public health programs can be implemented and policy guidelines for the parastatal and private sectors can be provided.

In part because of the weakness of the state, private sector institutions--especially church related PVOs--have taken on responsibility for both implementation of services and determination of policy in many social sectors. The growth of the private sector has often led to conflict with the state as the state begins to assert its authority to dictate policy, assert its role in planning and reporting, and in some cases assume implementation of services. Church-state conflict has already inhibited the implementation of the current Basic Rural Health project.

It is likely that in the long run the role of the state will have to be increased. Private sector groups cannot assume responsibility for establishing national policies and for imposing uniform administrative and reporting structures necessary in any nation-state. Furthermore, the administrative costs of supervision, information systems, logistics, and supplies at each administrative level (zone, sub-region, region, national) cannot be supported by local cost recovery and are not likely to be supplied by PVOs. Currently around half of these costs are assumed by donors and half are provided by the state.

While the state in the other countries studied in the sustainability series was far from strong, it nevertheless provided some basic services and an established juridical infrastructure

that is lacking in Zaire. It appears that this weak context factor contributed to the limited sustainability of public sector projects that was observed in Zaire. (At the same time, it was within this context that a number of innovative private sector initiatives involving cost recovery have been undertaken.)

Thus, overall, political factors are likely to have a negative influence on the continuation of project activities/impacts.

4.3 U.S. - Zairian Bilateral Relations

Bilateral relations between the United States and Zaire have been strong for more than a decade, and for geopolitical reasons, Zaire has enjoyed major technical and financial support from the U.S. Government. It is not clear whether or not this positive relationship has influenced the sustainability of health projects.

4.4 Socio-cultural Context

There are both long term and relatively recent socio-cultural phenomena that have very important implications for project programming and sustainability. Ethnic rivalry (a phenomenon shared by several other African countries) has particularly plagued project implementation since distrust among project staff can cause severe difficulties. Inter ethnic group distrust can at times be greater than distrust of foreigners. Thus expatriates have become almost institutionalized mediators of ethnic conflict.

Another long term social problem is the lack of middle and upper level technicians and professionals. When the Belgians left Zaire around independence there were virtually no Zairian physicians. In addition, the percentage of the population with a secondary education was minuscule: in 1955 secondary education of Zairians began. Only 136 actually graduated 5 years later (excluding medical and teaching students). General literacy was estimated at only 20 percent (French 15 percent) by the mid-1970s, and is currently estimated to be 65 percent for males and 40 percent for females. Since independence, no medical schools have been created (there has been some integration and subsequent separation between the 3 medical universities) although some A1, A2, and A3 level nursing schools have been created and now total 124 throughout the country. These schools rapidly increased the number of trained health professionals, but the training programs were largely modeled after European curathe care models.

As a response to the trained manpower problem, the USAID mission has made an inter-project, coordinated effort to support training at different levels of the health care system. Included in these efforts is the emphasis on building on-going training programs for different levels of health professionals and paraprofessionals. At the highest level, A.l.D.’s School of Public Health trains physicians at the graduate level in contemporary

public health methods, while service delivery projects such as Basic Rural Health, CCCD and FPSP have focused more on the development of in-service training programs.

Another socio-cultural factor which influences the sustainability of health sector activities in Zaire is the extensive penetration of Christianity by 19th and 20th century missionaries (estimates of prevalence range from 50 to 65 percent[2]). The predominant groups are the Catholic Church and the Eglise du Christ du Zaire (ECZ), an umbrella organization that coordinates all Protestant sects.

Missionaries began arriving in the late 1 9th century and established over time an extensive health and education service network. While the central government had tried to take over these sectors several times since Zaire's independence, these efforts have always resulted in services reverting to the management of the now indigenous church organizations. Although the church system is largely Zairian run, it does receive financial and technical resources from worldwide churches.

The existence of this network is likely to enhance the potential for sustainability of health care programs.

4.5 Economic Context

Zaire's economy experienced a period of general growth during the initial post-independence period in the 1960s, however since the early 1970s it has suffered a consistent decline. Until 1975 GDP growth rates were positive -- reaching as high as 12 percent and usually keeping up with population growth. By 1975, however, growth turned negative several years in a row and has never regained its original dynamism nor exceeded the growth in population.

Even during periods of growth Zaire borrowed heavily from external sources, leading to a debt crisis when the economy began to falter. In order to satisfy external lenders, the government has had to implement an austerity program which has restricted further its capacity to provide social services.

The decline in the economy has been accompanied by a decline in the portion of government expenditure devoted to the health sector. The percentage of total government expenditure in health declined from 2.3 to 1.8 percent from 1972 to 1985. However, the public budget remained at a relatively constant per capita figure since 1971 -- between 5 and 7 Zaires.

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[2]Zaire: a country study," American University, Washington, DC, 1979.

An important characteristic of Zaire's health economy, however, is the large share that is provided by nongovernmental sources -- either PVO's or beneficiaries through fee-for-service mechanisms. The World Bank estimates that total recurrent health care spending (both public and private) is about US$6 per capita, which is average for sub-Saharan Africa. The public share however was only approximately US$0.33 per capita in 1986. As we will discuss below in the section on financing of projects, cost-recovery is a key part of almost all health activities in Zaire. However, as the economy declined, the ability of the poorest beneficiaries to pay for services also declined. Some of our informants suggest that there are increasing numbers of patients who no longer can pay for services.

Although the general decline in the economy was apparent for all the projects under review here and therefore does not differentiate between sustained and unsustained projects, it appears to have had a general effect of limiting project sustainability in Zaire compared to other countries studied in the sustainability series.

4.6 Characteristics of Private Sector and PVOs

A well-developed PVO infrastructure provides a large percentage of health services in Zaire. On the whole, PVO implementation appears to have been positively associated with sustainability in the case of the Salvation Army project. However, in the case of PLAP and HSD, both implemented entirely through the public sector, activities were not sustained. The MCH project was implemented by a parastatal organization. In the case of the Salvation Army Project there is competition between the Salvation Army health services and the state zonal officer. This competition may eventually have long term consequences on the sustainability of the Salvation Army clinics. Several current projects also suffer from this potential threat.

4.7 Characteristics of the Implementing Institutions

The health sector is organizationally quite complex with health services being provided by the Ministry of Health (MOH), nongovernmental organizations (NGOs), enterprise medical programs, and a large variety of private providers including traditional practitioners.

The governmental sector is involved at several levels through its MOH and parastatal organizations. Responsibilities include overall regulation of the sector, health services delivery, manpower training, and special categorical programs. The head of the Ministry is the Commissaire d'Etat a la Sante and the primary manager is the Secretaire General. The Ministry is divided into six directorates. Most categorical donor projects are under the umbrella of the Ministry but in a separate unit, the Central

Specialized Services, located parallel to the directorates. Two important parastatal organizations include FOMECO, responsible for the massive Mama Yemo Hospital and its satellite clinics, and FONAMES, an agency recently restructured to coordinate all HZ activities.

The governmental system is characterized by gross financial and administrative mismanagement. Official budgets are basically meaningless since actual expenditures are running between 25 and 50 percent the amount budgeted. Often the GOZ health budget covers little more than the relatively low salaries of its employees, whose counterparts in nongovernmental organizations may earn twice as much or more. Most often there are basically no operating funds except among donor-financed programs. The imbalance in wages and the lack of resources create a demoralizing setting from which there is flow of qualified personnel who migrate to the nongovernmental sectors. Also problematic is personnel recruitment and promotion, the criteria for which are based largely on patronage rather than on performance; and the problem is pervasive through all levels of the organization.

Another difficulty of the governmental/parastatal organizations is the rapid turnover of high level officials, especially Ministers and Secretary Generals. As mentioned earlier, this situation renders both project implementation and project continuation problematic. Particularly in the late 1970s, high level turnover often resulted in project start-up delays of up to 2 years as contracts and agreements had to be renegotiated with each new minister.

Finally, the skill level of health personnel in the public sector is low because of the declining quality of education provided by the state health facilities and the lack of public health emphasis in existing national training programs. State facilities provide all medical and a substantial proportion of paramedical training. Over the past 10 years, the quality of both materials and personnel has declined. Moreover, the curricula were never adequate in the areas of administration/management and preventive health care.

The Ministry of Health is an extremely fragmented and conflict-ridden institution that has a history of ineffective implementation of projects. The two projects that were not sustained -- Health Systems Development and PLAP were implemented by the Ministry.

Both the MCH and Salvation Army projects were implemented by strong local institutions that were not subject to significant internal or external institutional conflict. The MCH project was implemented by FOMECO, the effective administrative structure in charge of the Mama Yemo Hospital. During the last year however, FOMECO’s contract with Mama Yemo has been terminated and the

program has been absorbed as a separate Division in the Ministry of Health, which may have negative consequences for the future of the MCH centers. The local Salvation Army is a strong and unified institution.

In summary, implementing institutions in the Zairian health sector have varying profiles in terms of hypothesized factors related to sustainability. The public sector is characterized by negative factors whereas the other institutional networks are substantially more positive.

4.8 Other Donors

In addition to A.l.D., many donors assist Zaire in the health sector; however, Belgium, the United States, UNICEF, and UNFPA are the most significant. Belgium provides support to several health system development activities including: (1) the upgrading of more than 60 health zones; (2) improving major urban hospitals; (3) developing in-country drug production; (4) technical improvement of various levels of the health care system; and (5) by backing several categorical programs.

UNICEF is the largest contributor to primary health care. Among others, the agency supports, at least in part, more than 150 HZs, development of the rural water supply, nutrition projects, and the pharmaceutical supply system.

UNFPA is the major partner donor of A.l.D. to the population sector. The program supports FP clinics, population-related data analysis, and policy analysis.

The GOZ, unlike some of its ministerial neighbors, has not been dynamic in its management of donor resources, in part, because of the lack of policy and programming capability within the GOZ. Consequently, donors have been obliged to coordinate themselves, which they have sometimes done relatively well and other times poorly. They have frequently prompted the government to formulate coordinating committees. These exist for most sectors and tend to work to keep donors from duplicating efforts. For example, PHC support is largely coordinated geographically with different donors taking responsibility for different health zones. However, the water supply sector is currently experiencing open disputes among donors.

Donor coordination in tackling the Acquired Immunodeficiency Syndrome (AIDS) problem is exemplary. Both financial and technical expertise are well organized and collaborative. All resources are organized around a National AIDS Control Program that was initiated in 1987. Donors participate jointly on a management committee for the program that attempts to plan, coordinate, and monitor AIDS activities.

Because of Belgium's historical penetration of the Zairian health sector and because Belgium and the United States are the largest bilateral donors, several skirmishes between these two have occurred over health sector territory. Perhaps one of the most important was over the School of Public Health Project at the University of Kinshasa. This was one of A.l.D.'s first major projects with the Ministry of Higher Education, a sector traditionally dominated by the Belgians. Project agreements and implementation were slowed substantially because of Belgian resistance. American trained Zairian physicians spearheaded the offensive that eventually resolved these struggles in favor of the SPH. Also, until very recently, the Belgians have blocked the granting of recognized degrees from the School.

Thus, overall, donor coordination in Zaire has been inconsistent. There have been periods of conflict and of cooperation. However, the impact of donor coordination on sustainability of past projects is unclear, since none of these projects involved or anticipate other donor involvement.

4.9 National Commitment to Project Goals

Although official policy favors primary health care and family planning objectives that are incorporated in the A.l.D. projects under review here, there has been little open national level discussion of these objectives. There has been a general development of consensus without much conflict over these goals. In 1981 Zaire signed the African Health Charter, officially endorsing primary health care as the most effective approach to 5-year plus Zaire's health needs. Subsequent 5 year plans (1982-1986 and 1987-1991) also reflect this official commitment. In 1972 the government established a commitment to "desired births" with the creation of a Comite National des Naissances Desirables, and by 1986 had established an interministerial National Population Committee.

Nevertheless, the consensus that has emerged is uncritically in favor of many objectives which are in potential conflict with each other without the establishment of clear priorities for the objectives contained in the A.l.D. projects. There is not the same mobilized commitment toward major primary health and population objectives that has emerged so clearly in other countries during selected periods -- such as the Rural Penetration Program in Honduras.

While there was general consensus (i.e. Iack of conflict) over the objectives of all health projects under review here, it was not clear that these projects were viewed as important vis a vis other priorities in the health sector, with the exception of the MCH clinics of the Mama Yemo Hospital.

5. PROJECT CHARACTERISTICS

The following characteristics are variables that were deemed to be more in the control of policy designers and implementors. These variables offer choices that are likely to enhance or undermine sustainability. See Table 3 for a summary of these factors by project.

5.1 Project Inception and Negotiation Process

The negotiation process appeared to be an important correlate of sustainability in Zaire. The two projects that were sustained, the MCH project and Salvation Army projects, were designed with substantial local input and consensus building. The MCH project addressed a critical need for decentralized services and FOMECO personnel were involved in all project design stages. Outside technical assistance was used as just that. They assisted local staff to develop the technical aspects of the clinic design while more generic organizational aspects were largely outlined by Zairian and long term expatriate staff. The Salvation Army project was almost entirely developed by that organization's local and expatriate staff. A.l.D. did not have its own model in either case and appears to have simply helped define and write the appropriate project for the Zairian defined needs.

On the other hand, the Health System Development project and PLAP were externally designed projects. Although there did not appear to be any great conflict about the basic goals, objectives, and design, neither was there a great deal of interest in the projects. This, in part, may have been the result of lack of involvement of local staff in the design of the project.

5.2 Institutional and Managerial Characteristics

Institutional characteristics that were hypothesized to be related to sustainability included: (1) integration into administrative structures, (2) strong administrative leadership, (3) administrative training components. We found that project integration and administrative training were related to sustainability in Zaire.

The two sustained projects were well integrated into the ongoing administrative structure of the implementing institutions. The MCH clinics are part of the Mama Yemo referral system and are administered under the same budgetary and personnel structure as the hospital. The Salvation Army project replaced and expanded the facilities and activities of a vital and well-run local mission program.

By contrast, the unsustained PLAP project was most clearly a vertical program. It was run as a separate project with a separate staff not attached to the Endemic Disease Program. The PLAP was

particularly vulnerable because as a separate vertical program it could be easily dismantled when the external funding stopped. Its personnel were dispersed or dismissed and its equipment taken by another administrative unit which did not use it for malaria activities.

The Health System Development project was designed to be well integrated at the national level and to have a field component in one distant health zone. Neither components actually became integrated into ongoing activities of existing administrative structures.

With the exception of the HSD, administrative leadership in the implementing institutions was relatively strong. In the cases of both PLAP and MCH, Zairian directors were both technically strong and effective leaders. In both cases, most major staff positions were stable throughout the project's life cycle. The HSD was not led by qualified Zairian staff.

Both of the sustained projects focused project efforts on developing administrative procedures and on training personnel in administration while the unsustained projects were unable to demonstrate achievement of these two outputs. The HSD was never able to develop effective administrative procedures for either central or peripheral health systems planning and management. On the other hand, four long term trainees received planning and management training. They only returned to Zaire when the project was nearing completion and placement plans for these individuals were not developed. While PLAP developed administrative systems for its activities, it did not support substantial administrative training.

5.3 Financing

On the whole, given the Zairian economy, national absorption of project costs is very limited. In the case of the MCH project, however, personnel costs and a very limited operating budget have been picked up by the government. This was begun during the life of the project.

Except for the PLAP that had foreign exchange demands because of chemicals and equipment, the other three projects were relatively low cost. In keeping with this general national policy of fee-forservice, which has been adopted by private sector institutions as well, the two sustained projects -- MCH centers and the Salvation Army clinics -- had cost-recovery mechanisms which provided a significant portion of the activity costs. By contrast the projects which depended entirely on funding from budgetary sources and had no cost-recovery mechanisms -- Health System Development and the Malaria project --were not sustained.

It appears that financing sources that are nationally based --

either solely through a cost-recovery mechanism as in the Salvation Army clinics, or a combination of cost-recovery and budgetary sources as in the MCH clinics -- was important for sustainability. In both cases, these sources were established during the life of the project and simply continued after the A.l.D. funding stopped.

The unusual aspect of the Zairian situation is that it is the consumers who pick up most of the health costs in Zaire. Historically, Zaire has been, by necessity, in the forefront of cost-recovery efforts with significant and rising fee schedules for all curative services. Various studies have shown that many health zones recover more than 50 percent of their recurrent costs from fees. A recent series of studies carried out by REACH found that seven of the 10 health zones studied recovered an average 79 percent of their operating costs excluding depreciation.

5.4 Project Content

5.4.1 Project Design and Technical Training Component

We found that both sustained and unsustained projects had strong project design; however, only those projects that were designed to include a significant training component were sustained.

By and large, the two sustained projects ranked higher on design features that we have hypothesized to be related to sustainability. The MCH project was positive on all aspects of design with the exception of one. The MCH project required the building of new infrastructures. Neither the clinics nor the clinic systems existed prior to the project. Both the MCH and Salvation Army projects had strong and continuing training components -- indeed, the MCH program is doing more training now than it did during the life of the project.

The HSD design was mixed in terms of its hypothesized influence on sustainability. On the positive side, the design worked with partially existing infrastructure (the MOH, but no planning unit per se). HSD was to be just one step in an overall PHC project sequence; it was intended to strengthen the superstructure that would manage the implementation of a national PHC program. There was a substantial training component: four long term trainees received relevant master’s level training in the United States. On the other hand the long term training was not well integrated into an overall training plan, and there was very little on-thejob training.

On the more strongly negative side, the HSD design was very poorly articulated. Without clear objectives and an elaborated strategy, it was unable to navigate through ambiguity. The original life of the project was only 2 years, although a partial extension of 2 years was granted. The HSD was unable, during the life of the

project, to generate clear benefits for beneficiaries. In part this was due to the fact that it was an organizational development project, and in part it was due to the lack of the project to complete its development of the pilot service delivery models.

PLAP was a well-defined project with clear objectives and an appropriate research design. However, it did not have a significant training component.

The Salvation Army was strong on all aspects of design with the exception of the LOP. The Salvation Army project was only a 2-year project. However, given the organization and experience of the implementing institution, the life span was adequate. Most of the administrative and service delivery systems had been well developed and tested by the Salvation Army prior to the project. It actually involved largely facilities construction.

5.4.2 Personnel incentives are included in project and continued after project.

The issue of personnel incentives is an important one in Zaire. Civil servants are very poorly paid. Because of this, projects operating through the public sector have great difficulties keeping qualified staff. Over the years, most projects have given civil servants salary supplements as incentives. The Salvation Army provides an innovative incentive system that is related to how well and efficiently resources are managed. Since all projects had incentives, we could not evaluate the importance of this variable for sustainability.

5.4.3 Supplies and logistics systems are improved as outputs of the project.

Both the MCH and Salvation Army projects were designed to develop and succeeded at developing improved supply and logistic systems. Although the HSD was supposed to develop a model zone system, including the improvement of supply and logistics systems, this was never really achieved. PLAP research activities appear to have been well supplied; however, the project did not improve the Endemic Disease Control supply and logistic system.

5.4.4 Characteristics of Technical Assistance

Aspects of technical assistance were strongly related to sustainability in the cases of one sustained project--i.e., the MCH and one unsustained project i.e., HSD. The key features of the technical assistance provided by the Organization for Rehabilitation through Training (ORT) to MCH were the relative technical and regional experience of the organization and field team; and the provision of an adequate amount of TA. The team included four long term technicians, two of whom were resident throughout the 4 year project.

The TA provided to the HSD was very marginal. First, neither the contractor organization nor the individual technical assistant was either technically or regionally experienced. The health planner was actually a clinician who had never worked in national level public health. He did, however, remain through the entire project.

PLAP also received significant long-term technical assistance from CDC/Atlanta for the epidemiological study aspects of the project. In the case of the Salvation Army project, technical assistance was provided entirely locally using Salvation Army personnel.

Our findings suggest that significant technical assistance may be related to sustainability, however, it is not sufficient for maintaining project activities.

5.5 Project type

With the exception of PLAP, all projects were integrated service delivery projects. While MCH and Salvation Army provided family planning and nutrition services, these were an integral part of the overall service mix. Our cases did not give us sufficient range to evaluate this project characteristic.

5.6 Community participation

We found strong evidence for the importance of community participation for sustainability. The two sustained projects involved significant community participation, while the two unsustained projects did not.

The MCH Clinics and the Salvation Army Clinics both involved significant out-reach and development of community volunteers and community organization. By contrast, the PLAP and HSD projects had no significant community involvement.

It appears that this participation is related to cost-recovery. Unlike the Central American cases, where none of the projects reviewed had significant cost recovery mechanisms and community participation appeared to be unrelated to sustainability, in Zaire, cost-recovery was important for the sustained projects as was participation. This combination suggests that participation may be an essential component for effective cost-recovery. Even fee-for-service charges may be more effectively respected if community participation is part of the project activity.

5.7 Effectiveness

Effectiveness does appear to be an important determinant of sustainability in the Zaire case. Both the MCH and Salvation Army projects were perceived during the life of the project and after as

effectively delivering services and achieving the goals established by the projects. The MCH Centers are still well run and functioning, although quality of service and facilities has declined somewhat since the end of the project funding. The Salvation Army clinics are still providing service and training as they had during the life of the project. The project is perceived as effective by beneficiaries, although the Medecin Chef de Zone considers the clinics duplicative and inappropriate in zonal priorities.

On the other hand, the Health System Development project was never fully implemented and was generally perceived as a failure. The long term training component was the only component that was effective and the four doctors who were trained continue to contribute to the health system in significant ways. The PLAP project demonstrated the ineffectiveness of the vector-control approach but was not able to demonstrate the effectiveness of alternative approaches.

6. SUMMARY OF FINDINGS

This review of the 4 completed A.l.D. health projects in Zaire suggests that several context and project factors are related to sustainability.

6.1 Contextual Factors

Since many of the contextual factors were constant for all projects, we were generally unable to determine their influence on the sustainability of projects in Zaire. We reviewed these factors primarily to form a basis for comparative analysis with other countries. Compared to the Central American cases, it does seem likely that the general weakness of the political system and the decaying economy in Zaire have had a negative effect on sustainability.

Our study was however, able to identify the importance of one central context characteristic: the strength of the implementing institutions. We found that those projects that were implemented by relatively strong institutions were more likely to be sustained than those that were implemented by weak institutions.

In one case, the MCH clinics were administered by the well-run Mama Yemo Hospital which, until recently, was a semi-autonomous institution. The other sustained project was run by an efficient PVO -- the Salvation Army. The unsustained projects were implemented by different units of the Ministry of Health, which was an extremely fragmented, conflict-ridden, centralized institution with low technical and administrative skill levels.

6.2 Project Characteristics

Seven characteristics of projects were found to be related to sustainability:

1) project integration

2) project negotiation

3) technical training components

4) community participation

5) financing through national absorption or cost recovery

6) project effectiveness

7) technical assistance

Related to the strength of the implementing institution, we found that those projects which were well integrated into the normal administrative structure of those institutions -- the MCH Clinics of the Mama Yemo Hospital administration and the clinics of the Salvation Army -- were more likely to be sustained than were those projects which were either vertically organized (PLAP) or scattered and sporadically implemented (HSD).

Projects which were negotiated through a mutually respectful process of give and take with significant involvement of those responsible for implementation were more likely to be sustained than those projects which appeared to be imposed by A.l.D.. The MCH Clinics and the Salvation Army project were primarily designed by those responsible for implementation. The other two projects were designed by A.l.D. with little participation of national officials.

The two projects which were sustained had strong training components. The unsustained PLAP project had almost no training, while the HSD project trained officials who were later to contribute to primary health care activities, but did not contribute to the implementation or continuation of any activities begun during the project’s life.

We found that the two projects with significant community participation were sustained, while those without community participation were unsustained.

Both the MCH and Salvation Army projects were funded by national sources and cost-recovery mechanisms. Both the budgetary and cost-recovery contributions were put into place during the life of the project and became increasingly important sources of income during that period. By contrast the two unsustained projects had little national budgetary contribution and no cost recovery

mechanisms.

We found that those projects which were perceived as effective were more likely to be sustained than the projects which were ineffective (HSD) or had demonstrated that their approach was inappropriate (PLAP).

Finally, projects with strong technical assistance tended to be sustained, although one project (PLAP) with technical assistance was not.

7. POLICY CONCLUSIONS

7.1 Addressing Contextual Weakness

Three central context factors emerge as important for A.l.D. policy in this study: (1) the weak state, (2) weak implementing institutions, and (3) the economic decline.

The weak state and weak implementing institutions in Zaire will require a major effort of strengthening institutional capacity and the authority and responsibility of public institutions. Institutionalized corruption will be difficult to address. In addition, the process of enhancing state capacity in Zaire involves conflict with the established private groups as the terms of authority and responsibility are continually altered. In some countries this process has resulted in an abrupt rupture and a premature assumption of responsibility by the state--before it has the capacity to decide policy and implement programs. In other countries a flexible modus vivendi is established and clear rules of the game are respected by both private and public sectors. It is important that A.l.D. continue to support the latter process here in Zaire.

It seems also clear that without significant change in the growth and distribution of national wealth (which is not foreseen in the near future) economic and financial constraints on health programs will continue to plague the sector. The economic weakness of Zaire and other African countries is much more severe than in Central America, although Guatemala and Honduras are among the poorest Latin American countries.

This economic weakness means that Zaire is likely to remain dependent on donor support for a significant period in the future. Total per capita health expenditure, according to recent estimates, is similar to that of the rest of sub-saharan Africa. It seems unlikely that this total can be increased easily in the short run. Already Zaire is in the forefront of countries which place the major burden for health financing on the beneficiaries. While it is always possible to attempt to increase this private expenditure, the implications for equity and for economic growth may not be desirable.

On the other hand, it is difficult to see how, under current economic constraints and the government's commitment to a stabilization policy, the government itself could assume greater financial responsibility without major redistribution of the national budget or a major effort to increase the state's share of national income. Given the current political structures, such changes are unlikely in the short-run.

A lesson from Central America might be appropriate as a guide for A.l.D. strategy in this weak institutional and economic context. In the 1940s the U.S. government established the Interamerican Cooperative System in Public Health (Servicio Cooperativo Interamericano en Salud Publica -- SCISP) which assisted most Latin American countries including Guatemala and Honduras which were studied in previous CDIE sustainability studies. When the SCISP began the administrative structures of Central American states were as weak as the current Zairian state. Ministries of Health were responsible for a few major hospitals in major cities and some endemic disease control but they did not have much authority or responsibility throughout the country.

The SCISP was a long term project (15 to 20 years) which involved long term technical assistance teams and major programs of long-term training of nationals in U.S. professional schools. The programs involved many project activities in health and in water supply and sanitation. In the process of implementing these projects SCISP helped develop the administrative capacity of the state institutions. In essence, the SCISP developed institutions which would form the basis of the Ministries of Health. The

CDIE studies showed that many of the projects implemented by the SCISP were sustained after the project funding stopped.

At the very least, this comparison suggests that long-term commitment, long-term technical assistance and an emphasis on project-related institution building should continue to be an essential part of A.l.D.'s strategy in Zaire. For sustainability to have meaning, the institutions that can maintain project activities must be developed before funding ceases. If, as appears obvious, the institutions require major efforts for the development of their capacity, authority and responsibility, then projects should be developed with long time horizons and flexibility for dealing with institutional change and conflict.

7.2 Recommendations

A.l.D. strategy should clearly establish a long-term commitment to utilization of project activities as a means of assisting the development of state and institutional capacity and resolving institutional conflict between state and private sector organizations. This strategy should support long-term technical assistance in all projects, major programs of long-term training,

and major support for administrative and managerial development.

It is also important to recognize that A.l.D. alone cannot provide sufficient resources or technical assistance to strengthen the state in Zaire. Active coordination among donors should be pursued to accomplish this goal. The prospective World Bank sectoral project provides an excellent opportunity for this type of donor coordination.

7.3 Guidelines for Project Characteristics

Even in a weak context, the Zaire cases suggest that seven project characteristics can have a positive effect on sustainability. These characteristics are ones over which project designers and implementers have significant control.

This study suggests that project design and implementation follow these guidelines:

- Projects should be integrated into an on-going administrative structure. Vertical project organization should be avoided.

- Projects should be negotiated through a mutually respectful process and not appear to be imposed by A.l.D..

- Training components for human resources who will be able to utilize the training in subsequent work should be included in project activities.

- Cost-recovery mechanisms and budgetary sources of funding should be established for significant portions of the costs of project activities during the life of the project.

- Community participation should be encouraged, especially with regard to cost-recovery mechanisms.

- Projects should be designed to demonstrate their effectiveness clearly.

- Strong technical assistance should be provided during the life of the project.

APPENDIX A

1. METHODOLOGY

The methodology for this study was a modification of the methodology developed for the two Central American cases (Honduras and Guatemala) in the CDIE series. The objective of this series has been to provide a comparative analytical frame work so that sustainability could be systematically examined in a variety of contexts and over a long historical period, to test the relationship between sustainability and a variety of factors that were hypothesized to have an influence on sustainability.

Since this series is one of the first to address the issue of sustainability, it was necessarily an exploratory effort from the beginning and it envisioned adaptation and evolution of the methodology in order to accommodate both the growing knowledge base about sustainability and the different conditions that each country study would find. In addition, different teams of professionals, with different backgrounds, were used in each country -- bringing varied perspectives, insights and interpretations to bear on the evolving methodology. Nevertheless, a core methodology has guided all of the efforts in this series.

The first question to be asked is: how do we know H a project is sustained? What is it that we expect to be sustained? Ideally, we would like to see the health benefits, such as reductions in specific diseases or general improvements in health levels, that the project produces to be sustained after the life of the project. If the project activities can continue to produce future benefits, then we would like to see these activities also continue. In only a few cases -- such as the eradication of small pox -- are health benefits achieved that do not require continuing activities for benefits to spread to subsequent generations.

However, it is difficult to determine what health benefits were achieved by most health care delivery activities. Most of the projects A.l.D. supports do not in themselves produce readily measurable health benefits, except in rare cases of experimental field studies. The work of an auxiliary nurse may affect the health levels of her community, but current statistics are not likely to demonstrate that impact. In most cases, we have to assume that the activities of a project produce expected health benefits and that continuing the activities of the project would continue the benefits and thereby in some sense sustain the project. Nevertheless, there are clear cases where project activities are notably not producing any benefits -- for instance construction of latrines that are not used.

For the five country studies, the framework for analysis was a systems analysis which identified a central system around each

A.l.D. project. The analysis examined: 1) the conditions in the health sector before the project began; 2) the goals and objectives of the project; 3) the inputs in funds, materials and technical assistance provided by the project; 4) concurrent activities by the national government and other international donors; 5) the implementation process of the A.l.D. project; 6) project outputs in terms of human resources, physical constructions, and institution building; 7) project outcomes: the health benefits gained by the national population; 8) the status of outputs and outcomes at least 2 years after the project terminated; and 9) longer-term and unintended consequences of the project.

Project (or project components) were considered to be sustained H project activities and benefits continued at least three years after the life of the project. Project outputs include the trained personnel, such as non-professional village level health workers or professional sanitary engineers; the physical infrastructure, such as hospitals and water systems; and the institutional systems, such as training schools, malaria and water and sanitation agencies, created during the project. Benefits (project outcomes) are the intended or unintended positive impacts of the activities for the health of the national populations. In most cases actual project benefits could not be determined; therefore, we expected that continuing activities were likely to have produced continuing benefits unless there was reason to believe that conditions which might influence the effectiveness of those activities had changed.

We examined both immediate outputs, those activ-nies like water systems or trained personnel which were created during the IHe of the project and were likely to produce immediate benefits; and replicating outputs, the institutions which reproduce the immediate outputs, such as construction agencies and training schools.

For each project (or project component), we determined whether the project outputs were continuing after the life of the project and then identified the sources of funding for those outputs. Continuing projects which were funded by national sources (private or public) after the U.S. funding ceased were clearly sustained. However, for some projects, replicating outputs were sustained by other foreign donors. While this source is less desirable since international support can be withdrawn, projects were still considered sustained if the recipient nation appeared likely to continue to receive such support in the future.

It should be noted that our definition of sustainability does not address the issue of a more diffuse influence that projects may have had. Some projects may provide ideas or lessons that influence the design of future projects or influence national policy even though the activities that had been implemented during the life of the project did not themselves continue after the funding stopped.

We felt that such dffluse influence would be hard to examine systematically.

After identifying which project outputs were relatively more sustained we compared the characteristics of these projects and their contexts to those project outputs which were relatively unsustained. These comparisons were made with regard to contextual factors and project characteristics which, based on previous studies and on the team's observations, were hypothesized to have an effect on project sustainability.

2. HYPOTHESES FOR INDEPENDENT VARIABLES

2.1 Contextual Factors and Project Characteristics Affecting Sustainability

In the following section we will discuss each of the factors and present specific hypotheses examined in the CDIE series of studies.

2.2 Contextual Factors

Several characteristics of the context in which projects are implemented may affect the sustainability of the project after the end of the project. The factors are not subject to the control of project designers or project managers but rather are factors which should be taken into account in project design and implementation. When faced with contextual factors which are likely to undermine the sustainability of a project, project designers and managers should modify projects so as to reduce the effect of these conditions on the project or should consider the implications of designing and implementing a project which is not likely to be sustained. Some projects may be more influenced by these contextual factors than other projects. These characteristics may change over time within a nation and they may form a basis for comparison with other countries.

2.2.1 Natural Disasters

We hypothesized that natural disasters would have inhibiting effects on the continuation of project activities and benefits. The logic underlying this hypothesis was that disasters would divert both attention and resources from normal development activities. Most natural disasters tend to require immediate, urgent assistance to provide food, water and shelter, prevent disease outbreaks, or administer urgent medical care. At a minimum the effect might be to interrupt or dilute the activities; in extreme cases they may force the cancellation of activities which might not be reinitiated at a later time. This is particularly true of health, nutrition, and water resource development projects.

2.2.2 Political Regime

Characteristics of political regimes which may influence the sustainability of specific projects are: the strength of the state and its capacity to redistribute national resources. We hypothesized that 1) a strong state is more likely to be able to assign and maintain higher levels of resources in social sectors like health and therefore is more likely to be able to sustain health projects, 2) a progressive regime, i.e., one more committed to social reorganization, is more likely to sustain health programs than a status quo regime, 3) a more stable regime, which maintains regular and orderly changes in leadership in political and bureaucratic positions, provides a more conducive environment for sustainability, and 4) regimes characterized by nationalistic sensitivity will be less conducive to sustain foreign supported projects. (Bossert, "Can We Return to the Regime for Policy Analysis," Comparative Politics, 1983).

2.2.3 Bilateral Relations

Relations between the U.S. and the host country may also affect sustainability. Good relations facilitate communication and provide a more responsive environment which is likely to result in projects that are better adapted to the local situation. We hypothesized that projects implemented or completed during periods of good relations would be more likely to be sustained.

In this section we also consider the change in U.S. Government development policies in the health sector. U.S. policy in health shifted from an emphasis in the 1960s on infrastructure and water development, to an emphasis in the 1970s on primary health care and an attempt to reach the "poorest of the poor." In the 1980s policies shifted again to a focus on child survival activities. These policy changes may undermine the sustainability of other activities, especially H support is abruptly or radically shifted or withdrawn, with no transitioning or ameliorating plan.

2.2.4 Social and Cultural Context

Sociocultural factors may affect the implementation and sustainability of health projects in a variety of ways. Perhaps most important for this study are the potential barriers between the cultures of the implementors and the beneficiaries. These barriers can lead project designers to propose and attempt to implement activities that are unacceptable to the intended beneficiaries. Since some activities designed to improve health in a population must alter established social and cultural patterns, projects must be designed to be sensitive to the effective means of altering behavior within acceptable cultural boundaries. These factors may be particularly important for projects which expect significant levels of community participation.

We hypothesized that characteristics of sociocultural context which are likely to encourage sustainability of projects are: 1)

cultural homogeneity, 2) egalitarian distribution, 3) equal access to power, and 4) sexual equality. Where there are particularly marked sociocultural distinctions between groups cultural conflict must be overcome.

2.2.5 Economic Context

Changes in the economic well being of the nation are likely to influence the sustainability of most projects. Projects that require national resources will be more likely to be sustained in periods of growth than they would be during periods of economic decline. We will examine each project within the context of the national periods of economic growth and decline.

A second economic factor is the portion of national economic resources available to the government. A Government with a large tax base may be able to devote more national resources to maintaining projects after foreign funding has been terminated. A larger government sector may even be able to weather brief periods of economic decline and provide resources for sustaining projects.

A third aspect of economic resources is confined to the health sector. Projects are implemented within an economic sector in which tradeoffs are implicit. If the health sector is devoting a large portion of its resources to urban based curative health systems, in particular costly hospitals, it may be less likely to shift resources to the A.l.D. supported rural primary care activities after the A.l.D. funding stops.

2.2.6 Private Sector

We hypothesized that the private sector health providers and the existence of an effective network of PVOs to implement A.l.D. projects are contextual factors which might influence the sustainability of projects. In some cases, A.l.D. supported projects incorporate the private sector in relatively effective ways into health delivery system projects. For the most part, however, these services are competing for clients and funding with the public health services that receive most of A.l.D. funding.

Another portion of the private sector is the PVOs and other private sector institutions which act as implementing agencies for A.l.D. and other donors. Sometimes PVOs provide effective alternative implementing institutions for A.l.D. projects. However, sometimes they also compete with each other for clients. And they may have their own institutional routines that are not conducive to sustainability when funding ends. PVO projects may also be small and constitute a difficult project management problem.

2.2.7 Implementing Institutions

Some A.l.D. projects can have major impact on the structure and capacity of implementing institutions. However, in most cases, at least initially, A.l.D. projects are implemented within the existing institutional structures. The projects may be implemented by a variety of governmental organizations, and by non-governmental organizations as well, although the most prominent organization is often the Ministry of Health.

Six characteristics of these institutions were hypothesized to undermine sustainability: 1) rapid turnover and low quality of top officials, 2) centralization of decision-making, 3) fragmentation of authority and responsibility, 4) low skill levels of personnel, 5) conflicting organizational goals, and 6) for PVOs, the existence of competition among them for funds or beneficiaries.

2.2.8 Donor Coordination

While A.l.D. may try to influence other donors and attempt to coordinate activities with them, in most cases, A.l.D. must work within a context in which other donors define their own objectives and activities. There are few instances of clear and explicit coordination among donors in the countries we have examined. We hypothesized that donor "bandwagons" would jeopardize sustainability, whereas donor coordination that provided for either explicit division of labor (with one agency providing support for one type of activity while another would support other programs) or sequential support (with one donor providing follow-on funds for the activities of another) was more likely to be conducive to the sustainability of project activities and benefits.

2.2.9 National Commitment to Project Goals and Objectives

Previous studies have found that national commitment to project goals and objectives was one of the most important factors related to project sustainability. This factor is defined as the degree of national consensus on project goals and objectives and is conceptually distinct from commitment of national financial resources. Consensus is identified by the lack of conflict in the political and bureaucratic arenas. It is hypothesized that those projects which enjoy enduring national commitment are more likely to be sustained.

2.3 Project Characteristics

The following factors are those project characteristics that can be altered and controlled by project designers and managers with much greater latitude for choice than is available for contextual factors.

2.3.1 Project Negotiation Process

Related to national commitment is the degree to which a

project is designed and implemented through a mutually respectful consensus building process. Projects which are seen as imposed by A.l.D. rather than as emerging through a process of mutually beneficial dialogue are hypothesized to be less likely to be sustained. Our studies will examine each project design phase with care to determine the extent of consensus gained in this process.

2.3.2 Institutional and Managerial Characteristics of the Project

This study will examine several managerial factors, as well as the administrative structure of projects and their institutional contexts.

a. Vertical vs. Integrated Project Design

We hypothesized that vertically organized projects which were not well integrated into the existing national administrative structure would be less likely to be sustained. PVO implementation of health projects may provide a special case of institutional organization characteristics. PVOs are alternative implementing agencies which usually are not expected to become integrated into the governmental structure. A.l.D. projects with PVOs therefore tend to be vertical projects.

b. Managerial Leadership

Other evaluations of sustainability have identified managerial leadership qualities as a significant aspect of sustainability. In this study we will explore the managerial capacity of the project and its implementing agencies. One factor of managerial leadership is the continuation of qualified personnel in key implementing positions. We hypothesized that rotation could undermine the potential for sustainability-as well as effectiveness of projects.

On the other hand, projects which retain the same leadership, without periodic rotation, may make a project too closely identified with one person and undermine the sustainability of the project when or if that individual is replaced.

c. Administrative Systems and Training

We have hypothesized that project which include effective reorganization and training in administrative capacity, will be more sustainable than projects with little managerial support.

2.3.3 Financing

Within the context of the uncontrolled economic factors discussed above, several factors which project design and management can control may have an influence on sustainability.

a. National Absorption of Project Costs

We have hypothesized that projects which have an increasing share of project costs absorbed into the national budget during the life of the project will be more likely to be sustained than those which have not phased-in government funding. The logic of this hypothesis is that projects which have gained national budget lines are less likely to be cut off at the end of the projects, than projects which would require major new national funding at the end of the project in order to absorb the costs previously covered by foreign funds. The effect of Economic Support Funds which often provide counterpart budgetary funding resources should be discounted here. In earlier studies in Honduras and Guatermala we found that the growth in ESF support of counterpart funding for health projects caused considerable concern.

b. Foreign Exchange Component

Since most A.I.D. recipient nations have on-going scarcity of foreign exchange, projects which require large and continuing foreign exchange expenditures for imported inputs were hypothesized to be less likely to be sustained than those which rely on nationally available resources.

c. Tradeoffs with Other Priorities

Since resources devoted to the health sector generally are quite limited, any project which would demand the shifting of national resources in order to cover activities previously funded by foreign sources implies the withdrawal of resources from alternative use of funding. We hypothesized that, given the generally static nature of health ministry budgets, projects which require greater substitution of resources will be less likely to be sustained.

d. Cost Recovery

It is assumed that if project activities can be supported by cost recovery mechanisms, including especially means of obtaining beneficiaries' payments, that these funds will provide a direct means of supporting the project activities after the A.I.D. funding has been terminated and thus contribute to sustainability.

2.3.4 Technical Requirements

Several factors of projects are related to the technical requirements of the type of project, such as the type and significance of the training component, the degree to which technical assistance is an essential component, and the appropriateness of the technology for the objectives and the context.

a. Technical Training

Training projects and training components of projects with broader objectives are by reputation assumed to be more sustainable than other types of projects. Our central hypothesis is that projects with large training components are more likely to be sustained that those which do not train human resources. A corollary would be that even in large multi-purpose projects which are not fully sustained, the training component, unless it depends directly on the continuation of the rest of the project activities, is likely to be maintained.

One central component of training projects that may be essential for sustainability, is the establishment of clear salaried positions within the MOH or private sector for all levels of workers except the voluntary community workers. Training projects that train workers with little prospect of obtaining steady employment are not likely to be sustained.

Appropriateness of the training program may also contribute to the sustainability of a project. Many training programs are designed to provide personnel for the broad objectives of providing service to the undeserved populations. When training programs are evaluated, particular attention is paid to the curriculum and the location of training facilities. Training programs that provide curriculum designed for low cost, preventive-oriented service and are located in areas which encourage those trained to remain in undeserved areas while performing their duties, are deemed likely to be more sustained than those programs which do not focus attention on the broad goals of most A.l.D. projects: providing for the needs of undeserved populations.

Training in administration and management, as well as the effectiveness of training, will be discussed in the sections on project administration and .effectiveness, respectively.

b. Technical Assistance

We hypothesized that projects which had large sized technical assistance and which did not provide for the increasing development of host country capability were least likely to be sustained. We also expected that technical assistance that was of long duration was more likely to provide for a transfer of knowledge and capability than were short term consultancies.

c. Appropriate Technology

In several cases, it appears that the technology supported by U.S. Government projects may have been inappropriate for the objectives. For instance, the use of certain insecticides in the malaria projects, even after their effectiveness was questioned in the U.S. is an example of inappropriate technology. We hypothesized

that projects which used demonstrably appropriate technology are likely to be sustained. Conversely, those that used demonstrably inappropriate technology are not likely to be sustained, nor should they be sustained.

2.3.5 Community Participation and Acceptance

Many projects are designed to encourage community participation and require community acceptance in order to be effective. Both these factors may be necessary for project activities and benefits to be continued after the A.l.D. funding has ceased. We hypothesized that community participation and acceptance will generate demand for the project services by the beneficiaries and thus promote sustainability.

2.3.6 Project Effectiveness

Many elements may have to be present in order for a project to be effective. We have suggested several elements, such as effective and appropriate training, acceptability by the community, etc. However, whatever contributes to effectiveness, we hypothesized that a project that is effective during its funding life is an important factor in determining sustainability.

Associated with effectiveness, is the appropriateness of project design and its clarity in defining objectives. We hypothesized that projects with clear and appropriate objectives, or with the flexibility to redefine objectives in order to apply project funds to changing needs or obstacles, will be more likely to be sustained.

Hypotheses were tested by use of a chart (see Tables 5 and 6 in Report) that assigned a rating of those factors that were deemed to support (+) or undermine (-) sustainability in each project according to the hypotheses. Factors were judged to be related to sustainability if there were more sustained projects/components with positive ratings than negative ratings and among unsustained project/components the ratings were more often negative than positive.

Individual judgements about each factor, sustainability of activities, relative importance and weighting were inevitably made in the final choices about ratings and in reporting the final analysis. The major judgements are generally discussed in each report; however, many choices were made by each investigator and reviewed by other members of the team to assure some level of consistency and validity. The team had two members of the original Central American teams to assure consistency with prior interpretations.

3. INFORMATION SOURCES AND DATA COLLECTION

This study was initiated with a ~desk study" written by a country expert and based on documentation and interviews in Washington. This study formed the basis for orienting the field team and for establishing the basic hypotheses to be researched in more detail. The desk study provided a good historical orientation about the projects and the processes; however, little was known about whether or not the projects had been sustained, and many of the factors could not be examined for lack of reported data.

In Zaire, two external investigators were joined by one Zairian public health physician for a two week period in the field. One of the external investigators had written the desk study and was well familiar with Zaire, the other external investigator had led the Central American teams, the public health physician had managed several of the projects that were being examined

The field visit involved intensive interviews with principals involved in all projects under review, as well as site visits to several projects.

Preliminary drafts were shared with the USAID mission at a debriefing session before the end of the field visit. Comments and corrections were incorporated in the final drafts.

All final reports have been reviewed by the CDIE project manager and the team leader of the original Central American studies for comparative purposes. A synthesis of all African countries has been prepared as an initial step in comparative analysis, and is available from CDIE.

APPENDIX B

DEVELOPMENT OF THE HEALTH SECTOR

1. ZAIRE'S HEALTH SECTOR

1.1 Health

Before independence, Zaire had one of the most developed health systems in Sub-Saharan Africa, combining numerous facilities with widespread outreach programs. This system was almost entirely dependent on external financial and manpower support (Zairians were not educated past the paraprofessional level) and collapsed soon after independence. By 1970 most health care was provided by nongovernmental organizations including missionary groups, private enterprise employee health programs (which are mandated by law), and a spectrum of private providers.

During the 1970s and early 1980s, donors and NGOs began experimenting extensively with PHC approaches. By 1975, Zaire had articulated a broad-based policy aimed at decentralizing primary curative care and developing preventive programs. In 1981 the GOZ signed the African Health Charter, officially endorsing PHC as the most effective approach to Zaire's health needs. During the same year, the Department of Health (DOH) prepared the first five year plan for 1982-1986. This plan endorsed a highly decentralized system of primary health care based around the Health Zone (HZ). The crux of the strategy was: a) to standardize and coordinate all health services in a specified geographic area, and b) to provide the entire population of this area with basic curative, preventive, and promotive care. The Health Zones were defined by geographic, ethnic, and administrative boundaries. Each of the 306 potential zones covers a population of 100-200,000. Highly decentralized planning and management are key characteristics of the HZ so, also, is self-financing. HZs receive some government support for operating costs (largely contributions to salaries), but most rely on users' fees and donor assistance to cover operating costs. By 1986, there were over 150 operating health zones. The proposed health plan for 19871991 intends to extend coverage to the remaining zones, but also aspires to hospital rehabilitation and construction, which may impede progress towards the goal of extended health coverage.

The National Action Committee for Water and Sanitation (CNAEA) develops policy and coordinates intersectoral activities for water supply and sanitation. Service National d'Hydraulique Rural (SNHR) is responsible for implementing rural programs. Although the SNHR is a new agency (created in 1983), its predecessor had been involved in rural water activities on a limited scale since 1977. UNICEF was the major donor for these efforts until USAID began to assist in this sector under Basic Rural Health and the Shaba

Refugee water projects. SNHR's brigades engage in spring capping, well digging, installation of handpumps and other pumping systems, and the construction of gravity flow distribution systems. These brigades rely heavily on assistance from beneficiaries of the program.

In 1984-1985 a national policy and strategy statement was developed and the U.N. decade goals were revised: the main goal now is to increase the rate of water supply coverage such that approximately 50 percent of the rural population will have access to potable water close to their homes by 1991. It has also been decided that beneficiaries will be entirely responsible for all aspects of management, maintenance, repair, and, if possible, amortization of their systems.

1.2 Population

Zaire has inherited a pro-natalist cultural attitude towards population. However, the GOZ officially endorsed the concept of "desired births" in 1972 when it established the Committee National des Naissances Desirables (CNND). Although this policy change permitted experimentation in approaches to family planning interventions by donors and PVOs, it did not result in widespread adoption of FP into health service systems until 1982. At this time the USAlD-sponsored project Projet de Services des Naissances Desirables (PSND) catalyzed the MOH's official recognition that FP was an integral part of MCH care. Up to the present time, FP initiatives have not demonstrated significant changes in contraceptive practices in Zaire (reasons are discussed later in the document).

Certain high level policy changes suggest that the GOZ has recently placed a higher priority on population growth containment with USAID assistance. In 1986 an interministerial National Population Committee was created and given the charge to draft a national population policy. In 1987 a Population Planning Unit was established in the Ministry of Plan (MOP) to serve as the committee's secretariate. These developments have not yet resulted in operational changes within the health sector.

1.3 Nutrition

Although one of the major objectives of the 1982 Agricultural Recovery Plan is to reach selfsufficiency in food crops, the GOZ does not have a formal national nutrition policy. The National Nutrition Planning Center (CEPLANUT) and several interministerial committees have been responsible for promoting nutrition but little has been done to integrate nutritional concerns into other HPN sector activities in a systematic fashion and CEPLANUrs operational activities have been very limited.

2. A.l.D.'S CONTRIBUTION TO THE HPN SECTOR

A.l.D. has provided development assistance to Zaire since its independence in 1960. Both the number of projects and the level of assistance have increased over time. During the 1970s development assistance focused largely on strengthening training institutions. The 1970s saw initiation of projects in all sectors including infrastructure, HPN, rural development, and agriculture. Health sector support has dominated the mission's portfolio in the 80s while education projects have been largely abandoned due to what are perceived to be currently insurmountable problems in that sector. Throughout the last two decades, the mission also has placed a regional focus in the areas of Shaba and Bandundu. These regions receive special attention because of their levels of need for development assistance, economic importance (mining industry) to the country, and geopolitical importance to the United States.

A.l.D.'s emphasis toward the HPN sector shifted dramatically during the past two decades, particularly during the 1980s. While HPN projects accounted for less than 20 percent of all projects started in the 1970s, they accounted for half during the 1980s. Similarly, the percent dollar amount spent on HPN projects has increased from less than 10 percent in the 70s, to almost 64 percent in the 80s.

The mission strategy in the health sector varied between the two decades. The 70s were characterized by experimentation in alternative health care delivery systems and an emphasis on central level national vertical programs. Four projects, the Karawa health education project, the Salvation Army project the MCH Family Planning project and the Health Systems Development project, supported microlevel service delivery efforts. However, the bulk of the emphasis was on initiating or strengthening vertical programs. These included the Endemic and Community Disease Control Project, the National Nutrition Planning Project, and the central level planning component of the Health Systems Delivery Project. During the 70s the GOZ was most often the implementing institution and technical assistance was most often provided via institutional contracts.

During the 80s the mission's support coalesced around PHC, and this year, the mission phased out support to categorical programs not integrated to the PHC network; i.e., the Nutrition Planning Project, a vertical program which had been supported by A.l.D. for approximately 10 years. On the other hand, the CCCD Project, although a vertical program, coordinates at the HZ level to strengthen immunization, ORT, and malaria treatment and prophylaxis. The large water project initiated in 1985 is carried out through a component of the Basic Rural Health ll Project, while the School of Public Health Project is considered to be crucial to the replicability of middle and upper level managers and planners of the PHC system by allowing the GOZ to provide relevant master's level training in public health.

Mission policy has also shifted with regard to the type of technical assistance provided to projects. Due to difficulties experienced in the 1970s with contracting institutions largely unfamiliar with Zaire and the particular obstacles unique to the Zairian context, the Mission moved in the early 1980s toward the use of PSCs. More recently, however, the use of institutions over PSC's has returned to favor. This shift reflects, in part, the burden on the mission to shepherd the administrative demands of a large portfolio.

Finally, with most projects programmed with a minimum 5 years' duration and several succeeded by follow-on projects, the Mission's activities in HPN have reflected relatively long term commitment. The Primary Health Care series, the Mission's largest longest commitment, is actually three projects. The first, Health Systems Development, aimed to develop a pilot HZ system and strengthen central level planning capacity. The second, Basic Rural Health 1, followed and focused entirely on operationalizing PHC services at the HZ level. The third and the current phase is attempting both to expand coverage of the system and to focus on the strengthening of regional and subregional supervision and logistic systems. This stage was complemented by an intensive commitment to improve HZ water supplies (Basic Rural Health ll-Water Component). In addition, some emphasis is placed on the development of supervisory and technical skills of the central level PHC coordinating body.

Similarly, the nutrition planning series consisted of two stages. The first (Nutrition Planning) attempted to create a national nutrition planning structure, collect baseline data to guide the formulation of inteNention strategies, and finally to test potential urban and rural approaches to improving the population's nutritional status. The follow-on, Area Nutrition Improvement Project, was intended to develop a coordinated regional system of food and nutrition activities in Bandundu, and to continue to strengthen central level capabilities.

The Endemic and Community Disease Control program was the predecessor to A.l.D.'s CCCD project in Zaire. Both are national vertical programs aimed at controlling communicable diseases--especially vaccine-preventable diseases--and both have been technically supported by CDC. While the first project included a malaria vector control component, this was abandoned towards the end of the project when cumulative African experience showed the approaches to be unworkable. The CCCD has expanded the scope of activities to include diarrheal disease control and malaria prophylaxis and treatment.

Although the mission has historically demonstrated interest in the population sector, actual project assistance has come more recently. Implemented in 1982, the Family Planning Services project attempts to build central capacity for planning and managing FP services and also to establish a clinic-based FP urban program.

This effort is complemented by a centrally-funded operations research project (PRODEF) that is testing various models to improve contraceptive utilization in urban and rural areas. A follow-on project is currently being planned.

Lastly, the School of Public Health (SPH) Project is a ten-year, multi-phase undertaking the goal of which is to develop a fully functioning school participating in research, teaching, and service provision. The first five years provide substantial technical assistance and training of Zairian faculty. A pragmatic masters level program is targeted towards reinforcing the mid and upper level management needs of the PHC system.

The mission makes extensive use of centrally and regionally funded projects to reinforce its activities. More than 10 different projects have been incorporated in to Mission programs. Most notable are the contributions of WASH and REACH. WASH has been instrumental in strengthening water supply components of the SNHR Basic Rural Health ll project, while REACH has been used to study cost recover mechanisms in the HZ's as well as to assist Basic Rural Health in developing a financial information system.

REACH also helped design and teach the economics curriculum for the SPH. The PRICOR project has and continues to support a host of operations research studies relating to child survival strategies.

APPENDIX C

PAST PROJECTS: CASE STUDIES

1. MATERNAL AND CHILD HEALTH: PROJECT #660 049

1.1 Background and Project Design

During the 1960s, the Mama Yemo Hospital complex was in disarray. A private association created by expatriate Belgian physicians, FOMECO, proposed to the President a plan to revitalize the hospital as an alternative to construction of a new hospital. The President's physician, an American named Dr. Close was to be the director of this project, and the President made national funds available to FOMECO in 1970. Under Close's direction the hospital was reorganized and revitalized. In the process of strengthening the hospital, it became clear that the large maternity ward was insufficient for the rapidly growing demand, and that reproductive health was a major problem for the health system. In 1972, the President made maternal and child health--including family planning--a national priority, and launched a program of IEC and family planning services. The program began in Mama Yemo with national funds for family planning services at the maternity ward.

By 1974 when it was clear that the Mama Yemo maternity ward was chronically overcrowded, the government decided it would have to create new facilities. With A.l.D. support, it developed a project to decentralize maternity services and to provide other MCH services, including family planning, through the creation of six MCH centers in Kinshasa. The idea for the project and the components appear to have been developed by the staffs of FOMECO and A.l.D. jointly, and not imposed by A.l.D..

The project appears to have been well designed and appropriate to the problems and the context. The MCH clinics were outfitted with appropriate equipment. Training was well designed. Clinic design was acceptable--although ventilation remains a problem. The lay-out of services within the clinics provides for immunization, prenatal and postnatal education and consultation, deliver, and post-partum wards. The clinics have become a model for other maternities in Kinshasa and other major cities of the county.

1.2 Project Implementation

At first, project implementation proceeded rapidly as two clinics were built, equipped, staffed and operating at near capacity (65,000 patient visits and 5000 deliveries per year per center) within two years of project start-up. The relatively rapid implementation was apparently due to a series of factors: Staffing was excellent on all sides. Zairian leadership was both highly

capable and committed. Technical assistance to the project was adequate in quantity and quality, and was relatively stable. Four long term positions were filled by six individuals over the four years of project assistance. Well-qualified and African-experienced professionals provided timely and high quality short term assistance. In addition, as mentioned earlier, the project received the direct support of the President.

Towards the later stages of the project, however, progress was substantially slowed to the degree that the quantitative objectives of the project were not fulfilled. Most notably only two clinics rather than the six planned were completed under the project. Another shortfall was the number of fully qualified MCH/FP trainers trained under the project.

The immediate causes of the shortfall were insufficient operating funds for the centers and lack of cooperation between FOMECO, the MOH and local political authorities. There were apparently just two major underlying reasons why this impasse to project expansion occurred. First, the major economic crisis of the mid-seventies caused across-the-board cuts in the investment and operating budgets of the county, . And secondly, political factors caused a shift in the ability of the implementing agency to command resources. High level discord between the President’s office and FOMECO leadership rapidly diminished FOMECO’s clout.

Although the quantitative project benchmarks were not met, the MCH project made lasting changes to MCH care in Zaire. The clinics are still providing the complement of services that were provided during the period of USAID support although drugs are not distributed. Family planning services are still being provided to a relatively limited number of users. Even the educational materials developed during the period of A.l.D. assistance are still being used. The information systems developed also are still functioning.

Moreover, the clinics served as a model for other urban MCH services and they still function as inservice MCH training sites for health professionals.

1.3 Conclusions

The MCH project reviewed here was one of only two projects that we can clearly identify as having sustained project benefits and activities after the A.l.D. funding stopped. Furthermore, it has done so largely with national funding; the family planning component still receives support from AZBEF for contraceptive supplies but the rest of the family planning activities are nationally supported and the PEVCCCD project still provides immunizations. This case provides support for some hypotheses about sustainability that have emerged from other studies.

It was above all an effective project and one well integrated

into the existing administrative structure of FOMECO, the entity responsible for effectively restructuring the Mama Yemo Hospital. It emerged from Zairian concerns for problems in the Mama Yemo maternity wards and was developed through clear negotiations between A.l.D. and the government. It was not an A.l.D. model imposed from outside. Furthermore, the project had full Presidential support and general national consensus on its importance. It had a strong training component that not only has provided trained personnel who continue to provide services, but also the MCH centers have become training centers themselves with interns from other health facilities learning on the job in the clinics. Personnel in the program are relatively stable from clinic managers on down. Finally, the national budget began to absorb increasing portions of project costs over the life of the project.

2. HEALTH SYSTEMS DEVELOPMENT: PROJECT # 660-057

2.1 Project design and implementation

The Health Systems Development Project was the first of a planned three phase program to test and implement an integrated decentralized health delivery system. The inception of the project was based on A.l.D.'s interest, based on successes with small-scale FP projects, in refining a system for integrated health services deliver that was centered in the HZ. At the time of project inception, Zaire's national health plan 1974-1979 targeted to begin 25 health zones by 1979. The USAID mission was preparing a large project, the Basic Rural Health Services Project, to assist the GOZ in reaching this goal. This project originally called for a budget of US$8 million. Apparently A.l.D. Washington was concerned about committing that sum of money to an implementing agency that reputedly had a weak planning and management capability. Washington recommended that a pre-project be carried out to demonstrate the capabilities of the MOH and focused on strengthening the MOH's planning and management capacity.

In response to A.l.D. Washington, the Health System Development Project, planned to be a two year project, was developed having two major objectives:

a. to create a functioning health planning unit within the MOH and

b. to develop one pilot zone and then a national implementation plan for replication

Although these basic objectives were clearly in line with government health sector priorities, the specific design of the project was quite vague, being largely developed by outside consultants. Given the Zairian health sector context in 1975 when the project was designed, these objectives could have only been reached with great difficulty in the original two-year time frame

allotted to the project.

An evaluation of the project in 1980 identified several of these design flaws which included: lack of clarity and detail in project objectives and activities, lack of clarity in the project management structure, and lack of attention to the formative nature of project activities and thus the need for experimentation. Technical assistance identified in the design was inadequate to achieve the ambitious objectives of the project. There was only to be one long term health management specialist over the anticipated two year project.

A clear design was not specified until the midterm evaluation. At that time numbers of centers to be opened, health committees to be established, different levels of health care personnel to be trained, etc. were laid out as were the major issues that any such system must address in order for it to be sustainable. The project also was extended another 2 years.

Several factors related to implementation also influenced the relative lack of success of this project. The technical assistance contract was awarded based on political rather than competency factors. The long term health management specialist was a clinician who had very limited planning and management experience. There was extensive short term assistance in the areas of budgeting, personnel management, statistics, transport, logistics and supply systems were also written in to the original design. But again, the contractor had difficulties in identifying and fielding competent assistance in a timely fashion. Four physicians received master's level training in health administration in the United States, although training occurred late during the project and thus did not allow sufficient overlap with technical assistance to insure continuity of project activities.

Other factors influencing the implementation of the project included the selection of the demonstration zone and the declining economic climate in Zaire. Kongolo, a zone 1500 miles from Kinshasa was selected as the rural test zone. Besides being relatively geographically isolated, this zone did not meet criteria currently used for including zones in the Basic Rural Health PHC program. Because of the distance between the central and field offices, communications and logistics problems resulted in substantial delays in implementation. A virtual absence of gas and oil in Zaire in 1978 and 1979 added to delays.

Finally, the project was implemented near the beginning of the mid-seventies economic decline. This period marked a precipitous decline in financial resources to the health sector compared with those anticipated at the time the project was conceived. This meant that adjustment to an impoverished MOH was required after project implementation had begun.

This project may have been A.l.D.’s most difficult and least productive HPN effort. Project objectives at both the central and zonal level were never achieved, except for the long term training of the four Zairian physicians. A planning cell was created in the MOH but was never defined structurally and functionally. The demonstration zone in Kongolo became partially operational only towards the end of 1981, shortly before the close of the project. Completion of the model zone was never attained.

On the other hand, although the four Zairian physicians trained at the master’s level did not return to a functioning planning cell within the MOH, three out of the four currently are high level administrators associated with USAID supported primal, health care and family planning programs (Basic Rural Health and Family Planning Services). Since their return, they have been instrumental in effecting important changes in the structure and functioning of the Zairian health care system. In addition they have had major input in the design and execution of several donor projects. These three individuals have had important but unquantHiable impacts on the appropriateness and sustainability of USAID projects. And their contribution to the health sector makes obvious the need to consider intergenerational and cross project contributions to sustainability.

The concept of the health zone as the cornerstone to a decentralized primal health care strategy lived beyond the ill-fated project. And indeed this strategy was strongly supported by several donors in other projects that succeeded the Health Systems Development Project.

2.2 Conclusions

The Health Services Delivery Project was perhaps the most singularly unsuccessful project. Poor and inappropriate design as well as lack of qualified technical assistance can be pointed to as the most important factors.

3. ENDEMIC AND COMMUNICABLE DISEASE CONTROL: PROJECT #660-0058L

3.1 Background and Project Design

A.l.D. assistance in communicable diseases was initiated as the result of a consultant’s report on disease incidence in Zaire in the early 1970s which demonstrated the high incidences of immunizable diseases and malaria. This report was submitted to Dr. Close who in turn interested the President in initiating activities in this area. At the time, the Program of Endemic Diseases which had been responsible for the WHO/UNICEF small pox campaign became involved in the process of project development. Although it appears that there was some national participation in the project design, none of the major participants was available for interviews to evaluate the degree of negotiation that occurred.

The Endemic and Communicable Disease Controlled Project (660-0058), which was signed in 1976, was designed to have two distinct components. One, the EPI component, was to be fully integrated into the Endemic Disease Program and to absorb the small pox eradication administrative structure, and eventually to turn the program into an EPI program that was supported by A.l.D., WHO and UNICEF. The project component supported the measles vaccination within the greater context of the EPI activities for six immunizable diseases. This program worked only in 14 urban centers in Zaire and utilized mobile units for the provision of service, and would later be absorbed into the CCCD project to be discussed below.

The other component was the Antimalarial Project (Programme de Lutte Antipaludique -- PLAP) which was run as a separate vertical project not attached to the Endemic Disease Program. Its national director, who remained in charge through out the project, had been the Director of Kinshasa's Sanitation Department. The PLAP project component is particularly significant for this study since it is one of the four A.l.D. project components that no longer receives A.l.D. funding.

3.2. Implementation of the Antimalarial Project (PLAP)

The PLAP was designed primarily as a pilot project which provided treatment of cases, preventive treatment for infants and pregnant women, and a home spraying and antilarva program. At the time, this was the recommended WHO and A.l.D. approach to malaria. The project had two target areas--one urban and one rural--and was to demonstrate the effectiveness and costs of the project activities for the development of a larger national antimalarial program. A long-term technical advisor from CDC was assigned to the project and remained through the life of the project. Almost 100 people were hired or assigned to the project staff. There was no specific training program, although several microscopists were trained on the job. The project was well implemented as a pilot project and was able to clearly document the effects and costs of the different approaches to malaria in the two target areas.

During the life of the project, A.l.D. shifted its policy toward malaria, making vector control the least preferred approach. Indeed, the pilot project demonstrated what other projects had shown around the world. The vector control approach was far too costly to be implemented as a national program in Zaire. A.l.D. recommended that the project activities in the target areas be terminated at the end of the project since the pilot had in effect done its job by unexpectedly demonstrating the inviability of the vector control approach. However, A.l.D. expected that the personnel who had been involved in the project would nevertheless, form the core staff for the Ministry's subsequent malaria activities.

The project staff, however, based on their experience and expertise, was convinced that activities should have been continued, and that some other approaches should be developed and utilized. While the project had primarily focused on the vector control component which was demonstrated to be inappropriate, the treatment and preventive components were important approaches that could have been continued. The project, however, failed to provide convincing evidence of the importance of these approaches even though the director argued vehemently at the highest levels in the Ministry of Health that the project should be allowed to continue after the A.l.D. funding stopped.

However, the project was completely dismantled at the end of the project period in 1982. The vehicles, spraying equipment, office furniture and microscopes were turned over the EPI Program, but were not used for malaria activities. None of the project personnel were absorbed by the EPI Program, and the director was not employed for over a year after the project terminated. Since the CCCD project, which was implemented in part as a follow on to the EPI Project component, initially only supported immunization activities and only later adopted a malarial component, there was a period of several years before any malaria activities were implemented by the Ministry.

3.3 Conclusions

Thus the PLAP program clearly was unsustained. It was completely dismantled at the end of A.l.D. funding and none of the personnel or equipment continued to provide project activities.

The project was ineffective as an appropriate model for a national malaria program. Indeed, it demonstrated that the vector control approach, the central intervention in the project, was inappropriate and not an effective means of addressing the malaria problem in Zaire. Although the project also held a treatment and prophylaxis component, it could not sufficiently demonstrate the effectiveness of these approaches to gain a reputation as a model for national policy.

The project was also implemented as a vertical and privileged administrative structure--separate from the normal Ministry organization and competing with other established special programs like EPI. Although it enjoyed stable leadership and consistent long-term technical assistance, these strengths did not make up for the central weakness of vertical programs--they are easy to dismantle when the funding stops.

Financially, the PLAP depended almost entirely on the project for funding. The government only provided basic salary support for government employees assigned to the project. There was no budgetary structure to maintain any of the activities or personnel after the A.l.D. funding stopped. This problem was particularly

important for a project with high costs and a high demand for foreign exchange for medicine and insecticide.

Finally, there was no strong training component that could continue after the life of the project.

4. COMMUNITY HEALTH AND INTEGRATED DEVELOPMENT SALVATION ARMY: PROJECT # 660 0093

4.1 Project Design and Implementation

This project (1981 -1986) supported the health activities of a major PVO in Zaire, the Salvation Army. The Salvation Army has over 100 clinics in operation in the county -- all of which are expected to be relatively self-supporting. The project supported the construction of a MCH central reference clinic in Kasangulu with ten satellite clinics in the Bas Zaire region. The Salvation Army project was almost entirely developed by that organization's local and expatriate staff. The project assisted in the construction of all ten satellite clinics and of the central clinic's dispensary, maternity and nutrition wards. It also provided support for six months for the head nurse and a vehicle for supervision of the satellite clinics. Each clinic was staffed with a nurse. The project also supported training programs for primary care, nutrition and health education and the development of community participation from the satellite clinics. Construction began in 1983 and was finished in 1986. The centers were expected to be self sufficient by the end of the project.

4.2 Conclusions

At present, most activities/systems set up under the Salvation Army project are being sustained. There is some indication that over time, the support of major equipment such as vehicles, X-Ray machines etc. will pose a major difficulty. Currently, other recurrent costs are covered by user fees.

APPENDIX D

CURRENT PROJECTS: PROSPECTS FOR SUSTAINABILITY

1. BASIC FAMILY PLANNING SERVICES (1980-PRESENT)

1.1 Background: National Committee on Family Planning (CNND) and Zairian Family Planning Association (AZBEF)

In 1978 IPPF offered to provide regular and continuing assistance for family planning in Zaire, although it could not support a government agency. The directors of CNND (Comit National de Naissances Desirables) responded by creating a new private entity, the Zairian Family Planning Association (AZBEF), which was composed of the same members but was to become a vehicle for IPPF support to the MCH clinics and the expanding IEC program that the CNND staff had developed. (Some of the initial national Information, Education 8 Communication (IEC) program was supported by the radio stations themselves who paid CNND staff for providing material for programs.)

Originally CNND was primarily medical people, but grew to include sociologists, social workers, journalists, and other interested professionals. It was completely Zairian with no foreign technical assistance, receiving only contraceptives and funds from IPPF and other donors.

In 1980 an evaluation of AZBEF was carried out by an A.l.D. consultant who criticized the association for its heavy emphasis on IEC and lack of significant service deliver, estimating that over 70 percent of the AZBEF budget supported only IEC. The consultant argued that there was sufficient demand for services, and that the IEC emphasis would only create frustration when that demand could not be met by existing services. This consultancy began a long and bitter struggle between the Zairian and A.l.D. visions of what family planning should emphasize in Zaire.

AZBEF argued, correctly it turns out, that the assumption of unmet demand was wrong and that, initially at least, the emphasis had to remain on IEC, both to generate demand and to develop a national consensus on population policy. They also argued that the consultant had not sufficiently accounted for the existing clinics already providing services that more than adequately met the current demand. AZBEF refused to reduce its IEC activities but at the same time requested A.l.D. support to strengthen its capacity to provide service deliver. AZBEF participated directly in the development of the next major population project.

1.2 Project # 660-0094: Family Planning Services Project (PSND)

The Family Planning Services Project was developed in 1981-2

under the same HPN officer who developed the Basic Rural Health I project, and the same basic approach to design and administrative organization was applied to both projects. A genuine effort was made to involve a tripartite participation between A.l.D., private sector service organizations, and government representatives in project design. Two officials who had worked on the Health System Development project represented the government while AZBEF officials represented the on-going private sector. The resulting project design, however turned out to be an inappropriate marriage of separate and competing institutions with no clear administrative structure and no definition of roles--unlike the Basic Rural Health I project which placed primary administrative responsibility in the ECZ. The Family Planning project called for part-time administrators from both the Department of Public Health and AZBEF, but provided inadequate office space and no clear definitions of authority and responsibilities among the two competing organizations.

The project emphasized the development of service deliver--i.e. establishment of family planning clinic services in health system facilities--both public and private. Along with a strong family planning training component for health workers, the project provided long term technical assistance, assistance for development of population policy, and provision of contraceptives. It was expected that both the PSND and AZBEF would provide these services and that AZBEF would continue to take the primary responsibility for IEC.

1.2.1 Project Implementation and continuation

In contrast to Basic Rural Health, where conflicts among the implementing institutions did not emerge until the project was well advanced in implementation, the tripartite conflicts in the Family Planning Project emerged immediately. AZBEF, although initially an effectively managed institution was not as politically powerful as was the ECZ in Basic Rural Health. By 1985 AZBEF was also experiencing problems of leadership change and mismanagement. The emerging government counterparts, however, were more aggressive and politically capable. The initial problems of finding an administrative home for PSND and the development of a clear hierarchy of authority tended over time to work to the favor of the government partner. Changes in A.l.D. officials meant that the initial support for private rather than government implementation was missing from this stage in the implementation of the Family Planning project. A.l.D. strategy became one of clear support for the government control of PSND, a strategy that reinforced the growing weakness of AZBEF.

At the same time the project was attempting to resolve institutional conflicts that had been embedded in the project design, there emerged a growing conflict between A.l.D. and PSND over the measures of project implementation. A.l.D. constantly

pressured the project, as it had AZBEF, to demonstrate its effectiveness through a growth in the number of acceptors. However, even as the project became responsible for a wider net of clinics, broad national policy support, and well trained personnel, the fundamental social issue appeared to be the major stumbling block to acceptance--the clinics simply were not being used.

During the implementation stage of this project, several other population policies were providing alternative strategies for addressing the social issue, and CBD and social marketing approaches appeared to be the most promising. Operations Research projects implemented through a centrally funded project attached to PSND demonstrated the effectiveness of CBD in increasing acceptors. A social marketing project also demonstrated great promise as a more effective means of increasing utilization than the family planning clinics. In addition, recent efforts to increase family planning services in private enterprises are being supported by the centrally funded TIPPS project. A 1988 project amendment reflects these experiments and provides additional support for these approaches. The new amendment has also attached more support for approaches to the AIDS problem in Zaire.

Although the institutional conflict initially embedded in the design appears to have been resolved in favor of the establishment of one major governmental institution, that institution is far from being an effectively managed and integrated administrative structure. It remains a separate project that is directly responsible to the Minister and has yet to be assigned a permanent position in the Ministry. Steps are being taken to gain program status--similar to PEV for example--however, even this step may not change the centralized and vertical nature of the project's administration. While there are some elements of integration--the project coordinates with FONAMES for training, and clinics are housed in established health facilities and not free standing--the project remains separate and vulnerable.

Although the Director of PSND has retained her post throughout the project and has exercised considerable leadership, the project has been plagued by significant rotation of personnel at all other project levels, including technical assistance and USAID project officers.

The project amendment attempts to address some of these problems. It provides for significant management training to strengthen the basic administration and financial management of PSND, a long term technical assistance component which is to be managed by a single contractor and which may provide more stability to the project leadership.

The project, however, will not provide direct assistance to overcome PSND's administrative vulnerability as a vertical program.

1.3 Conclusions

The current PSND project is not presently in a position to be sustained without USAID support, although it has made some progress in overcoming some initial weaknesses. Although the project was designed through a mutually respectful negotiating process and did not appear to be imposed by A.l.D., the project design that emerged did not establish clear administrative structures and define institutional responsibilities. The design itself appears to have generated a hotly contested institutional conflict between the government representatives and the private sector AZBEF. As this institutional conflict was resolved, after several unproductive years, in favor of the government, the PSND structure emerged somewhat vertically organized and weakly managed. Personnel changes throughout the administrative structure have weakened the leadership and management factors that are important for sustainability. Currently the project depends almost entirely on A.l.D. funding, with the government providing only basic salaries that have to be supplemented by project salary supplements. Perhaps most distressing--the project has yet to demonstrate its effectiveness.

Nevertheless, the project has some potential for sustainability. It has a strong training component that is likely to be continued. The administrative vulnerability may be lessened H it obtains a program status similar to PEV. The GOZ budget now includes a line item for PSND. Management and personnel stability may be improved by new initiatives in the recent project amendment. The new initiatives in CBD, TIPPS and social marketing as well as a growing capacity in IEC may make the project more demonstrably effective.

2. CONTROL OF CHILDHOOD COMMUNICABLE DISEASES (CCCD):PROJECT # 698-0421

2.1 Project Design and Implementation

The CCCD Project (698-0421) was part of an African regional project that was implemented through a Participating Agency Service Agreement (PASA) with CDC/Atlanta in 13 African countries beginning in 1981. The basic project design was established at the regional level with an original focus on immunizations and later on diarrhea contrd and malaria. Each country, however, redesigned the basic model to respond to local conditions and it appears that in Zaire, the EPI program was quite actively involved in the specific technical aspects of the project design.

The project was fully integrated into the existing EPI administrative structure, which had implemented the previous A.l.D. project and was the implementing unit for WHO and UNICEF contributions for vaccination campaigns. Before the CCCD Project began, however, EPI was an extremely vertical and narrowly targeted

program. It focused on 14 urban areas and used its own mobile units that were separate from other Ministry health facilities. The CCCD project assisted the EPI program to change its operating structure and to become fully integrated into the emerging zonal structure of the Ministry--taking advantage of the initiatives in health zone development of the Basic Rural Health I project.

The project originally continued support for the measles vaccine, and provided long-term technical assistance, equipment, and training for all aspects of the vaccination campaigns; e.g., cold chain, sterilizers, syringes, needles. The project also soon added two other components to the EPI activities: diarrhea and malaria. The diarrhea control element involved training, provision of ORS packets, and the establishment of ORT units in Mama Yemo Hospital and other centers around the country. The malaria component focused on the development of a national strategy for treatment, training, and the provision of chloroquine. In all aspects, CCCD contributed to administrative strengthening, and to the design and implementation of a supervisory system that was decentralized to 20 regional EPI "antenna". The project also involved cost recovery through charges for ORS and chloroquine.

The project was extremely effective during the first years of implementation--demonstrating rapidly expanding coverage in all six immunization antigens. The project was less effective in demonstrating its impact on diarrheal disease and on malaria.

During 1987, however, some weaknesses began to appear in the program. Leadership changes, changes in technical assistance, failures by the government to provide even basic salary support to the health staff in the program began to appear. In addition, the phased design of the program had initially focused on the better organized and more easily reached health zones, but as the project expanded into zones which were less well organized and had more difficult access, expansion of coverage became more difficult.

The financial and leadership problems imply serious consequences for elements of the program that had originally strengthened potential for its sustainability. The program had originally depended in part on government contributions for salaries and some transportation costs for supervision. Government support, rather than increasing over the life of the project, has decreased, and the cut-backs in funding have seriously undermined the financial stability of the project--affecting its day-to-day implementation and threatening its sustainability.

One of the financial aspects of the program that had been important for sustainability was the development of cost-recovery mechanisms through charging for ORS packets and for chloroquine. In the financial crisis, health officials who were not receiving their government salary checks began to take advances from the revolving funds, rapidly eroding this source of funding for key elements of

the project. In addition, some vehicles which could not be maintained without gas and spare parts were sold off to cover operating costs and salaries, depleting even the capital investments provided by the project. Even with two major donors--A.l.D. and UNlCEF--providing significant levels of support for operating costs of the project, the decline in government participation has threatened the effectiveness and sustainability of the program.

Simultaneous with this decline in financial viability, changes in leadership and in technical assistance have occurred, further demoralizing the EPI staff.

Finally, one of the stronger components of the project originally was the training component. The training was carried out by EPI program and many MCZ were trained in both technical and managerial aspects of the EPI program. They in turn were to train their nurses and some funds were made available to assist in this training at the zone level.

Since 1986, however, when FONAMES was established, training responsibility has shifted to that institution. The components developed by EPI have been modified to emphasize management at the expense of technical expertise. Although this problem is currently being addressed with the development of new technical modules, several years have been lost in the training of MCZ.

2.2 Conclusions

Although the CCCD project appeared promising during its early years, based on the factors we found associated with sustainability in this study, it has serious weaknesses that now threaten the project.

The project appears to fit a national consensus, shaped by WHO and UNICEF as well as A.l.D., that Child Survival programs should be a central priority in health. It was perceived, initially at least, as an extremely effective project with increasingly greater levels of coverage, although the trend recently has stabilized. The project is fully integrated into the EPI structure and that program in turn is well integrated into the health zone structures. Originally having some government financial support for salaries and supervision, and a cost-recovery scheme for ORS and chloroquine, it also had a strong training component.

However, over time the project’s weaknesses have emerged. The financial components are being undermined by the failure of the government to continue to provide the basic support for salaries and its part of supervision costs. This failure, in turn has led to a depletion of the revolving funds and even some capital investments.

Leadership changes and changes in technical assistance have contributed an element of instability that has undermined morale and threatens sustainability. The training component has been weakened as responsibility shifted from EPI to FONAMES and the technical training of MCZ was diluted.

3. BASIC RURAL HEALTH PHASE 1 (1981-1986): PROJECT #660-086

3.1 Background

Despite the relatively unproductive experience with the HSD, A.I.D. was convinced of the merit of the health zone concept and decided to develop a new phase project to upgrade and expand PHC in Zaire. The Basic Rural Health Project (Basic Rural Health) was one of the first large scale donor financed primary care service delivery projects. It was different from all predecessor projects in that the implementing agency was not the GOZ, but instead, an umbrella Protestant church organization called the ECZ (Eglise du Christ du Zaire). An extensive missionary network had been providing the majority of health services to Zaire for several years. Thus this strategy built on an existing operational infrastructure.

The purpose of the project was to establish a self-sustaining community supported system of primary health care that effectively offered prevention and treatment for the most common health problems in the country. Initially, a target of 50 health zones out of a total of 300 potential zones in Zaire was set for phase 1. Within the zone, the strategic emphasis of the project was on the construction/conversion of rural dispensaries to full service health centers were to be supervised by the zonal reference hospital, Satellite village health programs were to be supervised by the higher zonal levels.

Health centers were to be transformed into full-service health centers offering prenatal services, maternity services, family planning, under five clinics, vaccinations, health and nutrition education, control of local endemic diseases and basic curative services including simple laboratory exams. At the village level, roles and duties vary dramatically. Al;so at the village level, Basic Rural Health has a water and sanitation component that includes the construction of latrines and the construction/ rehabilitation of wells and other water sources.

Project inputs include technical assistance (19 percent), training (21 percent), commodities (57 percent) and other miscellaneous costs totalling to US $4,864,000 USD over the 5 year life of this phase of the project. The ECZ was to contribute approximately US $2.7 million equivalents in salary and office support, and the GOZ was to support about US $1.6 million equivalents for salaries and operating costs of hospitals over the life of the project as well as to commit almost US $7 million worth

of counterpart funds.

The Basic Rural Health I project focused almost entirely at the zone level, having very little emphasis on central or regional level development. Annual national workshops and assistance in coordinating and supervising primary care activities and assistance in the development of the 1986-1990 five year plans are among the support provided at the central level.

3.2 Project Design and Implementation

The development of Basic Rural Health's design incorporated extensive input from Zairians at all levels of the health care system. The health officer procured resources that permitted needs assessment throughout the country as part of the project development process. Building consensus among the three primary partners: A.I.D., the ECZ and the government, required substantial work because, resources were to be largely controlled to the ECZ and channeled through their health service infrastructure. On the other hand, the GOZ also realized that health services had been delivered historically by the missionary network and was relatively comfortable with that relationship.

The design of the project itself was both simple, concrete and clear. Objectives were quantified and clear as were the strategies required for project implementation. Initially, the basic strategy involved use of the ECZ rather than the GOZ to implement the project. The ECZ was selected as the implementing agency for this bilateral grant because of the extensive network of functioning health facilities managed by this religious consortium.

In this way it was clear that the implementing organization had the capacity to carry out the modifications to the health system proposed by the project. This strategy was important both to quick start-up as well as to eventual sustainability (see below) and has protected the project from the vicissitudes of the higher levels of the GOZ.

Basic Rural Health I was remarkably effective in reaching expected outputs and the exceptions were in line with readjustments of these expectations based on the midterm evaluation. Several factors related to implementation contributed to the success of the project. First, senior expatriate and Zairian staff were extremely competent both because of technical qualifications and experience. The expatriate project manager had been trained at a doctoral level in health planning and management. Prior to doctoral training he worked as an administrator and technician with the highly successful PHC program in Vanga, Zaire. Under the Health Systems Development Project, three Zairian physicians were trained in health planning at a master's level. These three physicians worked directly with the project in its early stages. The Zairian staff were extremely important because they not only were technically

competent but could play an important role as advocates of the project in the Zairian political system.

Secondly, the project fit well with GOZ health sector priorities. Primary health care focused through the health zone was the stated highest priority of the GOZ in the health sector as articulated in national health planning documents.

Another important feature of the project was its attention to rapid demonstration of results. By starting with health zones that had high potential for success, the project was able to demonstrate effectiveness in the early months of its life. This early success generated a certain optimism among project staff, the GOZ and donors which propelled the project onward.

In spite of its overall success, several factors impeded project implementation. Initially, commodities were inappropriate. U.S. vehicles, in particular, were neither functionally adequate nor could they be maintained locally. The mission was able to obtain a waiver for the purchase of Toyota vehicles. Another problem was the lack of adequate emphasis on training replication strategies. Although many health workers were trained during the project, few were prepared as trainers. In addition, continuing education was not incorporated into the design of the project.

Other inadequacies of the project were lack of support to village level programs, lack of a functioning health information system, and inadequate attention to financial accountability at the zonal and HC levels.

External factors that impeded project performance included, most notably, the lack of legal status of the HZ. This rendered both the authority structure and the management of the HZ problematic since routine administrative activities such as opening bank accounts for the zone often could not be done.

4. BASIC RURAL HEALTH 11(198~1992): PROJECT #660-107

4.1 Design and Implementation

Basic Rural Health ll both continued to expand the number of zones in the program and added activities intended to strengthen national and regional/subregional planning and management functions. Also water and sanitation activities were intensified dramatically. Finally, rehabilitation of reference hospitals was added to the objectives. Basic outputs of this second phase include:

- a functioning institutionalized system within the MOH of regional and subregional supervision and coordination of HZs

- a functioning institutionalized system at the health zone level for training lower and middle level personnel in the planning, organization and delivery of PHC

- a national system for coordinating, planning, supervising and gathering and sharing of information on PHC activities among HZs throughout Zaire

- a national unit for planning and coordination of water activities in Zaire

- a national and regional support system for 30 sub-regional water brigades

The major strategic change between the two phases of the project is the shift to include health system development beyond the zonal level. In order to facilitate the central-regional-zonal system development and to be more in line with the USAlD's regional emphasis on Bandundu and Shaba, selection criteria for zones results in clustering of zones, especially in the two emphasis regions such that supervision and management systems at the regional level will be more efficiently developed. Basic Rural Health ll is both providing a limited number of vehicles to regional and subregional offices as well as sponsoring post graduate training to regional inspectors and subregional medical officers at the Zaire SPH (see below). During the next phase of the project it is likely that more emphasis will be placed on strengthening regional and subregional capabilities in both management and logistics.

At the national level, Basic Rural Health ll has made funds available for the rehabilitation of the FONAMES office building. In addition it will continue to develop a national information system and PHC documentation center. More systematic approach to central level institution strengthening will probably be addressed by the third phase of Basic Rural Health.

The environmental sanitation and water supply component of Basic Rural Health also have been considerably strengthened in the second phase of the project. During the first phase of the project,this aspect of the project was weakened by the absence of sufficient technical and material support. To address this problem, Basic Rural Health ll intends to establish 30 subregional water brigades that will provide substantially upgraded assistance to villages in the construction and maintenance of water and sanitation facilities. Each zone is to have a rural water coordinator (RWC) who will be in charge of extension, management, training, and back-up support for operations and maintenance.

A major external problem has been donor coordination. Through the national coordinating committee (CNAEA), coordination of donor support to improve rural water and sanitation has been programmed

but donors have not been entirely cooperative. Both delays in the acquisition of vehicles promised by other donors and reorientation of their technical assistance strategies have resulted in delays in the implementation of the Basic Rural Health water supply and sanitation component.

Another critical problem that has surfaced in the last few years of the project has been increasing competition between the ECZ and GOZ for PHC management and resource control. There has been a continuing struggle between these two entities for power and control in several zones and at the national level. The lack of consensus on the responsibilities and authorities of the various organizations involved in PHC threatens the long range sustainability of the Basic Rural Health efforts.

4.2 Conclusions

A.l.D.'s persistence in PHC activities for more than 13 years has resulted in a truly showcase project, Basic Rural Health, that shows promising signs of sustainability.

One of the more striking characteristics of Zaire's PHC system is official recognition of the need for cost recovery. The zones have adopted a variety of user-fee systems, both at the reference hospital and health center levels. These include fixed fee for illness episode, a fixed fee for consultation with varying fee for medication, varying fee for illness episode, fee for consultation and drugs with a sliding scale for necessary re-visits.

Basic Rural Health has supported the assessment of alternative financing mechanisms in collaboration with the centrally funded PRICOR and REACH projects. In addition, Basic Rural Health has focused attention on the development of financial reporting and management systems.

According to a recent study, well established Basic Rural Health zones are able to pay for approximately 79 percent of their operating costs with user-fee proceeds. A more recent study indicates that cost recovery may fluctuate but remains on the average fairly high. In addition, the same study suggests that health zones have adapted to an inflationary environment, periodically revising the prices of their services, but that additional training in health economics is needed throughout the system to assure adequate response to these vicissitudes.

Another important link to sustainability is the development of the regional/subregional nodes in the health care network as well as national planning and management capacity. Obviously various management, logistics/distribution/supply, and training systems functions will need to be increasingly developed at the regional and national levels.

This project also has other characteristics that we have found to contribute to sustainability for the projects we reviewed in the first sections of this report. It is well integrated into a strong implementing institution, the ECZ, which has an extensive missionary network and had been providing many health services to Zaire for several years. Officials from the ECZ were actively involved in the original and revised project designs, contributing to its unique design. It has a strong training component for officials at variety of levels. It sponsors community participation and is viewed by almost all informants as one of the most effective health activities in Zaire.

Nevertheless this project is threatened by the lack of clear institutional structures - governmental, especially, to maintain the activities of the project. The defacto Health Zone structures still lacks juridical status. The church-state conflict within the project suggests the larger issues of future responsibilities for implementation have not been resolved.

5. NUTRITION PLANNING PROJECT # 660-055

This project was initially designed in 1974 during a period when A.l.D. Washington was strongly advocating global nutrition planning. The planning model proposed in the original design was imported from Washington and had very little Zairian input. This initial project was to be a five year US$4.4 million dollar project beginning in 1975.

Due to internal conflicts within A.l.D. regarding the selection of contractors, the project was not begun until 1978 when Tulane University signed a contract to provide this assistance. The project was amended and scaled down to US $1.6 million and two years. It is interesting to note, however, that the project paper was never rewritten such that the technical assistance team had no written document guidelines at the time of project implementation. However, broad objectives for the Nutrition Planning project were agreed upon between A.l.D. and Tulane. These included the establishment of a national nutrition planning center, and the development and testing of rural and urban nutrition intervention strategies in Kinshasa and one rural demonstration zone. The design of the project did not provide any further guidance in how these objectives were to be met, the structure and function of the nutrition planning center, etc. The life of project was obviously inadequate both to establish a center and to evaluate intervention strategies.

Despite the lack of design, the project was successful in establishing a national nutrition planning center (CEPLANUT) that had over 100 personnel and a relatively high level of financial

support from the GOZ. Indeed, although USAID no longer funds CEPLANUT, the center enjoys an operating budget that pays staff at a level similar to supported projects. There were two major reasons why the institutionalization of the structure, per se, was so successful. The Zairian director of the center was both politically astute and powerful, having access to the President's office. He was able to push legislation along for the center's legal status and budget and he was able to effectively protect the center from various envious parties within the MOH. In fact, the parastatal structure of CEPLANUT has been used by most subsequent donor-financed national projects.

Secondly, the American co-director was a competent administrator and was thus able to rapidly set up management systems within the center. He also effectively established links with Zairian and donor organizations.

6. AREA NUTRITION IMPROVEMENT: PROJECT # 660 079

6.1 Project Design and Implementation

Area Nutrition Improvement was A.l.D.'s follow-on to Nutrition Planning. However, the objectives, locus of activities and nature of technical assistance shifted dramatically between these two projects.

Area Nutrition was even more ambitious than Nutrition Planning. It was a US $4.3 million (plus US $1.5 million counterpart) 5 year project that was to effectively reduce malnutrition in the Bandundu region of Zaire (an area of 114,000 square miles) by 25 percent. Other objectives included the development of an extensive nutrition surveillance system, the development of central level planning capacity, the development of nutrition education packages that could be adapted for national use, and the creation of an inter-organizational regional nutrition council in Bandundu.

Technical assistance to the project was problematic. Originally there were to have been only two long-term technical assistants and substantial amounts of short-term consultations. But, at the time of implementation there were four, only the Director being stationed in Kinshasa. All assistance was handled through personal services contractors (PSCs). Due to the size and complexity of the project, the use of PSCs instead of an institutional contract was cited by the midterm evaluation team as one of the causes of the project's poor performance. The A.l.D. project manager was responsible for this large technical assistance package in addition to routine project administration for Area Nutrition and one other project. Because she was based in Kinshasa, she did not have ready access to the network of appropriate nutrition planning/education/management professionals. For this reason, key positions went unfilled for over one year. Also,

because substantial modifications needed to be made to the project during implementation, the project manager needed to provide additional guidance to the field team. This was especially true because the project director had difficulties setting and following priorities.

Several factors related to implementation also impeded the success and sustainability of the project. The fragmentation of the technical assistance team between Bandundu and Kinshasa was a major difficulty, especially given the weakness of communications networks in Zaire. The regional office had a great deal of autonomy and carried the lion's share of project responsibility while the Director was in Kinshasa. The field team was relatively junior and did not have the experience to appropriately navigate through the overwhelming work load. For example, a major objective of the Bandundu office was to create and support a regional nutrition council that was to mobilize resources and coordinate grass roots nutrition interventions. More than fifty small projects were funded during the Yahoo of Area Nutrition. Because of the many other activities the project was implementing, standard protocols for evaluating these intervention activities were never developed. Worse yet, no plans were developed for examining the impact or cost efficiency of these projects.

As a result of these many oh, Area Nutrition only partially reached any of the objectives set out in the original and the ahoy design (mid-term evaluation). The nutrition surveillance system was never fully operationalized, national and regional planning capacity was never demonstrated during the project, and finally, the nutrition intervention activities were never evaluated.

On the other hand, a cadre of eight Zairians received long term training in the U.S. All but one are still currently working at CEPLANUT. In addition, the educational materials were developed and USAID and other donors have supported the production of these materials. Finally, CEPLANUT has resident survey and data analysis expertise. The center has received several small contracts to provide these services and CEPLANUT personnel are constantly being borrowed by various governmental organizations to undertake investigations that are nutritionally related.

6.2 Conclusions

It is yet too early to discuss the sustainability of the National Nutrition Planning Center and activities supported by USAID under the two nutrition sector projects. However, it is clear that a structure has been developed and personnel trained to undertake nutrition planning activities. This structure withstood a lapse of more than a year in A.l.D. funding between Nutrition Planning and Area Nutrition.

On the other hand, there is currently no overall direction to

the center and it maintains many roles and responsibilities including direct involvement in nutrition interventions. Given its staff and resources, the center should play an advisory and technical support role to organizations involved in nutrition-related interventions. In addition, it should focus on supporting national nutrition policy and planning. During recent years, lack of strong leadership at the Center and among the technical assistance team has been a major reason for the lack of clear direction.

The nutrition projects had two major advantages that are consistent with sustainability. They were able to obtain national budgetary support for CEPLANUT during the life of the project. The Zairian director of the center, because he was politically well-connected, was able to push legislation along for the center's legal status and budget and he was able to effectively protect the center from various envious parties within the MOH. Secondly, the center has achieved some recognition by donors and NGOs for its technical expertise in the areas of surveys and anthropometric assessment, data processing, nutrition education and growth monitoring.

However, there are many factors which suggest this sustainability is fragile: 1) the program is a vertical program, not well integrated into any on-going national administrative structure; 2) the project was imposed by A.l.D. and was not the result of mutual negotiation process; 3) although the center provides some training, this is not a major component of the project; 4) and the project does not involve community participation.

7. THE SCHOOL OF PUBLIC HEALTH PUBLIC HEALTH TRAINING: PROJECT # 660-101

The School of Public Health (SPH) project was conceived as the cornerstone of A.l.D.'s strategy to sustaining preventive care and health care service extension in Zaire. The School was envisioned as addressing the dramatic need for public health training, applied research, and information exchange in Zaire and eventually in the region. The implementation of this project was seen as crucial to the replicability of large scale efforts by A.l.D. and other donors in the areas of population, nutrition and health. And an indigenous SPH would be a more cost effective and more relevant alternative to participant training in the United States and Europe. The Zairian SPH was to be oriented towards local training and research priorities.

The purpose of the project is to develop the University of Kinshasa (UNIKIN) Faculty of Medicine's Department of Public Health into an independent and fully accredited School of Public Health by project end. The specHic objectives include the training of Zairian faculty, facility construction, development of laboratory and

research capabilities, the development of a library and information center and the development and institutionalization of management systems for the school.

The project design was very reasonable by A.l.D. standards. The Yahoo of the project was envisioned to be ten years divided into two five year phases. Facility construction, intensive technical assistance and training were to be particularly emphasized during the first phase as was the development of a curriculum and management systems.

On the other hand, the negotiation process was very thorny. There was major disagreement within the Ministry of Higher Education as to the specific locus of the School, its degree granting status, and at one time even the need for such a school. These conflicts have not been resolved entirely and still threaten the School's long-term viability, although recently great progress has been made towards gaining consensus.

Rapid implementation of the project has been facilitated by the choice of contracting mechanisms and contractors. Tulane University has been involved in Zairian health sector activities for more than 10 years which resulted in a shortened start-up time. Zairian staff who had been trained in the U.S. during the past decade were particularly effective advocates of the project. In fact, the most important obstacle to project implementation has been other donor resistance (territoriality). Previously trained Zairian health professionals intervened at crucial turning points to the project's success.

There are two major factors which threaten the sustainability of this project. Perhaps the most important is the difficult negotiating process which ended up by-passing the University. The original conflicts have not been resolved and still threaten the School's long-term viability, although recently considerable progress has been made towards their resolution. Secondly, the SPH is still a clearly privileged vertical organization situated on the campus of the University but not part of its administration and not allowed to grant University degrees. Without the ability to confer a Master's in Public Health, the competitiveness of the school to attract international students and even qualified Zairian nationals is diminished.

Nevertheless, there are several factors which bode well for sustainability of this project. It is regarded as an extremely effective teaching and research institution -- combining both our key sustainability factors of a strong training component and perceived effectiveness. It also is developing some means of separate nationally based financing.

It has recently been estimated that the recurrent costs of the School at the end of project will be approximately US $183,000

annually. In the future a limited number of foreign student scholarships could contribute up to US $20,000 per annum, research and data processing ~consulting and contracting" by the School could add a substantial contribution and short course activities could generate a yet unspecified amount. Perhaps the most promising mechanism is through endowment funds similar to those used by universities in the U.S. Tulane University is actively fundraising for this purpose with a US $3,000,000 goal.

APPENDIX E

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List of Abbreviations

1. PROP = Non-Capital Asst. Project Proposal
2. MPD = Miscellaneous Project USAID Document
3. PES = Project Evaluation Summary
4. ES = Evaluation Summary
5. PP = Project Proposal/Paper
6. QPR = Quarterly Progress Report: #/year
7. SE = Special Evaluation
8. AR = Audit Report
9. PAR = Project Appraisal Report

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