Resources

HHRAA
AFR/SD/HRD

Mid-Term Assessment Briefing Book

Volume 4: Child Survival

November, 1994

TABLE OF CONTENTS :

Strategic Frameworks

- Child Survival
- Child Nutrition
- Behavior Change
- Health Care Financing

1

Analytical Agenda

2

Sub-Sector Results Reports

3

Resident Technical Advisor (RTA) Reports

4

Publications List

5

QUILL®

1

DRAFT

USAID FRAMEWORK FOR DESIGN AND IMPLEMENTATION OF CHILD SURVIVAL INTERVENTIONS IN AFRICA

Focused interventions for impact;
Systems strengthening for sustainability

DRAFT

DRAFT
July 29, 1994

CONTENTS

EXECUTIVE SUMMARY i

I. DISCUSSION OF THE PROBLEM OF CHILD SURVIVAL IN AFRICA 1
A. Trends in Child Survival in Africa 1
B. Constraints 2
C. Lessons Learned from Child Survival in Africa 3
D. Previous and on-going Activities (USAID and Other Donors) 4

II. THE 1987 USAID CHILD SURVIVAL STRATEGY FOR AFRICA 5
A. Description of the 1987 Strategy 5
B. Progress Towards the Goals of the 1987 Strategy 5

III. BASIS FOR THE FRAMEWORK 6
A. The Rationale for Child Survival in Africa 6
B. Purpose and Use of the Document 7

IV. OBJECTIVES AND GOALS FOR CHILD SURVIVAL IN AFRICA FOR THE PERIOD 1994 - 2000 8
A. Objectives 8
B. Goals by the Year 2000 8

V. STRATEGIC DIRECTIONS FOR THE 1990s 9

VI. KEY APPROACHES TO IMPLEMENTATION 11

VII. SUBREGIONAL APPROACHES TO COMPLEMENT COUNTRY PROGRAM IMPLEMENTATION 16

VIII. MONITORING AND EVALUATION 17
A. Focused Interventions 17
B. Health Systems Strengthening 17

APPENDIX I KEY APPROACHES TO IMPLEMENTATION (DETAIL)

APPENDIX II STATISTICS BY SUBREGION

APPENDIX III USAID's COMPARATIVE ADVANTAGES IN AFRICA

I. EXECUTIVE SUMMARY

Despite impressive gains in recent decades, the health of Africa's children remains a critically important issue. Infant and child mortality rates have declined as immunizations, oral rehydration therapy, and other simple, low-cost treatment and prevention strategies have proven effective. USAID has played a leading role in the implementation of these strategies through focused interventions, typically coordinated at the national level. However, the success of these interventions in Africa has been compromised by weak supporting institutions and health systems which too often lack the capacity to sustain effective health service delivery at local and national levels.

Child mortality in sub-Saharan Africa, at 175 deaths per 1,000 live births, is considerably higher than for any other region in the world. Child illness and death represent an enormous handicap in Africa's efforts for sustainable development, adversely affecting educational status, family planning programs, and productive economic growth. USAID's continued active involvement and leadership in child survival in Africa will be critical if the continent is to effectively address the challenges it faces in achieving better child health.

This Framework for Design and Implementation of Child Survival Interventions recommends viable strategic directions for child survival interventions based on countries' needs and capabilities -- with an emphasis on strengthening institutions and basic health systems which benefit not only child survival programs, but also family planning and a range of essential preventive and curative health services. The Framework reinforces, and is reinforced by, initiatives of other major donors contributing to health in Africa. It is consistent with the USAID Population, Health, and Nutrition (PHN) Guidelines. The Framework presents strategic directions for USAID for the time period 1994-2000. It also provides an overview of the Agency's 1987 Child Survival Strategy for Africa, reviewing progress made for the major goals established in that document.

The document presents a series of key approaches to implementation -- directly derived from lessons learned through USAID's Child Survival programs in Africa. These approaches to implementation, described in detail in Appendix IV, include a continued emphasis on successful *focused interventions* -- immunizations, improved child nutrition, control of diarrheal diseases, child spacing, malaria prevention and control, management of acute respiratory infections, and HIV/AIDS prevention and control. At the same time, and depending on countries' needs and USAID's comparative advantages, USAID will increasingly focus on support for *strengthening of health systems*, including essential drug supply, management information systems, supervision, quality assurance, and training systems. These systems have typically been weak in Africa; strengthening them is a prerequisite to ensuring that the successes of Child Survival interventions are sustained.

To complement the strengthening of service delivery and health systems, USAID will support efforts to increase public *demand* for child survival services and will stress the importance of *community involvement* in health management decisions and financing at the local level. To increase coverage rates of an essential package of health services, USAID will promote *public-private partnerships* connecting governments with private providers and non-government organizations (NGOs).

This Framework also emphasizes the role of *policy dialogue*, managed by host country governments, to identify, analyze and resolve policy constraints. Many Africa countries have adopted policies of *decentralization* of authority and responsibility for health care. USAID will consistently support both the

policy changes needed and the managed implementation of this process while avoiding the tendency to "balkanize" the country among donors.

USAID recognizes that the development of sustainable services in the African context is a long-term goal and will therefore require long-term commitments on the part of host governments and donors. The multiple approaches to implementation which are required to promote *sustainability* -- including strengthening management capacity, implementing cost recovery systems, and promoting host country ownership -- will be incorporated at the design stage of USAID projects,

Based on epidemiologic, demographic and social similarities among countries, the Framework suggests a sub-regional approach to support the implementation of Child Survival programs at the country level in sub-Saharan Africa. With limited financial resources, and faced by communicable diseases (such as cholera, dysentery and HIV/AIDS) which cannot be successfully controlled at the national level only, this approach takes advantages of the benefits which result from sharing experiences and lessons learned across countries, as well as the excellent technical assistance available to USAID at the subregional level.

I. DISCUSSION OF THE PROBLEM OF CHILD SURVIVAL IN AFRICA

In 1987, the Agency for International Development's Africa Bureau established a strategy for Child Survival. Considerable progress has been made in meeting the principal objectives outlined in that strategy: to reduce morbidity and mortality rates for Africa's under five population, and to strengthen the commitment and capacity of African governments and private institutions to undertake child survival initiatives. With some exceptions, infant and under five mortality rates have declined in USAID-assisted countries in Africa. Immunization coverage and oral rehydration use rates have increased, and African governments have committed themselves to policy changes, such as decentralization and cost recovery, which improve the prospects for long-term, sustainable and effective health systems.

However, Africa's continued economic difficulties and, in some countries, political instability have seriously strained health systems. Gains in child survival in Africa have been considerably less than in other regions of the developing world. Combined with Africa's high rate of population growth, relatively slow progress in child survival means that in the 21st century Africa will have a strikingly high share of the world's infant mortality. Most African ministries of health face declining budgets, and the increased importance of AIDS poses additional challenges to health systems. Africa currently faces a difficult time period in which hard fought gains in child survival are threatened. In some countries, child mortality rates have recently increased.

Child survival is an essential element of overall development strategies for African countries. Well established links exist between child survival, family planning, and maternal health and education programs. Child survival programs can provide the basis for a package of essential health care, especially for the poorest population segments. Investments in child survival are investments in future generations and future development prospects.

In this context, USAID's assistance for child survival programs will continue to be critically important. Successful child survival interventions have shown that low-cost, efficient technologies exist which can successfully address the major causes of child mortality. Experience has also shown that these technologies must be supported by functioning health systems in order to achieve more than limited success. The principal challenge for the 1990s will be to continue to emphasize focused interventions, while strengthening integrated service delivery systems and reinforcing the long-term capacities of African governments for health planning and management. The principal goal of this combined approach is positive and permanent change in both health system performance and household practices and attitudes.

A. Trends in Child Survival in Africa.

On average, infant mortality in USAID-assisted countries in Africa has declined from 113 deaths per 1,000 births in 1985 to 102 deaths in 1991. Under five mortality in these countries has declined in the same time period from 189 per 1,000 to 163. Immunization and oral rehydration programs have played an important role in bringing about these mortality reductions. In USAID Child Survival emphasis countries in Africa, immunization coverage rates for children 12-23 months almost doubled from 1985-1991 for BCG, DPT3, polio3 and measles. In USAID-assisted countries, the use of oral rehydration therapy has increased from 10% of child diarrhea cases in 1985 to 40% in 1993.

In attempting to build on these positive trends, African countries are grappling with a shortage of resources and with epidemiologic and demographic changes which complicate child survival efforts.

AIDS presents an enormous challenge -- as of 1990, an estimated 500,000 infants in Africa were infected with HIV. Acute respiratory infections (ARI) and malaria are also important causes of child mortality; their treatment is complicated by increasing resistance to drugs.

High rates of population growth will place extraordinary strains on health systems. The World Bank projects that, at the current growth rate (2.9% per year), Africa's population will increase from 531 million in 1990 to 964 million in the year 2010, and will be well over two billion by the year 2050. The number of children under five in Africa will rival that of Asia. African ministries of health will need a great deal of institutional support in order to successfully plan for and manage this demographic challenge.

Rural-to-urban migration within countries and the expansion of disadvantaged slum areas in and around cities create additional problems for child survival. In the slums of Nairobi, for example, the infant mortality rate is 200 per 1,000, while the rate for Kenya as a whole is 74 per 1,000. Overall, the percentage of Africa's population living in urban areas is increasing from 15% in 1950 to a projected 40% by the year 2000.

The relationship between the education and health of mothers and child morbidity and mortality rates has been well established. In Kenya, children of mothers with 7 or more years of schooling are 53% less likely to die before the age of two than children whose mothers have no schooling. The nutritional status of the mother bears a direct impact on the birth weight of her child. Immunization of mothers against tetanus has proven to be an effective intervention to prevent neo-natal tetanus.

B. Constraints.

(1) Institutional weaknesses. The limited capacity of many African governments to deliver effective health care to their populations remains a principal constraint. Many Ministries of Health lack essential human resources, particularly in the areas of planning, management and research. As a result of human and financial resource constraints, logistics and support systems often provide support which is not adequate to ensure effective service delivery.

Government policies discourage health care providers in the private, for-profit and private voluntary sectors from potentially addressing many of the shortcomings in health care coverage provided by the government. In countries where these sectors account for an important share of health care delivery, there is often insufficient cooperation and communication between government policy makers and private organizations providing health services.

(2) Resource availability and allocation. In the context of general economic difficulties, Government expenditures on health have decreased in recent years, and operational and management problems continue to create inefficiencies in health care systems. Existing systems tend to be imbalanced in their coverage; an estimated 50% of Africans do not have routine access to modern health care.

In most African countries, scarce resources for health are disproportionately allocated for relatively expensive, curative care for urban populations to the detriment of poorer, rural populations. The distribution of Ministry of Health personnel in most African countries shows a similar emphasis on cities at the expense of rural areas.

(3) Political instability. In several African countries, political instability and insufficient food security have impeded the implementation of widespread, successful child survival programs. There are currently from 10 to 15 million refugees and displaced persons in Africa, beyond the reach of regular health systems. Malnutrition resulting from food shortages has severely affected health status in some African countries, as witnessed by the effects of the drought in southern Africa in 1991-1992. Children are among the most vulnerable groups in society, and are often the first victims of warfare and famine.

In some countries, political instability and food security concerns argue for emphasizing short-term strategies prioritizing the needs of vulnerable groups. However, even in difficult circumstances and wherever possible, it is important for USAID to support improvements in health systems which will eventually lead to increased capacity for health care delivery.

C. Lessons Learned from Child Survival in Africa.

- The major causes of child morbidity and mortality are linked and mutually reinforcing. Both research and experience have shown that chronic and untreated undernutrition puts many children at high risk for infectious disease and death. Furthermore, the burden of infections is an important cause of undernutrition. These findings argue for an integrated approach to service delivery -- coordinating preventive and curative care and paying careful attention to the child's nutritional status. Malnutrition, in both moderate and severe forms, is strongly correlated with infant and child morbidity and mortality.

- Proven technologies exist for lowering infant and child mortality rates. When applied according to correct technical standards, immunizations and effective case management of diseases (as with diarrhea) are successful in preventing illness and death. Existing disease control strategies which have proven effectiveness in Africa can prevent 60% of childhood deaths -- including deaths due to immunizable diseases, dehydration, malaria and pneumonia.

- For long-term impact, child survival technologies must be accompanied by sustained improvements in health systems. Supporting systems, including health communication, logistics and drug supply, supervision, and the appropriate collection and use of data, are all necessary for effective service delivery in child survival. Improvements in health systems for child survival simultaneously increase access to primary health care and provide essential support for family planning programs and other health interventions.

- Additionally, Ministries of Health need long-term institutional strengthening. Ministries will need support to increase their planning and management capacities.

- A combination of national leadership and local action encourages community involvement and sustainable recovery of costs. In a decentralized system, the central ministry of health can play an important role in promoting equitable coverage of the population and ensuring the universal application of correct technical standards. Community participation in the management of health care orients the provision of services to local needs, and increases coverage and utilization rates.

- Encouraging demand for health services is essential. In most areas of Africa, health care service delivery efforts cannot obtain effective levels of coverage without active strategies to inform and educate populations, and to promote the use of services and products.

- By mobilizing the resources of NGOs and the private commercial sector, governments and donors can increase effective health care coverage. Partnerships between ministries of health and non-governmental organizations (NGOs) lead to greater access to standardized, effective health care. Additionally, the commercial private sector can play a key supporting role through social marketing, local pharmaceutical production and service delivery, helping to shift financing burdens away from ministries.

D. Previous and on-going Activities (USAID and Other Donors).

In fiscal year 1985, the U.S. Congress created an appropriation account for the promotion of Child Survival in developing countries. From 1985 to 1993, $1.56 billion was disbursed through this account, of which $359 million was disbursed in the Africa region. The Child Survival fund has had a great impact, despite its relatively small size (never more than 3.7% of the total USAID budget). UNICEF and the World Health Organization (WHO) have been among USAID's principal partners in supporting child survival programs in Africa. The World Bank has played an increasingly active role in child survival efforts, as have several bilateral donors.

The USAID Child Survival Strategy of 1986 was closely followed by the Africa Bureau Child Survival Strategy in 1987 (see more detailed discussion on the 1987 Child Survival Strategy for Africa, below). Through effective technical assistance (both long- and short-term) and emphasis on the "twin engines" of immunization and oral rehydration, USAID's support has directly contributed to lowering mortality and morbidity rates among infants and children in Africa. By stressing the importance of community involvement in health care, the creation of demand for health services, and innovative approaches such as social marketing, USAID has promoted a comprehensive and long-term approach to child health.

USAID has provided technical assistance and support for African health programs through a variety of mechanisms. Bilateral projects in several countries have provided comprehensive support for child survival. The Africa Bureau Regional Africa Child Survival Initiative-Combating Communicable Childhood Diseases (ACSI - CCCD) project, operational from 1981 to 1993, has supported 13 African countries for interventions in the areas of immunization, the control of diarrheal diseases, and malaria control. Centrally funded projects such as REACH and PRITECH have provided long-term assistance in 15 African countries, supporting, respectively, immunization and oral rehydration programs. The centrally-funded BASICS Project continues to support these activities, with an emphasis on integration of child survival interventions.

Strong international commitment to Child Survival was reinforced by the 1990 World Summit for Children. Representatives from 152 countries pledged continued support for improving the lives of children. Ambitious international goals came out of the summit for increasing immunization coverage rates, lowering the number of diarrhea-related deaths, and improving infant and child nutrition. Each of these goals is acutely pertinent, and deserving of support, in Africa. This Framework for Design and Implementation is designed to promote the same goals as those outlined at the World Summit, and to support the individual National Plans of Action (NPA) which resulted from the Summit.

II. THE 1987 USAID CHILD SURVIVAL STRATEGY FOR AFRICA

A. Description of the 1987 Strategy.

In 1987, the Africa Bureau developed its first Child Survival Strategy for Africa, closely following the 1986 Agency-wide USAID Child Survival Strategy. Both of these documents emphasized strong interventions for immunizations and oral rehydration therapy, in addition to child spacing, nutrition, malaria and AIDS. The 1987 Africa Bureau document listed eight emphasis countries: Kenya, Malawi, Mali, Niger, Nigeria, Senegal, Sudan and Zaire. These countries were selected based on criteria including population size, infant and child mortality rates, governments' commitment to child survival activities, and immunization and ORT coverage rates.

The objectives of the 1987 Child Survival Strategy for Africa were as follows:

(1) To reduce morbidity and mortality in the under five population particularly in selected emphasis countries in Africa.

(2) To strengthen the financial and policy commitment of African governments to child survival, as well as the capability of African governments and private institutions to plan, implement, sustain and evaluate programs to improve child health and survival.

B. Progress Towards the Goals of the 1987 Strategy.

The 1987 Strategy proposed specific goals, which follow below, noting that these goals were ambitious, and for some emphasis countries very difficult to achieve. The Strategy encouraged USAID missions to set country-specific targets in accordance with realities of the country situation. For each goal stated below, a brief indication of the status of efforts to achieve the goals (as of 1990) follows.

(1) <u>To reduce the infant mortality rate (IMR) to less than 75 per 1,000 per annum</u>. Despite the lowering of IMR rates in nearly all African countries, this goal has not been met. Measuring progress towards this target has been complicated by the absence of routine vital events registration systems in most African countries. Most countries were limited to conducting a Demographic and Health Survey (DHS) to measure infant and child mortality rates. Appendix I shows the most recent estimates for African countries -- no geographic region achieved the 1990 goal. Among individual countries, eight reported an IMR in 1991 at or below the target. Another 25 countries reported an IMR above 125 / 1,000.

(2) <u>To immunize 80% of children under 5 years of age</u>. Although considerable progress has been made in immunization coverage, this goal has not been achieved on a regional basis. UNICEF declared that world-wide the goal of an 80% immunization rate was achieved in 1990, but immunization rates in Africa were lower. UNICEF estimated that in 1990, 60% of African children were immunized against measles. Recent reports from several countries in Africa suggest that immunization rates are declining from levels achieved in 1990.

(3) <u>To assure wide access to appropriate and correct case management of diarrheal disease episodes for children under 5 years of age</u>. Both access and use rates for Oral Rehydration Therapy

(ORT) have significantly increased in most African countries. Progress in promoting ORT has been frequently compromised, however, by weak supporting health systems.

(4) To provide access to voluntary family planning information and birth spacing methods for 50% of all couples. Although measures of access rates to family planning services are not frequently reported, recent reports of contraceptive prevalence rates from many African countries suggest that utilization rates, while increasing, are still low.

(5) To reduce the percentage of children under 80% weight for height to less than 10%. Data to measure progress against this goal are limited. In most countries, however, it appears that the goal has not been met.

(6) To provide access to an appropriate anti-malarial treatment for at least 80% of children under 5 years of age consulting for fever and malaria. This goal remains widely unmet in most African countries. While strategies for case management are well understood, countries have not been successful in implementing programs to deliver adequate case management. Important causes for this general failure to implement successful case management programs include weak health infrastructures that have resulted in the poor availability of antimalarial drugs and a lack of health personnel trained to develop sound program policies and plans, to manage program implementation and to provide malaria case management.

III. BASIS FOR THE FRAMEWORK

A. The Rationale for Child Survival in Africa.

Continued USAID support for child survival in Africa is critical. Despite progress made, child morbidity and mortality rates in Africa are the highest of any region in the world. Infant mortality rates in sub-Saharan Africa are 55% higher than in low income countries outside Africa. More than two million African infants die annually -- and demographic trends suggest that this number will increase.

However, proven technologies exist to lower infant and child mortality rates. Immunizations, effective case management of diarrhea and other diseases, promotion of exclusive breastfeeding and other nutrition interventions, and health education all have a dramatic impact on child health at relatively low cost. When combined with effective and sustainable health systems, these techniques can successfully address the problems of child and infant mortality.

High child morbidity and mortality rates are crippling overall development efforts in African countries. Economically, child illness decreases the productivity of parents and creates pressures for the family to spend money it does not have. Learning is compromised by illness-related absences, and by malnutrition leading to reduced learning capacity for children. In short, returns to investments in human capital, and capacity for future economic development, are greatly diminished by malnutrition and preventable childhood diseases.

Successful child survival programs also contribute to the slowing of population growth rates. Throughout the developing world, birth rates have declined as confidence in the survival of children and the use of modern contraception have increased. This trend has been less notable in Africa, where infant and child mortality rates have not yet reached sufficiently low levels to significantly affect population growth.

However, in Kenya, where infant mortality has decreased from 130 per 1,000 in 1960 to 74 per 1,000 in 1989, the fertility rate has declined from 7.8 to 6.7 in the same time period.

In Africa, child survival programs provide an especially important link between health systems and families. Family planning programs have been slower to take hold in Africa than in other regions of the world, for a variety of social and cultural reasons. Mothers are more likely to seek assistance for illness of a child than for their own contraception needs. Health systems, by targeting mothers and children as a unit, can take advantage of consultations for child survival programs to introduce mothers to family planning and maternal nutrition programs. Well-managed child survival programs can provide both the credibility and systems support which family planning programs in Africa need.

Where effective health systems are put into place to support child survival initiatives, these systems provide the basis for a package of essential health care and family planning services which benefits the entire population -- a package of services which is a highly cost-effective means of improving health care particularly for rural and poor populations. Elements of a successful health system -- including supervision, provision of essential drugs and supplies, and monitoring systems -- support, in addition to child survival programs, family planning programs, pre- and post-natal care, and general out-patient care.

For all of these reasons, child survival programs in Africa deserve strong continued attention from USAID through the remainder of the 1990s. Child survival programs face particular challenges in Africa, and offer special opportunities for gains for other health and family planning programs. The approach of USAID to child survival in Africa must take these factors into account. While consistent with Agency-wide priorities for the conception and implementation child survival programs, this 1994 USAID Framework for Design and Implementation of Child Survival Interventions for Africa also responds to the many factors particular to, or particularly important in, sub-Saharan Africa.

B. **Purpose and Use of the Document.**

The Africa Bureau has developed this Framework for Design and Implementation to provide USAID missions and Africa Bureau staff with a list of recommended priority focused interventions, systems support strategies and issues that should be considered in the implementation of child survival activities for the remainder of the 1990s. An additional purpose of the document is to assist USAID, Ministries of Health, and other donors in the identification of the focused interventions and support systems which must function adequately in countries if they are to achieve the World Summit for Children goals. The Bureau anticipates that the Framework will be particularly useful in the following circumstances:

(1) For the development of country program strategies. The Framework for Design and Implementation identifies the Bureau's goals, objectives, strategic directions and implementation approaches for Africa child survival efforts during the 1990s and provides monitoring and evaluation strategies and indicators which can be used to measure progress towards the goals and objectives. Mission personnel are encouraged to review the Framework as they formulate new country strategies and monitoring and evaluation plans.

(2) For the design of new child survival projects. Persons responsible for preparing Project Identification Documents and Project Papers should review the Framework and ensure that the most important focused interventions, support strategies and implementation issues are addressed in the project design.

(3) For policy dialogue with other donors and Ministries of Health. USAID missions are encouraged to use the Framework in discussions with Ministries of Health in order to assess their current capacity to implement required interventions and those areas for which additional technical and financial support would be required. The Framework also describes USAID comparative advantages -- providing a basis for discussions with other donors to coordinate support for different programs and activities.

IV. OBJECTIVES AND GOALS FOR CHILD SURVIVAL IN AFRICA FOR THE PERIOD 1994 - 2000

A. Objectives.

The objectives of the Africa Bureau Framework for Design and Implementation of Child Survival Interventions are designed to support and implement the USAID PHN Guidelines, with emphasis on the particular challenges facing Africa. The objectives are:

- To reduce morbidity and mortality in Africa's under five population though the successful implementation of targeted interventions.
- To strengthen health systems in Africa, to ensure adequate personnel and logistical support for specific interventions and to increase both coverage and utilization rates for health services.
- To strengthen the capacities of African institutions, both public and private, for the provision and management of high quality health care services.

B. Goals by the Year 2000.

The goals of this Framework for Design and Implementation of Child Survival Interventions are consistent with the overall USAID PHN Guidelines as well as the specific goals resulting from the 1990 World Summit for Children. The following are goals for Child Survival in Africa, to be achieved by the year 2000:

- To maintain high levels of immunization coverage (at least 80% of children under one year of age) against diphtheria, pertussis, tetanus, measles, poliomyelitis and tuberculosis and against tetanus for women of child-bearing age.
- To significantly reduce the number of measles cases and deaths resulting from measles, as major steps to the eventual global eradication of measles.
- To eliminate neonatal tetanus deaths.
- To eradicate poliomyelitis.
- To reduce by one third in deaths due to acute respiratory infections in children under five years of age.

- To reduce by 50% deaths due to diarrhea and dehydration in children under the age of five years, through the appropriate and correct case management of diarrhea cases in the health system and at home.

- To provide access to an appropriate anti-malarial treatment for at least 80% of children under five years of age consulting for fever and/or malaria.

- To reduce the percentage of children under 80% weight for height to less than 10%.

- To significantly increase the proportion of children who are exclusively breastfed from birth to the age of 4-6 months.

- To significantly increase rates for access to, and utilization of, public sector health services.

- To support institutional capacities and health support systems in both the public and private sector, leading to significant improvements in the ability of African countries to provide and manage effective health care for their populations.

- To expand existing health coverage through the public sector and through public-private sector partnerships.

All countries in Africa cannot be expected to achieve these goals and specific objectives by the year 2000. However, USAID missions in Africa are expected to adopt the general objectives and goals, and to establish a workplan that identifies specific targets for the year 2000 as well as for achieving World Summit goals as reflected in countries' National Plans of Action (NPA).

V. STRATEGIC DIRECTIONS FOR THE 1990s

In order to meet the objectives and goals detailed above, USAID missions will need to work with host country governments and other donor organizations to adopt strategic directions for child survival which are integrated with and reinforce other health and family planning interventions. The promotion of an essential package of primary health care and clinical services is the most practical, and cost effective, means of improving the health of African populations.

The Framework supports the implementation of child survival programs as part of this package of essential health and family planning services. Other major donors in the health sector in Africa have likewise called for the promotion of an essential package of health services. This concept is consistent with the objectives of the USAID PHN Guidelines, as well as the specific goals resulting from the 1990 World Summit for Children and endorsed by the United States. In the design and implementation of child survival programs in Africa, USAID will use the following strategic directions:

- <u>To continue the successful implementation of focused interventions while promoting integration at the service delivery level</u>. Child survival interventions will need to address the leading causes of child mortality through integrated interventions for CDD, ARI, malaria and immunizations. Malnutrition, often an underlying cause of child mortality, must also be addressed through the promotion of exclusive breastfeeding, positive weaning practices, maternal nutrition, and other nutrition interventions. One promising approach already underway is the implementation of the

"Sick Child" algorithm, an integrated treatment protocol for the most important childhood illnesses.

- To strengthen health support systems required for sustainable service delivery, including supervision, the provision of essential drugs and supplies, and information systems. Once effectively put into place, these systems will support the entire package of clinical care, family planning and primary health care services. Improving the quality of services to meet the needs and expectations of the population will be an important step towards increasing utilization rates for health systems, and ensuring their long-term viability.

- To provide institutional support for ministries of health. Given financial constraints and demographic and epidemiologic trends, ministries of health in Africa will clearly need institutional strengthening. Particularly, ministries' capacities for planning and for ensuring effective support systems (including supervision, drug supply and information systems) must be strengthened.

- To encourage partnerships of ministries of health with NGOs and the commercial private sector, to access additional resources for the provision of health care and to increase coverage.

- To promote equitable coverage of populations. In promoting integrated and effective service delivery, health care coverage of a nation's population should be as balanced as possible in geographic and demographic terms. Additionally, vulnerable groups such as poor urban populations and refugees deserve special attention and can be targeted through specific interventions.

- To promote demand for services, with an emphasis on increasing utilization rates and the level of community participation. While increasing the efficiency of health service delivery, additional steps must be taken to increase the population's confidence in the health system, demand for services provided, and participation by the community in the management of resources at the local level. Health communication through a variety of channels, community outreach, and social marketing offer options for motivating populations. Each of these approaches requires a thorough understanding of the determinants of behavior and demand.

- To target mothers and children as a unit. Mothers are the primary caretakers for children under five years of age; the health of mothers and their children is closely linked. A comprehensive approach to child survival must be reinforced by simultaneous efforts to improve the health and the educational status of women, leading to effective child spacing and healthier children.

- To improve donor coordination. Donors have arrived at a consensus concerning the importance of child survival in Africa. Increasingly, donors are organizing around a common set of child survival objectives, and are supporting the strategy outlined in this document. WHO, UNICEF and the World Bank are investing increased resources in child survival efforts. By coordinating approaches with other donors, USAID can help to ensure that these investments are translated into long-term, sustainable gains. USAID will emphasize its comparative advantages, including technical assistance, in strengthening the institutional capacities of ministries of health and promoting opportunities to work with the private sector.

VI. KEY APPROACHES TO IMPLEMENTATION

The following key approaches are the most important tools which USAID missions have at their disposal to ensure the effective implementation of child survival (and other) programs. The key approaches complement the Strategic Directions presented in Section V of this Framework, providing additional detail to be considered for the conception and implementation of programs. For each key approach, the most important points are presented below, in bullet form. A full discussion of each key approach is provided in Appendix I.

Focused Intervention Approach and Integration

- Existing approaches and technologies have been validated as appropriate solutions to address the key health problems influencing mortality rates among infants and child.

- Emphasis on these high-impact interventions needs to be sustained. The specific focus of attention and resources must be determined according to the needs of each country.

- These interventions include EPI, CDD, ARI, Malaria, nutrition, HIV/AIDS prevention and case management of the sick child.

- These interventions normally require a management focus in each country. However, care must be taken to integrate interventions at the service delivery level and at the level of first line management and supervision.

- Services should be organized so that every client contact ensures that the complete needs of the mother and child are addressed and that opportunities are not missed (including screening sick children for vaccinations and referring their mothers for family planning).

- Support systems (including supervision, training, and logistics systems) should reinforce integrated service delivery.

Systems Strengthening

- Child survival interventions cannot be sustained without a functioning health system.

- USAID child survival programs will squarely address both technical interventions and the need to strengthen essential support systems (facilities, logistics, manpower development, information, management, financing, and research). The emphasis given to each component will depend on the needs of each country's health system and the configuration of donor assistance.

Policy Dialogue

- Policy dialogue should be managed by the host country and include the principal donor agencies concerned with health.

- Consideration will be given in each country context to both Non-Project Assistance and Project Assistance as mechanisms to stimulate policy dialogue.

- USAID will be active in identifying and resolving policy constraints and supporting the development of policies which remove barriers to effective and accessible health care. Key policy areas include:
  - decentralization;
  - cost recovery;
  - private sector involvement;
  - policies to support focused interventions;
  - budget allocations for curative and preventive care.

Sustainability

- USAID missions will join with the host government and other donors in each country to develop sustainable child survival services. Components of sustainability include:
  - the quality of services;
  - access and coverage;
  - the utilization of services;
  - a self-sufficient resource base for service delivery;
  - effective program management;
  - support for institution and capacity building;
  - demand, and its determinants.

- Consideration of the different elements of sustainability will be incorporated at the design stage of USAID projects.

- USAID will recognize that the development of sustainable services in the African context is a long-term goal and will therefore require long-term commitments on the part of both host governments and donors.

Decentralization

- Most African countries are attempting to decentralize authority and responsibility for health care. USAID will consistently support both the policy changes needed and the managed implementation of this process.

- In supporting decentralization, USAID will work with the government, NGOs and other donors to ensure that sufficient attention is paid both to the standardization of services offered across regions and to equitable coverage.

- USAID will support host country and city government efforts to strengthen service delivery and outreach activities in rapidly growing peri-urban areas, where special opportunities exist to have an impact on highly vulnerable populations. City governments should play a key role in these activities.

Involvement of the Private Sector and NGOs

- Child survival should be promoted through all available channels to increase access to and coverage of appropriate services. This may include NGOs, private practitioners, traditional healers, and the commercial sector.

- In many African countries, the private sector is already providing a substantial part of health services at relatively low cost to the government.

- Wherever possible, professional medical (particularly pediatric) and health associations should be encouraged to support and participate in child survival program development and implementation.

- USAID will encourage Ministries of Health to develop partnerships with NGOs and private providers by sharing approaches and materials, by including them in training courses and, more generally, in the planning, implementation and evaluation of services at all levels. Professional medical and health associations should be encouraged to support and participate in child survival program development and implementation.

Community Participation and Empowerment

- USAID will assist government and NGO efforts to establish and strengthen consumer participation in health care management at all levels of the health system.

- Particular emphasis should be placed on preparing community groups to take an active role in the management of local services and cost recovery systems.

- USAID will assist host country efforts to promote collaboration with community organizations working in areas related to health, including water and sanitation committees, food production and distribution groups, and schools.

Community and Household Behavior Change

- USAID will promote the uses of appropriate research methodologies in developing initiatives for behavior change which take into account community, family, and individual characteristics.

- USAID will promote approaches to program planning and implementation which take into account the clients' need, health-seeking choices, and perception of child survival services.

- USAID programs will support health education at national and local levels to take full advantage of different and complementary health education methods and channels.

- An appropriate balance should be sought among face-to-face education, the use of the mass media, community outreach activities, and communication channels traditionally used in each community (including church, theater and songs).

Human Resource Development

- USAID will participate with the host country and other donors in country assessments of the training needs for child survival for both managerial and technical skills.

- USAID will consider its comparative advantage as well as the cost-effectiveness of different training options in order to develop an appropriate mix of:
  - -- long-term and short-term training;

- -- pre-service and in-service training;
- -- in-country, regional and training abroad;
- -- training different categories of personnel.

- In general, USAID will support the improvement of quality and effectiveness of African national and regional training institutions.

- USAID will assist host countries to explore performance-based incentive systems, which could include official recognition, awards, training opportunities, and cost sharing in cost recovery system, among others.

- USAID will support efforts to define the roles and responsibilities of different categories of health personnel and to maximize the use of lower level personnel in a rational manner, leading to increased access to effective service delivery.

Quality Assurance

- USAID will support Ministries of Health to develop and monitor technical standards for child survival focused interventions, with emphasis on case management, counselling, supervision, and referrals.

- USAID will support Ministries of Health in ensuring that different providers of health care -- in the context of a client-centered approach -- carry out the problem-solving activities necessary to apply the standards developed with a view to increasing patient satisfaction and service utilization rates.

- USAID will assist the government to reinforce a minimum package of components necessary to maintain and improve quality service delivery. These components will include:
  - -- a functioning supervision system;
  - -- an adequate supply of drugs and equipment;
  - -- competency-based pre-service and in-service training;
  - -- a management information system that permits the active monitoring of service delivery quality.

Applied Research

- Applied research should be used to address well-defined issues arising from program implementation.

- Decision-makers and program implementors should be involved in defining the issues to be researched and in carrying out the research, in order to promote a sense of ownership among those groups.

- Discussion and dissemination of results should be incorporated into research planning to maximize the utilization of the findings by decision-makers.

- USAID will assist in strengthening African national and regional capacities for carrying out research (researchers) and for making use of results (decision-makers).

Measurement of Performance and Impact

- USAID will assist in developing and monitoring both long-term and intermediate indicators on:
  - -- morbidity and mortality;
  - -- increased access to and utilization of services;
  - -- increased quality of services (minimum package of quality care, including indicators for different support system components -- for example, a functioning supply or supervision system);
  - -- increases in knowledge and desired behaviors in the population.

Child Advocacy

- USAID will encourage African national and multilateral organizations, professional associations, and NGOs working at all levels, to act as advocates for children's health and well-being -- representing children's health interests in policy debates and decisions concerning allocation of resources.

Coordination with other Donors

- USAID will support governments to play the lead role in coordinating donor assistance and in developing policies and strategies for child survival services (focused interventions and strengthening of support systems).

- USAID will work with host country governments and other donors to coordinate inputs in order to avoid overlap and maximize the comparative advantage of each agency.

VII. SUBREGIONAL APPROACHES TO COMPLEMENT COUNTRY PROGRAM IMPLEMENTATION

Changing epidemiologic patterns, increasingly scarce financial resources, and viable sources of technical support all argue for a subregional approach to support and complement the implementation of USAID's country programs for Child Survival in Africa. Priorities and programs for each country must be shaped and determined by the specific realities of that country. Subregional support for country programs will require USAID direct hire or contractor staff to work at a subregional level and to be responsible for supporting programs in several countries. It does not, however, imply that country programs would be given less emphasis.

Disease patterns in Africa are changing. The spread of HIV/AIDS, cholera and dysentery ignores national borders. ARI and malaria are increasingly resistant to standard treatments; control of these diseases necessitates coordination and cooperation across countries. Subregional support will also be appropriate where similarities among countries lead to the implementation of similar country programs; the implementation of a particular country program with subregional support must be derived from needs and analysis at the country level.

As USAID faces the challenges of increasing program impact and efficiency while determining where to invest increasingly scarce resources, coordination at the subregional level in Africa offers many advantages -- in terms of meeting USAID's program priorities, maximizing impact, and complementing the inputs of other donors. Coordinating inputs and technical assistance across a subregion fosters the sharing of experiences and lessons learned among countries, and leads to shared approaches to implementation. Additionally, subregional support will provide the flexibility to continue to support important and specific programs in countries which may face a reduction in USAID personnel.

Operationally, USAID can take advantage of similarities among countries to implement programs on a subregional basis, and to encourage the sharing of experiences and lessons learned in several countries of a subregion. In many cases African organizations and institutions are already working within subregions for coordinated research and information sharing across countries. Shared administrative patterns, cultural ties and similar perceptions among countries further argue for approaching public health interventions from a subregional point of view.

VIII. MONITORING AND EVALUATION

This section provides suggested approaches for designing appropriate indicators to measure and evaluate performance and impact. To reflect the Framework's emphasis on Focused Interventions and Systems Strengthening, suggestions are provided below for both types of programs. A strong emphasis is placed on measurable and direct impact on the health status of populations, and on the delivery of effective, integrated health services.

A. Focused Interventions.

USAID missions with a strategic objective to improve the quality of health services are encouraged to specify the service or services to be used in evaluating performance. This does not suggest that efforts to improve service quality should be limited to a vertical program but rather that outcomes must be specific in order to be measurable. Some examples follow:

For case management services (including diarrhea, malaria, and pneumonia), indicators of quality are those outcome indicators related to provider performance:

- The proportion of patients seen by the provider who meet national diagnostic criteria for the disease episode, and who are diagnosed correctly.

- The proportion of patients diagnosed with the disease episode by the provider who are prescribed treatment in accordance with the national policy.

For immunization services, recommended indicators are the following:

- The proportion of infants completely immunized before one year of age (generally collected through immunization coverage surveys).

- The proportion of infants who are immunized with DPT1 who are immunized after six weeks of age.

- The proportion of infants who are immunized with measles after nine months of age and before one year of age.

- The proportion of children protected at birth against neonatal tetanus (through maternal immunization).

- Missed opportunities: the proportion of infants who attended a clinic and were eligible to be immunized against measles, but who were not immunized against measles at that visit.

B. Health Systems Strengthening.

As health and family planning programs expand and increase their attention to systems strengthening, USAID missions should report on increases in the numbers of health facilities providing certain services or providing a full package of "quality, effective health and family planning services." Performance can be viewed in terms of the improved functioning of certain health systems or in terms of improved quality, access and use of health service(s). Systems strengthening activities frequently attempt to improve the

functioning of the following five key areas: training, supervision, health information systems, logistics and health education.

Sample indicators for systems strengthening activities which address these areas include:

- Supervision. Proportion of facilities with personnel who report one or more visits by their supervisor in the past three months.

- Health information systems. The proportion of reports (facility to district, district to national) received within the required period of time.

Additional indicators for measuring the impact of health systems strengthening efforts are:

- Availability and rational use of essential drugs. The percentage of cases correctly treated with appropriate essential drugs.

- Access. Access is typically defined in terms of the percent of the population living within a reasonable (locally defined) distance to a health facility that has a sufficient supply of vaccines, drugs, commodities and equipment during a specified time period and that has staff trained to provide the specified health service.

  If immunizations represent the indicative health service for which access will be measured, access would be defined in terms of the percent of the population living within a reasonable distance of a health facility that routinely has vaccines available and that has staff who were trained or retrained to give immunizations in the last three years.

- Utilization. Utilization of health services must also be specific to a certain type of service for the purposes of evaluation. If immunizations represent the indicative health service, utilization would be calculated as the percent of the target population of infants who receive DPT1 during the time period.

  If a curative service or case management service represents the indicative health service, then utilization would be calculated as the percent of cases of the particular condition expected during a given time period (based on an estimated incidence rate) that were actually treated during the time period.

APPENDIX I – KEY APPROACHES TO IMPLEMENTATION

A. FOCUSED INTERVENTION APPROACH AND INTEGRATION

- Existing approaches and technologies have been validated as appropriate solutions to address the key health problems influencing mortality rates among infants and child.

- Emphasis on these high-impact interventions needs to be sustained. The specific focus of attention and resources must be determined according to the needs of each country.

- These interventions include EPI, CDD, ARI, Malaria, nutrition, HIV/AIDS prevention and case management of the sick child.

- These interventions normally require a management focus in each country. However, care must be taken to integrate interventions at the service delivery level and at the level of first line management and supervision.

- Services should be organized so that every client contact ensures that the complete needs of the mother and child are addressed and that opportunities are not missed (including screening sick children for vaccinations and referring their mothers for family planning).

- Support systems (including supervision, training, and logistics systems) should reinforce integrated service delivery.

The "twin engines" of child survival, *immunizations against the major vaccine-preventable childhood diseases (EPI)*, and *diarrheal disease control (CDD) specifically oral rehydration therapy (ORT)* have had considerable successes on the reduction of child morbidity and mortality in Africa as elsewhere. This is reflected in the average values of key indicators: EPI coverage worldwide has jumped from 20% in 1980 to an estimated 80% in the early 1990, and between 1984 and 1992, ORT use worldwide (excluding China) increased from 12% of diarrhea episodes in children to 46 %. We have learned also that attention on EPI and CDD interventions needs to be sustained in order for results to be consolidated and improved.

Monitoring of mortality and morbidity trends shows that several other illnesses / conditions must be addressed to promote child survival in the present African context. These include *malaria, malnutrition, acute respiratory infections, high-risk births, and maternal health and nutrition. HIV/AIDS* among women and children is also a growing child survival theme in Africa.

Malaria. About 30% of all child deaths in Africa are attributable to malaria, and maternal malaria infection is a main cause of low birth weight in newborns. The prevention and control of malaria, especially improving early detection and case management is crucial in promoting child survival.

Nutrition. Malnutrition increases a child's susceptibility to illness and death and is a contributing factor in up to 60% of child deaths. Approaches to improved child nutrition

include promotion of breastfeeding, interventions to control micronutrient deficiencies, improved infant feeding practices, supplementary feeding programs, nutrition education, Vitamin A supplementation, and the use of growth monitoring to stimulate action at the household level. Improved maternal nutrition should also contribute to improving child nutrition.

Acute Respiratory Infections (ARI). ARI account for between 15% and 25% of deaths among children under five. The case management strategy should comprise an early recognition of pneumonia, a prompt treatment of non-severe cases at home with standard antibiotics, and a quick identification and referral of the severe cases to an appropriate health facility.

Child spacing. Too many children, born too close together, to mothers too young or too old, increase the risk of malnutrition and infectious disease among children. Increased use of contraceptives should improve child spacing and reduce high-risk births.

Maternal health and nutrition. Poor maternal health and nutrition are major contributing factors to low birth weight, increased vulnerability of newborns to infections, and to perinatal and neonatal mortality. Maternal interventions such as tetanus toxoid immunization, prenatal and delivery care, improved maternal nutrition, and contraception emerge as high priority for child health.

HIV\AIDS and other sexually transmitted diseases (STDs). HIV/AIDS and other STDs are increasingly becoming major threats to mothers and children. The contribution of AIDS to child mortality is expected to increase. Prevention and control of STDs including HIV/AIDS interventions directed toward the mother and child should be improved and strengthened.

It is thus clear that child survival interventions must be broader than the "twin engines" but, equally, that a focused, systematic approach to problems must be maintained in order to obtain desired and measurable impact. A careful assessment in each country will indicate which interventions are likely to have the most impact, depending on the magnitude of the problem, the configuration of donor support and host country commitment and priorities.

The need for a client-centered approach to service delivery has also arisen from implementation experience. The principle of making each client contact an opportunity to address the different needs of the child and its mother is an important departure from current practice in many countries. The integration of services must be approached from this standpoint, i.e., integrated attention to the client at the service delivery level. Experiences in the field have shown this to be a practical approach in many cases -- mothers are referred to family planning services at vaccination sessions in Burundi, nutrition assessment of the child is included in ORT corners in the Sahel, and EPI programs have made strides in identifying and curtailing "missed opportunities".

The Sick Child Treatment Algorithm developed by WHO and UNICEF is an important instrument that should serve to improve training and supervision and assist health staff in implementing an integrated approach to the child who reaches the health facility.

The fact that services are integrated at the delivery point does not mean that a management focus for the different child survival interventions is superfluous. Indeed, in a decentralized and integrated

health system, a strong management focus that sets standards, develops harmonized curricula and educational materials, coordinates operations research, and develops monitoring and evaluation tools is key to effective client-centered service delivery. However, this requires that the program staff in the Ministry of Health at central and often regional levels work closely together to play the role of policy-makers and technical advisors to district and local-level implementors.

The challenge for activities such as supervision, training, and health education/communications, where clearly not all subjects can be treated with the service provider or client at one time, is to make sure that all priority areas are adequately covered by the system, while themes for discrete supervision, training, or education activities are chosen systematically on the basis of the particular current problems of the service provider or client. Thus, for example, a supervision check-list should be integrated in that it covers all priority service delivery and outreach activities, but the supervisor will make a choice of focus for each supervision visit, according to the priority problems of the health facility and community.

B. SYSTEMS STRENGTHENING

- Child survival interventions cannot be sustained without a functioning health system.

- USAID child survival programs will squarely address both technical interventions and the need to strengthen essential support systems (facilities, logistics, manpower development, information, management, financing, and research). The emphasis given to each component will depend on the needs of each country's health system and the configuration of donor assistance.

The child survival strategy of the 1980s, based largely on a selective primary health care approach, has been a qualified success. There is a growing consensus that while EPI and ORT efforts were very successful during the 1980s, coverage levels have now plateaued or are even decreasing. Child survival interventions cannot be sustained without a functioning health system. More attention must be given to reinforcing the support components of integrated health systems. Each level (national, regional, and district) of an integrated health system must include subsystems to support the health interventions. Essential support components include:

Facilities (buildings, equipment and maintenance);
Logistics (medicines, supplies, transportation and communications);
Manpower development (formal education, in-service training, and supervision;
Management (planning, monitoring and evaluation);
Information (health surveillance and program monitoring);
Financial (cost recovery and financial management); and
Supervision.

In many countries these support components are nonfunctional or inadequate. The respective roles of the national, regional, and district levels in the management of support systems are often unclear, inefficient, and overly bureaucratic. Too often improvements are piecemeal without coherent integration, conflicts exist between top-down and bottom-up approaches, and vested interests in the

status quo protect existing vertical support systems. USAID will work with governments to support long-term improvements in support systems as part of a cohesive national strategy.

USAID will support systems strengthening by providing technical assistance for the needs assessment, design, financing and implementation of essential support components for focused interventions of child survival. This will include, but not be limited to, the following:

Facilities. Modest investments in the renovation of existing buildings and provision of basic equipment would increase the morale of health workers and improve the quality of care. Cost recovery mechanisms can support the continued maintenance of buildings and equipment.

Logistics. The establishment of regional supply depots managed by the ministry of health or not-for-profit NGOs and adhering strictly to an essential medicines list is a cost-effective option for maintaining a secure supply line to health districts and health centers.

Manpower development. The definition of roles and responsibilities for health personnel within a decentralized health system should maximize the training and use of personnel at all levels of the system. USAID will assist in the design of an appropriate and integrated mix of training opportunities for child survival managerial and technical skills.

Management. Management systems should include increased delegation of personnel management to the regional/district level, provisions for management of performance-based incentive system of health personnel, and preparation of community groups in the management of local services and cost recovery systems.

Information. A management information system (MIS) should monitor the technical standards for both focused interventions and support components of the health system. The MIS should promote analysis and decision-making at the health center level as well as data compilation, analysis and feedback from the district and regional levels.

Financial. As more countries initiate cost recovery systems, the experiences and lessons learned by the NGO/private sector in cost recovery, personnel motivation, and financial management should be examined and applied to decentralized public sector health systems.

Supervision. Effective systems for supervision of health workers are essential. To be cost effective, supervision at the health center must be integrated, incorporating several focused interventions while giving appropriate attention to the actual practices of health workers (for example a health worker rehydrating a child with diarrhea). Supervision should correct mistakes and encourage health personnel while providing them with continued education.

C. POLICY DIALOGUE

- Policy dialogue should be managed by the host country and include the principal donor agencies concerned with health.

- Consideration will be given in each country context to both Non-Project Assistance and Project Assistance as mechanisms to stimulate policy dialogue.

- USAID will be active in identifying and resolving policy constraints and supporting the development of policies which remove barriers to effective and accessible health care. Key policy areas include:
  - -- decentralization;
  - -- cost recovery;
  - -- private sector involvement;
  - -- policies to support focused interventions;
  - -- budget allocations for curative and preventive care.

Dialogue about policy is the government's prerogative. In a policy dialogue process managed by the government, donors can greatly assist in identifying problems and proposing solutions. Donors provide technical expertise and experience in critical policy areas; donors can also facilitate the policy dialogue process itself through workshops and shared experiences.

USAID has been developing mechanisms, such as non-project assistance (NPA), as it seeks to gain leverage with governments and bring about policy reform. Experience with non-project assistance is still limited, but encouraging. Both NPA and traditional project assistance can be used as incentives in bringing policy issues to the attention of governments, as part of efforts by USAID and its partner donors to work toward constructive policy reform.

USAID will continue to work with governments and partner donors to bring about important policy changes. Important issues for policy reform include, but are not limited to:

> Decentralization reflects the political changes occurring in many African countries, as governments devolve power and responsibility and resources to regional, district, and local levels. Governments are realizing their limitations in the provision of health services, recognizing that regional, district, and local health staff have the capacity to effectively manage services on their own. The increase in the number of trained staff, the improvement of roads and communication, the growth of demand for health care services caused in part by better communication -- all these factors argue for decentralized, more efficient delivery of health services adapted to local needs and concerns. Policies favoring decentralization include increasing the autonomy of Ministry of Health services at the regional and district levels, and encouraging the establishment and maintenance of community health committees, which give populations a direct voice in the management of their health care.
>
> Cost recovery represents another recognition on the part of many central governments -- that free services cannot be maintained. In the face of serious budget constraints, real public spending on health care has been in decline. Asking clients to pay for services is a logical step if services are to survive. Cost recovery commits the public health service to the

provision of services worth paying for. Research and experience have shown that populations are willing to pay for health care which they perceive to be of high quality; utilization rates have increased for well managed public sector cost recovery systems. Supportive government policy, including permitting local health centers to manage funds and reinvest profits, is essential for successful cost recovery.

Private-sector involvement. In many African countries private health care providers cover 50% or more of the population. Private providers include private modern and traditional practitioners, the private voluntary organizations (PVOs), and non-governmental organizations (NGOs). Government can forge constructive links between the public and private sectors, and enter into partnerships with NGOs covering large segments of the population.

Governments can also remove disincentives that hamper the private health care sector, including disproportionate taxes, import duties, medical barriers, and outmoded curricula. A strong private sector will never lead to the complete absence of government in the health sector -- there will always be need for firm regulation and a social safety net for people who absolutely cannot pay for services.

Focused interventions depend on government support at the policy level, including the formulation, dissemination and enforcement of effective treatment and referral protocols. For focused interventions to succeed, strong support systems are also essential -- so that drugs and other basic supplies are available, personnel are motivated and well trained, and appropriate referral takes place. These systems also require policy-level support, for example for effective training and drug supply policies.

Curative and preventive care. Heavy investment in curative services, especially in large tertiary-care hospitals and the provision of sophisticated curative procedures, are not cost-effective in terms of the broader population. Greater emphasis on prevention reflects a broader constituency that includes middle- and lower-class citizens. Policies promoting preventive care are considerably more cost effective for the population as a whole.

D. SUSTAINABILITY

- USAID missions will join with the host government and other donors in each country to develop sustainable child survival services. Components of sustainability include:
  - the quality of services;
  - access and coverage;
  - the utilization of services;
  - a self-sufficient resource base for service delivery;
  - effective program management;
  - support for institution and capacity building;
  - demand, and its determinants.

- Consideration of the different elements of sustainability will be incorporated at the design stage of USAID projects.

- USAID will recognize that the development of sustainable services in the African context is a long-term goal and will therefore require long-term commitments on the part of both host governments and donors.

Definition. According to most of the recent literature on sustainability, a project is sustained if all or a significant part of the health benefits it produces are sustained for three or more years beyond the life of the project. Some argue that a project is sustainable if during its life it played a role in the reorganization of the health sector or the creation of stronger institutions for project implementation. While continued donor funding for the extension of project services is not considered to be inconsistent to a sustainable approach, national sources of funding are generally preferred.

The African context introduces a number of variables that make it necessary to develop a more flexible definition of sustainability. The relatively recent colonial heritage, social heterogeneity, the heavy hand of state control, the current move to democratization of political processes and liberalization of markets, and subsequent political instability and weakening of key institutions are but a few of the variables that distinguish the African situation from those that prevail in other parts of the developing world.

In Africa, institution building and system strengthening therefore constitute important components of any sustainable project. These goals are important measures of success for transition to increased self-reliance on national institutions and financing in the long term. A successful strategy of reinforcing institutions and strengthening health systems will require that USAID, other donors and host governments take a long-term view of sustainability -- and provide the commitments necessary to ensure the success of a long-term strategy.

Designing a Sustainable Project. USAID financed projects will incorporate criteria for sustainability from the design stage of the project. These criteria include the following points:

Flexibility must be built into the project to allow for addition of new components and adoption of new approaches as needed, as well as elimination of components and/or inputs which prove to be ineffective. The project should be equally flexible in adjusting its geographic coverage.

Incentives play a crucial role in sustainability of projects. Consumers, service providers, and managers/administrators of the project must all have sufficient stake not only in the quality and efficiency of service delivered, but also in the continuation of project activities.

Effectiveness enlarges a project's supportive constituency and hence its sustainability. To be effective a project must have clearly defined goals and outputs, and a set of activities focused on those goals. To be effective a project should avoid the risks of being thinly spread functionally and/or geographically.

Integration is essential to sustainability. Project activities should be progressively integrated into the mainstream health service delivery structure. Vertical and autonomous structures of project implementation should be avoided. While they are effective, vertical structures seldom develop the broad-based supportive constituency required to sustain them beyond the period of donor funding.

Decentralization that would give some decision-making powers to consumers and providers of services would enhance a project's effectiveness and hence its sustainability. Measures should be taken to ensure that inequitable distribution of resources is properly addressed and that standards of service delivery are maintained.

Community participation should be encouraged through establishment of *community health committees* principally for two reasons: cost recovery and health education to generate demand for services of the project. The project design should take into consideration the direct and indirect costs of establishing and maintaining such committees.

Demand for project services. If people level impact is the ultimate measure of success of USAID funded projects, demand factors would have to be included in the set of indicators of project sustainability. In the final analysis a service delivery project is not sustainable if it can not generate demand for its services. Quality of care is an important factor of demand.

Public/private sector partnership in delivery of services must be encouraged. The public sector should be encouraged to progressively pull out of provision of services that could be privatized without any risk of significant negative public health consequences. *Government's role should gradually evolve from financier/provider of care to financier/regulator of care*. In a resource poor environment, government revenues can not be relied on to continue financing all health services.

Mode of project financing during implementation plays a crucial role in determining sustainability of project activities. The progressive absorption of recurrent costs by the national budget increases the degree of sustainability. Cost recovery through user-fees and other forms of private financing of recurrent costs would be preferred to the national budget, especially in those instances where the public finances are weak and unreliable.

A sustainable health care financing scheme would require fairly accurate estimates of costs of services to be financed. *Child survival projects should encourage development of methodologies for costing of services, fee-setting, and financial management procedures.*

E. DECENTRALIZATION

- Most African countries are attempting to decentralize authority and responsibility for health care. USAID will consistently support both the policy changes needed and the managed implementation of this process.

- In supporting decentralization, USAID will work with the government, NGOs and other donors to ensure that sufficient attention is paid both to the standardization of services offered across regions and to equitable coverage.

- USAID will support host country and city government efforts to strengthen service delivery and outreach activities in rapidly growing peri-urban areas, where special opportunities exist to have an impact on highly vulnerable populations. City governments should play a key role in these activities.

Health care decentralization is the transfer of authority from the Ministry of Health to regional and district units for the planning and management of public health systems. The concept of decentralized integrated health systems is not new, yet few African countries have succeeded in creating a viable dynamic national health system based on this approach. The problem appears to lie not with the concept, but with the process. While most countries support the health district concept as a model for decentralization, few have established **and** implemented policies to permit the transition from a centralized health care system to decentralized integrated health systems.

One of the important contributions which child survival has made to decentralization is to focus attention on the development of health care oriented to the needs of the population. This has in turn increased attention to the creation of geographically defined health districts as the operational unit for the management of primary health care. From the perspective of ministries of health, the health district is an effective unit for decentralization, a target for "top down" guidance. The district also serves as an effective administrative unit for communities to exert influence from the "bottom up", thereby being heard by higher-level government providers of health.

To support the decentralization process, USAID will help strengthen national political commitment and central government administrative support for decentralization policies that provide regional and district level health systems adequate authority to plan and manage financial, material and manpower resources. USAID will also provide technical and financial assistance in the design and organization of effective models for decentralized health systems, both for rural and peri-urban populations, to promote equity and to impact on highly vulnerable populations.

USAID will assist in building managerial and financial capacity within the decentralized health system (district, regional and national) to improve and sustain the support systems for focused interventions. In supporting decentralization, there are several key issues which USAID, governments, other donors and NGOs must consider:

> The population based definition of a health district permits the standardization of planning, supervision and statistical reporting of all medical activities within a defined geographical area. This increases accountability and provides the denominator for monitoring, evaluation and impact assessment of health care service activities. Decentralization requires the definition of an assistance package of standards, procedures and resources required to develop and sustain the health system at each level. International aid agencies can provide appropriate development assistance for the development of standards, and must ensure that their projects conform to national standards.
>
> Improved coordination of government, non-government, and international organizations to avoid overlap and maximize the comparative advantage of each agency is both necessary and possible -- by identifying partnerships between health districts and aid agencies. "Balkanization," or the non-coordinated implementation of differing PHC approaches in different areas, can be avoided by focusing attention on health districts, rather than on donors, and by emphasizing that aid assistance is part of the national primary health care strategy.
>
> The efficacy of the Ministry of Health is increased through decentralization by relieving top management officials of routine tasks which could be performed at the regional or district

level. The process of decentralization must, however, clearly define the responsibilities at each level of the system, not just at the district level.

The delimitation of health districts around existing referral hospitals (including those managed by NGOs) can improve donor coordination and promote equity. An initial inventory of delimited health districts, for example, can identify and plan for priority investments in developing the physical health infrastructure.

Decentralization can lead to more flexible, innovative and creative management of both support systems and focused interventions. Regional and district units may be able to test innovations and experiment with new policies and programs in selected areas without having to justify them for the whole country. This also permits more community involvement in planning and management of a system best adapted to local needs.

F. INVOLVEMENT OF THE PRIVATE SECTOR AND NGOs

- Child survival should be promoted through all available channels to increase access to and coverage of appropriate services. This may include NGOs, private practitioners, traditional healers, and the commercial sector.

- In many African countries, the private sector is already providing a substantial part of health services at relatively low cost to the government.

- Wherever possible, professional medical (particularly pediatric) and health associations should be encouraged to support and participate in child survival program development and implementation.

- USAID will encourage Ministries of Health to develop partnerships with NGOs and private providers by sharing approaches and materials, by including them in training courses and, more generally, in the planning, implementation and evaluation of services at all levels. Professional medical and health associations should be encouraged to support and participate in child survival program development and implementation.

The private sector consists of modern private, for-profit, practitioners and institutions (commercial), private non-profit establishments (non-governmental organizations -- NGOs), and traditional healers. This sector is much larger than most governments are willing to admit. As real per capita public expenditure on health has been continuously declining, private expenditure on health exceeds public expenditure in the majority of countries for which data are available.

An essential starting point for the development of a strategy for the private sector is an assessment of its size and distribution, as well as the type of services it provides and the factors influencing its development. USAID will continue to support research and analysis activities as an essential first step in the process of formulating policies regarding the private sector.

The private sector provides tremendous opportunities for making child survival services geographically and economically more accessible. The lion's share of public funding has been going

to urban hospitals which provide secondary and tertiary care. Privatization of this level of care would release public resources which could be used to increase the coverage and quality of primary health care in general, and child survival activities in particular, in rural and underserved areas.

USAID has developed a successful approach of promoting partnerships with the private, commercial sector for the distribution and promotion of family planning and oral rehydration supplies through social marketing. Excellent opportunities exist for building on this approach, introducing a larger set of commodities and supporting a wider range of activities.

By entering into partnerships with NGOs, governments can dramatically increase coverage of and access to effective health care services. USAID will work with NGOs and governments to promote such partnerships, including shared technical standards for training, supervision and logistics systems. Where possible, NGOs should be incorporated into decentralized government primary health care programs. NGOs are often both willing and able to become the referral and administrative center for the management of a health district on behalf of the ministry of health.

Additionally, professional medical and health associations offer an opportunity to reinforce child survival interventions. These associations should be encouraged to support and participate in child survival program development and implementation.

The role of government. The central objective in promoting the public/private partnership is to gradually shift public responsibility from financier/provider of health care to financier/regulator of health care. In working towards this objective, USAID will consider several major issues:

> Setting standards and sharing implementation with the private sector. The government's role in developing technical standards for focused child survival interventions and supporting systems is particularly important. The government must also ensure that NGOs and private practitioners are implementing these standards.
>
> Financing arrangements which are supportive of the private sector should be developed and adopted. Implementation of user fees at public facilities, development of public and private health insurance, uses of subsidies and tax relief, access to credit and foreign exchange, and allowing private practice in public facilities are among many options that could be considered. Sliding scale user fees combined with progressively higher fees for higher level services in the public sector would create demand for alternative sources of care. It would also create the risk necessary to generate demand for insurance coverage.
>
> Health insurance is a major source of finance of secondary and tertiary care in the private sector. Governments can play active roles in development of insurance coverage in a variety of ways including legislating compulsory coverage, using taxes and subsidies, and providing reinsurance to limit risk. USAID will provide assistance to develop such schemes and use its participation to influence the systems to be developed to include coverage of child survival activities.
>
> Regulation of the private sector constitutes a major responsibility. Many MOH's may not yet have the capacity for all of the activities involved in the effective regulation of health care in

the private sector, including: fixing and monitoring fees, determining services to be provided and regulating their distribution, and controlling quality of services and ethical standards.

Managing the public/private partnership requires strong ministries of health. USAID will seize the opportunity to provide the assistance necessary to build the required level of strength and use its participation as leverage to influence policy in the financing, provision, and regulation of child survival activities in both the public and private sectors.

G. COMMUNITY PARTICIPATION AND EMPOWERMENT

- USAID will assist government and NGO efforts to establish and strengthen consumer participation in health care management at all levels of the health system.

- Particular emphasis should be placed on preparing community groups to take an active role in the management of local services and cost recovery systems.

- USAID will assist host country efforts to promote collaboration with community organizations working in areas related to health, including water and sanitation committees, food production and distribution groups, and schools.

Community participation and empowerment are essential for creating health systems which are effective, equitable, and sustainable. Communities should be involved in all stages of health service development and implementation from conceptualization and planning through monitoring and evaluation. Such involvement will:

(1) Increase the likelihood that community priorities and needs will shape the design and implementation of health services, an important requirement for sustainability.

(2) Open channels of communication between the service providers and those being served, which is particularly crucial in planning and implementing health education programs.

(3) Support a multisectoral approach at community level, particularly linking water and sanitation and education activities which complement health services.

An important step to community participation is acceptance by health personnel of the idea that they do not have all the answers and that only through collaboration will solutions to problems be found. Support should be given to help reorient the work of health personnel to a community outreach mode. This may entail the revision of guidelines and job descriptions, re-training, rescheduling, problem-solving on transportation issues, and exchanges of experience.

As an example, the Bamako Initiative, launched in 1988, is attempting on a much wider scale than in the past to involve communities in the building and strengthening of health systems. Under the initiative, users of a health center or pharmacy pay for services and drugs. These revenues are retained by the health centers and managed by local elected committees which reinvest them in additional drugs, incentive payments for health workers, and other improvements.

Many lessons have been learned over the course of the last fifteen years from the Bamako Initiative and other interventions about how to form and train committees for community health management. What is less well known is how to establish a community committee that will continue to function over the long term. Some kind of periodic supervision/support is necessary for sustainability. However, putting this responsibility solely on the shoulders of an already overburdened health staff is not practical. Periphery-level personnel and PVO staff from all sectors must join together in working in a coordinated manner with community organizations. Collaboration among sectors, donors, and non-governmental agencies at higher levels will be needed to facilitate this in the field.

USAID's role in this area will be to:

(1) Support research and information-exchange about alternative and, particularly, successful models for sustainable community participatory organization.

(2) Provide technical assistance and funds to plan community participation components for all health projects.

(3) Furnish technical assistance and funds for training community organizers, as well as for workshops which will give community leaders skills in problem solving as well as generation and use of donor funds.

(4) Provide initial funding for community financing schemes which is replenished as the project proceeds.

USAID can work with governments to ensure that each project plan contains a realistic and achievable community participation component. Project plans have sometimes contained community participation or equity provisions, such as those relating to women, which have been ignored during implementation or honored only in cursory ways. USAID can assist governments to monitor and evaluate the implementation of these provisions.

H. COMMUNITY AND HOUSEHOLD BEHAVIOR CHANGE

- USAID will promote the uses of appropriate research methodologies in developing initiatives for behavior change which take into account community, family, and individual characteristics.

- USAID will promote approaches to program planning and implementation which take into account the clients' need, health-seeking choices, and perception of child survival services.

- USAID programs will support health education at national and local levels to take full advantage of different and complementary health education methods and channels.

- An appropriate balance should be sought among face-to-face education, the use of the mass media, community outreach activities, and communication channels traditionally used in each community (including church, theater and songs).

Few improvements in health status will endure in the absence of changes in community and individual attitudes and behavior. Health education and community empowerment provide people with the knowledge and skills to act in a healthier way as well as creating expectations and demands for services -- all prerequisites for the sustainability of any improvement of health status or service delivery.

Approaches to program planning and implementation will take into account the clients' needs, health-seeking choices, and perception of child survival services. Similarly, appropriate research methodologies will be used to develop initiatives for behavior change which take into account individual, family, and community beliefs, needs, and priorities, as well as economic and social realities.

Initiatives for behavior change should take advantage of different and complementary health education methods and channels. An appropriate balance will be sought between face-to-face education, the mass media, community outreach activities, and communication channels traditional in each community such as churches, theater, and traditional leaders.

As decentralization of health services proceeds, health educators at national, regional, and local levels should prepare and implement comprehensive technical, management, and training programs to ensure the long term viability of health education strategies. These programs will most likely be components of larger plans encompassing a variety of health services. USAID can employ its comparative advantage in technical assistance and training to support countries in developing the training and supervisory capacity of health educators at all levels.

To ensure that all personnel understand the importance of health education, USAID will assist governments to integrate appropriate information and training on health education -- particularly counselling and community outreach skills -- into all pre-service training curricula for doctors, nurses, and allied health professionals.

Emphasis should be placed on competency-based training on these skills during in-service training courses, whether these are specific health education workshops or workshops focusing on public health interventions. Appropriate health education duties should be incorporated into the job descriptions of all health personnel and supervision / continuing education activities better used to improve progressively the quality of counselling and outreach activities.

Efforts to monitor the effects of health education activities should be supported and results should widely disseminated and discussed. This feedback can be used both to problem-solve and as a motivating factor for field workers. Other creative mechanisms, such as prizes, awards and training opportunities, should be employed as incentives for high performance in health education.

The private sector should be an important component of any national health education strategy. Using social marketing techniques which USAID has supported with great success throughout the world, the private sector becomes both a provider of goods and services as well as a health educator.

I. HUMAN RESOURCE DEVELOPMENT

- USAID will participate with the host country and other donors in country assessments of the training needs for child survival for both managerial and technical skills.

- USAID will consider its comparative advantage as well as the cost-effectiveness of different training options in order to develop an appropriate mix of:
  - -- long-term and short-term training;
  - -- pre-service and in-service training;
  - -- in-country, regional and training abroad;
  - -- training different categories of personnel.

- In general, USAID will support the improvement of quality and effectiveness of African national and regional training institutions.

- USAID will assist host countries to explore performance-based incentive systems, which could include official recognition, awards, training opportunities, and cost sharing in cost recovery system, among others.

- USAID will support efforts to define the roles and responsibilities of different categories of health personnel and to maximize the use of lower level personnel in a rational manner, leading to increased access to effective service delivery.

The correct application of available child survival technologies depends on competent and well-informed health care personnel. A mix of health personnel with managerial and technical skills should be appropriately and equitably placed at all levels of the health system in order to better sustain child survival interventions. USAID will participate with the host country and other donors in a country assessment of the medical and public health training needs for child survival and support the formulation a comprehensive human resources development plan.

Support for child survival training must address both pre-service and in-service needs. USAID will support needs assessment for pre-service training in child survival. Support will be given to curriculum development, training of trainers, and most importantly on the job competency-based training and continuing education.

There is still an evident unmet need for trained senior and mid level personnel for health and child survival leadership, management, and research. USAID has made a significant contribution to the preparation of African leadership in public health, perhaps the single most important factor in the improved approach toward public health that can be seen in most African countries. USAID will continue to promote linkages with U.S.-based schools of public health to provide graduate training in various technical and managerial aspects of public health.

Selected graduate programs have been established in some African countries (for example Senegal, Zaire, Zimbabwe) with emphasis on field-oriented training, based on partnerships between universities and government departments responsible for public health programs. Building on these and other initiatives, USAID will collaborate with governments and donors at both national and inter-country level to prepare and finance plans to strengthen health leadership, management, and research capacity

for child survival in Africa. USAID will support the improvement of quality and effectiveness of African national and regional training institutions.

Child survival has taken off in selected African countries, but only after national program manager positions were filled with individuals that have had graduate training in, for example, public health. The success of child survival depends also on the actual services provided to the clients at the delivery sites by community health workers, nurses, midwives, and other health personnel. USAID will support efforts to define the roles and responsibilities of different categories of health personnel and to maximize the use of lower level personnel in a rational manner, leading to increased access to effective service delivery.

USAID will assist host countries to address health sector personnel management problems which are some of the underlying causes of low performance of child survival programs in Africa. Low wages and salaries, poor managerial controls, weak supervision, and poor working conditions are among those problems. Host governments and agencies involved in child survival should explore performance-based incentive systems, which could include official recognition, awards, training opportunities, and cost sharing in cost recovery systems, to boost morale and motivation of qualified and dedicated health personnel.

J. QUALITY ASSURANCE

- USAID will support Ministries of Health to develop and monitor technical standards for child survival focused interventions, with emphasis on case management, counselling, supervision, and referrals.

- USAID will support Ministries of Health in ensuring that different providers of health care -- in the context of a client-centered approach -- carry out the problem-solving activities necessary to apply the standards developed with a view to increasing patient satisfaction and service utilization rates.

- USAID will assist the government to reinforce a minimum package of components necessary to maintain and improve quality service delivery. These components will include:
  - a functioning supervision system;
  - an adequate supply of drugs and equipment;
  - competency-based pre-service and in-service training;
  - a management information system that permits the active monitoring of service delivery quality.

Studies have suggested that the low utilization rate of child survival services offered by the public sector in Africa is directly related to the inadequate quality of those services. Deficiencies in areas such as patient counselling and health education, diagnosis, treatment, essential supplies, logistics, health personnel competence and morale, and supervision contribute to inadequate quality of care.

To ensure the impact of child survival interventions, improving quality of services is as essential as increasing coverage. For example, if a measles immunization campaign meets target coverage rates but close examination shows that a great proportion of the administered vaccines was ineffective due

to poor maintenance of the cold chain, the impact of the intervention is compromised and resources are wasted due to poor quality.

Quality assurance (QA) has tended to focus on systematic monitoring and evaluation of the quality of clinical practices. Important efforts have been initiated in many countries in Africa to improve quality by establishing standards and assessing practices against the standards. Results of such assessments have been widely discussed and fed into training, monitoring and supervision.

Useful systematic assessments have been undertaken particularly of the case management of diarrheal diseases, acute respiratory infections, family planning activities, supervision activities, and the work of primary health care workers. These have produced information that is invaluable for supervisors and trainers, for raising awareness of service providers, and for informing decision- makers of the practical implications of current policies.

Setting standards, and monitoring performance by these standards, is an essential component of successful quality assurance. The QA approach is now being broadened, with strong support from USAID, to include the tools and methods of Continuous Quality Improvement (CQI) and to take into account the underlying systems that affect case management in health facilities. CQI assumes that problems in service delivery are the result of inefficient, poorly designed, or malfunctioning processes, rather than ineffective staff. Improving the appropriate part of a process or system where a problem has been identified will usually correct the problem.

The challenge now for USAID is to build in a CQI approach to all child survival interventions with the aim of increasing patient satisfaction and service utilization rates, as well as providing more cost-effective quality care. This will require:

Building local capacity for assessment and for problem-solving systems -- including commitment from leadership and practical approaches such as CQI working groups.

Conducting assessments of service delivery systems to define the current levels of quality and identify areas of weakness.

Strengthening supervisory systems so that they become important components of the QA process, where supervisors actively engage in performance monitoring and problem solving.

Upgrading management information systems which include data which facilitate continuous assessment and improvement of quality of care.

Modifying training programs to incorporate competency-based training for essential routine tasks.

Addressing problems of low morale among health workers.

Building applied research capabilities used in developing, testing and refining quality assurance approaches.

Disseminating successful quality improvement strategies within and among countries.

K. APPLIED RESEARCH

- Applied research should be used to address well-defined issues arising from program implementation.
- Decision-makers and program implementors should be involved in defining the issues to be researched and in carrying out the research, in order to promote a sense of ownership among those groups.
- Discussion and dissemination of results should be incorporated into research planning to maximize the utilization of the findings by decision-makers.
- USAID will assist in strengthening African national and regional capacities for carrying out research (researchers) and for making use of results (decision-makers).

Which child survival interventions could/should work and what does/does not work? What proven child survival technology will be/not be culturally appropriate and acceptable in a given setting? To answer those two illustrative questions, decision-makers and program managers will need reliable data and information. Applied research should be promoted and strengthened as an integral component of the health systems.

USAID will participate with host country officials and other donors in ensuring the use of research in child survival strategy development, program management, and service design. It is important to allocate resources both to the development of new or improved strategies and interventions, as well as fund efforts to develop more effective evaluation measures for delivery of interventions whose efficacy is already established.

Decision-makers and program implementors should be involved in defining the issues to be researched and, in so far as possible, in carrying out the research, in order to promote a sense of ownership among those groups. USAID will assist host countries to support mechanisms by which decision-makers, program managers, and researchers interested in child survival get together to define technical and managerial problems to be researched, to plan and implement research, and to discuss use of the research findings. Such mechanisms should be promoted at a certain degree at all levels of the health systems.

USAID supported child survival programs in Africa have often had a research component. Each program has had its own approach in promoting applied research. USAID will build on lessons learned from those programs. USAID will assist in strengthening African national and regional capacities for carrying out research and, more importantly, for making use of results. Discussion and dissemination of results should be incorporated into research planning to maximize the utilization of the findings by decision-makers. USAID will support mechanisms to improve exchange of research and evaluation results both within and across countries.

L. MEASUREMENT OF PERFORMANCE AND IMPACT

- USAID will assist in developing and monitoring both long-term and intermediate indicators on:

  - morbidity and mortality;

  - increased coverage and utilization of services;

  - increased quality of services (minimum package of quality care, including indicators for different support system components -- for example, a functioning supply or supervision system);

  - increase in knowledge and desired behaviors in the population.

Experience from the ACSI-CCCD Project shows that health information systems within countries often do not receive adequate financial and institutional support. USAID will support host country policies which recognize the value of good information in the planning, implementation and evaluation of sound health programs and which provide adequate support for information systems.

USAID will include within its HIS activities well defined training programs to increase national and peripheral capacity to develop and manage national health information systems and to analyze and use health information to respond to the public health needs of the nation. Epidemiology and management training programs will be provided as needed to assist countries in these efforts.

Although the World Summit for Children goals represent the basis for most child survival program implementation, information needs for monitoring progress towards these goals are different at the different levels within the health system. USAID will participate in a working group that will be convened to develop a minimum set of indicators that can be used at the national and local level to monitor progress towards World Summit objectives.

Morbidity and Mortality. In the United States, routine vital events registration is used as the basis for measuring mortality. Such routine systems do not exist in most developing countries and USAID will assist countries receiving assistance to develop functioning vital events registration systems.

USAID will also support the identification of simple methods for measuring mortality and of guidelines and training for collecting and using mortality data and other health information at the local level.

USAID will also continue to support demographic health surveys (DHS) as an interim mechanism for monitoring progress towards the World Summit for Children mortality reduction goals. These surveys are conducted in collaboration with host country MOH staff and consequently transfer skills in survey design and implementation. However, they are expensive and ultimately cannot be sustained by most USAID-assisted countries.

Coverage, quality and utilization of services. Indicators of coverage, quality and utilization of selected child survival services have been developed and can often be calculated from routine service

delivery reports. USAID will promote training, primarily for peripheral level health workers, in using these indicators to monitor program implementation. USAID will promote the development of the training systems component of routine health information systems in an effort to provide managers with coverage data. Data on the utilization of case management strategies are collected through community survey methodologies and USAID will support the development of training materials and policies that will enhance MOH skill in conducting community surveys.

Direct facility based observation of health worker performance, either during supervisory visits or during health facility training needs assessment surveys, remains the most effective method for measuring the quality of health services being provided and for measuring change in the level of quality of these services. USAID will strongly support the development of MOH policies which give adequate support to supervisory and continuing education systems necessary to continually evaluate and maintain quality health service delivery.

Numerous support strategies are also required to implement high quality health services. Consequently, in addition to monitoring the quality of services, it is also necessary to monitor on a routine basis the implementation of support services known to directly impact on the quality of services that a health system can provide. Support systems include continuing education and logistics. USAID will support the identification of appropriate indicator for monitoring the implementation and impact of training activities. Indicators for monitoring the performance of the logistics and supply systems are well identified and USAID will focus efforts here on building MOH capacity to collect, analyze and use appropriate data on the performance of logistics systems.

Increase in knowledge and desired behaviors in the population. Data on community knowledge and practices are essential for planning and implementing appropriate child survival interventions and for evaluating changes in behavior that are expected to result from these programs. Data on community beliefs and practices are most often collected through community survey methodologies or through focus group discussions and key informant interviews.

M. CHILD ADVOCACY

- USAID will encourage African national and multilateral organizations, professional associations, and NGOs working at all levels, to act as advocates for children's health and well-being -- representing children's health interests in policy debates and decisions concerning allocation of resources.

The sustainability of child survival activities in Africa may depend on the strength of local constituencies for children and their health. Such constituencies should be active in raising the national consciousness for children's health needs, in lobbying governmental efforts for policy change and resource allocation in support of children's welfare and health. Those groups can also be instrumental in monitoring and ensuring improved quality of child survival activities.

USAID will, in collaboration with other donor agencies, assist host countries to carry out an assessment of the size, type of activities, and distribution on such local advocacy groups. USAID will support the identification and the strengthening of these child survival advocacy groups.

In many developed countries, organizations representing professionals whose work is directly related to health and welfare constitute major constituencies for children. These include professional organizations of pediatricians, obstetricians, teachers, nurses, social workers, public health professionals. Women's groups and parents' groups are also instrumental in promoting child survival.

USAID will promote and support linkages of U.S.-based professional and advocacy groups to provide technical and managerial assistance to counterpart groups in Africa for increased child health and welfare advocacy. The linkages should ensure an effective transfer of skills for a long term development and growth of such professional and advocacy groups, especially those groups representing the consumer of child survival services.

N. COORDINATION WITH OTHER DONORS

- USAID will support governments to play the lead role in coordinating donor assistance and in developing policies and strategies for child survival services (focused interventions and strengthening of support systems).

- USAID will work with host country governments and other donors to coordinate inputs in order to avoid overlap and maximize the comparative advantage of each agency.

Coordination of donors is essential to avoid duplication of efforts and to maximize effect. Governments must take the lead role in organizing coordination among donors -- governments should clearly state their priorities for donor assistance and ensure that donor inputs fit into a cohesive strategy. USAID and its partner donors can encourage governments to take on this lead role by coordinating approaches, and by proposing programs and inputs which are consistent and mutually reinforcing. It is essential that donors have a long-term perspective for the development of health programs, and avoid proposing to governments short-term solutions which are not consistent with long-term strategies.

USAID is and must continue to be a leader in promoting donor coordination in Africa. USAID's strong programs and field credentials make the Agency a credible advocate for child survival among its colleagues in the donor community. USAID's technical expertise and experience are very useful to government officials seeking to combine donor resources in the most effective way.

One of USAID's comparative advantages is its field staff -- the long-term presence of health experts in Africa available for country-wide and regional deployment. USAID has long been a leader in African child-survival programs, taking particular interest in EPI, CDD, and ways to integrate services. With this experience, USAID can provide leadership among donors, promoting complementary policies and programs that enhance the contributions of all parties in the child-survival community.

Regular donor meetings are a straightforward mechanism that USAID can facilitate, by the simple provision of some logistic and material support. Such meetings would always be chaired by government. The establishment of regular, scheduled meetings that had as their premise the

complementary roles of all parties could go a long way toward making a reality of donor coordination. In helping to arrange such meetings, USAID would also be acknowledging its own need to consult with its partner donors and its commitment to integrated donor inputs.

APPENDIX II – STATISTICS FOR SUB-SAHARAN AFRICAN COUNTRIES

	Mortality 0-1 year 1992 (per 1000) [1,5]	Mortality 0-5 years 1991 (per 1000) [1,5]	Ratio of infant/ child mortality rates	GNP per capita 1990 ($) [1,2]	Population 1992 (millions) [1]
Angola	170	292	1.72	610 [1]	9.90
Benin	88	147	1.67	380	4.90
Botswana	45	58	1.29	2,530	1.30
Burkina Faso	101	150	1.49	290	9.50
Burundi	108	179	1.66	210	5.80
C.A.R.	105	179	1.71	390	3.20
Cameroon	65 [5]	117	1.80	850	12.20
Cape Verde	44	60	1.36	750 [1]	0.38
Chad	123	209	1.70	210	5.80
Comoros	90	130	1.45	500 [1]	0.59
Congo	82	110	1.34	1,020	2.40
Cote d'Ivoire	91	124	1.36	690	12.90
Djibouti	113	158	1.40	1,210 [1]	0.47
Equatorial Guinea	118	182	1.54	330 [1]	0.37
Ethiopia	123	208	1.69	120	53.00
Gabon	95	158	1.66	3,780	1.20
Gambia, The	133	220	1.65	360 [1]	0.91
Ghana	103	170	1.65	400	16.00
Guinea-Conakry	135	230	1.70	460	6.10
Guinea-Bissau	141	239	1.70	180	1.00
Kenya	51	74	1.45	340	25.20
Lesotho	108	156	1.44	580	1.80
Liberia	146	217	1.49	450 [1]	2.80
Madagascar	93 [5]	163 [5]	1.75	210	12.80
Malawi	143	226	1.58	200	10.40
Mali	122	220	1.80	270	9.80
Mauritania	118	206	1.75	500	2.10
Mozambique	167	287	1.72	80	14.90
Namibia	62	79	1.27	1,460 [1]	1.50
Niger	123 [5]	318 [5]	2.59	310	8.30
Nigeria	87 [5]	192 [5]	2.21	290	96.00 [7]
Rwanda	131	222	1.69	270	7.50
Sao Tome	65	85	1.31	400 [1]	0.12
Senegal	90	145	1.61	710	7.70
Sierra Leone	144	249	1.73	210	4.40
Somalia	125	211	1.69	150	9.20
South Africa	53	70	1.32	2,560 [1]	39.80
Sudan	100	166	1.66	420 [1]	26.70
Swaziland	74	107	1.45	1,050 [1]	0.79
Tanzania	111	176	1.59	120	27.80
Togo	86	137	1.59	410	3.80
Uganda	111	185	1.67	250	18.70
Zaire	121	188	1.55	220	39.90
Zambia	108 [5]	192 [5]	1.78	420	8.60
Zimbabwe	60	86	1.43	640	10.60

	Vaccination coverage: Measles rate (1 yr. old) 1990-91 [1,4]	Vaccination coverage: DPT immun. rate (1 yr. old) 1990-91 [1,4]	ORT use rate 1987-91 [1]
Angola	40	27	48
Benin	60	68	45
Botswana	78	86	64
Burkina Faso	36	38	
Burundi	75	83	49
C.A.R.	25	25	24
Cameroon	35	34	84
Cape Verde	78 [2]	88 [2]	5 [2]
Chad	21	12	15
Comoros	71 [2]	71 [2]	79 [2]
Congo	64	74	26
Cote d'Ivoire	47	37	16
Djibouti	68 [2]	77 [2]	51 [2]
Equatorial Guinea	11 [2]	3 [2]	21 [2]
Ethiopia	17	21	38
Gabon	76	78	10
Gambia, The	33	77 [2]	39 [2]
Ghana	39	39	21
Guinea-Conakry		35	65
Guinea-Bissau	52	63	5
Kenya	59	74	69
Lesotho	69 [2]	69 [2]	68
Liberia	55	28	9
Madagascar	40	50	11
Malawi	78	81	14
Mali	39	34	41 [2]
Mauritania	29	26	54 [2]
Mozambique	50	42	30
Namibia	71	87	
Niger	23	17	54
Nigeria	46	44	35
Rwanda	81	85	24
Sao Tome	57 [2]	77 [2]	46 [2]
Senegal	46	51	27
Sierra Leone	54	56	60
Somalia	30	18	78
South Africa	63	67	
Sudan	59	63	37
Swaziland	66 [2]	73 [2]	85 [2]
Tanzania	75	79	83
Togo	51	61	33
Uganda	73	76	30
Zaire	31	32	45
Zambia	76	79	89
Zimbabwe	83	83	77

	% children 0-4 years underweight 1980-91 [1]	Population growth rate 1980-91 [1,2]	Total fertility rate 1991 [1,2]	Contraceptive prevalence (modern) rate [2,3,5]
Angola		2.9	7.20	
Benin		2.9	7.10	1.0 [3]
Botswana	15	3.2	5.20	33.0 [2]
Burkina Faso		2.6	6.50	8.2 [5]
Burundi	38	2.9	6.80	1.0 [3]
C.A.R.		2.6	6.20	2.5 [6]
Cameroon	17	2.9	5.80	4.3 [5]
Cape Verde		2.7 [2]	5.42 [2]	
Chad		2.2	5.90	
Comoros		3.7 [2]	6.82 [2]	
Congo	24	2.9	6.30	
Cote d'Ivoire	12	3.8	7.40	1.0 [3]
Djibouti		3.8 [2]	6.60 [2]	
Equatorial Guinea		2.2 [2]	5.50 [2]	
Ethiopia	38	2.6	7.00	
Gabon		3.6	5.20	
Gambia, The		2.8 [2]	6.50 [2]	
Ghana	27	3.3	6.10	15.0 [6]
Guinea-Conakry		2.6	7.00	
Guinea-Bissau	23	2.0	5.80	
Kenya	14	3.5	6.40	27.0 [2]
Lesotho	16	2.7	4.80	4.0 [3]
Liberia		3.2	6.80	6.0 [2]
Madagascar	33	3.2	6.60	
Malawi	24	4.3	7.60	3.3 [6]
Mali	31	3.0	7.10	2.9 [6]
Mauritania	48	2.7	6.50	
Mozambique		1.7	6.50	
Namibia	29	3.0	6.00	
Niger	49	3.3	7.10	2.3 [5]
Nigeria	36	3.3	6.60	4.0 [3]
Rwanda	33	3.1	8.50	8.0 [3]
Sao Tome		2.5 [2]	5.12 [2]	
Senegal	22	2.8	6.20	2.4 [5]
Sierra Leone	23	2.4	6.50	
Somalia		2.6	7.00	
South Africa		2.5	4.20	45.0 [3]
Sudan	20	3.0	6.20	6.0 [3]
Swaziland		3.7 [2]	6.72 [2]	14.0 [6]
Tanzania	48	3.4	6.80	10.4 [6]
Togo	24	3.0	6.60	3.0 [3]
Uganda	23	2.9	7.30	5.0 [2]
Zaire		3.3	6.70	
Zambia	25	3.5	6.50	8.7 [5]
Zimbabwe	12	3.3	5.50	40.0 [3]

	Estimated HIV-1 Seroprevalence (urban) 1991 [4]	% Pop. w/ access to health serv. 1985-88 [1,2]	Population per: [2] Physician	Nurse	Adult literacy rate 1990 [1]
Angola	1.3%	30	17,753	1,013	42.0
Benin	0.5%	18			23.0
Botswana	3.6%	89			74.0
Burkina Faso	8.8%	49	57,327	1,682	18.0
Burundi	17.5%	61	21,000	4,375	50.0
C.A.R.	9.3%	45			38.0
Cameroon	21.0%	41			54.0
Cape Verde	0.0%		38,358	3,395	37.0
Chad	1.1%	30			30.0
Comoros			12,290	2,268	48.0
Congo	9.0%	83			57.0
Cote d'Ivoire		30			54.0
Djibouti		68 [2]	4,183	506	12.0
Equatorial Guinea					50.0
Ethiopia	2.1%	46	78,777	5,391	n/a
Gabon	2.5%	90			61.0
Gambia, The	0.1%	90 [2]	11,688		27.0
Ghana	2.2%	60	20,463	1,669	60.0
Guinea-Bissau		64 [2]	7,262	1,129	36.0
Guinea-Conakry	0.6%	47			24.0
Kenya	15.0%		10,132		69.0
Lesotho	0.1%	80	18,614		73.6 [2]
Liberia	0.0%	39			40.0
Madagascar	0.0%	56	9,780		80.0
Malawi	22.8%	80	11,338		41.2 [2]
Mali	0.4%	15	23,508		32.0
Mauritania	0.0%	40	11,901	1,182	34.0
Mozambique	1.1%	39			33.0
Namibia					n/a
Niger		41	53,608	3,675	28.0
Nigeria	2.8%	66	6,424	900	51.0
Rwanda	30.3%	27	74,946	4,301	50.0
Sao Tome					57.0
Senegal	0.2%	40		2,031	38.0
Sierra Leone	3.5%	36.2 [2]	13,618	1,089	21.0
Somalia	0.0%	27	19,948	1,898	24.0
South Africa	1.0%				n/a
Sudan	0.1%	51	10,192	1,259	27.0
Swaziland	2.3%				55.0
Tanzania	11.5%	76	24,988	5,488	91.0
Togo		61	8,703	1,236	43.0
Uganda	29.5%	61			48.0
Zaire	6.0%	26	13,537	1,880	72.0
Zambia	24.5%	75	7,154		73.0
Zimbabwe	18.0%	71	7,181	997	67.0

SOURCES FOR STATISTICS:

1 The State of the World's Children, UNICEF, 1993 and 1994.

2 Social Indicators of Development, 1991-92, The World Bank - Johns Hopkins University.

3 Child Survival - A Seventh Report to Congress on the USAID Program (FY 1991).

4 Comparative Studies 1 - Immunization, Demographic and Health Surveys, 1990.

5 Demographic and Health Surveys sponsored by USAID, 1990-1992.

6 Data generated by USAID projects and provided by the Center for International Health Information (CIHI).

7 World Bank, World Development Report, 1993.

APPENDIX III -- USAID's COMPARATIVE ADVANTAGES IN AFRICA

USAID has comparative advantages in the following areas in Africa:

- Supporting institutions. USAID's support for a large number of regional and national organizations has encouraged the long-term development and capacity building of these organizations. USAID has also supported the planning and management capacities of ministries of health through technical assistance and training.

- USAID promotes national scale applications of appropriate child survival technologies, in conjunction with institutional strengthening. Working in concert with WHO, UNICEF and other donors, USAID projects have successfully assisted national programs for immunizations, CDD, and exclusive breastfeeding. Newer technologies (ARI, Vitamin A, feeding messages) are now being added, as ministries move to more comprehensive programs, integrating "vertical" health services for more effective treatment of the child.

- Technical assistance. For both long and short-term technical assistance, USAID can call upon an wide range of experts from cooperating agencies and universities. USAID has been the leading donor in the provision of technical assistance in several key areas related to child survival -- including support for service delivery systems, logistics, operations research, management information systems, and the application of innovative approaches such as working with the private sector.

- Strong field staff. USAID has a cadre of technically skilled and experienced professionals able to work with host country governments, local organizations and other donors to tailor USAID's assistance to meet the country's specific needs. USAID's field staff are funded through both operations expenditures (OE) and program funding, and include direct hire staff, fellows, TAACS (Technical Advisors for AIDS and Child Survival), and resident advisors fielded by cooperating agencies.

- Network of cooperating agencies. A wide variety of projects and organizations funded by USAID offer specific technical expertise and experience. This network provides USAID with flexibility in program implementation and in assisting governments.

- Innovation. USAID and USAID cooperating agencies are particularly adept in attempting new approaches and incorporating lessons learned into ongoing efforts. USAID successfully uses operations research to identify problems and to test solutions. Public education and marketing through the mass media, introduced through USAID programs, have increased demand for child survival services.

- Leading efforts to engage the private sector and NGOs. USAID has taken the lead among donors in promoting partnerships with the private sector. Social marketing, the promotion of health and family planning services through employers' infrastructure, and local production of pharmaceutical products are among USAID's initiatives with the private sector.

- Training. USAID's support of training has been effective for both short-term, in-service training and for long-term public health training in the United States.

DRAFT

STRATEGIC FRAMEWORK FOR RESEARCH, ANALYSIS, AND DISSEMINATION ACTIVITIES TO IMPROVE CHILD NUTRITION IN AFRICA

U.S. Agency for International Development
Africa Bureau, ARTS Office

DRAFT FOR DISCUSSION

DRAFT

April, 1994

Table of Contents

I. Background

II. Purpose of the Strategic Framework

III. Nutrition Objective Tree

IV. Methods Used and Information Obtained

V. Knowledge Gaps and Information Needs

VI. Prioritization of Information Needs

VII. Recommended Activities

VIII. Prioritization of Activities (to be determined)

References

Appendices

I. Persons contacted and Interviewed

II. Questionnaire

I. Background

In 1990, approximately 28 million or 30 percent of Sub-Saharan African preschool children were estimated to be underweight (ACC/SCN, 1992). Nearly 38 million children, or 40 percent, had stunted skeletal growth due to chronic undernutrition and infection (World Bank, 1993).

Whereas the prevalence of undernutrition has declined in all other regions of the world over the last twenty years, most countries in Africa have experienced either no change or an increase in the *prevalence* of childhood undernutrition (ACC/SCN, 1992). Because of rapid population growth in the region, the *number* of undernourished African children has increased, however, by more than 150% during this time period.

In less than twenty years from now, the undernourished children of today will be parenting children of their own. These offspring will be more likely to have low birth weights, to die in infancy and early childhood, to suffer increased morbidity, and to fail to overcome the health, nutrition, and economic disadvantages facing their parents (NCP, 1993). Although political stability, poverty reduction, and economic development are long-term goals for every country on the continent, it is critical that actions be taken to reduce undernutrition among Africa's children at the present time so that future development is not undermined.

The specific causes of malnutrition in Africa are varied. Drought, civil wars, economic recession and structural adjustment have affected the quality of life and access to food and other social services of millions of African adults and children. In some parts of the continent, seasonal changes in food availability are endemic. In other areas, household food security is adequate year-round but available foods are not efficiently used to meet the nutritional needs of young children. The types of interventions required to improve child nutrition vary among populations facing emergency situations, seasonal food shortages, and those that are food secure but not meeting the needs of their children.

A number of factors constrain the successful implementation of interventions to improve child nutrition in Africa. In addition to the political and economic considerations cited in the preceding paragraph, other constraints include limited access to existing nutrition programs because of limited infrastructure (*e.g.*, roads) and transportation, inefficient use of existing resources, inadequate training of nutrition professionals, and poor or non-existent coordination among institutions and governmental and non-governmental sectors with policies and activities that impact nutrition (Levinson, 1991). Cultural diversity and intra-community variation in feeding practices have also been cited as major impediments to the development and implementation of large-scale nutrition improvement programs (Herman, 1993).

Successfully-implemented programs on the continent have focused on enhancing the capacity of existing institutions, promoting intersectoral coordination, involving beneficiaries in problem identification and intervention design, and being flexible in responding to beneficiaries' felt needs and changing household economic and nutrition conditions (Kennedy, 1991a). They

also have organizational and administrative structures that are consistent with their community-oriented strategies (*e.g.*, Pyle *et al.*, 1993). Well-targeted and administered nutrition programs have had a beneficial impact on child nutrition in Africa and other countries worldwide (Levinson, 1991; Rohde *et al.*, 1993; Pyle *et al.*, 1993).

The **purpose** of this document is to synthesize existing information and gaps in our understanding of effective means for improving child nutrition in Africa, and to propose a list of priority activities that merit future AID support. The document outlines targets and activities to improve child nutrition in Africa and offers recommendations on research, analysis, and information dissemination (RAID) priorities based on interviews with and surveys of African policymakers and nutrition experts.

II. Purpose of the Strategic Framework

This strategic framework defines the priorities of the Office of Analysis, Research and Technical Support (ARTS) of the Africa Bureau, and the Health and Human Resources Analysis for Africa (HHRAA) and Support for Analysis and Research for Africa (SARA) Projects for supporting research, analysis, and information dissemination related to *Improved Infant and Young Child Nutrition* in Africa.

The goals of both the ARTS Office and the HHRAA/SARA Projects are to support regional RAID activities that will lead to improved policies, strategies, and programs in the areas of health, nutrition, education, and population. The ARTS office and the HHRAA/SARA Projects' purposes are to provide appropriate information and advice to AID offices, African governments, and other donors that will assist them in setting priorities and allocating resources.

Infant and young child nutrition, the analytic area described in this document, is an appropriate area for ARTS and HHRAA/SARA attention because of the large number of African children who are undernourished, the expanded information-base describing the mix of interventions for reducing undernutrition in it various forms, and the increasing political commitment by African leaders to address this problem. Leaders from over 40 African nations committed themselves to the goals declared at the 1990 World Summit for Children and the 1992 International Conference on Nutrition to *eliminate* famine, famine-related deaths, starvation, and nutritional deficiency diseases, and to *reduce* chronic hunger, undernutrition and micronutrient deficiencies (especially among women and children), and the social impediments to optimal breastfeeding, by the end of this century (ICN, 1992). Conference participants are in the process of preparing national plans of action to reach these goals, and it is important for ARTS and HHRAA/SARA to outline their role in guiding and executing these efforts.

In addition to supporting the existing political environment and commitment by African policymakers to addressing child nutrition problems, implementation of the activities outlined in this strategy document is **consistent with AID strategic objectives** and the goals of the Development Fund for Africa (DFA). One of the major strategies of the DFA is to invest in the future of African people through the support of **child survival and health** initiatives

(USAID, 1993). Implementation of activities outlined in this strategy will improve the quality and efficiency of existing child survival interventions and will support the **Integrated Care of the Sick Child Initiative**.

III. Nutrition Objective Tree

The nutrition objective tree developed by the SARA Project is shown in Figure 1. The strategic objective is to improve maternal and child nutritional status. Child nutritional status is the focus of this strategy. Nutritional status is defined by growth indicators, dietary quality and intake, and child micronutrient status.

The targets that *directly* support this strategic objective include 1) improving diet and feeding practices at the community and household levels, 2) increasing the efficiency and effectiveness of targeted nutrition interventions, and 3) improving food security at the household level. Targets that *indirectly* support this objective include 4) women's reproductive health and child spacing; 5) prevention and control of diseases conducive to undernutrition, and 6) improving the water and sanitation environment. RAID priorities that *directly* support the strategic objective of improved child nutrition (targets 1-3) are covered in this framework.

Interventions or activities to achieve the direct targets include 1) nutrition education and promotion, 2) improved training and supervision of health and nutrition providers (broadly defined as any worker providing nutrition-related services and/or education to at-risk populations), and 3) increased access to and utilization of food through food aid, food production or processing schemes, and women's access to credit and income-generating, microenterprise options, offered in conjunction with activities 1 and 2.

IV. Methods Used and Information Obtained

Methods

The knowledge gaps and information needs with respect to young child feeding and nutrition in Africa were identified by reviewing documents already prepared by SARA/AED staff and consultants on infant and child nutrition in Africa (NCP, 1993) and lessons learned from interventions to improve child feeding practices (Piwoz, 1993). In addition, in the last three years, several comprehensive papers were written on the impact of nutrition interventions and key elements to stress in the design of projects and programs to improve child nutrition in Africa (NCP, 1993; World Bank, 1993; Herman, 1993; Pyle *et al.*, 1993; Kennedy, 1991a; 1991b; Levinson, 1991). All of these papers, taken together, provide a comprehensive assessment of available child nutrition data for the continent that is probably unparalleled in any other region of the world.

Data from existing papers were complemented with information obtained through 1) unstructured interviews of nutrition professionals with expertise in Africa who are working for major international donors (UNICEF, the World Bank, AID) or their contractors, universities,

and private, non-governmental organizations; 2) semi-structured group discussions among African policymakers and program implementors held at international meetings; and 3) structured questionnaires administered to African policymakers, program implementors, and researchers attending international meetings and US training programs. All drafts of the strategic framework were reviewed and commented on by ARTS and HHRAA/SARA staff and other nutrition/Africa experts. The list of persons contacted is found in Appendix I.

Information Obtained

1) Child Nutrition Problems

There was general agreement among the experts interviewed that the four most important *causes* of child undernutrition in Africa are that 1) weaning diets lack adequate energy density, and protein and micronutrient quality; 2) exclusive breastfeeding is not practiced by mothers; 3) solid foods are introduced too early (usually) or too late (less frequently); and 4) improper hygiene, preparation, and storage results in food contamination and diarrheal disease.

Improper child feeding practices occur in the context of three underlying household, food-related conditions: 1) where households have access to adequate quantities of food year-round but food preparation, utilization, and feeding practices do not meet the nutritional needs of young children; 2) where households experience seasonal food shortages due to agricultural practices (production), marketing weaknesses (distribution), or underemployment (acquisition); and 3) where households experience food shortages year-round due to natural and man-made disasters, including civil wars, political upheaval, and the AIDS epidemic, which has disrupted family life and food-acquisition support networks.

2) Characteristics of Successful Nutrition Programs

In the past, there has been a general perception that nutrition interventions are not worthwhile investments of scarce budgetary resources because the conditions influencing nutritional status are diverse and difficult to modify. More recent reviews of the costs and benefits of nutrition interventions suggest that investing in nutrition is justifiable on both humanitarian and economic grounds (McGuire, 1990; Levinson, 1991; del Rosso, 1992; Behrman, 1992; PROFILES, 199).

The challenge is for programs to successfully reach high-risk populations with "services" that are appropriate to their needs. Reaching high-risk populations is extremely difficult in parts of Africa where transportation and roads are limited and subject to seasonal passage, and where women work long hours in agricultural labor, gathering fuel and water, and caring for family members. Developing interventions that meet the needs of their recipients, on the other hand, requires active community participation in identifying those needs and responding to them. It is now generally believed that *how* a nutrition program is implemented is at least as important, and at times more important, to its success than the type of intervention used (INPF, 1990).

A recent review of over 100 nutrition programs identified seven essential elements to the successful *implementation* of nutrition programs in Africa (Kennedy, 1991a). These included 1) community participation; 2) program flexibility; 3) implementation through existing institutions; 4) recurrent cost recovery; 5) multi-faceted program activities; 6) emphasis on training and staff qualifications; and 7) pre-existing infrastructure. A review of the Tanzania Child Survival and Development project also underscored the importance of having the structure of a program mirror its strategy (Pyle *et al.*, 1993). If a program seeks community participation and responsibility, then decision-making (about activities, spending, etc.) must be allowed to occur at the community level.

In short, the programs that were considered to be most successful by Africans were those that engaged community members and addressed their perceived and changing needs, that were operated by community institutions and paid for themselves, that used a variety of approaches to improve nutrition, and that employed well-trained workers who were supervised regularly. These programs were usually implemented in areas where infrastructural development was not a limiting factor, and they were linked to non-governmental organizations with commitments to grassroots development. Charismatic managers were usually involved (Kennedy, 1991b).

Although these elements to successful *implementation* are easy to elaborate, there is limited data available on how to achieve some of these elements and, more importantly, on how to convert "non-successful" or ineffective programs into "successful" ones. Furthermore, it is uncertain on what terms success should be measured. Relatively few projects in Africa, or elsewhere, have been formally evaluated to determine their impact on child nutritional status (*i.e.*, growth and dietary intake) and their sustainability over time (particularly as needs and funding fluctuate). These data, presented concisely and convincingly, would be extremely useful for persuading donors and national policymakers to support these activities.

3) Household Food Security

Food security is defined as access by all people, at all times, to sufficient food for an active and healthy life (World Bank, 1986). Food insecure households are defined as those consuming less than 80 percent of their caloric requirements (Kennedy, 1991b). Approximately 140 million Africans are estimated to live in food insecure households (Mellor, 1990).

In the past, it has proven difficult to link households that are defined as food insecure to children who are at-risk of undernutrition (Kennedy, 1991b). This is because household food security is defined in terms of food quantity (energy) but not quality. As discussed later in this report, the numbers of persons at-risk of iodine and iron deficiencies are much higher than those at-risk of not having access to adequate energy. The quality of foods available is extremely important, especially for preschool children, whose rapid growth and nutrient losses due to frequent infections create higher requirements for protein and most micronutrients as well as energy.

An additional problem in linking nutritionally vulnerable households and children is that

fact that estimates of household food security are often based on assessment procedures that fail to take into account daily (*e.g.*, with 24-hour recall) or seasonal (*e.g.*, with one-round surveys) fluctuations in consumption patterns. In addition, household calorie availability is often used as a proxy for energy consumption (FAO, 1992).

Household energy availability is not a good indicator of consumption by children because it does not reflect how food is allocated in the home. Allocation patterns vary with food availability and are observed to depend on household structure and composition, and women's income-control and decision-making power (Piwoz and Viteri, 1985). Studies in Kenya and Malawi found that certain types of female-headed households in Kenya, and households in both countries with very low calorie availability (below 80 percent of estimated requirements) allocated relatively more of their available calories to preschool children than food-secure and male-headed households (Kennedy, 1991b).

Increasing food availability at the household level alone is not enough to ensure that young children consume adequate diets. Cultural, economic, and behavioral factors mentioned later in this report influence how children are fed and the adequacy of their diets (Bentley *et al.*, 1991; Keith, 1991; Dettwyler, 1989). Whereas questions about food security at the national-level must be addressed through analyses and change in food policies, agricultural practices, infrastructural and market development, there are several *targeted interventions* to reduce food insecurity at the household level and its nutritional affects on children. These interventions include food supplementation and other transfer programs, credit programs, home gardening projects, and other agricultural extension activities. Information needs with respect to these interventions are discussed in this strategy. The focus is on improving their effectiveness with respect to young child nutrition.

V. Knowledge Gaps and Information Needs

The remainder of this strategy identifies knowledge gaps and information needs with respect to *targeted interventions to improve child nutrition* within the context of child survival and health initiatives. The experts interviewed believed that greatest attention should be given to **improving the effectiveness and efficiency of programs to improve feeding practices** at the household and community-levels. Although chronic food insecurity is a major problem in many countries, consideration of activities to reduce food insecurity at the population-level was considered to be beyond the scope of this targeted strategy.

Knowledge Gaps

The following knowledge gaps were identified as priorities that require future attention:

1) the need to document and disseminate information on African nutrition program experiences (in a manner that is accessible to program managers and policymakers).

2) the need to define models for implementing and expanding ("scaling up") programs to improve infant and young child feeding practices based on the lessons learned from African program experiences.

3) the need to identify the extent and nature of nutritional problems in populations where such data do not exist (especially with respect to micronutrient deficiencies, and the relationships between maternal undernutrition, birth outcomes, and young child feeding practices).

4) the need to identify ways to improve the training and supervision of all personnel who provide nutrition counselling in order that they can become effective behavior-change agents.

Information Needs

The information required to fill the gaps identified above can be obtained through five, inter-related types of activities:

1) Behavioral research to identify cultural, economic, and child-directed constraints to achieving optimal breastfeeding practices, and to providing weaning-aged children with diets that are adequate in energy, protein, and micronutrients.

2) Operational and evaluation research to determine ways to improve training and supervision, to increase the coverage and effectiveness of existing nutrition programs/resources, to determine the mix of interventions necessary to promote and sustain improved child feeding practices and nutrition, and to assess the effect of innovative policies and programs on child nutrition.

3) Prevalence research to document nutritional deficiencies in populations where this information does not exist.

4) Analysis of existing data to provide a basis for sensitizing leaders and policymakers about nutrition problems and solutions (i.e., the costs, benefits, and effectiveness of interventions to improve child nutrition).

5) Dissemination of information on African nutrition programs (process, impact, and lessons learned), on state-of-art research and training methods, and other relevant nutrition information through the support of regional information clearinghouses, and the conduct of regional workshops to further the activities listed above.

Each of these activities and their relationships to the strategic objective of improving child nutritional status and its targets (shown in Figure 1) are described below.

1) Behavioral Research

The last ten years have seen an increased appreciation for the need to conduct behavioral research on feeding practices prior to the development of interventions to improve child nutrition (*e.g*,. Griffiths *et al.*, 1988; Bentley and Brown, 1988). This research has expanded general knowledge about child feeding problems and has sensitized nutrition researchers and program managers about the importance of involving program beneficiaries in the intervention design process. Involvement in several AID-supported projects (*e.g.*, HEALTHCOM, The Weaning Project, Dietary Management of Diarrheal Diseases Project, PRITECH, NCP, WINS, Wellstart/EPB) have provided African professionals with training and experience in conducting and analyzing behavioral research.

Recent reviews of programs in Africa (Piwoz, 1993; Herman, 1993), however, have indicated the need to refocus and streamline existing behavioral research protocols. Existing methodologies advise on the collection of large amounts of descriptive data that are not subsequently used in the design of interventions. Comparisons of experiences in multiple African countries found great similarities in feeding problems encountered across countries, but gaps in the identification and understanding of feasible ways of overcoming these problems.

The identified gaps included 1) no available guidelines for the study of constraints to practicing exclusive breastfeeding; 2) limited attention paid within existing guidelines and protocols to local perceptions about food amounts, consistency, and what it means to enrich a porridge or gruel; 3) limited attention paid to the constraints surrounding consumption of foods or supplements rich in vitamin A, iron, and other micronutrients; 4) limited attention to caregivers' willingness to increase feeding during convalescence from illness; 5) limited attention given to the educational counselling process itself and constraints to improving various types of providers' counselling skills; and 6) limited attention to identifying the mix of interventions (*e.g.*, training, outreach, policy changes) required to support behavior-change.

Furthermore, many behavioral studies have shown that although mothers and caregivers are willing to adopt new feeding practices and foods, these changes do not necessarily result in increased dietary intake because new foods replace rather than complement existing ones (*e.g.*, Guptill, 1990; Keith, 1991). Research must therefore focus not only on constraints to adopting new behaviors, but also on constraints to increasing total dietary intake and how they may be overcome.

The information obtained for this strategy underscores the need to conduct *focused* behavioral research on the *motivations* and *constraints* to improving child feeding practices, and the mix of activities required to support behavior change. This information should then be used to design targeted nutrition interventions to improve feeding practices at the household and community levels.

2) Operational and Evaluation Research

Operational and evaluation research is recommended 1) to identify ways to improve the training and supervision of personnel providing nutrition information and advice; 2) to increase the coverage and effectiveness of existing nutrition improvement activities; 3) to determine the mix of interventions necessary to promote and sustain behavior change and improved child nutrition; and 4) to assess the impact of policies and programs on young child feeding and nutrition. Since identifying program models to improve child feeding practices is a major priority expressed by the experts interviewed, greatest attention is given to activities related to improving nutrition education for these purposes.

Nutrition Education and Promotion

Opportunities for providing nutrition education to improve infant and young child feeding include 1) growth monitoring sessions for preventive care, 2) health facilities for family planning, pre-natal care, delivery, and sick-child care, 3) supplementary feeding programs for rehabilitation, 4) credit with education or poverty lending programs, and 5) home gardening and agricultural extension activities. The issues and information required to make each of these forums more efficient and effective at improving young child feeding and nutrition are discussed below.

1) Growth Monitoring

Growth monitoring with nutrition education has been promoted throughout Africa and worldwide as an effective means for detecting growth faltering and preventing undernutrition in infants and young children. Studies of the effectiveness of growth monitoring have shown mixed results, and the debate still continues as to whether periodic weighing, charting of growth, and delivery of information on proper child feeding and care is a wise use of scarce health resources in African countries (Nabarro and Chinnock, 1988; Gerein and Ross, 1991).

Questions regarding the effectiveness of growth monitoring are especially relevant in rural Africa where there is limited infrastructure to facilitate the distribution and maintenance of scales and the training and supervision of health workers, where mothers with undernourished children may be least able to attend growth monitoring sessions, and where most children would be defined as at-risk of poor growth due to food insecurity and frequent infections (Gerein and Ross, 1991). In these areas, it is also frequently difficult to identify community health workers who are able to learn and practice the interactive and negotiating skills required to influence behavior change (*e.g.*, Duran-Bordier, 1992; Stinson and Sayer, 1991; CARE *et al.*, 1989).

Previous operational studies (*e.g.*, Stinson and Sayer, 1991) have highlighted ways that existing growth monitoring programs can improve the quality and efficiency of their activities. Examples include reorganizing the session schedules so that early arrivals do not have to wait to have their children weighed and late mothers do not miss the educational activities. Other programs have used local mothers as peer counsellors to carry out home-visits and to reinforce nutritional messages (PRICOR, 1991). Continued research to improve the eficiency and effectiveness of functioning growth monitoring programs is desirable.

On the other hand, simplified methods for tracking the growth of children should be explored through operational research in areas where regular weighings are not feasible. Alternative tools include arm circumference monitoring to identify acutely undernourished children, the agescale to detect low age-for-weight (Zeitlin *et al.*, 1992), and the tallstick (Zeitlin *et al.*, 1990) to identify children who are chronically undernourished and also likely to be underweight. As noted previously, simplified behavioral research is required to define appropriate nutrition messages and materials. Creative methods for training and supervising workers must be identified.

2) Health Facility-Based Services and Education

In theory, opportunities for providing nutrition services and education occur when women attend health facilities for family planning, prenatal care, at the time of delivery and, after delivery, when a mother has her child weighed and/or immunized, or she visits a health facility because of illness. In reality, few opportunities have been used effectively to provide nutrition services either because services are not sought and contact is not made, nutrition algorithms are not available, or because health providers are not sensitive to nutrition issues and are not trained to provide nutrition counselling.

Operational research is therefore required to determine how to integrate nutrition activities into other health-related programs (*e.g.*, family planning, reproductive health, EPI, CDD). It is important to assess whether and how multiple program objectives can be met by providers working these settings because it is often assumed that additional services will burden providers rather than improve their quality of care. Issues related to the integration of nutrition objectives and activities into health facility-based care are discussed below.

Sick-Child Care

Improving the nutritional counselling skills of health providers is a component of the *Integrated Management of the Sick Child* protocol jointly drafted by WHO and UNICEF (WHO, 1993). The objective of this protocol is to equip health providers with the skills and abilities to treat children with various, possibly simultaneous, conditions presenting at primary care facilities. Health providers are also encouraged to use these contacts as opportunities to counsel on preventive action.

In Africa, improving the nutrition knowledge and counselling skills of health providers in these settings is critical for several reasons. First, in any program, it is essential that messages regarding appropriate feeding practices are consistent at all levels of care: hospital, clinic, and community-based education. It is counter-productive to initiate hospital and community nutrition programs, for example, if providers working at primary and secondary-level health facilities do not also reinforce, when appropriate, this nutritional advice.

Second, studies conducted throughout the continent have found that often providers do

not agree with international recommendations to continue feeding solids and fluids during diarrhea (*e.g.*, Konde-Lule et al., 1992). When in the position to give feeding advice to mothers with sick children, observational studies reveal that many providers fail to offer specific advice (because they are not trained to do so), or to verify that advice offered is understood (*e.g.*, Coulibaly, 1989; Roisin *et al.*, 1990; Stinson and Sayer, 1991; Gamatie, 1992). On the other hand, many ethnographic studies suggest that mothers are most willing to prepare special foods and play an active role in feeding precisely when their children are ill (reviewed in Piwoz, 1993).

Unfortunately, in many areas, mothers' attendance at health facilities is likely to be limited to sick-child care. Thus, it is critical that appropriate feeding messages and improved nutrition counselling be included in the integrated management protocols. Research will be required, however, to determine the feasibility of integrating nutrition education into sick-child protocols, the conditions for providing specific feeding messages, message content, and appropriate methods for developing counselling skills. Counselling performance -- in nutrition as well as in all other areas -- must be supervised and evaluated.

Family Planning and Maternal Care

In addition to sick-child care, it is important to take advantage of the many unexplored opportunities for reaching women during their reproductive years -- during family planning visits, and prenatal and delivery visits -- to encourage child spacing, provide micronutrient and/or other supplementation, and inform women about appropriate feeding practices, specifically the benefits of exclusive breastfeeding in early infancy.

With respect to child spacing, multivariate analyses of data from surveys conducted in Africa and worldwide have highlighted the increased risk of childhood undernutrition with increasing birth order, with short preceding birth intervals, and when there is more than one sibling or child < 5 years living in the home (*e.g.*, Sommerfelt *et al.*, 1989; Sahn, 1990). Clearly, improving family planning and child spacing services is one mechanism for reducing undernutrition among African children.

Improving women's micronutrient status is critical to the future health of her unborn children. Among anemic women, for example, studies have shown a positive correlation between maternal iron status and the iron status of their newborns (Stoltzfus, 1993). Infants born with reduced iron stores may be predisposed to develop iron deficiency, to growth retardation, and to delayed mental and behavioral development (Stoltzfus, 1993).

Other micronutrient deficiencies -- notably of vitamin A, vitamin B_6, folate, iodine, and zinc -- have been associated with either adverse birth outcomes or impaired infant growth and development (NAS, 1990). Supplementing pregnant women with vitamin A and iodine can have a teratogenic effect on the developing fetus. Therefore, improvements in women's micronutrient status are best achieved prior to their first pregnancy and during non-pregnant periods. Strategies and guidelines for improving the micronutrient status of all women of

reproductive age should be integrated into family planning and other health programs. Both women and children will benefit from these efforts.

Finally, improving women's diets and energy balance during pregnancy may also benefit the nutritional well-being of their children. Available studies found that African women consume < 60% of their recommended energy intakes during pregnancy (NCP, 1993). Often women do not increase their intakes during pregnancy, and many do not have the luxury of reducing their work and energy expenditure (NCP, 1993).

Lower net weight gains during pregnancy are associated with increased risks of intra-uterine growth retardation (IUGR), peri-natal mortality, and possibly also pre-term delivery (NAS, 1990). Infants who suffer from chronic IUGR tend to grow more slowly after birth than children with normal intrauterine growth rates (Villar *et al.*, 1984). Therefore, efforts to improve women's diets and energy expenditure may be valuable for reducing childhood undernutrition. Research is needed on the effectiveness and impact of such programs.

In addition to these important biological relationships, it is necessary to view prenatal and delivery contacts as opportunities to advise women about optimal breastfeeding practices. As noted previously, behavioral research is needed to determine strategies and the appropriate mix of interventions to motivate mothers to exclusively breastfeed. Operational research is also required to determine whether such information is reaching mothers at an appropriate stage in their decision-making process, and whether this information is having an effect on their breastfeeding practices.

3) Supplementary Feeding Programs and Food Aid

Many of the experts interviewed expressed concern about the role of food aid and the inefficiency of food supplementation programs in Africa. These concerns ranged from questioning whether the US should be providing food aid at all, to the benefits of monetizing food aid, to the need to fortify donated foods, to better targeting, packaging, and promotion of food supplements in existing program settings.

Although a complete evaluation of the role of food aid is beyond the scope of the HHRAA/SARA Projects, several operational questions merit consideration. Improving the targeting and effectiveness of existing food supplementation programs is of paramount importance. Linking food supplementation to community-based growth monitoring and integrated health care has been effective at reducing undernutrition in Tamil Nadu, India, but is not commonly practiced in Africa (Levinson, 1991). Obstacles to implementing these types of programs should be examined. Conditions required to convert non-targeted supplementary feeding programs to targeted, integrated health programs should be identified.

Targeting energy and micronutrient-rich supplements to at-risk pregnant women, defined by criteria such as age, parity, previous birth outcomes, or arm circumference should also be examined as possible mechanisms for improving the nutritional impact of feeding programs.

Evidence suggests that supplementing women during pregnancy can reduce low birth weight (NAS, 1990). Supplementation during lactation may also be associated with increased duration of exclusive breastfeeding (Gonzales cited in NCP, 1993). Criteria for targeting women, obstacles to implementing maternal supplementation during pregnancy, and the impact of maternal supplementation on breastfeeding practices and child nutrition should be investigated.

Above all, it is essential to improve the nutrition education components of all food delivery programs so that feeding practices in the home are improved, and to ensure that supplements complement rather than replace breastfeeding and other home feeding. Behavioral research, as described previously in this strategy, should be carried out in conjunction with supplementary feeding programs. Such research would be appropriate to indigenous, community-based feeding programs as well as to feeding programs that serve displaced populations.

4) Credit with Education (Poverty Lending) Programs

Credit with education programs are currently being implemented in Burkina Faso, Ghana, and Mali with support from the Freedom from Hunger Foundation (Freedom from Hunger Foundation, 1993). In these programs, local banks make small loans to mothers who organize into borrower groups. Loans are used to support microenterprises proposed by mothers, such as food processing and vending, raising small animals, or buying and selling clothing. Loans are guaranteed by mothers in the borrower groups (community credit associations). Group members meet weekly to make payments and to discuss the status of loans.

A trained facilitator (usually from the area) attends the meetings and holds discussions on issues critical to members and their lives. In Mali and Ghana, these meetings have been used to specifically discuss appropriate child feeding practices. The impact of these programs on nutrition practices has been limited to date, largely because educational activities have not been a major focus and methods for evaluating impact have relied on mothers reports alone (Lassen and Mknelly, 1992). The program in Ghana is intensifying its nutrition education component and will be carefully evaluated with support from the Thrasher Research Fund (Dunford, 1993).

The theoretical advantages of credit with education programs are that they target poor women of preschool children, they increase women's access to income and income control, and the borrower groups that form to access and guarantee loans meet on a weekly basis. Whereas traditional growth monitoring programs have been criticized for *not* reaching the most vulnerable children on a regular basis, for *not* providing tangible benefits, and for *not* meeting perceived needs of laboring mothers, credit for education programs potentially address and overcome all of these shortcomings. By providing income-generating opportunities for mothers, credit with education programs have the added benefit of improving household food security and access to food during seasonal shortages.

Credit with education programs do not screen children to detect growth faltering, and they are not expected to replace growth monitoring throughout Africa. They are an alternate

and, in some areas, possibly an interim vehicle for reaching mothers of young, nutritionally vulnerable children. Operational research is needed to determine whether these programs are successful at increasing household food security, at delivering nutrition education, and at improving feeding practices and the nutritional status of participating mothers' children.

5) Home Gardening and Agricultural Extension

The African experts interviewed stressed the importance of addressing nutrition problems multisectorally, and including Ministries of Agriculture in the nutrition program planning process, particularly in areas where seasonal food shortages are common. Agricultural extension agents are widely dispersed in rural parts of Africa, and in some areas they are the only community development workers providing any type of services and advice.

Most home gardening and some agricultural production enhancement programs have improvements in child nutrition and feeding practices as primarily or secondary objectives. Unfortunately, however, most resources are directed at the food production components of these projects and limited attention is given to the nutrition education and food consumption aspects (*e.g.*, Kumar, 1991). It is often assumed that agricultural extension agents or community health workers, if they are present, will naturally provide the appropriate education, and little consideration is given to how this advice is delivered (messages and media) and to training agents to be effective nutrition educators. Child nutrition outcomes are secondary to food production outcomes, or are not measured at all, in evaluations of these programs.

Information is needed on ways to facilitate coordination between Ministries/institutions engaged in agricultural production and nutrition promotion activities. Greater attention must be paid, within food production programs, to enhancing activities that directly foster improved food consumption by participating children. Programs utilizing agricultural extension agents as nutrition educators should be evaluated. Criteria for evaluating these programs should include their effectiveness at reaching nutritionally vulnerable families, the quality and appropriateness of the nutrition advice presented, the effect of the advice on feeding knowledge, and the impact on diet and/or growth.

Other Nutrition Interventions

1) Processed Weaning Foods

Numerous programs throughout Africa have developed and promoted the use of home-mixed or processed weaning foods (*e.g.*, CEREVAP in Zaire, JOY-VITA in Nigeria, *Lukuni Phala* in Malawi). Other programs have tried to capitalize on traditional fermentation and malting practices to develop weaning recipes and products that are less likely to become pathogenically contaminated or are less viscous and more energy-dense than traditional porridges (*e.g.*, *Eko Ilera* in Nigeria, "Power Flour" in Tanzania).

Although most nutrition experts interviewed felt that the best strategy for improving child

feeding was to work with ingredients readily available in mothers' homes, there clearly seems to be a niche for pre-processed foods and products. This is because mothers frequently purchase processed foods and drinks for their young children, and time and thick consistency are frequently cited constraints to adopting new feeding practices (Keith, 1991; Guptill *et al*, 1993; Herman, 1993). Some fermented products are also believed to restore appetite and have healthful effects on sick children (Sserunjogi and Tomkins, 1990; Ashworth and Draper, 1992).

Research is needed to identify the contexts in which pre-mixed and processed weaning foods should and can be successfully promoted. Nutrition experts frequently debate the relative importance of foods versus practices in targeted nutrition interventions. Future research should set this debate to rest by outlining whether and how promotion of improved foods and practices complement each other. Market and impact studies of products already being promoted are a good starting point for this activity.

2) Micronutrient Supplementation

Micronutrient deficiencies have been documented throughout Africa. Approximately 18 million Africans are at risk of vitamin A deficiency, 150 million are at risk of iodine deficiency disorders, and 206 million are affected by iron-deficiency or anemia (World Bank, 1993). Operational protocols for vitamin A supplementation have been developed and are used by health personnel in clinic settings worldwide (WHO, 198). Similar guidelines for iron and iodine supplementation of women and children must be developed and tested.

Additional Training and Supervision Considerations

Inadequate training and supervision of personnel providing nutrition services nearly guarantees the failure of these programs to improve child nutrition. The abilities of countries and programs to provide field personnel with adequate training and supervision goes beyond the important steps of developing instructional manuals and supervision protocols. It depends on the respect and institutional support given to nutrition in the country.

1) Nutrition Career Structure

Many of the experts interviewed for this strategy cited inadequate training and lack of a career structure for nutritionists as major obstacles to quality nutrition research and programs in Africa. Lack of a career structure, in part, reflects the low esteem that nutrition is held in by governments and policymakers. It, in turn, results in the failure of the discipline to attract the highest quality students and providers. Elevating the stature of nutrition in governments, by providing a career structure and high quality graduate and post-graduate training opportunities for nutrition professionals, is a necessary catalyst to improving nutrition research and programs in Africa.

2) Community-Level Workers

As noted previously, improvements in training and supervision methods are required to increase efficiency and effectiveness of nutrition programs. Reviews of programs to improve child feeding in Africa stressed the importance of training educators not just to be knowledgeable about proper feeding practices and nutrition, but also to be good listeners and effective negotiators. As stated throughout, information is needed on how this can be done successfully.

At the community level, all health or extension workers are expected to be educators, and nutrition is usually one of many topics they are expected to discuss with mothers and families. Since many community workers come from the areas where they are working, it is unreasonable to assume that they believe or themselves have practiced all of the behaviors frequently promoted in educational programs. Therefore, it is imperative that programs assess the knowledge and practices of their community workers and convince them that the behaviors being advocated within their programs are feasible to implement and are nutritionally beneficial. Methods for doing this should be reviewed and success stories identified.

Creative methods for supervising community educators are also required to improve program efficiency and effectiveness. Enhancing the status of nutrition by elevating training and by providing specific nutrition messages and support materials should improve program performance, but culturally appropriate ways for providing constructive criticism to educators are required. Alternative mechanisms for regularly reaching rural educators (*e.g.*, through media and newsletters) should be explored so that these people receive recognition for their work and feel less isolated.

The Impact of New Policies

Information is needed on the nutritional impact of innovative policies that have emerged in the wake of the International Conference on Nutrition. Examples include evaluation of the impact of maternity leave policies on exclusive breastfeeding and employment practices in Malawi, Swaziland, Lesotho and other countries where they have been implemented. The impact of Baby Friendly Initiatives on breastfeeding practices should also be studied.

3) Prevalence Research

Some nutritional problems, such as micronutrient deficiencies in women of reproductive age and children, are poorly documented and not yet perceived to be priority nutrition problems in many countries. Existing data on micronutrient deficiencies in Africa were recently reviewed by the World Bank (World Bank, 1993). This information, and the required inputs, costs, and benefits of reducing of micronutrient deficiencies should be summarized and presented in ways that will be useful for advocacy and decision-making. Additional population studies may be required to document micronutrient deficiencies and their distribution.

4) Analysis of Existing Data

Several of the information needs discussed above may be addressed, at least in part, by

analysis or synthesis of existing data. In addition to the issues raised previously, existing information may also be useful: 1) to sensitize leaders and donors about nutrition problems and solutions; and 2) to determine approaches for "scaling-up" or expanding programs and criteria for assessing their progress and success.

Support Policy Development and Donor Interest

According to the expert interviews, major obstacles to garnering political support for child nutrition activities include the facts that local research is not program- or policy-oriented, and that professionals are not trained to analyze, interpret, or present research findings in ways that are appealing to policymakers. Thus, it is important that, within countries, existing data on child nutrition problems and programs be organized, analyzed or summarized, and presented to policymakers in a precise and persuasive ("advocacy") fashion.

Demographic and Health Survey (DHS) data, including nutritional status and feeding practices of young children, are currently available for more than 20 African countries. These data have been analyzed by US and African investigators, and promotional materials detailing their findings have been developed. It is important to take this work an additional step forward by training local program managers/researchers in how to use the results of the DHS surveys to advocate specific actions. Regional workshops have been proposed as a means for training professionals in how to analyze and present DHS data to government policymakers.

Sensitizing donors, particularly AID mission and REDSO personnel, to the extent and importance of addressing child nutrition problems was also cited as an important priority by the experts interviewed. Many AID missions in Africa do not even have health officers (let alone nutrition experts) and several missions on the continent are scheduled for closure by the present administration. Support for and commitment to undertake child nutrition improvement activities are difficult to obtain under these conditions.

Careful consideration -- using existing data about mission portfolios and personnel constraints as well as past experience -- must be given to the impact of mission cutbacks and closures on the ability of the agency to support increased activity in this critical area. Specific mechanisms for overcoming these limitations must be identified. Strategies for generating REDSO and mission interest and support must be developed.

Program Expansion

Many of the experts interviewed, particularly those working in donor agencies, expressed the need for models desciribng the mix of interventions and activities required to implement national programs to improve young child feeding practices, or how to expand successful pilot projects in this area. All of the donors contacted (including AID, World Bank, UNICEF) have supported feeding practices improvement programs for nearly two decades, yet the experiences of these programs have not been distilled in a comprehensive way.

Experience in various AID-funded projects has produced a wealth of information on the necessary components to improving awareness, training, and communication about nutrition problems and how they should be addressed. Guidelines produced by Griffiths (1992) in the final report of The Weaning Project, which was supported by the Office of Nutrition, outline the various approaches that must be taken within national programs to improve child feeding practices. These guidelines reflect the author's and collaborators' experiences in four African countries (Cameroon, Swaziland, Ghana, and Zaire) and at least ten other countries in Asia and Latin America. In addition to a strategy framework outlining a range of activities for a comprehensive program (shown in Figure 2), the guidelines include specific recommendations on how to implement coordinated, intersectoral programs, and age-specific behavior change recommendations that were common across these very diverse populations.

The framework provided in this report would make a useful starting point for regional discussions to develop models for implementing or expanding comprehensive programs. Experiences and lessons learned in additional African countries (*e.g.*, Tanzania, Zimbabwe, the Gambia, Senegal, Mali, Niger) should be incorporated into these discussions and models. Outputs of these discussions should include guidelines for advocacy, behavioral research, message and materials development, training (pre-service, in-service, and community) and supervision, and evaluation.

4) Information Dissemination

Expert consultations conducted by the SARA Information Dissemination specialist and a survey of participants at the December post-ICN conference in Nairobi identified a number of priorities with respect to the dissemination of information in Africa. Concerns center around the facts that: 1) much information about Africa never gets disseminated in the country of origin or to other African countries; 2) available information is often old and incomplete; and 3) new information is often not affordable nor presented in a format that is conducive to effective use.

According to the survey, nutrition workers were most interested in receiving technical reports and professional journals. As noted in the preceding sections, there is also a need to disseminate information about lessons learned from programs in other countries and about ways to advocate support for nutrition programs. SARA staff are presently preparing an information dissemination strategy. Specific nutrition dissemination activities would include support for regional clearinghouses to disseminate technical reports, articles from professional journals, materials synthesizing lessons learned from nutrition programs, and the products of regional workshops to advance nutrition-related initiatives.

VI. Prioritization of Information Needs

The following criteria will be used to establish the priorities of the ARTS office and the HHRAA Project for supporting research, analysis, and dissemination activities to improve child nutrition:

- linkages to the AFR/ARTS nutrition objective tree.

- potential implementation, impact on decision-making, and regional significance.

- complementarity to the activities of other donors and institutions.

- USAID and the Africa Bureau's comparative advantage.

The objectives, targets, knowledge gaps, and information needs discussed in the text are summarized in Table 1. As noted previously, the priority area for AFR/ARTS attention, according to the experts interviewed, is improving the effectiveness and efficiency of programs to improve infant and young child feeding practices. On the basis of this review, a second area requiring RAID attention is improving the integration of nutrition services and activities into health and family planning programs, particularly with respect to improving women's reproductive health and micronutrient status.

Linkages and Regional Significance

Both of these priority areas are directly linked to the strategic objective of improving the nutritional status of mothers and children. Maternal micronutrient deficiencies are caused by inadequate dietary intake and nutrient losses due to infection. They also affect birth weight, risk of neo-natal mortality, and subsequent child growth and development. Sub-optimal breastfeeding practices and weaning diets further increase young children's risk of infection and mortality, undernutrition, and impaired growth and development. These conditions -- of sub-optimal breastfeeding and weaning practices, and maternal micronutrient deficiencies -- are widespread throughout the continent.

Complementarity with Other Donors

The RAID priorities and activities outlined in this framework are consistent with the strategic objectives and activities of all major donors supporting the use of child survival technologies and efforts to integrate and improve the quality of health care in Africa.

USAID and the Africa Bureau's Comparative Advantage

USAID and the Africa Bureau have strong comparative advantages to support activities to improve child feeding practices, and to integrate nutrition activities and services into health and family planning programs. These advantages stem from the agency's long-term support to for organizations and institutions engaged in nutrition improvement programs, and their promotion of appropriate child survival technologies, including the promotion of exclusive breastfeeding, vitamin A supplementation, and appropriate feeding practices.

USAID funds several field support projects that address the concerns raised in this report. These include BASICS, the Expanded Promotion of Breastfeeding Project, MotherCare, the

Nutrition Communications Project, OMNI, and the Women and Infant Nutrition Support Project. USAID can call upon a wide range of experts from cooperating agencies and universities engaged in these projects for both short and long-term technical assistance in research, analysis, and information dissemination, as well as for training and other institutional support.

VII. Recommended Activities

Behavioral Research

Suggested activities to facilitate improvements in nutrition messages, counselling and promotion in Africa include:

1) Preparation and testing of guidelines to instruct users (program managers, researchers) in the issues and methods for studying motivations and constraints to practicing exclusive breastfeeding.

2) Preparation of revised and streamlined guidelines for studying motivations and constraints to improving child feeding practices. These guidelines should complement #1, and focus on the gaps outlined above. Regional workshops would be useful to prepare and disseminate these guidelines.

3) A critical review of nutrition counselling methods and strategies for training unskilled through professional workers in how to interact with mothers/caregivers of young children, and how to persuade them to improve their feeding practices.

4) Support for behavioral research to improve nutrition messages, materials, and provider training in the contexts of growth monitoring, health facility care, supplementary feeding, poverty lending, and agricultural extension programs.

Operational and Evaluation Research

Suggested activities to improve the efficiency and effectiveness of programs to improve young child feeding practices, and to integrate nutrition objectives and services into health facility-based care in Africa include:

1) Support for training, supervision, and evaluation of ongoing nutrition education programs within these contexts.

2) Support for efforts to expand ("scale up") pilot programs that include innovative training, counselling, and supervision methods.

3) Testing of simplified growth monitoring tools.

4) Support for research on the potential benefits of and constraints to providing nutrition services and education to mothers of children visiting health facilities because of acute illness (integrated management of sick-child care).

5) Support for research on the potential benefits of and constraints to providing nutrition services through family planning programs.

6) Support for research on the potential benefits of nutrition education during pregnancy-related care, and its impact on breastfeeding practices.

7) Support for research on how to improve targeting of food supplementation programs (with respect to pregnant and lactating women as well as young children).

8) Support for research to identify the contexts in which processed weaning foods should and can be successfully promoted.

9) Development and testing of guidelines for micronutrient supplementation of women of reproductive age and of young children.

10) Development of a career structure and curriculum for training public health nutrition specialists.

11) Support for assessments of the impact of new policies and initiatives on breastfeeding practices and child nutrition.

Prevalence Research

Suggested activities to improve understanding of the distribution of micronutrient deficiencies and program solutions in Africa include:

1) Synthesis of existing data on micronutrient research and patterns of deficiency in Africa.

2) Synthesis of data on the cost and benefits of reducing deficiencies in different population groups (women, children), and identification of knowledge gaps for Africa.

3) Preparation of advocacy materials to improve awareness and decision-making by policy leaders on the need to implement micronutrient improvement activities in Africa.

Analysis of Existing Data

Suggested activities to support policy development, enhance donor interest, and to promote program expansion include:

1) A series of regional workshops to discuss lessons learned from implementing or scaling-

up programs to improve feeding practices and to define guidelines for advocacy, behavioral research, message and materials development, training and supervision, and evaluation.

2) Regional workshops to train program managers/researchers in how to use the results of the DHS surveys to advocate specific actions.

3) Use of available information and materials to advocate support for child nutrition improvement activities by AID mission and REDSO personnel.

Information Dissemination

Specific activities to enhance dissemination of nutrition information include:

1) Supporting regional clearinghouses and their information dissemination functions.

2) Conduct of regional workshops to discuss nutrition issues and to disseminate information on lessons learned.

VIII. Prioritization of Activities

TO BE DETERMINED IN CONSULTATIVE MEETINGS

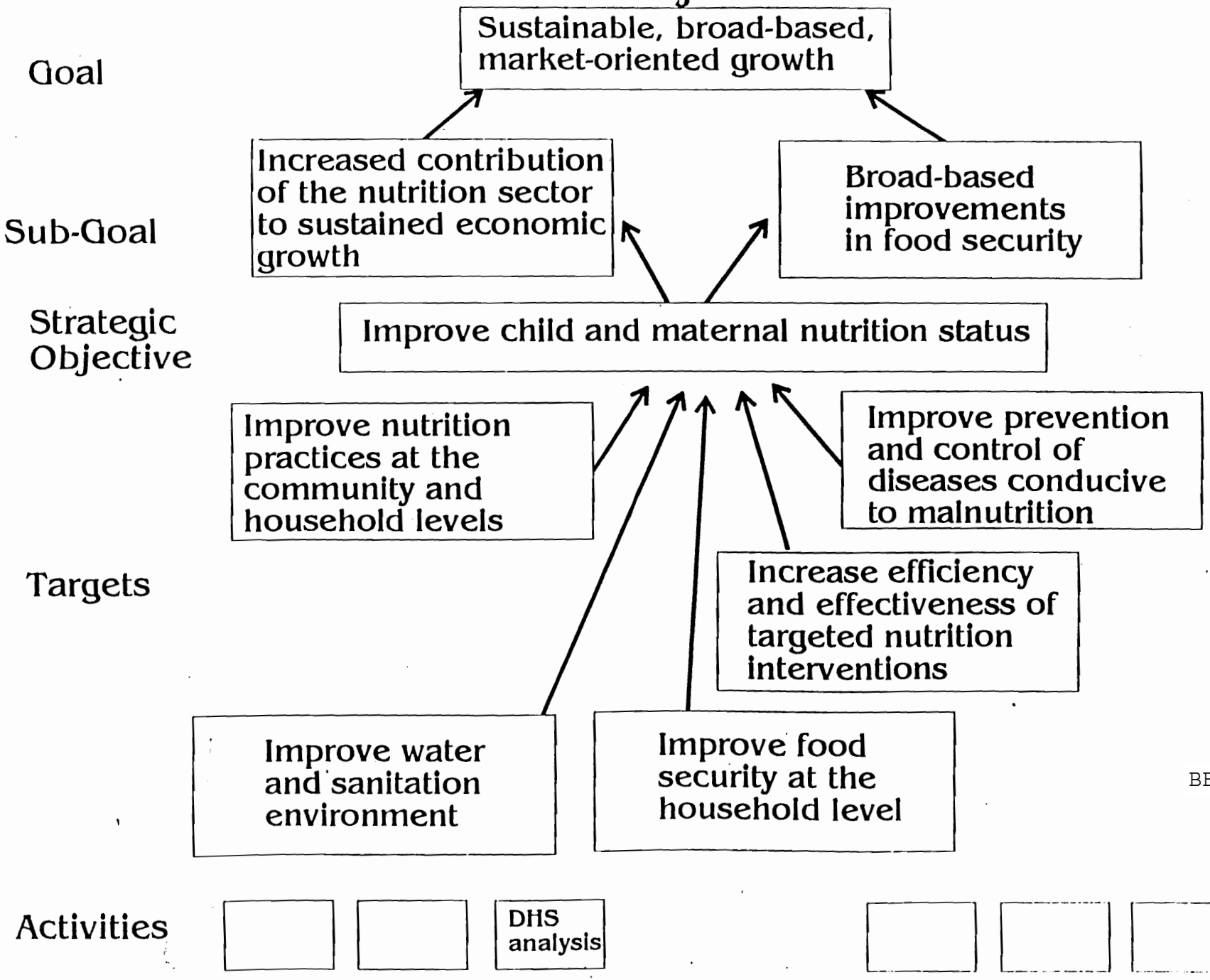
Table 1.	Linkages of RAID Activities to the Nutrition Objective Tree
Strategic Objective:	To improve child nutritional status (dietary intake, micronutrient status, growth)
Direct Targets:	To improve nutrition practices at the community and household levels.
	To increase the efficiency and effectiveness of targeted nutrition interventions.
	To improve food security at the household level.
Targeted Interventions:	Nutrition education and promotion.
	Improved training and supervision of health and nutrition providers.
	Increased access to and utilization of food through activities/programs offered in conjunction with the interventions above.
Knowledge Gaps:	Information on African nutrition program experiences.
	Models for implementing and expanding programs, or for successfully integrating nutrition services into existing programs.
	Undocumented nutrition problems.
	Methods for training health providers to be effective counsellors and behavior-change agents, and for supervising them in these tasks.
Information Needs:	Behavioral research to facilitate improvements in nutrition messages, counselling, and promotion.
	Operational and evaluation research to increase the coverage and effectiveness of existing nutrition programs, to integrate nutrition objectives into health facility-based care, and to assess

Table 1. Linkages to Nutrition Objective Tree (con'd)

	the impact of policies and programs on nutrition.
	Prevalence research to document nutritional deficiencies.
	Analysis of existing data and advocacy to sensitize leaders and policymakers.
	Dissemination of information on African program experiences, and on behavioral research, training, and supervision methods.
Priority Areas:	To increase the efficiency and effectiveness of programs to improve infant and young child feeding practices.
	To integrate nutrition objectives and services into health and family planning programs.

Level | DRAFT | Narrative | Indicators

Nutrition Objective Tree



BEST AVAILABLE

Figure 2. **Strategy Framework for Young Child Feeding Programs**

Legislation/Norms:	Code of marketing of breastmilk substitutes.
	Monitoring of marketing of infant foods.
	Norms concerning infant and young child feeding.
Communication:	Change image of child feeding (advocacy).
	Promote assistance of "influencers".
	Communicate specific behavior changes for individual situations.
	Promote project and project products.
Training:	Curriculum changes for pre-service education of health care professionals.
	In-service training in concepts of child feeding and how to counsel mothers.
	Orientation for community leaders and traditional health care providers.
Products:	Improved homemade foods or pre-packaged foods.
	Food ingredients (*e.g.*, malt) or child feeding bowl.
	Clothes for breastfeeding in public.
Other:	Hygiene, child care.

Source: Griffiths M. (1992)

References

ACC/SCN. Second report on the world nutrition situation. Volume I: Global and regional results. ACC/SCN: Geneva, 1992.

Ashworth A, Draper A. The potential of traditional technologies for increasing the energy density of weaning foods: A critical review of existing knowledge with particular reference to malting and fermentation. Geneva: World Health Organization, 1992.

Behrman JR. The economic rationale for investing in nutrition in developing countries. Washington, D.C.: USAID, 1992.

Bentley ME, Dickin KL, Mebrahatu S *et al.* Development of a nutritionally adequate and culturally appropriate weaning food in Kwara State, Nigeria: An interdisciplinary approach. *Soc Sci Med* 1991; 33(10):1103-11.

Brown KH, Bentley ME. *Improved nutritional therapy of diarrhea: A guide for planners and decision-makers involved in CDD programs.* Washington, D.C.: PRITECH, 1988.

CARE/Cameroon, Education Development Center, Inc., The Manoff Group, Inc. *Improving young child feeding practices in Cameroon: Project overview.* Washington D.C.: Manoff Group, Inc., 1989.

Coulibaly M. Programme national de lutte contre les maladies diarrheiques de la Mauritanie etude de la prise en charge de cas de diarrhee dans les structures de sante. PRITECH trip report, May, 1989.

Del Rosso J. Investing in nutrition with World Bank assistance. Washington, D.C.: World Bank, 1992.

Dettwyler KA. Interaction of anorexia and cultural beliefs in infant malnutrition in Mali. *Am J Human Biol* 1989; 1: 683-95.

Duran-Bordier A. Pre-training needs assessment report: Burkina Faso. Nutrition Communications Project trip report, March-April, 1992.

FAO.

Gamatie Y. Etude de la prise en charge des cas de diarrhee dans les structures de sante au Niger. Ministry of Health, Republic of Niger, May, 1992.

Griffiths M. Improving young child feeding practices: The Weaning Project Final Report. Washington D.C.: The Manoff Group, Inc., 1992.

Guptill KS. Evaluation of an infant weaning food intervention in Kwara State, Nigeria. Doctoral dissertation, The Johns Hopkins University, 1990.

Guptill KS, Esrey SA, Oni GA, Brown KH. Evaluation of a face-to-face weaning food intervention in Kwara State, Nigeria: Knowledge, trial, and adoption of a home-prepared weaning food. *Soc Sci Med* 1993; 36(5):665-72.

Herman E. Issues in improving child feeding during diarrhea: Experiences in four African countries. Paper prepared for the BASICS Project, 1993.

International Conference on Nutrition (ICN). World declaration and plan of action for nutrition. Rome: FAO and WHO, 1992.

International Nutrition Planners Forum (INPF).

Keith N. *Young child feeding, weaning, and diarrhea illness: Practice in a Hausa village and educational implications. Part I: The ethnographic study.* Virginia: PRITECH, 1991a.

Kennedy E. Successful nutrition programs in Africa: What makes them work? Washington D.C.: The World Bank, 1991a.

Kennedy E. Agricultural/nutrition linkages. Final report to the US Agency for Internation Development, Office of Nutrition. September, 1991b.

Konde-Lule JK, Elasu S, Musonge DL. Knowledge, attitudes, and practices and their policy implications in childhood diarrhoea in Uganda. *J Diarrhoeal Dis Res* 1992; 10(1):25-30.

Levinson FJ. Addressing malnutrition in Africa: Low-cost program possibilities for government agencies and donors. Washington D.C.: The World Bank, 1991.

McGuire JS. The payoff from improving nutrition. Draft prepared for the World Bank, 1990.

Mellor J. Ending hunger: An implementable program for self-reliant growth. In: *The world food crisis: Food security in comparative perspective.* Edited by J. Hans Bakker. Toronto: Canadian Scholar's Press, Inc., 1990.

Nutrition Communications Project (NCP). Beyond child survival: An assessment of infant and child nutrition in Africa. Washington D.C.: U.S. Agency for International Development, 1993.

Piwoz EG. Improving feeding practices during childhood illness and convalescence: Lessons learned in Africa. Washington, D.C.: Academy for Educational Development, 1993.

Piwoz EG, Viteri FE. Studying health and nutrition behavior by examining household decision-making, intra-household resource distribution, and the role of women in these processes. *Food and Nutrition Bulletin* 1985; 7(4):1-52.

PROFILES.

Pyle D, Mbilinyi M, Kiwara A, Lindsteadt J. We will never go back: Social mobilisation in

the child survival and development program in Tanzania. NY: UNICEF, 1993.

Rohde F, Thiam A, Fishman C, Kante D. Mid-point assessment of the Nutrition Communications Project. Washington D.C.: Academy for Educational Development, 1993.

Roisin A, Zerbo PJ, Corbin C. Etude de la prise en charge des cas diarrhee dans deux groupes de quatres provinces du Burkina Faso. PRITECH trip report, November-December, 1990.

Sserunjogi L, Tomkins A. The use of fermented and germinated cereals and tubers for improved feeding of infants and children in Uganda. *Trans Roy Soc Trop Med and Hyg* 1990; 84:443-6.

USAID. Africa: Growth renewed, hope rekindled. A report on the performance of the Development Fund for Africa 1988-1992. Washington D.C., 1993.

Villar J, Smeriglio V, Mortorell R, Brown CH, Klein RE. Heterogeneous growth and mental development of intrauterine growth retarded infants during the first three years of life. *Pediatrics* 1984; 74:783-791.

World Bank. *World development report, 1986.* Oxford: Oxford University Press, 1986.

World Bank. Comment ameliorer la contribution du secteur de la sante dans la lutte contre la malnutrition. Revue d'evaluations de projets en Afrique. Edited by Tonia Marek. Washington D.C.: World Bank, 1993.

Zeitlin MF, Sockalingam S, Seireg M, Bonilla J. The tallstick: A tool for community-based assessment of nutritional stunting. *Food and Nutrition Bulletin* 1990; 12(2):128-137.

Zeitlin MF, Grange AO, Armstrong H, Annunziata A. The agescale. *Journal of Tropical Pediatrics* 1992; 38:52-54.

Appendix I
Persons Contacted

Carol Baum	Wellstart International
Colleen Conroy	JSI/MotherCare
Serigne Diene	Cornell University
Christopher Dunsford	Freedom from Hunger Foundation
Claudia Fishman	Emory University
Marcia Griffiths	The Manoff Group
Steven Hansch	Refugee Policy
Elizabeth Herman	Consultant
Martha Holley-Newsome	Wellstart International
Sandra Huffman	NURTURE
Eileen Kennedy	International Food Policy Research Institute
Kathy Krasovec	UNICEF/Kigali
Chessa Lutter	Wellstart International
Tonya Marek	The World Bank
Martita Marx	Wellstart International
Judith McGuire	The World Bank
Ellen Messer	Brown University
Nancy Mock	Tulane University
Margaret Parlato	Academy for Educational Development
Ellen Piwoz	SARA Project
Suzanne Prysor-Jones	SARA Project
David Pyle	JSI/OMNI
Judi Ricci	EDC/WINS
Rebecca Stoltzfus	Johns Hopkins University
Ellen van der Bruegge	Freedom from Hunger Foundation

HHRAA STRATEGIC FRAMEWORK

BEHAVIOR CHANGE AND MAINTENANCE FOR CHILD SURVIVAL

Judy Graeff and Hugh Waters

September 19, 1994
FINAL VERSION

DRAFT

CONTENTS

EXECUTIVE SUMMARY i

ACRONYMS ii

I. INTRODUCTION 1

II. OBJECTIVES AND METHODOLOGY OF THE STRATEGIC FRAMEWORK 2
- A. Objectives of the strategic framework 2
- B. Criteria for prioritization of research, analysis and dissemination needs. 2

III. REVIEW OF THE LITERATURE 3
- A. Factors associated with behavior change in sub-Saharan Africa 3
  - 1. For mothers 3
  - 2. For health workers 6
  - 3. The nature of the behavior 8
- B. Review of interventions for behavior change in sub-Saharan Africa 10
  - 1. Community-based interventions 11
  - 2. Mass media 16
  - 3. Print materials 19
  - 4. National campaigns 19
  - 5. Social marketing 21
  - 6. Private sector 21
  - 7. Programs directed at health workers 23
- C. Sustainability and Institutional Issues 27

IV. CONCLUSIONS FROM THE LITERATURE REVIEW -- WHAT WE KNOW 29
- A. Determinants of behavior change. 29
- B. Maintenance of learned behavior and sustainability 29
- C. Interventions for behavior change. 30

V. INFORMATION GAPS -- WHAT WE DON'T KNOW 31
- A. Determinants of behavior change 31
- B. Maintenance of learned behavior 32
- C. Interventions for behavior change 32

V. RECOMMENDATIONS 33
- A. Analysis 34
- B. Research 34
- C. Dissemination 35

BIBLIOGRAPHY 36

Annex 1. Strengths of USAID Related to Research and Analysis. 45

Annex 2. Effective Research and Analysis and Dissemination Approaches 46

EXECUTIVE SUMMARY

This strategic framework provides a structured format for determining future research, analysis and dissemination activities in the area of behavior change and maintenance for child survival in sub-Saharan Africa. In doing so, the document presents a number of provocative hypotheses and conclusions which will be of interest to professionals in a wide variety of projects, donor organizations and ministries of health engaged in the challenging work of promoting and sustaining health practices.

The strategic framework provides a comprehensive review of both published and non-published literature in the subject area, focusing on the factors associated with behavior change and the most common interventions used to date to bring about changes in practices for both mothers and health workers. Emphasis is placed on the importance of a long-term perspective in fostering behavior change, and, particularly, the maintenance of learned behavior through continued supporting activities.

The literature shows that interventions designed to foster the adoption of child survival practices have focused on initial behavior change. However, gains made in practices and knowledge commonly erode over time unless explicit support for those practices continues. Unless newly learned behaviors of mothers and health workers are supported -- by social reinforcement, public communication and the health system -- these behaviors fade with time due to a lack of reinforcement from the behavior itself or from external sources. Despite the need for maintenance strategies, supporting systems appropriate for maintaining health behaviors in sub-Saharan Africa are not well understood. Social support is clearly a critical concept, for example, but little is known about which individuals and groups could provide the sustained support necessary for the adoption of child survival practices in a particular locality.

We do not know what level of support is required to maintain behaviors as opposed to creating initial behavior change, and at what point, if any, the child survival behaviors we are seeking to promote will become self-reinforcing and will no longer require significant outside support. As a result, we can currently only guess for how long maintenance programs will be necessary -- although the required length will likely vary depending on the support activities and the type of behavior to maintain.

This strategic framework offers conclusions resulting from the literature review, and points out gaps in information in the literature and our current understanding of what brings about and maintains health behaviors in sub-Saharan Africa. The paper recommends research, analysis and dissemination activities based on the information gaps. Underlying these recommendations is a conviction that donors and ministries of health must take a long-term view to creating and then maintaining behavior change for child survival, and must experiment with approaches specifically designed to maintain behaviors once they are learned.

ACRONYMS

ARTS	Office of Analysis, Research, and Technical Support (USAID)
CCCD-ACSI	Combatting Communicable Childhood Diseases - Africa Child Survival Initiative
CDD	Control of Diarrheal Diseases
CHWs	Community Health Workers
DDM	Data for Decision Making Project
DPT	Diphtheria, Pertussis, and Tetanus
EPB	Expanded Promotion of Breastfeeding Project (Wellstart)
EPI	Expanded Program for Immunization
HealthCom	Communication for Child Survival Project
HHRAA	Health and Human Resources Analysis for Africa Project
ICRW	International Center for Research on Women
KAP	Knowledge, Attitudes, Practices (survey)
MCH	Maternal and Child Health
MMHP	Mass Media and Health Practices Project
MOH	Ministry of Health
NCI	National Cancer Institute
NCP	Nutrition Communication Project
NGOs	Non-Governmental Organizations
ORS	Oral Rehydration Solution
ORT	Oral Rehydration Therapy
PRITECH	Technologies for Primary Health Care Project
PSI	Population Services International
RMO	Regional Medical Officer
SANRU	Santé Rurale Project
SSS	Sugar Salt Solution
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
USDHHS	United States Department of Health and Human Services
VHWs	Village Health Workers
WHO	World Health Organization
WSS	Water Sugar Salt solution

I. INTRODUCTION

Behavior change is important for achieving improved public health -- more particularly, the sustained use of appropriate health practices by populations is necessary for public health impact. Many improvements in public health status are possible without relying on changes in individuals' behavior -- through the introduction of new technologies, improved infrastructure (such as public sanitation), and additives to consumable items (such as vitamins A and D in milk). This paper, however, will discuss behavioral issues related to public health improvements, and specifically behavioral issues important for sustaining child survival practices and the use of child survival technologies over the long term in sub-Saharan Africa.

Child survival depends on preventive and curative practices at both the household level and at health facilities. The most important target groups for improving child survival practices are therefore mothers and health workers. Mothers' behavior is the ultimate behavior to change and sustain in order to achieve improved child health. Health care personnel, the most common point of human contact between mothers and the formal health system, greatly influence mothers' use of the system and the health practices it advocates.[1] Health workers' case management skills and performance are also directly related to the treatment of sick children.

Many of the child survival behaviors demanded of mothers are preventive in nature and do not produce immediate, visible positive results. Yet, for positive public health impact, mothers must repeat these unrewarding behaviors over long periods of time. Mothers, therefore, need regular support and encouragement to continue performing desired behaviors over the long term until the positive impact of the behaviors becomes apparent and the behaviors gradually become social norms. A similar process of reinforcement is required to sustain high quality performance by health workers. Many of the tasks they perform are complex and produce few immediate, positive results. Multiple sources of social and professional support are necessary until consistent, high quality performance becomes standard operating procedure.[2] We use the term *behavior maintenance* in this paper to refer to the support and reinforcement necessary to sustain learned behaviors over time.

In the paper, we will examine strategies to maintain child survival behaviors over the long term. We will discuss groups and systems that can support mothers' and health workers' behavior, and suggest feasible programmatic actions to sustain the supporting activities of these groups and systems. The term *support groups and systems* refers to the wide variety of factors which can influence and reinforce the behavior of a target audience. For the mother, support groups and systems include community groups, family members, health personnel, and pharmacists. For health workers, support groups and systems are likely to be supervisors, colleagues and professional associations, MOH staff, training and supervisory systems, the media, community members, and mothers and children themselves. Key to the analysis of support groups and systems are the actions and activities through which they support the target audience.

---

1 PRICOR, 1990a; Elder et al., 1992a.

2 Rasmuson, 1990; Graeff, Elder, Booth, 1993.

II. OBJECTIVES AND METHODOLOGY OF THE STRATEGIC FRAMEWORK

This strategic framework defines the priorities of the Office of Analysis, Research, and Technical Support (ARTS) and the Health and Human Resources Analysis for Africa (HHRAA) Project of the USAID Africa Bureau for supporting research, analysis, and information dissemination related to behavioral issues in child survival. A principal objective of both the ARTS Office and the HHRAA Project is to provide timely and useful information to USAID offices, African governments, non-governmental organizations (NGOs), and donors to assist in setting priorities and allocating resources. The ultimate goal of these efforts is the improvement of policies, strategies, and programs in the areas of health, nutrition, education and population.

A. Objectives of the strategic framework

The public health literature demonstrates that a great deal is known about initial behavior change -- learning and trial of new behaviors -- but there is little systematic evaluation and analysis of the conditions necessary to sustain learned health practices over time. Within this context, the purposes of this strategic framework are to:

- Draw conclusions from existing literature and program experiences;
- Identify information gaps; and
- Propose research, analysis, and dissemination priorities for the ARTS Office and HHRAA. Specifically, the strategic framework will propose behavioral research to provide answers to questions about sustaining learned behaviors in a variety of target groups in order to have positive impact on the health of children.

B. Criteria for prioritization of research, analysis and dissemination needs.

In determining the research, analysis, and dissemination priorities of the ARTS Office and the HHRAA Project in the area of behavior change for child survival, defined criteria will be used. Specifically, proposed research, analysis, and dissemination activities should:

- Fill an existing information gap, as identified by the strategic framework.
- Be of strategic importance to USAID and to African decision makers.
- Have a regional significance shared by several sub-Saharan African countries.
- Benefit from the comparative advantages of USAID and the Africa Bureau (please see Annex 1, "Strengths of USAID Related to Research and Analysis").

determinants of correct home use of ORT[6] cites cognitive factors constraining mothers' correct use of ORT solutions by mothers, including beliefs that children are unwilling to accept ORT solution, a lack of *self-confidence* in preparation skills, and folk beliefs concerning the origins and appropriate cures for different diarrheal diseases. In many African settings, mothers differentiate among perceived causes and symptoms for diarrhea, citing a variety of diseases with specific causes and symptoms.[7]

Self-confidence, closely linked to education status, was found to be the most important factor associated with mothers' willingness to participate in community child survival and nutrition programs in Swaziland and Cameroon. In order to participate actively in child survival programs, mothers must believe that they can positively influence their children's health; increasing mothers' self-confidence is thus in itself an important objective of health education programs.[8] A viable approach for increasing mothers' confidence is to give them as much control as possible over the recommended behavior so that mothers can see that what they do makes a difference. In growth monitoring programs, for example, health workers can encourage mothers to keep the cards showing children's growth and teach mothers to correctly interpret results. Evidence of children's growth provides mothers with feedback and reinforcement, increasing their incentive to continue with the program.[9] Improving mothers' *skills* for carrying out child survival practices also increases mothers's self-confidence.

Perceived severity of symptoms and *perceived consequences* of recommended behaviors are also important internal factors. Studies of ORT use in rural Benin[10] and childhood immunization in Togo[11] show that the perceived consequences of these activities are strongly associated with mothers' decisions to act. A study in Zaire shows that mothers' perception of the severity of children's diarrhea is related to treatment choices.[12]

b. ***External factors*** for mothers include barriers related to financial and other resources, geographical access to care, interactions with care providers, and the influence of families, communities, and other social supports. In mothers' decisions to begin or continue child survival practices, three external factors appear to play major roles -- interactions with health workers, costs (including non-financial costs), and social supports.

---

6 Levine, 1990.

7 In Zaire, for example, mothers named seven diseases with distinct causes and symptoms, all for diarrhea (Yoder, Drew, and Zhong, 1989).

8 Griffiths found that mothers in Swaziland had high levels of confidence in their ability to influence their children's (and their own) health, whereas in northern Cameroon self-confidence was lacking. Griffiths also cites the importance of preventive behavior fitting into mothers' daily routines, so that such behavior becomes self-reinforcing (Griffiths, 1990).

9 Brownlee, 1990.

10 Hounsa et al., 1993. The perception that ORT and ORS are ineffective because they do not actually stop diarrhea has been shown to be a major disincentive to use. Their actual effect, preventing dehydration, is more subtle and less self-reinforcing.

11 Eng et al., 1991.

12 Yoder and Hornik, forthcoming.

lack of sufficient *social support*, which we argue is the key factor influencing long-term behavior change for mothers.

The concept of social support shows up repeatedly in the literature as a major factor enabling mothers to start or continue behaviors related to child survival. Social support includes the behavior of the family, and support from health workers, neighbors, and community groups.[22] A 1987 study of the acceptability of childhood immunization to mothers in Togo found social support and advice from community members to be among the most important factors facilitating immunization; the same study showed that a lack of social support (in this case from husbands) is a strong inhibiting factor for immunization.[23] A 1976 survey of postpartum practices in 278 cultures found that almost all of these societies have a support system to assist the mother as she takes on the new responsibilities of motherhood.[24] However, child survival practices and technologies which are not part of traditional cultures do not benefit from such built-in support systems.

Social support is clearly a critical concept in general, but the literature gives sparse treatment to the process and functions of support groups -- how sources of support function locally and provide the sustained support necessary for the practice of child survival behaviors. Much remains to be learned about the reasons for mothers' resistance to, and acceptance of, different child survival innovations. One of the main conclusions resulting from the literature review is that the constellation of factors influencing behavior in different settings varies enormously within Africa; a thorough understanding of the determining factors in any given area requires research specific to that area.[25]

2. **For health workers.** For the purposes of this paper, a "health worker" is any trained person who is a point of contact between the formal health care system and clients seeking care for and advice about their child's health. This definition includes, in both the public and private sectors, physicians, nurses, midwives, health aides, and trained community volunteers. The critical role health workers play in encouraging or discouraging mothers' use of child survival practices and technologies is discussed above. Effective child survival practices on the part of health workers -- in terms of both clinical skills and communication with mothers -- also need to be maintained over time. In this paper, we view health workers as sources of long-term support for mothers' behaviors and also as a target audience themselves for behavior maintenance programs.

---

22 Yapchiongco, 1987. This study of the determining factors of ORS use in the Philippines found social support from relatives to have the strongest impact on ORS use, followed by knowledge and self-motivation.

23 Eng et al., 1991. Women often cite husbands' disapproval or lack of permission as reasons for not attending prenatal clinics and not using contraceptives (Tobisson, 1980, cited in Graeff, 1987).

24 Raphael, 1976. Graeff (1987) differentiates between informal (family, friends, community members) and formal (health system, community organizations, government), sources of support for women.

25 Pelto, 1991.

help them use, correctly and consistently, learned knowledge and skills. The principles of behavior maintenance applied to mothers are relevant to health workers too: behaviors that are complex and do not result in immediately apparent positive results need to be supported until their delayed benefits are perceived.

A multitude of health workers in sub-Saharan Africa work under poor conditions, receive pay and supervision only sporadically, and rarely have gratifying interchanges with the mothers and children they serve. Programs aimed at maintaining health worker practices should mobilize a variety of relevant groups and systems to reinforce health workers -- supervisors for problem solving, skill building and feedback, community members for recognition, broadcast media for feedback and reinforcement, in-service training for problem solving and skill building, direct mail for technical information and feedback, facility-based improvements for more efficient work, and self-monitoring for feedback and reinforcement.

Many of these interventions have produced improvements in health worker performance in the short-run (typically measured within one year of the intervention). Yet, to refine these and other strategies for maintenance, they need to be streamlined and tested for longer periods. This type of research and analysis is currently missing. We know that behavior erodes if it is not reinforced over time, and we can hypothesize that the strategies noted above would maintain behavior, but which specific measures, to what degree, and in what mix? There is little documentation of long-term success stories.

3. **The nature of the behavior**. One factor that has received little attention in the international health literature is what effect the desired behavior itself has on continued performance for both mothers and health workers? The *complexity* of a behavior can pose difficulties to its adoption quite separately from difficulties related to other costs, whether financial or non-financial. An essential health practice such as handwashing -- a seemingly simple behavior -- actually takes 46 steps to accomplish as field workers in Guatemala discovered in an assessment session for a community-based CDD and water sanitation program.[33] Mixing and administration of ORS is a complex procedure, as is preparing and administering weaning foods, and feeding sick children with no appetite. Similarly, many behaviors required of health workers are complex, and often programs request health workers to do several things at once -- such as informing a mother about side effects and when to return to the health center, while simultaneously immunizing her infant.

In addition to being complex, many preventive child survival practices produce few, if any, immediate and visible positive results. The positive effects of immunization, for example, are not perceived by health workers until coverage rates are made public; parents do not perceive any benefits to immunization until their child survives a measles epidemic sweeping through the region. Practices required for effective malaria prevention likewise

---

[33] As cited in Graeff et al., 1993, pg.43.

process, although oral rehydration has been present in some countries long enough for such an analysis to be started.

B. Review of interventions for behavior change in sub-Saharan Africa.

Interventions for behavior change reflect the varied social, economic and psychological factors that influence people's actions. Many interventions have successfully motivated populations to adopt new health behaviors. While these results have been encouraging, experience has shown that sustaining these behaviors over time is critical for meaningful public health impact. Until recently, however, ministries, donors, and health planners have been mostly concerned with the need to *introduce* new health practices. As a result, few resources have been allocated specifically to design or strengthen support systems to *maintain* learned behaviors over the long term. It is not surprising, then, after initial successes, to see a steady decay of program-induced changes in many health practices.

Simply funding for longer periods the projects that successfully initiated changes is not the answer. The conditions necessary to promote the learning of new behavior are not necessarily the most favorable or the most practical conditions for maintaining practices over the long-term. The literature reflects this situation. Most of the program descriptions which document behavior change do so only for the short term; evaluation measures are typically taken within a year of the intervention. Current funding patterns and administrative structures make it difficult for long-term behavioral issues to be specifically addressed in project design or in measurement and documentation of the maintenance of behavior. This literature review therefore focuses on what has and has not worked in the short term. Extracting from the behavioral sciences, we discuss how appropriate these interventions would be for maintenance, and how, in some cases, they could be altered to provide the support necessary for maintenance.

Some general principles will guide us in discussing the major behavioral issues in maintaining learned health practices rather than initiating new ones:

- *Most behaviors critical to carrying out child survival interventions are not inherently rewarding.* Many of them are preventive in nature and do not produce immediately apparent, positive results to encourage adoption as health practices. To survive as normal practices until their long-term (preventive) health benefits are recognized, these behaviors need support from the social network and health system.

- *Attitudes and beliefs surrounding child health and influencing existing practices recede in importance as people gain experience with new behaviors.* Continued use of the behaviors (once learned) is increasingly dictated by their costs (time, financial, difficulty) and what results they produce.

- *For optimal learning, certain conditions and procedures are necessary, but once an individual is more or less fluent in the behavior, many of these special procedures are no longer necessary or feasible.* In learning situations, target behaviors are broken down into

Community interventions effectively provide initial teaching and support for mothers, and have strong potential as supporting mechanisms for the maintenance of mothers' behavior (see Case Study 1). Despite this potential, there is very little documentation of how community level interventions can themselves be maintained as viable sources of support for mothers' continued practice of child survival behaviors.

The most common intervention at the community level has been the training of community health workers or volunteers; other interventions, described below, include school-based programs, the use of theater, and mothers' support groups.

a. ***Community health workers.*** Documentation of programs which have used CHWs (used here to include paid village health workers and volunteers) show that these types of health workers can be effective in supporting positive health practices at the community level.[39] However, the literature clearly states that CHWs must themselves receive considerable encouragement and support in order for programs using CHWs to continue beyond the months immediately following training (and, therefore, to fulfill a maintenance function in support of mothers' behavior). The most important types of support for CHWs are continued training, supervision, adequate supplies, and -- especially -- recognition and encouragement from the health system and from the communities in which they work.

For these reasons, the most successful interventions with CHWs have been in relatively small areas where the necessary inputs and support systems for CHWs can be mobilized. For example, the child survival project currently supported by Africare in Ganzourgou Province, Burkina Faso, has trained over 200 women to be neighborhood counsellors in selected villages of the province. Each counsellor supports approximately 15 households. These women have been effective in counselling mothers concerning ORT, growth monitoring, and immunizations.[40] Key reasons cited in the project evaluation for this success are that the messages have been kept very simple and that the counsellors have been well trained.

Operations research from Niger[41] shows that the performance of village health workers is generally poor -- VHWs often give SSS recipes and chloroquine doses incorrectly, and have a tendency to neglect preventive care. The reasons for poor performance are clear: very little supervision or assistance for sustaining services from the public health system,

---

39 Examples of the use of CHWs to achieve initial behavior change include the Danfa Project in Ghana, where trained village volunteers educated villagers about immunizations and reminded them about dates, contributing significantly to increased immunization acceptance (Pillsbury, 1990). In Katana, Zaire, USAID and the MOH supported a program of intensive home visits by village health workers. In six months, the use of preventive health services increased from 33% to 88%; correct knowledge of the vaccination schedule and danger signs for dehydration also climbed sharply (PRICOR, 1990a).

40 Rubardt, 1992. The project's midterm evaluation states that the work with neighborhood counsellors "appears very promising ... [and] can achieve behavior change at the household level, and continue with minimal support" (the report did not clarify what "minimal support" would entail). The evaluation reports that participation in growth monitoring programs and knowledge of SSS were nearly universal in the target areas. A KAP survey measured use of SSS in these areas at 81%.

41 PRICOR, 1989 and PRICOR, 1990b. A separate study in India (Sircar, 1991) shows that training of CHWs for health education failed to succeed due to a lack of logistical support and lack of proper supervision.

Case Study 1: Working with communities: the experience of CCCD in Togo

A project in Togo supported by the Combatting Communicable Childhood Diseases - Africa Child Survival Initiative (CCCD-ACSI) Project demonstrates the effective use of a tiered approach to increasing immunization coverage rates -- through the work of district health teams, mobilizing community groups and health workers to teach and motivate mothers. In nine health districts, chief medical officers selected district health teams -- composed of two mid-level health workers and a Peace Corps Volunteer. These teams, trained in community mobilization, communication skills, and focus group techniques (for program planning), guided their communities in activities to increase the use of vaccination services. Village health committees were formed, and village volunteers, health workers, itinerant health agents, and school teachers collaborated with the district teams in village-wide communication efforts. Activities included theater, storytelling, school-based sensitization, and health education at health facilities.

After seven months, vaccination coverage rates had increased dramatically. DPT1, DPT3 and measles went from 59%, 36% and 45% to 98%, 85% and 86% respectively, in the seven villages reporting data. Key to this success was a system of behavioral supports at different levels -- supports for mothers' behavior and support for community activities and health worker practices. At one level, various communication activities in the community and health centers were effective in bringing mothers repeatedly to the health facilities during the seven months of data collection. At another level, the groups and systems responsible for these activities were in turn motivated during the seven months to continue their work with mothers. They were trained and mobilized by the district health teams, who, among other things, visited the communities on a regular basis.

Program and behavior maintenance: This project is instructive in that in its initial behavior change phase, it developed and utilized several layers of support which led to mothers returning repeatedly for childhood immunizations. But how can such impressive gains in coverage rates be maintained? Health workers' and community groups' enthusiasm and quality performance will not stay at high levels by magic -- they also need to be supported until the positive results of their activities with mothers become evident enough to reinforce continued behavior. The central component of a *maintenance phase* would be to work through the district health teams by providing them the means (logistical, technical and managerial) to support the community's and health workers' work with mothers. Specifically, a maintenance program would provide the following functions, starting at the national or regional level and working towards the community level:

(1) *Maintaining the active role of MOH and donors.* While the maintenance process described below sounds complicated and labor intensive, much of the behavioral support would come from the health workers and community members themselves. Donors would need to be involved mostly with the continued development and support of the district health teams -- including materials and logistic and technical support. The MOH should ensure that team members are qualified and receive appropriate training and professional support.

(2) *Sustaining the activities of district health teams.* During the maintenance phase, the district health teams would shift their emphasis from training and direct involvement with communities to supervising the work of the village health committees. The actual activities most important in this support role would need to be developed and tested prior to implementation. They might include needs assessment and training in such skills as community mobilization, working in committees, and conflict resolution.

(3) *Supporting the village health committees.* These committees are the main sources of energy and planning for the communities on health issues. The committees need continued support and feedback to keep their skills and involvement high. A maintenance program would focus on mechanisms to achieve this: for example, encouraging the community to give feedback and recognition to the committee, and enabling the district health team to provide continued reinforcement and technical assistance to the committee.

(4) *Providing professional and social support for health workers.* Possible strategies include making their work easier (by continuing to use volunteers to help at immunization sessions, for example), promoting public recognition of their work, and providing professional feedback (by posting coverage rates monthly).

(5) *Encouraging social support for mothers.* Social support for mothers needs to continue, through the work of the village health committees. Examples of social support would vary by locality -- and could include health education, theater, public gatherings, new songs, health programs in schools, and ways to involve village elders and fathers.

The primary source for this case study is Naimoli, n.d.-b.

typically mothers of children under five years of age.[52] These groups are based on common economic interests such as credit sharing or the operation of a mill.

PRITECH conducted a small-scale research project in Senegal to judge the feasibility of using the women's groups to transmit messages for the feeding of young children suffering or just recovering from diarrhea. The project involved training nurses and traditional birth attendants to provide recommendations for child feeding, with the help of counselling cards, to mothers in the women's groups. Nearly all mothers accepted the recommendations and stated that they would continue to follow them. Follow-up research to judge if the group members have been able to support each other in actually following the recommendations would help to answer questions about the long-term viability of women's groups as a mechanism for behavior maintenance.[53]

2. **Mass media.** Radio is the most practical mass media channel for achieving initial behavior change in sub-Saharan Africa; this is particularly true in rural areas. In rural Nigeria, for example, 75% of the population listen to the radio while 48% occasionally watch TV, 29% read newspapers, and 19% read magazines.[54] In Swaziland, a HealthCom study found that radio was able to reach 62% of the population, while outreach workers were in contact with only 16%.[55]

   Moreover, radio offers a method to reach illiterate and dispersed populations. Documented programs which have used radio to change child survival practices include efforts supported by MMHP in The Gambia (see Case Study 2) and by HealthCom in Lesotho, where a survey has shown that ORT use at home is closely linked to radio ownership and listenership.[56]

   As a communication medium, radio also has disadvantages. A review of the use of radio for health education in Nigeria[57] shows that illiterate individuals are less likely than others to pay attention to radio broadcasts. Women may not have the time to listen attentively as they are often responsible for both household chores and income generation. It is difficult to develop culturally relevant programs for all potential listeners. The variety of spoken languages in sub-Saharan Africa complicates the communicator's task.[58]

---

52 Diene, 1993. From a PRITECH trip report in the Fatick Region, 1991.

53 Diene, 1993.

54 Brieger, 1990.

55 Sukkary-Stolba, 1990.

56 HealthCom, 1992.

57 Brieger, 1990.

58 Booth, 1984. In comparing the use of radio in the MMHP projects in The Gambia and Honduras, Booth points out that The Gambia has 12 languages. Some sub-Saharan African countries have even more linguistic variety; Cameroon has over 200 languages.

Mass media clearly play an important role in changing behaviors, but the potential for fast results through the media should not be viewed as a substitute for other communication strategies -- particularly when the principal objective is the maintenance of learned behavior. During the maintenance phase of child survival programs, mass media -- if well targeted and managed -- can play an important and cost-effective role in supporting both the primary target audience and the support groups and systems.

The broadcast media and health workers. Most media programs have focused on the consumer -- teaching mothers information and skills for child survival. Yet, radio could also be used to reach health workers directly -- especially those working in isolated health centers and as community volunteers. Radio messages directly evoking health worker roles and offering reinforcement can greatly improve motivation for both volunteers and paid staff.[64] Nevertheless, radio can do more than just promote the image of health workers. Using a standard magazine format, for example, programs could both target and involve health workers in discussions of issues pertinent to delivery of services or provide performance statistics (such as the results of an immunization campaign, or the number of safe births per month) to give workers and the community positive feedback.

In an example from Lesotho,[65] nurses attending in-service training composed songs on immunization and CDD, sang them to familiar melodies, and were judged on which one was "best." This competition was taped and aired on local radio. The inexpensive exercise gave health workers valuable recognition in the community and served as a reminder to parents about important child survival practices. Because radio is typically based at the regional or provincial level in Africa, focused, locally relevant programs would be of interest to local broadcasters.

Television might be better suited to supporting the practices of higher level medical personnel and policy makers who live mostly in urban centers and can afford a television. Television programs, in the form of spots, or better yet, as news items, could recognize the efforts of pharmacists to promote oral rehydration packets, or describe the promotion of breastfeeding in hospitals. The broadcast media could play a role in maintenance by providing performance feedback and social recognition for the wide variety of people delivering health care. However, there has been little systematic analysis or evaluation of the effect of radio and television spots on the status and motivation of health workers in sub-Saharan Africa -- representing another gap in our existing knowledge of interventions and their effectiveness.

---

64 Elder et al., 1992a. This example from Indonesia shows that radio programs directed at mothers and community leaders, and designed to promote the work of community health workers (kader), were an effective means of increasing community social support for the kader. In an experimental area, the programs, listened to by most mothers (64%) and kader (94%), led to an increase in compliments received by the kader and in health education sessions between the kader and mothers.

65 Ed Douglass, 1994, personal communication.

Case Study 2: Mass Media and Health Practices in The Gambia

The work of the Mass Media and Health Practices (MMHP) Project with the Ministry of Health in The Gambia in the early 1980s, and follow-on work by the PRITECH Project from 1988 to 1993, demonstrate the creative and successful use of several different types of interventions to bring about behavior change -- as well as the challenges involved in sustaining behaviors after initial change has occurred.

MMHP began collaboration with the MOH in 1981, emphasizing public education for home treatment of diarrhea-related dehydration with water sugar salt (WSS) solution. Over a two year period, the MMHP Project and the MOH used radio broadcasts to reach mothers, as well as interpersonal education by health workers and print materials. The "Happy Baby Lottery" campaign, conducted in 1982, combined the use of pictorial handbills showing how to mix the WSS solution, face-to-face teaching by health workers, and an intensive schedule of instructional radio programs. Villages were randomly chosen and mothers from those villages were invited to demonstrate the correct mixing of the WSS solution; successful mothers were rewarded with one-liter plastic cups or bars of locally made soap. Five "grand prizes," large bags of sugar and rice, were awarded to communities which had been particularly active in the contest. Winners were announced on the radio by the President's wife.

A longitudinal study showed that, after two years, the MMHP efforts had tremendous impact. The percentage of episodes of diarrhea treated at home with the WSS solution increased from 4.1% to 73.8%. The percentage of episodes treated with WSS by mothers who knew how to prepare the solution correctly increased from 0% to 49.5%. However, a follow-up study in 1987, three years after the end of the MMHP Project, found that most of these gains had eroded. The percentage of diarrhea episodes treated at home with the WSS solution was 10.8%. In 1987, 21% of mothers knew how to mix the solution correctly, compared to 43% in 1984.

After a period of inactivity, donor support for CDD was reintroduced under the PRITECH II Project. From 1988 to 1993, PRITECH's assistance featured many aspects of a maintenance intervention -- attempting to reinforce and support behavior which had already been learned. Health education activities included rebroadcast of the MMHP radio spots and newly developed half-hour radio episodes concerning home care for diarrhea. Updated flipbooks, flyers, and posters were produced for education in health centers, accompanied by significant case management training for health workers. Musicians and school children were engaged to develop dramas and songs about CDD. For home management of diarrhea, the emphasis of messages shifted from promotion of WSS to the use of ORS packets.

A household survey in 1993 showed that PRITECH's intervention had achieved success in introducing new behaviors for mothers who had not been influenced by the MMHP Project, and motivating the use of learned behavior for those who had been influenced. Forty percent of cases of diarrhea were treated at home with ORS, and an additional 16.5% with sugar salt solution. Other home treatment indicators were positive, including continued feeding during diarrhea (95.4%) and continued breastfeeding (97.5%).

This case study provides several interesting lessons:

(1) The MMHP Project effectively fostered "initial trial of new behavior," demonstrating the potential for initial behavior change when multiple channels of communication are used.
(2) As shown by the decline in WSS use from 1984 to 1987, unless the newly learned behaviors of mothers and health workers are supported, these behaviors will fade with time due to a lack of reinforcement from the behavior itself and from external sources.
(3) The reintroduction of promotion efforts with PRITECH assistance led to improved home case management. Because treatment practices had deteriorated from lack of support and with the passing of time, the results of the PRITECH intervention were similar in some ways to initial behavior change.
(4) PRITECH's intervention also fulfilled some of the functions of a maintenance program, through reminders to mothers and social support to mothers and health workers. Because it used a variety of interventions, it is difficult to tell which type of intervention was the most successful without more specific research. PRITECH's involvement unfortunately ended in 1993; ideally, long-term support for health workers and mothers would have continued and been adapted to increasingly fulfill the functions of a maintenance intervention.

Sources for this case study are: HealthCom, 1985; Spain and McDivitt, 1988; Levine, 1990; McDowell and McDivitt, 1990; Snyder, 1990; HealthCom, 1992; Rasmuson, 1993; and Millsap, 1993.

BEST AVAILABLE COPY

countries.[75] Efforts to employ private sector channels for behavior change related to child survival, generally for the sale of ORS, have achieved only limited success.[76]

While the private biomedical health sector is generally smaller in sub-Saharan Africa than in other developing countries, there is considerable evidence that pharmacists and other sellers of drugs, in particular, have strong potential for facilitating behavior change for child survival. Studies of treatment patterns for malaria and fever show the most common treatment to be chloroquine-based drugs purchased without consulting the public health system.[77] However, there have been few efforts to improve prescribing practices, and there is little knowledge concerning what approaches might work in influencing pharmacists.[78]

In principle, techniques used by private, for-profit, pharmaceutical companies to maintain sales should lend themselves to the sustained promotion of products important for child survival, such as ORS. Unfortunately, the concept of profit -- the ubiquitous incentive and motivator at all levels of distribution and sale of private sector products -- is often at odds with sustainability in public sector programs in sub-Saharan Africa. The impressive sales of condoms referred to above rely on subsidies; these social marketing programs face uncertain futures once the subsidies are removed. If creative ways could be found for harnessing the profit motive within sustainable public sector interventions, profit would be an ideal reinforcement for a wide variety of maintenance activities.

There have been efforts to employ other private sector practices, such as "detailing," or personal visits to health practitioners, in the promotion of ORS. In Niger and Mali in 1988-89, PRITECH trained personnel of parastatal pharmaceutical organizations to act as detailmen. This interesting intervention achieved limited success, compromised by the lack of a profit incentive and a lack of entrepreneurial spirit -- found in the private sector but difficult to engender in public sector personnel.[79]

The traditional health sector plays an important role in sub-Saharan Africa, serving an estimated 80-90% of the population.[80] Several studies have shown a willingness on the

---

75 Population Services International, 1992.

76 Population Services International has launched a program to sell and promote an ORS brand through the private sector in Cameroon. The social marketing of ORS in Morocco and Bangladesh has resulted in significant sales -- 15.8 million packets were sold in Bangladesh in 1991, with reinforcement from the mass media, school-based programs, and training of health personnel and pharmacists (PSI, 1992).

77 Snow et al., 1992. In a study in eastern Kenya, 72% of mothers interviewed said that, when their children showed symptoms of malaria or fever, they would bypass the public health system and go to shops to purchase drugs, mostly chloroquine-based drugs. Similar studies in western Kenya and Togo showed that 30% and 79%, respectively, of respondents purchased drugs for home treatment of malaria.

78 Laing, 1991. In industrialized countries, the most effective methods are interpersonal communication and regular contact to check prescriptions and provide feedback to prescribers.

79 Camille Saade, personal communication, 1994.

80 From the HHRAA document *Strategic Framework for Strengthening the Contribution of Non-Governmental Health Care Provision to National Health Goals in Africa*, DDM Project.

complex problem of maintaining health worker performance, some combination of activities which fulfill the functions listed above needs to be designed, tested and supported.

a. ***Training.*** "Training" is ubiquitous in international health as the intervention of choice for improving health worker performance. Many programs aimed at changing mothers' behavior also include training of health workers. On the other hand, weaknesses in training are often blamed for continued unsatisfactory health worker performance. Two training issues emerged from our investigation: first, training, as currently conceived and executed, is not the appropriate solution for all problems concerning health worker performance. Second, training should be more accountable for the objectives it purports to achieve by providing concrete measures of training outcomes, taken over time.

Available literature often describes the content and length of training sessions, but rarely discusses the *methods* used. For example, a typical field training description reads as follows: "... a one-week training session was held for all village health workers in the study villages. This training *reviewed* the goals and strategies for home visits, and *offered a refresher course* in health education techniques and messages. Additionally, the nurses ... were *advised* on techniques for supervising the VHWs and *were provided* a newly formulated supervisory checklist ... ."[84] Thoroughly covering information, in didactic or even participatory sessions, is seldom enough to accomplish changes in health worker practices.[85] Of particular interest, then, is the proportion of training time actually devoted to didactic sessions (changing technical knowledge), practice of skills with feedback (changing behavior), and addressing trainees' experiences (changing attitudes).[86]

Changes proposed to improve training include adding and strengthening training-of-trainer sessions,[87] increasing the time for practice with feedback,[88] decreasing time spent on theory and didactic presentations[89] and spending more time for field practice.[90] While most training programs include an evaluation, evaluations are rarely in terms of behavior change accomplished[91] but are often in terms of trainee satisfaction with the workshops.[92]

Much of field training wisdom lies outside of the formal literature and can be found in materials describing the programs offered by large training organizations.[93] Many of the

---

84 PRICOR, 1990a.

85 Kanouse and Jacoby, 1988; Laing, 1991; Ismail et al., 1991.

86 For example, Naimoli et al., n.d.-a.

87 Herman and Prysor-Jones, 1993; Casazza and Endsley, 1993.

88 Herman and Prysor-Jones, 1993; Elder, 1992a.

89 Berney et al., n.d.

90 Elliott-Farino, personal communication, 1994.

91 Exceptions are Naimoli et al., n.d.; Elder et al., 1992a; Elder et al., 1992b.

92 For example, Berney et al., n.d.

93 For example, JHPIEGO, 1994.

Individual supervisors are themselves often functioning in a weak system. In many ministries of health, supervision is administratively separate from in-service training, pre-service training, or activities under various vertical programs (CDD, EPI, MCH). This administrative set-up and donor support patterns make it difficult to coordinate effective supervision with what health workers are trained to do. Even supervisors with appropriate skills need professional support to supervise effectively and frequently enough to help maintain health workers' practices. In each specific setting, improving supervision for maintenance requires an analysis of what essential behaviors mothers and health workers need to continue, and how support from supervisors would help. Supervision of health workers, if strengthened and well targeted, can fulfill some of these maintenance functions.[99]

Supervision is especially important for maintaining the skills and activities of volunteer and community health workers. Often community-based programs provide initial training in primary health care and communication, but do not provide for continued follow-up of some sort. Without support, skills deteriorate and participation fades[100] (see also Section 1 above, Community-based interventions).

c. ***Other forms of professional support for health workers.*** Training and supervision have been the main types of intervention to date for improving and maintaining health worker performance. Several other, less labor intensive methods have been tried on a limited basis and should be considered for inclusion in a maintenance package for health workers. One of the most important functions of any maintenance activity is to generate feedback relevant to the individuals or groups performing a target behavior or engaging in a support activity.

Direct mail. Experiments with direct mail to health workers -- especially in outlying areas where visits from supervisors are difficult -- indicate that it has potential as a maintenance tool. In Zaire, the USAID funded rural health project (SANRU) corresponded directly with regional medical officers (RMO) to help them design training for health workers in their localities. The project had produced an interactive form, which when filled out, took the RMO through all the essential considerations in designing effective training. SANRU support for the training was contingent upon the form being filled out. In Indonesia, after an initial small pilot mailing, 18,500 voluntary community health workers (kader) were mailed an updated calendar insert, a letter of praise from the provincial health chief, a technical update on CDD, and a short questionnaire. Despite the fact that the kader had to buy a stamp to return the questionnaire, more than 8,500 responses were received in the first weeks -- many included long letters to the provincial chief.[101] These experiences

---

[99] For example, Local-Area Monitoring (LAM) is an innovative monitoring and supervision system developed and tested in Indonesia to improve vaccination coverage and quality. A joint initiative of the Ministry of Health and the Ministry of Home Affairs, LAM involves the feedback of coverage and quality indicators to health workers in the form of easily readable graphs. Competitive comparisons are made among localities and provinces, and health workers are publicly recognized by local governments for their achievements (Kandun and Hatfield, 1992).

[100] Sircar et al., 1991; PRICOR, 1989; Yoder and Zhery, 1991. In Indonesia, efforts to improve the supervision of CHWs (Kader) resulted in positive results in the practices of the Kader and in mothers' attendance at the health centers (Linnan, 1993).

[101] HealthCom, 1990.

change and providing more naturally occurring rewards, such as social support and endorsement by respected local leaders."[105]

Other discussion of sustainability as it relates to behavior change focuses on institutional issues, particularly the capacity of MOH health education units to carry out long-term interventions. Health education units are often poorly staffed and funded. They tend to lack influence within ministries, and to be neglected by donors in favor of vertical child survival programs.[106] Donors should pay particular attention to long-term staffing needs and skills (particularly in the areas of formative research and planning[107]) within these units, and should be aware of the non-sustainable nature of short-term projects which inject cash and prestige. Donors should instead emphasize reinforcing the capacities of local institutions, which will eventually be required to support child survival maintenance interventions. Additionally, decision-makers in ministries must be convinced of the value of health education.[108]

Sustainability is a critical concept in the design of programs for the maintenance and support of behavior change over the long-term. This literature review has clearly pointed out that interventions for initial behavior change are not enough -- that gains made in practices will quickly erode (and gains in knowledge will erode slightly more slowly) unless support for the desired behaviors continues. This concept is certainly not new to us; Coca-Cola knows it well, and advertises continuously to keep its clientele. But what we do not know is what level of support is required to maintain behaviors, as opposed to creating initial behavior change, and at what point, if any, the child survival behaviors we are seeking to promote will become social norms and will no longer require significant outside support. Answers to these questions will require further research and analysis.

---

[105] Rasmuson, 1990.

[106] See Steinwand and Waters, 1993, for an example from Cameroon.

[107] Rasmuson, Hornik, and Smith, 1990.

[108] HealthCom, 1992; Rasmuson, Hornik, and Smith, 1990.

supports, maintenance programs must not require intensive financial resources. Rather, maintenance programs should, to the extent possible, take advantage of existing structures and non-financial sources of behavior reinforcement.

- The *functions* which maintenance programs should fulfill include: engaging *social support* for desired behavior from family, community and peers; providing *feedback* on performance; finding *solutions* to problems in performing desired behavior; and providing *reminders* of how to perform the desired behavior, and of time, place and availability of child survival services.

- The literature on behavior change is predominantly concerned with bringing about initial changes in behavior, and gives little attention to sustainability. However, donors should emphasize reinforcing the capacities of local institutions, which will eventually be required to support child survival maintenance interventions, and should pay particular attention to long-term staffing needs and skills (particularly in the areas of formative research and planning) within health education units.

C. Interventions for behavior change.

- In order to support mothers and health workers effectively, programs designed for maintenance must themselves receive adequate support. For example, community health workers must receive adequate compensation and recognition or they will gradually cease to perform their function of educating and supporting mothers.

- Most interventions use more than one set of support groups and systems; the most successful health communication efforts mobilize several different influences on the target audience.

- Among the mass media, *radio* has proven to be an effective channel for initiating behavior change in sub-Saharan Africa, particularly in rural areas. Frequent, regular and effectively designed radio spots have strong potential for maintaining positive health practices. *Television* is infrequently cited in the literature and does not appear to have been used effectively for either initial behavior change or for maintenance in sub-Saharan Africa (other than for AIDS prevention campaigns). When used together with other support systems, mass media offer a promising channel for supporting behaviors for both primary and secondary audiences, including health workers.

- Educational *print materials* are commonly produced in child survival programs, but are rarely evaluated. Mothers' ability to understand print materials depends to a great extent on verbal explanations by health workers. The principal utility of print materials appears to be as a supporting tool for the health worker in educating and communicating with mothers. Evidence indicates that both health workers and the general public experience "fatigue" after lengthy exposure to the same materials.

Previous Page Missing

the determining factors in any given area for the purposes of program design and planning requires *research specific to that area.*

- For health workers, we do not have sufficient explanations for *performance deficits* -- gaps between knowledge and performance. A better understanding of the factors causing performance deficits in different settings could lead to strategies to increase the correct and consistent use of learned knowledge and practices and to sustain these practices over time.

- There has been to date little systematic analysis of the different steps involved in *complex behaviors* requested of mothers and health workers, or of preventive behaviors for which reinforcement is delayed (such as immunizations). Such analysis is a prerequisite for developing supporting interventions which can provide support and reinforcement at different steps of complex behaviors -- for example, offering encouragement to a mother for bringing her child to a health center for vaccinations, for having the child immunized, and for filling in the immunization card.

B. Maintenance of learned behavior.

- We do not know what level of support is required to maintain behaviors as opposed to creating initial behavior change, and at what point, if any, the child survival behaviors we are seeking to promote will become social norms and will no longer require significant outside support. As a result, we can only guess for how long maintenance programs will be necessary -- although the required length will likely vary depending on the type of behavior recommended, and the capacity of local groups to support it.

- Supporting systems which are appropriate for maintaining behavior are not well understood. *Social support* is clearly a critical concept, but little is known about which individuals and groups could provide the sustained support necessary for the continued practice of child survival behaviors. A determination of appropriate sources of social support in any given area will require research specific to that area.

C. Interventions for behavior change.

- How interventions achieve initial behavior change is well documented, but how they could function over the years to support learned behavior is not. Many interventions have produced initial changes for mothers and improvements in health worker performance in the short-run (typically measured within one year of the intervention). In order to use these interventions for maintenance, they need to be tested over longer periods of time.

- *Community support* is recognized as a critical element for sustaining learned behaviors. However, there is very little documentation of community level interventions designed for behavior maintenance rather than initial behavior change. Specifically, not enough is known about:

A. Analysis.

- *Develop a synthesis paper on the issue of maintenance of learned behaviors*, emphasizing the functions of maintenance programs, and the need for a long-term approach to behavior change. This paper should emphasize that the specific conditions which will determine the composition of an appropriate "package" of supporting systems for maintenance vary by setting -- so while a *general approach* to maintenance will be appropriate across settings, specific research will be necessary for the design of each *maintenance package*. This principle applies just as much for the support of health workers, where analysis of the needs and skills of the health workers is a prerequisite to improving performance, as for support of mothers' behaviors. Target groups for the synthesis paper will include program managers in African Ministries of Health as well as policy makers at donor institutions; given this variety, more than one version of the paper will likely be required.

- Within the context of a specific child survival behavior change initiative, develop a *methodology, or set of guidelines, for the design, monitoring, and evaluation of maintenance interventions*. Steps in the methodology would include assessment, initial research (qualitative and quantitative), definition of maintenance functions, intervention design (focusing on tiers of support), monitoring, and evaluation.

- *Develop instruments to implement the different steps in the above methodology*. The results of such a "pilot implementation" of program components designed specifically for behavior maintenance would provide examples and lessons learned for the design of additional interventions in the future.

- *Perform an analysis of training methods* focusing on the functions and objectives of training, and measurable outcomes. This analysis should explore how training can be used to support and maintain learned behaviors. A proposed package of training functions necessary for maintenance could then be tested.

B. Research.

- *Conduct operations research to test the viability of different types of interventions for maintenance*. Research should ideally take place in a program where significant levels of initial learning of behaviors have already been realized, and should focus on:

    1. *Functional analysis of existing interventions* which teach and support mothers' and health workers' behaviors. Operations research would begin to establish the functional dynamics of maintaining learned behavior. Cumulative results would help establish and refine a list of essential functions that maintenance interventions fulfill. This list, once field tested, would become a part of the guidelines for maintenance interventions referred to above.

BIBLIOGRAPHY

AHRTAG (1991), "Learning about what people do and why." *Dialogue on Diarrhoea*, issue 47, London, England.

Andreasen, A. (n.d.), *Social Marketing: Its Potential Contribution in the Public Sector*, HealthCom Project, Academy for Educational Development, Washington, D.C.

Aziz, K.M.A. (1990), "Reduction in diarrhoeal diseases in children in rural Bangladesh by environmental and behavioral modifications." *Transactions of the Royal Society of Tropical Medicine and Hygiene* 84, 433-438.

Barnhoorn, F. and H. Adriaanse (1992), "In search of factors responsible for noncompliance among tuberculosis patients in Wardha District, India." *Social Science and Medicine*, Vol. 34, No. 3, pp. 291-306.

Berney, K.T., A.A. Olukoya, and A. Voigt (n.d.), *Challenging Health Workers to Develop a Participatory Approach to Patient Education*, Centers for Disease Control and Prevention, Working Paper #099-4012, Atlanta.

Booth, E.M. (1984), "Radio: The Daily Reminder." In Healthcom Project (1985), *Summary Report of the Major Findings: The Mass Media and Health Practices Evaluations in Honduras and The Gambia*. Academy for Educational Development, Washington, D.C.

Booth, E.M. and J.I. Mata (1992), *Introduction to the Design and Production of Educational and Promotional Radio Materials*, HealthCom Project, Washington, D.C.

Booth, E.M. (n.d.), *How to Use Radio to Support Your CDD Programme: A Guide for National CDD Programme Managers*," WHO/CDD Programme, Geneva, in press.

Bossert, T. (1990), "Can They Get Along Without Us? Sustainability of Donor-supported Health Projects in Central America and Africa." *Social Science and Medicine*, Vol 30, No. 9, pp. 1015-1023.

Brieger, W. (1990), "Mass media and health communication in rural Nigeria." *Health Policy and Planning*, 5(1):77-81.

Brownlee, A. (1990a), *Growth Monitoring and Promotion: The Behavioral Issues*, International Health and Development Associates, Washington, D.C.

Brownlee, A. (1990b), *Breastfeeding, Weaning and Nutrition: The Behavioral Issues*, International Health and Development Associates, Washington, D.C.

Eng, E. et al. (1991), "The Acceptability of Childhood Immunization to Togolese Mothers: A Sociobehavioral Perspective." *Health Education Quarterly*, Vol. 18(1): 97-110 (Spring 1991).

Farmer, P., et al. (1991) "Tuberculosis, Poverty and "Compliance": Lessons from Rural Haiti." *Seminars in Respiratory Infections*, Vol.6, No. 4 (December), 1991: pp. 254-260.

Favin, M. (1991), *Acceptability of Immunization -- The REACH Experience*, The Resources for Child Health (REACH) Project, Washington, D.C.

Freund, P. and B. Phiri, "Zambian Popular Theater Dramatizes Diarrhea Treatment and Prevention." In White, K. and E. Hanlon (eds.) (1993), *Implementing Diarrheal Disease Control Programs: The PRITECH Experience*, Management Sciences for Health PRITECH Project, Arlington, VA.

Gittelsohn, J., Sillah, B. and Karamo Sanneh (1991), *Ethnographic Study of Acute Respiratory Infections in The Gambia.*

Gottert, P. (1993), "Using Drama for Health Communications: Report from Burkina Faso, Mali and Niger." *Mothers and Children*, Vol. 12, No. 3., pp. 6-7.

Graeff, J., Elder, J. and E. M. Booth (1993), *Communication for Health and Behavior Change: a Developing Country Perspective*, San Francisco: Jossey-Bass Publishers. Prepared under the HealthCom Project.

Graeff, J. (1987), *Women's Social Support and Child Welfare*, International Center for Research on Women (ICRW), Washington, D.C.

Green, E. (1986), "Diarrhea and the Social Marketing of Oral Rehydration Salts in Bangladesh." *Social Science and Medicine*, Vol. 23, No. 4, pp. 357-366.

Griffiths, M. (1990), "How to Improve Child Well-Being? First, Increase Mothers' Self-confidence." *Development Communication Report*, no. 70, 7-18.

HealthCom Project (1985b), *Lessons from Five Countries*. Academy for Educational Development, Washington, D.C.

HealthCom Project (1985c), "Field Notes." In Healthcom Project (1985a), *Summary Report of the Major Findings: The Mass Media and Health Practices Evaluations in Honduras and The Gambia*. Academy for Educational Development, Washington, D.C.

HealthCom Project (1990), *Indonesia Final Report*, Academy for Educational Development, Washington, D.C.

Khin, M. et al. (1992), "Risk factors for the Development of Persistent Diarrhoea and Malnutrition in Burmese Children." *International Journal of Epidemiology*, 1992; 21: 1021-1029.

Kofoed, P.E., S. Zeitlyn, A. Rahman, M. Gomes and B. Nielsen (1992), "Reasons for low tetanus immunization coverage in a hospital: a focus group discussion," *Acta Paediatra* 81:632, 1992.

Laing, R (1991), "Prescribing Practice -- What changes behavior?" *Dialogue on Diarrhoea*, issue 45, AHRTAG, London.

Lee, W. et al. (1991), "The impact of a community based health education program on the incidence of diarrhea disease in southern Thailand." *Southeast Asean Journal of Tropical Medicine and Public Health*, Vol. 22, NO. 4, December 1991, pp. 548-556.

Leslie, J. (1987a), *Time Costs and Time Savings to Women of the Child Survival Revolution.* International Center for Research on Women, Washington, D.C.

Leslie, J. (1987b), *Evaluation of Mass Media for Health and Nutrition Education: A Review of the Literature*. Paper presented at the joint meeting of the World Federation of Public Health Associations and Canadian Public Health Association, Halifax, Nova Scotia.

Levine, N. (1990), *The Determinants of Correct Use of Home-based Oral Rehydration Therapy -- A Critical Review*, prepared for the Diarrheal Diseases Control Program of the World Health Organization, Geneva.

Linnan, H.W. (1993), *Reinforcement of Nutrition Communication Through Supervision*, Nutrition Communication Project - Project Concern International, Washington, D.C.

Litvack, Jennie I. and Claude Bodart (1993). "User Fees and Improved Quality of Health Care Equals Improved Access: Results of a Field Experiment in Cameroon." *Social Science and Medicine* 37(3):369-383.

Malik, I., et al. (1992), "Mothers' fear of child death due to acute diarrhea: a study in urban and rural communities in northern Punjab, Pakistan." *Social Science and Medicine*, Vol. 35, No. 8, pp. 1043-1053.

Mathison, J. (1986), *Oral Rehydration Therapy in Nigeria*, PRITECH Project, Assignment No. SS 79, Washington, D.C.

McDowell, J., and J. McDivitt (1990), *The HealthCom Resurvey of Oral Rehydration Therapy Practices in The Gambia*, HealthCom Project, Applied Communication Technology, Menlo Park, CA.

Millsap, J. (1993), *Final Country Intervention Report -- The Gambia*, PRITECH Project.

PRICOR Project (1990d), *Operations Research Improves Home Treatment of Malaria in Children*, PRICOR Child Survival Report, Bethesda, Maryland.

Raphael, D. (1976), *The Tender Gift: Breastfeeding*. New York: Schocken Books.

Rasmuson, M. (1983), "Report on the 1982 'Happy Baby Lottery.'" In Healthcom Project (1985), *Summary Report of the Major Findings: The Mass Media and Health Practices Evaluations in Honduras and The Gambia.*

Rasmuson, M. (1990), *Sustaining EPI: What Can Communication Do?* HealthCom Project.

Rasmuson, M., Hornik, R. and W. Smith (1990), *Household Management of Diarrheal Diseases: Communications Issues*. Background paper prepared for the Meeting on the Household Management of Diarrhea and Acute Respiratory Infections, Johns Hopkins School of Hygiene and Public Health, Baltimore.

Reis, T., J. Elder, Satoto, B.A. Kodyat, and A. Palmer (1990), "An examination of the performance and motivation of Indonesian Village health workers", *International Quarterly of Community Health Education*, 11, 19-27, 1990.

Rubardt, M. (1992), *Midterm Evaluation -- Africare Child Survival Project, Ganzourgou Province, Burkina Faso.*

Schubert, J., "Participatory Project Design: The First Step in Sustainability." In Seidel R. (ed.) (1993), *Notes from the Field -- Communication for Child Survival*, HealthCom Project, Washington, D.C.

Seidel, R. (ed.) (1993), *Notes from the Field -- Communication for Child Survival*, HealthCom Project, Washington, D.C.

Shafritz, L. and A. Roberts (1994), "The value of focus-group research in targeting communication strategies: an immunization case study." *Health Transition Review*, Vol. 4, No. 1, 1994, pp. 81-85.

Sircar, B. et al. (1991), "An operational study on implementation of oral rehydration therapy in a rural community of West Bengal India." *Indian Journal of Medical Research* [A] 93, September 1991, pp. 297-302.

Smith, W. et al. (eds.) (1993), *A World Against AIDS: Communication for Behavior Change*, Academy for Educational Development, Washington, D.C.

Snow, R. et al. (1992), "The role of shops in the treatment and prevention of childhood malaria on the coast of Kenya." *Transcripts of the Royal Society of Tropical Medicine and Hygiene*, May-June 1992; 86(3):237-9.

Yoder, P.S., R. Drew, and Z. Zhong (1989), *Knowledge and Practices Related to Diarrheal Disorders, ORT, and Vaccinations in Lubumbashi, Zaire*, Philadelphia: Annenberg School for Communication, University of Pennsylvania.

Yoder, P. and Z. Zheng (1991), *HealthCom in Lesotho -- Final Evaluation Report*, HealthCom Project, Center for International, Health, and Development Communication, The Annenberg School for Communication, University of Pennsylvania.

Yoder, P., Zheng Z, and F. Zhou (1991) *Results of the HealthCom Evaluation in Zaire -- Lubumbashi, 1988-1990*, HealthCom Project, Center for International, Health, and Development Communication, The Annenberg School for Communication, University of Pennsylvania.

Yoder, P.S. and R. Hornik, "Perceptions of Severity of Diarrhea and Treatment of Choice: A Comparative Study of HealthCom Sites." *Journal of Tropical Medicine and Hygiene* (forthcoming).

Zimicki, S. (1988), *Effect of the 1988 Metro Manila Vaccination Campaign: Evidence from an Observational Study at Health Centers*, Center for International, Health, and Development Communication, The Annenberg School for Communication, University of Pennsylvania.

Annex 2. Effective Research and Analysis and Dissemination Approaches

For research and analysis activities supported by HHRAA, emphasis is placed on conducting studies and research within an operational context, including pilot projects and the on-going activities of African ministries and other institutions. Research and analysis activities should, wherever possible, go beyond finding the response to discrete questions and should attempt to deal with difficult questions related to implementing results, and overcoming likely constraints to implementation.

To be most effective, research should be cross-country or regional, addressing specific problems found in more than one setting and in more than one country. Methodologies, data collection instruments and definitions used across countries should provide comparable results. Research should be completed within a time period of 12-24 months.

The issues identified should clearly be of strategic importance to African decision-makers, and to USAID and other donors. Research should help to fill existing gaps in information as identified by this strategic framework. Research efforts should, from the start, identify measurable and verifiable objective indicators for both general objectives (goal) and specific objectives (purpose).

Research and analysis activities should involve African institutions, and, wherever possible, be conducted by African institutions and African researchers. The incorporation of the priorities of African decision-makers and the transfer of skills are essential elements of HHRAA research and analysis activities.

Timely and appropriate dissemination of results, and their impact on implementation, are key factors in determining the success of research and analysis activities. Dissemination efforts, whether in the form of written documents, workshops or other contacts, should clearly be well targeted. Follow-up efforts after initial dissemination will be a critical part of efforts to ensure appropriate implementation of results.

A. Sequencing and phasing of activities.

Research and analysis activities should in general employ the following schedule:

- Conceptualization and design of the activity.
- Field work and data collection.
- Analysis of results.
- Dissemination of results.
- Implementation of results.

B. Benchmarks and key indicators of progress.

HHRAA-supported activities should employ three broad categories of indicators:

- Process indicators which measure outputs of the activity.
- Intermediate impact indicators which measure actions taken by target audiences of the activity -- generally host governments, USAID and other donors.
- Impact indicators which measure the ultimate effect of the activity -- on the financing, provision, and consumption of health services.

Sick Child

DRAFT

A RESEARCH, ANALYSIS AND DISSEMINATION STRATEGIC FRAMEWORK FOR THE INTEGRATED CARE OF THE SICK CHILD INITIATIVE

AFRICA BUREAU, ARTS OFFICE

Draft 1/25/1994

I. BACKGROUND:

Activities and interventions to promote child survival are important priorities of the Agency for International Development's Africa Bureau. This is appropriate given that the countries with the highest infant and under five mortality rates in the world are located in Africa (Hill, 1992). High mortality rates coupled with high fertility rates mean that, in the 21st century, Africa will have a strikingly high share of the world's infant mortality. African ministries of health will need a great deal of institutional support in order to plan successfully for and manage this demographic challenge and health care burden.

Child survival is an essential element of overall development strategies for African countries. Child illness decreases the economic productivity of parents and drains the limited financial resources of families. Malnutrition resulting from multiple and frequent illnesses can compromise the development and learning capacity of children. High rates of infant and child mortality compel couples to maintain high birth rates so as to assure the survival of a few healthy children. Thus, the capacity for future economic development is diminished by malnutrition and preventable childhood illnesses (Berg, 1973).

The Africa Bureau's strategy for Child Survival emphasizes focused interventions (immunizations, diarrheal and acute respiratory disease control, malaria control, child spacing, nutrition counselling and AIDS prevention), strengthening integrated service delivery systems, and increasing the capacities of African governments for health planning and management. Although considerable progress has been made in these areas since the bureau drafted its strategy in 1987, the impact on infant and child mortality has been less than hoped (Ewbank and Gribble, 1993).

A number of factors have been identified as constraining the potential impact of child survival interventions. They include limited access to services, lack of effective targeting of interventions to those most in need, inadequate training of health professionals, poor community acceptance of interventions, logistical, management and infrastructure problems, and lack of coordination between programs resulting in competing agendas and missed opportunities for care and preventive measures (Gadomski et al., 1990). Health care workers and program managers with

related to providing effective and integrated health care in first level health facilities.

Like the WHO/UNICEF algorithm, the strategic framework focuses first on children from 2 months to 5 years of age. Research and analysis priorities for improving the management of neonates will be incorporated into the strategic framework as additional data related to this age group become available.

This strategic framework for the *Integrated Management of the Sick Child* will be part of the Africa Bureau's comprehensive Child Survival Strategy. It will focus on case management of common childhood illnesses and on certain aspects of disease prevention. It will be complementary to other strategic frameworks for research and analysis, particularly to those related to health promotion and to behavior change.

II. PURPOSE OF THE STRATEGIC FRAMEWORK

This strategic framework will define the priorities of the Office of Analysis, Research and Technical Support (ARTS) of the Africa Bureau and the Health and Human Resources Analysis for Africa (HHRAA) Project for supporting research, analysis and information dissemination related to the *Integrated Management of the Sick Child* Initiative.

Both the ARTS Office and the HHRAA Project place emphasis on supporting research, analysis and dissemination activities that lead to improved policies, strategies, program/project design, implementation and evaluation in health, nutrition, education and population. Their purpose is to provide timely and appropriate information to AID offices, African governments, and donors that will assist in making important decisions about setting priorities and allocating resources.

The analytic area related to the *Integrated Management of the Sick Child* initiative is an appropriate area of focus for ARTS and HHRAA. It contributes to the Africa bureau's goal of increasing the effectiveness of resources (in this case, household and community resources, health care facilities and personnel) available for African development. The movement toward integration of health care services for child survival has been seen by African ministries of health, A.I.D. missions and donors as a way of coordinating the parallel but sometimes overlapping and sometimes competing efforts of different disease control programs. It is also seen as an opportunity to streamline distribution, training and supervision activities and to strengthen health services management. There is, therefore, great interest in the field to proceed rapidly with implementation of the WHO/UNICEF *Integrated Management of the Sick Child* algorithm. Many questions must be addressed, however, prior to and during implementation. These

Previous Page Missing

to strengthen training, supervision and logistics and thus facilitate this improved quality of care.

These objectives are consistent with the strategic objectives of the child survival and maternal health objective tree and the nutrition objective tree which are "sustained increase in maternal and child health status" and "improved child and maternal nutrition status" respectively. These objective trees are contained in Annex 1.

IV. INFORMATION NEEDS AND GAPS RELATED TO THE INTEGRATED MANAGEMENT OF THE SICK CHILD INITIATIVE:

The information needs and gaps related to the *Integrated Management of the Sick Child* initiative were initially identified and summarized by Support for Analysis and Research in Africa (SARA) staff and a consultant who: 1) reviewed the WHO/UNICEF document introducing the initiative (WHO/UNICEF, 1993); 2) attended the Washington-based meeting to present and discuss the initiative; 3) reviewed a draft list of clinical and behavioral questions identified by WHO as relevant to the finalization of the sick child algorithm; 4) completed a review of the relevant literature; and 5) organized a meeting of interested parties at A.I.D. A preliminary document outlining general information needs was shared and discussed with colleagues at the Centers for Disease Control and with representative of AID's Africa Bureau and S&T/Health. The document was subsequently revised and reviewed with African nationals and with representatives of international and donor organizations. The next step in the development of this framework will be to solicit input from U.S.A.I.D. Missions and from African public and private sector decision-makers.

The information needs and gaps identified through this process can be grouped into 5 categories:

- Studies related to defining and achieving the cognitive and behavior changes that are needed to improve the recognition and appropriate management of sick children at the household and community levels;

- Clinical or epidemiologic research to improve or validate the algorithm for *Integrated Management of the Sick Child* at health facilities;

- Operational studies to a) identify and analyze the organizational, management and behavioral changes necessary at different levels of the health care system to implement an integrated approach to the management of the sick child and b) document and test approaches to achieving those changes;

Previous Page Missing

- determine which cognitive and behavioral changes are of highest priority,

- design effective strategies for achieving the priority cognitive and behavior changes.

A number of methodologies have been developed to improve the household management of childhood illnesses, particularly diarrhea (Rasmuson et al., 1988; Brown and Bentley 1988; Griffiths et al, 1988) and acute respiratory infections (WHO, 1992). One of the problems created by the implementation of multiple disease-oriented interventions, however, has been the proliferation of multiple and sometimes conflicting recommendations.

The challenge in developing an integrated approach to the sick child will be to extract a small number of key recommendations about the household management of common illnesses and conditions. Clinical and epidemiologic research is needed to determine which recommendations, when adopted by caregivers, lead to significant improvements over current practices in morbidity, mortality or other desired outcomes (for example, the inappropriate use of antibiotics). These key recommendations must include a core set of signs and symptoms that, as recognized by caregivers, indicate the need for referral to a trained biomedical health care worker. Studies to test the sensitivity and specificity of the core signs and symptoms in identifying children in need of referral will be important. A synthesis and comparison of results from different settings will be required to determine to what extent the key recommendations and core signs and symptoms must vary according to differing disease prevalence, cultural practices, or other local factors.

Communications research is needed on effective methods for reaching caregivers (particularly those with children at highest risk) with messages related to the integrated care of sick children. Creative strategies for motivating caregivers, families and communities to adopt and sustain recommended practices must also be tested in different settings.

The costs and benefits of concentrating on changing community practices and standards by simultaneously intervening with a substantial proportion of health care providers (public and private) in a community should be explored. The community approach, although slower, may achieve more sustained improvements in practices than the approach of focusing on individual health workers who may feel powerless to implement change in the existing system. Testing and documentation of this would be extremely useful in designing and planning programs.

Previous Page Missing

The Tropical Disease Research Group and the Programme for the Control of Tropical Diseases of WHO are analyzing published and unpublished data on clinical predictors of malaria in low and high risk malaria areas. Researchers from the Centers for Disease Control are currently conducting a study in Malawi (with funding from HHRAA) to further test the sensitivities and specificities of clinical signs for the diagnoses of malaria and anemia. Unfortunately, preliminary results of a similar study in the Gambia suggest that a history of intermittent fever, sweats or shaking does not improve the diagnostic accuracy (Mulholland, 1993). The Centers for Disease Control is also collaborating with the Aga Khan foundation in Pakistan to evaluate the fever part of the algorithm in a setting with low malaria prevalence.

Further research is needed to test the sensitivity and specificity of different signs and symptoms for other conditions in the algorithm. The Programme for the Control of Diarrhoeal and Acute Respiratory Illnesses (CDR) at WHO is reviewing all published and unpublished data on the clinical predictors of severe anemia in young infants in order to determine the best combination of signs to use on the case management charts. There is some recent evidence that the observation of nailbed or palm crease palor increases the sensitivity of the physical examination (Zucker, 1993). This needs to be tested among first level health care workers. The relationship between hemoglobin level and risk of mortality must also be better defined.

It is also not clear whether first level health care workers can be taught to recognize the signs of vitamin A deficiency (Bitot spots and corneal ulceration/clouding) using color photographs and printed training materials. The sensitivity and specificity of the danger signs for "fever" in identifying children with meningitis have yet to be measured. The criteria for identifying a child with measles (generalized rash, fever, and cough, red eyes or runny nose) have not been tested in a clinical setting. A WHO-sponsored meeting to define recommendations for and research needs concerning measles case management was scheduled to occur in November 1993.

There is a need to develop a fast and simple way to assess and classify nutritional status and to assess the performance of health care workers in identifying cases of moderate or severe malnutrition. Dr. Ray Yip and his colleagues at the Centers for Disease Control are assisting WHO with the immediate development of nutrition assessment guidelines for the algorithm. The Programme for the Control of Diarrhoeal and Acute Respiratory Illnesses (CDR) at WHO is currently testing the effectiveness of the nutritional advice for feeding children during and after illness in Mexico. The same group

addressed are skin and localized infections. Inclusion of these problems should be considered if it will improve the algorithm's appeal and usefulness to health care providers.

Researchers at the Centers for Disease Control recently completed a study to determine the performance of current criteria for hospital admission in identifying children at risk for death. Preliminary results indicate that additional work is needed to improve the sensitivity and specificity of the referral/hospitalization guidelines (Paxton et al., 1993). The same investigators are also conducting a survey and observations in peripheral facilities to determine the percent of children who meet the criteria for referral to the next level of care.

3. Operational studies to a) identify and analyze the organizational, management and behavioral changes necessary at different levels of the health care system to implement an integrated approach to the management of the sick child and b) document and test approaches to achieving those changes

There is a substantial amount of evidence that most health workers in Africa, as well as other parts of the world, do not use health care encounters as opportunities to deliver preventive interventions such as immunizations (WHO, 1988) and nutrition counselling (Burns et al., 1990). Although the degree and extent of the problem is less clear, there is also some evidence that children with more than one health problem are not treated appropriately when they present to health facilities (Lee et al., 1992). Simply training health care workers in the use of an integrated algorithm, however, will not resolve these problems. In many health care centers, different services are available at different times or on different days. Charting and reporting systems may impede integrated case management. Patient flow patterns, scheduling, limited availability of essential drugs, and the physical organization of the facility may be other obstacles to providing comprehensive care. Most importantly, health care workers may view their responsibilities as limited to addressing the chief complaint. Preventive measures and health education are often delegated to "others" (Herman and Prysor-Jones, 1993).

There is a need for documentation and analysis of different approaches (both successful and unsuccessful) to changing the behavior of individual health care workers. Where problems of missed opportunities and missed diagnoses exist, it is important to research the reasons that health workers are not performing well and to understand what would motivate improvement. In order to achieve that behavior change, it is necessary to identify the benefits of current practices and the perceived benefits of and barriers to the new behavior.

illnesses? Do they demonstrate an improvement in their interaction with caregivers? Does use of the algorithm decrease the irrational prescription of drugs? It would also be important to develop indicators to assess whether there have been improvements in logistics and management, and increased efficiency in training and supervision.

The activities of other donors in the area of operations research have been more limited than activities related to validation of the algorithm. The Quality Assurance Project is conducting a study in Kenya that involves a systematic observation of health worker practices using the WHO case management algorithm as a gold standard. The Centers for Disease Control International Health Program Office has submitted a proposal to HHRAA to conduct a study to assess current health worker practices (using the WHO protocol as a gold standard), determine obstacles to and ways of facilitating the implementation of integrated care of the sick child, and to implement the integrated approach followed by an evaluation.

In summary, the topics included under the heading of operational or implementation studies are:

- developing effective methods for achieving and sustaining behavior change among health care providers;

- identifying mechanisms for reorganizing health facilities so that they support an integrated approach to the care of sick children;

- testing strategies to strengthen administrative and managerial capabilities at the district level as well as the health facility level so as to achieve the improvements in supervision and logistics that are necessary to support integrated care;

- and developing indicators and instruments to evaluate progress toward achieving the goals of the integrated approach.

4. <u>Documentation and assessment of different approaches to implementing the integrated care of sick children;</u>

The *Integrated Management of the Sick Child* initiative and algorithm are conceptionally rational and appealing. Implementing them, however, will involve considerable personnel, time and resource costs. The process of implementation will involve a variety of programmatic decisions from the level of the Ministry of Health (for example, where and with whom to place authority and responsibility for integration) to the level of the health

Previous Page Missing

V. PRIORITIZATION OF INFORMATION NEEDS

Several criteria have been used to establish the priorities of the Office of Analysis, Research and Technical Support (ARTS) of the Africa Bureau and of the Health and Human Resources Analysis for Africa (HHRAA) Project in supporting research, analysis and information dissemination related to the *Integrated Management of the Sick Child* initiative. A key consideration has been A.I.D.'s comparative advantage, particularly as it complements the strengths and activities of other donor organizations. A.I.D.'s comparative advantage lies in its working relationships with ministries of health through the field staff of its missions, projects and programs. It also lies in the fact that its priorities as a development agency are not limited to implementing programs, but include the use of programmatic activities to build capacity within developing countries.

A.I.D.'s field presence and relationships, and thus its ability to provide direct and timely assistance to ministries, argues for an emphasis on operational/implementation studies and activities, particularly those outlined in Sections IV.1, IV.3 and IV.4. This priority is especially appropriate as most of the studies and activities currently underway and planned by other donors relate to validation of the case management algorithm. A.I.D. can also draw on the experiences of a variety of its implementation projects (HealthCom, Combatting Childhood Communicable Diseases, PRITECH, REACH, the Health Care Financing Project, the Quality Assurance Project, etc.) to design and conduct priority research and analysis activities in this area.

Within the area of operational/implementation studies, priority will be given to questions or activities with direct relevance to programmatic decisions that will be faced at the early stages of implementing the initiative. These will include the development of assessment tools and policy and planning guidelines for governments proceeding to adopt an integrated approach to the care of sick children. The ARTS Office and the HHRAA Project will also be interested in supporting the documentation and analysis of different approaches to implementation of the *Integrated Care of the Sick Child* initiative on a national level. Priority will also be given to studies or interventions that strengthen health care delivery systems and increase the capacity of African governments for health planning and management. Thus, studies and activities to improve the supply and rational use of essential drugs, to strengthen supervisory skills and procedures, and to achieve and sustain improved clinical and communication skills among health workers will be encouraged.

It is recognized that achieving desired improvements in the care of sick children at the community and household levels is an enormous and extremely important task. The ARTS Office and the HHRAA Project are therefore drafting a separate strategic framework

Previous Page Missing

the multiple and complex factors impacting on behavior and will also advance the field of behavioral intervention research.

Possible collaborators in developing an analytic model and in identifying specific research and analysis priorities include the HealthCom Project, the Quality Assurance Project, and University faculty with interests in this area.

2. **Identifying mechanisms to improve the supply of essential drugs.**

The effectiveness of the clinical algorithm for the *Integrated Care of the Sick Child* is dependent on the availability of a small number of essential drugs. Problems of funding, procurement, distribution and inappropriate use, however, lead to frequent and recurrent "stock-outs" in most developing countries.

Of necessity, individual disease control programs have tried to improve the supply of essential drugs through changes in policy and laws, restructuring of distribution systems, implementation of cost recovery systems, and training of health care providers. There is a need to draw on the experiences of these different programs to develop a systematic approach through which countries can solve the drug supply problem. Possible collaborators in this effort include individuals at Management Sciences for Health, the PATH project, the Health Care Financing project and REACH (BASICS).

3. **Experimenting with different strategies to maximize the effectiveness of supervision.**

Individual disease control programs have found the provision of effective supervision to be an enormous challenge. Although integrated supervision holds promise of reducing the overall costs of supervision, it increases the difficulty of the task. The supervisor of "integrated care" must be able to assess a much broader range of health worker skills, to provide ongoing training related to multiple illnesses, and to solve a wider variety of problems.

Work is needed to identify the most important components of the supervisory visit so that ineffective tasks can be eliminated. Supervisors need high quality training in case management, in interpersonal communication skills, and in problem solving. Simple systems must be developed to track supervisory visits so that problems receive follow-up and all important topics are covered over a specified period of time.

Previous Page Missing

6. **Describing the costs and outcomes of different national approaches to implementing integrated care of sick children.**

The WHO/UNICEF clinical algorithm operationalizes the concept of "integration" at the service delivery level. A great deal of thought and effort, however, needs to be applied to operationalizing "integration" at the level of ministries of health, provinces and districts. For example, there is an assumption that there will continue to be strong technical expertise in individual disease/program areas at the level of ministries of health. It is unclear, however, how individual program personnel will interact to achieve integrated planning, management, training, supervision and support. The decisions that will be faced in the transition to an integrated system have yet to be defined and assessed.

It is, therefore, important to conduct process evaluations of early attempts to implement an integrated approach to care of the sick child. These conceptualization and conduct of these evaluations might be appropriately done in collaboration with university groups interested in health systems.

VII. RECOMMENDATIONS OF RESEARCH, ANALYSIS AND DISSEMINATION ACTIVITIES:

The initiation of research, analysis and dissemination activities related to implementation need not wait for finalization of the case management algorithm. The activities related to adapting health facilities and strengthening health systems to facilitate an integrated approach to case management are not dependent on the existence of a finalized algorithm and should precede its introduction. Further, given the issues of emerging drug resistance and changing epidemiology of disease, the algorithm will likely be in a continuous state of evolution.

A large number of individuals and organizations will be working on different aspects of the *Integrated Care of the Sick Child Initiative*. Many of the experiences and much of the information will never appear in the published literature. The establishment of a clearinghouse for collecting, summarizing, translating and distributing protocols, studies, analyses, and experiences, would help to make the information readily available to decision makers.

VIII. MONITORING AND EVALUATION FRAMEWORK:

It will be critical to evaluate the research, analysis and dissemination activities in themselves. Different countries will be at different phases in implementing the *Integrated Care of the Sick Child* initiative. It is important that research efforts are not duplicated and that unproductive study designs are not repeated.

Previous Page Missing

REFERENCES

Berg A
1973 *The Nutrition Factor: Its Role in National Development* Washington D.C.: Brookings Institution.

Brown KH and Bentley M
1988 *Improved Nutritional Therapy of Diarrhea: A Guide for Planners and Decision Makers Involved in CDD Programs.* Arlington, VA: PRITECH (Technologies for Primary Health Care)

Burns J, Franco L, Newman J
1990 *Oral Rehydration Therapy in Diarrheal Disease Control: A Review of Experience in Eight Countries.* Bethesda, MD: PRICOR (Primary Health Care Operations Research).

Chen LC, Rahman M, D'Souza S, Chakraborty J, Sardar AM, and Yunus
1983 Mortality impact of an MCH-FP program in Matlab, Bangladesh. *Studies in Family Planning* 14:199-209.

Chin J
1990 Current and future dimensions of the HIV/AIDS pandemic in women and children. *Lancet* 336:221-224.

Ewbank D, and Gribble J, editors
1993 *Effects of Health Programs on Child Mortality in Sub-Saharan Africa.* Working Group on the Effects of Child Survival and General Health Programs on Mortality, Panel on Population Dynamics of Sub-Saharan Africa, Committee on Population, Commission on Behavioral and Social Sciences and Education, National Research Council. Washington D.C.: National Academy Press.

Gadomski A, Black R, and Mosley WH
1990 Constraints to the potential impact of child survival in developing countries. *Health Policy and Planning* 5(3):235-245.

Griffiths M, Piwoz E, Favin M and Del Rosso J
1988 *Improving Young Child Feeding During Diarrhea: A Guide for Investigators and Program Managers.* Arlington, VA: PRITECH (Technologies for Primary Health Care)

Herman E and Prysor-Jones S
1993 Factors influencing the utilization of health education materials by health care workers. A Pritech Occasional Operations Paper. The Technologies for Primary Care (PRITECH) Project: Arlington, VA.

Stanton B, Black R, Engle P, and Pelto G
1992 Theory-driven behavioral intervention research for the control of diarrheal disease. *Social Science and Medicine* 35:1405-1420.

Vaughan JP and Smith D
1986 The district and support for primary health care: The management experience from large-scale projects. *Public Administration and Development* 6:255-266.

Wally J, Tefera B, McDonald MA
1991 Integrating health services: the experience of NGOs in Ethiopia. *Health Policy and Planning* 6(4):327-335.

Waldman R, Cutts F, Steketee R and Davis J
1992 Child survival programs in Africa: Suggestions for an integrated approach. Unpublished monograph, Centers for Disease Control, International Health Program Office.

World Health Organization

1992 Focused ethnographic study of acute respiratory infections. WHO/ARI Fieldtest Version.

1988 Protocol for the assessment of missed opportunities for immunization. WHO/EPI/GEN/88.6.

1988 Impact of oral rehydration therapy on hospital admissions and case-fatality rates for diarrheal disease: Results from 11 countries. *Weekly Epidemiological Record* 8:49-52.

World Health Organization and UNICEF
1993 Integrated management of the sick child: A new WHO/UNICEF effort to improve child survival.

Zucker, J
1993 Initial evaluations of a "Sick Child Algorithm": Kenya. Presented at the Annual Meeting of the American Society of Tropical Medicine and Hygiene. Atlanta, Georgia.

AFR/ARTS Publication Series June 16, 1994

Health Sector Financing and Sustainability in Sub-Saharan Africa

A Strategic Framework for Setting Priorities

Health Sector Financing and Sustainability in Sub-Saharan Africa

A Strategic Framework for Setting Priorities

Prepared for the USAID Health and Human Resources Analysis for Africa (HHRAA) Project
by the Support for Analysis and Research in Africa (SARA) Project

Acknowledgements

This document has been prepared by the Support for Analysis and Research in Africa (SARA) Project for the Africa Bureau of USAID -- specifically the Health and Human Resources Analysis for Africa (HHRAA) Project of the Office of Analysis, Research, and Technical Support (ARTS). The authors of the report are Joe Kutzin, currently working with the Strengthening Health Services Division of the World Health Organization, and Hugh Waters of the SARA Project. Mr. Kutzin and Mr. Waters prepared the document during the time period October, 1993 to June, 1994, working under the supervision of Dr. Abraham Bekele, Senior Economist in the USAID Africa Bureau.

A wide range of individuals have contributed to the development of the strategic framework during this period of time. A list of those people contacted by the authors is included in the document as Annex I. The strategic framework has also been very much influenced by two consultative group meetings, intended to comment on earlier versions of the document and to further develop the research, analysis and dissemination agenda of the USAID Africa Bureau in this subject area. The first of these meetings, held in Washington, DC in January, 1994, was organized by the HHRAA and SARA Projects. The second was held in Dakar, Senegal in February, 1994 as part of a larger workshop on Health Financing and Sustainability, organized by the USAID Regional Economic Development Services Office for West and Central Africa (REDSO/WCA) and the Health Financing and Sustainability (HFS) Project, managed by Abt Associates. Annex II provides a list of the participants at these two meetings.

Contents

Foreword i

Executive Summary iii

Acronyms vi

I. Introduction 1
- A. The Strategic Framework Process 1
- B. Background to the Major Issues 2

II. Review of the Major Issues in Health Sector Financing and Sustainability 5
- A. Allocative and Technical Efficiency 5
  - 1. Resource Allocation 5
  - 2. Cost Containment -- Reducing Waste and Technical Inefficiency 8
  - 3. AIDS -- A Threat to Sustainability 11
- B. Resource Mobilization 12
  - 1. User Fees 12
  - 2. Risk Sharing 21
- C. Equity -- Protecting the Poor 27
- D. Institutional Issues -- The Capacity for Health Policy Reform 29
  - 1. Replication of Policy Successes 29
  - 2. Decentralization 30
  - 3. Human Resource Needs 31
  - 4. The Role of Donors 32

III. Lessons Learned -- Priorities for Dissemination 35

IV. Conclusions: Priority Topics for Research and Analysis 39

Annex I. Persons Contacted During Preparation of the Strategic Framework 43

Annex II. Participants at Consultative Group Meetings 45

Annex III. Recent and On-Going Research and Analysis Activities 47

Annex IV. Strengths of USAID Related to Research and Analysis 51

Annex V. Criteria for Assessing Research and Analysis Topics for HHRAA 53

Annex VI. Overall Results of Consultative Group Voting 55

Bibliography 57

Foreword

Health financing, and sustainability in the health sector, are key factors influencing overall sustainable development in sub-Saharan African countries. The health status of any country's population is directly correlated with the productivity of its work force. Treatable, but untreated, diseases not only sap the productivity of workers but also too often rob countries of their most valuable resources -- their children. High child mortality and morbidity rates unnecessarily lessen the contributions of future generations to their countries' development. These problems are particularly acute in sub-Saharan Africa, which has the highest rates of child mortality, and the lowest life expectancy, of any region in the world.

This strategic framework document presents cost-effective approaches for addressing health problems in sub-Saharan Africa. Even with the current limited resources available to Ministries of Health, the majority of Africa's serious public health problems can be addressed through a package of essential clinical and educational services, offered at the level of district hospital and below. But it is far from clear how governments can muster the political will necessary to reallocate scarce financial resources away from large hospitals in urban areas, and reduce waste and inefficiencies which compromise existing health delivery systems. The strategic framework examines these questions in detail, provides lessons learned concerning difficult problems, and concludes with priority topics for further research and analysis. In reaching these conclusions, the strategic framework has benefitted from an in-depth review of existing literature and documentation as well as the advice of expert consultative group meetings both in the U.S. and in Africa.

The findings of the document are very much in accord with the USAID's underlying philosophy of promoting sustainable development. The organization and equitable distribution of health services are often closely intertwined with the services of other sectors, including education and water and sanitation, for which many countries are also experimenting with decentralization and cost recovery programs. Sound health financing and delivery systems also provide the structural basis for effective family planning programs. Only if the long-term goals of African health systems are addressed -- in terms of structural organization and development of financial and human resources -- can these systems become truly sustainable and cope effectively with the health problems of their people.

Executive Summary

This strategic framework document is the result of a detailed investigation of issues related to health financing and sustainability of the health sector in sub-Saharan Africa. Throughout the process of this investigation, the ultimate goal has been to define priorities for research, analysis, and dissemination activities in the subject area. An extensive review of existing literature and documentation forms the basis of the strategic framework, complemented by a series of individual interviews and consultative group meetings held in Washington, DC and Dakar, Senegal.

As intended, the strategic framework raises questions and points out areas where research and experimentation is most needed. The document focuses on four broad policy areas: (1) Allocative and Technical Efficiency; (2) Resource Mobilization; (3) Equity; and (4) Institutional Issues. The document reviews in detail each of these areas ("Review of the Major Issues"), and presents a summary of the major points ("Lessons Learned"). The strategic framework concludes with a statement of priority topics for future research and analysis activities. As a result of this process, the Africa Bureau of USAID is financing research projects which address several of these topics. However, funding constraints limit USAID to a small portion of the proposed research and analysis activity. The list of topics, developed in collaboration with participation from other donor organizations and African Ministries of Health, is also of interest to African governments and a wide range of donor institutions supporting the health sector in sub-Saharan Africa.

Many sub-Saharan African countries are currently putting into place systems of cost recovery for health services. As this document demonstrates, some lessons have been learned concerning different systems of resource mobilization, and their effects on revenue, efficiency, and equity, and more information is necessary to help guide decision makers in the implementation of cost recovery systems. However, issues related to the financing of health services are much better understood than issues which directly concern sustainability -- even though sustainability in the health sector is a predominant policy objective, and health financing a means to achieve that objective. Given existing levels of waste and inefficiency, the net gains to be had by reducing costs are likely to be greater than the gains from improving recovery of costs. The available evidence on the revenue and equity effects of cost recovery mechanisms and on the magnitude of technical and allocative inefficiencies in the health sector of African countries lend support to this argument.

The top priority for health sector decision makers in Africa is to do a better job using the resources they already have rather than emphasizing efforts to generate additional revenues through cost recovery or larger budget allocations from the central treasury. Emphasis should therefore be placed on developing the capacity to improve the efficiency of resource management. The paradox is that very little is known about measures to improve the capacity to manage resources more efficiently.

Previous Page Blank

The major lessons learned in the area of health sector financing and sustainability, and priority topics for future research and analysis, are summarized below:

Lessons learned:

- Nearly all cost-effective health interventions are public health measures or clinical interventions that can be delivered at or below the level of the district hospital.

- Identifying the sources of waste and technical inefficiency and reducing their effects can extend the coverage and quality of health services without the potentially negative equity consequences of cost recovery measures.

- Revenues raised from user fees should be retained within the health sector and used to improve or maintain the quality of care.

- User fees for government health services will not provide a substantial increment to national health resources.

- Health financing mechanisms must account for the seasonality of individual incomes.

- Adjustment of fee levels or insurance premium rates over time to keep pace with inflation should, to the extent possible, be institutionalized as an administrative action.

- Expanding insurance coverage for formal sector workers should be supported only if sufficient political will can be mobilized to generate profits from the coverage of the well-off-insured and use them to cross-subsidize services for the uninsured.

- Fees should be consistent with ability to pay and not prevent access to essential services.

- Interventions to improve institutional sustainability require a long-term commitment over many years for successes to be achieved.

- The presence of vertical programs and administrative structures within Ministries of Health undermines the development of sustainable, integrated health services.

Research and analysis topics [topics which have been chosen for financing by the USAID Africa Bureau are marked with an asterisk (*)]:

- **Hospital autonomy.*** Under what conditions would granting managerial and financial autonomy to hospitals result in improved efficiency, quality of care and equitable delivery of services? What is the experience to date of developing countries in granting autonomy to hospitals?

- **Resource mobilization.*** What are the revenue, equity and efficiency effects of various resource mobilization schemes?

- **Equity in the financing and provision of health care.*** In the context of cost recovery for health care, how can poor segments of the population be identified, and how can health systems ensure that the poor have access to reference facilities?

- **Efficiency, equity and quality implications of different types of decentralization.*** What are the consequences of, and most appropriate strategies for, decentralization within the health sector? What management skills need to be in place at the district level for decentralization to work?

- **Consumer preferences for different sources of health care.** Where does a given population seek health care, and what are the factors influencing consumer preferences for different sources of care?

- **Reducing waste and technical inefficiencies in health services.** What cost-reducing or productivity-enhancing measures are available to correct the problems of waste and inefficiency, especially in drug procurement and distribution systems and in large tertiary hospitals?

- **Incentive measures for health workers and managers.** What are appropriate incentive measures which reward rather than punish efficient resource management and cost recovery in centrally budgeted health systems?

- **The costs of AIDS, and strategies for care.** What are the economic and financial consequences of AIDS, and what strategies will enable health systems to cope with the forecasted demands of AIDS patients?

Acronyms

AIDS	Acquired Immune Deficiency Syndrome
ARTS	Office of Analysis, Research, and Technical Support (USAID)
BI	Bamako Initiative
CAM	Carte d'Assurance Maladie (Burundi)
CCCD-ACSI	Combatting Communicable Childhood Diseases - Africa Child Survival Initiative
CDD	Control of Diarrheal Diseases
CHAM	Christian Health Association of Malawi
DALY	Disability-Adjusted Life-Year
DDM	Data for Decision Making Project
DPT	Diphtheria, Pertussis, and Tetanus
EPI	Expanded Program for Immunization
GNP	Gross National Product
HHRAA	Health and Human Resources Analysis for Africa Project
HIV	Human Immune-deficiency Virus
KAP	Knowledge, Attitudes, Practices (survey)
LSMS	Living Standards Measurement Surveys
MCH	Maternal and Child Health
MOH	Ministry of Health
MFP	Mutuelle de la Fonction Publique (Burundi)
NGOs	Non-Governmental Organizations
ORS	Oral Rehydration Solution
ORT	Oral Rehydration Therapy
PRITECH	Technologies for Primary Health Care Project
PSI	Population Services International
REDSO/WCA	USAID Regional Economic Development Services Office, West and Central Africa
SDHS	Strengthening District Health Systems
SSS	Sugar Salt Solution
STD	Sexually Transmitted Disease
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
WHO	World Health Organization

I. Introduction

The purposes of this strategic framework document are (1) to present a comprehensive overview of current issues affecting health sector financing and sustainability, and (2) to define the priorities for research and analysis activities in this subject area for the Africa Bureau of USAID -- specifically for the Office of Analysis, Research, and Technical Support (ARTS) and the Health and Human Resources Analysis for Africa (HHRAA) Project. The ARTS Office and the HHRAA Project support research, analysis and dissemination activities which will provide timely and appropriate information to USAID offices, African governments, and donors for important decisions concerning setting priorities and allocating resources. The paper highlights key analytic and policy issues in health care financing and sustainability that should be disseminated to health sector decision makers in Africa, identifies important gaps in information in these areas, and presents recommendations for further research and analysis.

A. The Strategic Framework Process

As one of a series of strategic frameworks covering key analytic areas for the HHRAA project, the development of this strategic framework has followed a defined path leading to the determination of research, analysis, and dissemination activities. The first step in this process was a review of recent literature and documentation from projects and studies, complemented by discussions with representatives of donor agencies, NGOs, and researchers working in the field of health finance and sustainability. An early draft of the document was presented for review at consultative group meetings in Washington, DC and Dakar, Senegal. At this meetings, participants critiqued the document, suggested additional priority topics for research, analysis, and dissemination, and then voted on these topics. A summary of the voting results, combining the two meetings, is attached to this document as Annex VI. The results of the consultative group meetings, and comments from additional experts unable to attend the meetings, have been incorporated into this final version of the strategic framework.

Throughout the strategic framework process, four essential criteria have been used to determine priority research and analysis topics (a more detailed list of criteria is attached as Annex V):

- The importance of the problem and importance to African policy makers.
- The feasibility of intervention in the subject area.
- The level of existing knowledge in the subject area and the importance of the "information gap."
- USAID's strengths in the subject area.

Additionally, HHRAA activities should complement, rather than duplicate, the research and analysis of other donors. Annex III, "Recent and On-Going Research and Analysis Activities," provides a summary of the current major activities undertaken by donors in the field of Health Financing and Sustainability.

The priority topics for research, analysis and dissemination are described in Section IV, "Conclusions." Topics which have been chosen for HHRAA funding are indicated in this section. The HHRAA research and analysis activities determined by this strategic framework are scheduled to begin in October, 1994 and will be completed in 1996. Wherever possible, African researchers, decision makers, and institutions will design and implement these activities.

B. Background to the Major Issues

Health is an important development issue. Good health, in and of itself, makes a direct contribution to individual utility and welfare. Good health leads to a reduction in productivity losses due to illnesses; school enrollment and educability of children are also improved, providing long term economic benefits, and resources which would otherwise be used to treat illnesses are freed to be used for other purposes.[1] The economic benefits of improving health status are particularly strong in the case of women's health. Women are the principal providers of health care services for their family members, and women's education (which is enhanced by a woman's good health status) has been shown to have substantial economic benefits (Summers 1992).

Because health is a significant development issue, the factors that affect health status are also important. These factors include income, nutrition, education (of both the individual and his or her mother), and the quality and availability of health services. This latter factor depends on the human and financial resources that buttress a nation's health services. Therefore, health care financing and the sustainability of health systems are significant development issues because they are major determinants of the performance of a country's health system, which in turn has a direct impact on a population's health status. Financing is necessary to maintain and expand the provision of important health services, and for a given level of financing to be adequate, the organization of services must be affordable. Moreover, human resources must be developed so that the services can be adequately managed and delivered.

Unlike the market for many other goods and services, most authors suggest that governments should intervene in the market for health care services, generally because of the presence of "market failures" -- reasons why the actions of producers and consumers alone will not yield a socially optimal or economically efficient result. Market failures are usually divided into the following categories: public goods, externalities, economies of scale, information deficiencies, and incomplete markets.

While it is not the purpose of this paper to examine market failures in detail, the conclusions of related analyses are that government has an important role to play in supporting the provision and consumption of services which are more "public" in nature (sanitation, for example) or have important positive externalities (such as the prevention and treatment of

---

[1] For a more detailed description of the economic benefits of good health, see World Bank 1993a, p.17-21.

communicable diseases). Additionally, governments need to take measures to address the relative lack of information that the average consumer has (compared to providers) regarding his or her health and the options available to improve it. There are several forms which government intervention can take, including direct provision of services, financing of services, regulation of private service provision, or a combination of these.[2]

Poverty alleviation is another rationale for government involvement. One means to reduce poverty is to increase the human capital of the poor by increasing their access to basic health care, education, and nutrition. This is likely to require targeting on the basis of income, and possibly complete subsidization of a package of clinical services which are deemed to be "essential" on the basis of a country's disease burden and the cost-effectiveness of interventions. In the 1993 *World Development Report*, the World Bank uses an estimate of the average cost per "disability-adjusted life-year" (DALY) as a cost-effectiveness measure.[3] Since nearly all cost-effective interventions can be delivered at the level of the district hospital or below, this implies that public funding should be redirected to programs at this level (Shaw and Elmendorf 1993).

The rationales for government involvement in the market for health services suggest a need for public policy with regard to the provision, financing, and regulation of health services. Health financing measures affect the level of resources available and the efficiency and equity of health service production and consumption. Increasing revenues, improving efficiency, and enhancing equity are appropriate objectives of health financing policy.[4] These objectives are broad measures against which the performance of health financing measures can be assessed.

Health sector finance consists of all sources of revenue and in-kind contributions that support public and private health care services. These sources include central government, local governments, public and private health insurance, and individual payments at the point of service (i.e., payments made by households). This paper emphasizes the financing of recurrent health inputs because the capacity to meet recurrent resource needs is synonymous with the financial sustainability of the service. The implications of capital expenditures are also addressed in this strategic framework, because the development strategy chosen for the health sector and the resulting pattern of investments directly impact sustainability.

The term "sustainable" has been applied to many aspects of economic development. King (1990, p.199) reports a definition of this word as the following: "capable of being maintained at a certain rate or level." The World Bank (1992a, p.34) defined sustainable development as simply "development that lasts." Although both of these definitions are relevant to the

---

2 See de Ferranti 1985; Jimenez 1987; Akin, Birdsall, and de Ferranti 1987; Griffin 1989; Barnum and Kutzin 1993; World Bank 1993a.

3 See also Jamison and others 1993.

4 Barnum and Kutzin 1993, p.144. See also Jimenez 1987.

health sector, this terminology has been most commonly used in reference to the environment and the capacity of an ecosystem to support a given development strategy.

In analyses of the health sector in developing countries, sustainability has usually referred to the capacity of a country to maintain activities begun with donor support after this external assistance ceases.[5] This capacity relates to financial and institutional characteristics of the recipient country. In other words, the issue of health project sustainability has raised the following questions: can the country finance the incremental recurrent costs arising from a new investment project, and does the country have the human resources needed to manage its new or reformed programs?

The definition of sustainability used in this strategic framework extends these questions from individual projects to the entire health sector and is consistent with that advanced by the Save the Children Fund: "the capacity of the health system to function effectively over time with a minimum of external resources."[6] Financially, sustainability depends on both resource availability and the costs implied by specific sectoral development strategies. Institutional sustainability depends on the capacity of a health system to develop and implement policies and programs and is thus related to the availability of a sufficient quantity of skilled and experienced personnel.

Linkages exist between health finance and sector sustainability because adequate finance is necessary to sustain the sector. Moreover, measures to finance health services feed back to affect sustainability because the characteristics of a financing system generate behavioral incentives affecting the allocation of sectoral resources. In other words, health financing measures affect not only the level of resources available in the sector but also the efficiency and equity of resource allocation. Although the problem of finding sufficient resources to fund health services has often been viewed as a problem of cost recovery, financing alone is not a sufficient condition for achieving sectoral sustainability.

Financial sustainability also relates to the cost of health sector programs. More emphasis should be placed on measures to reduce the costs of services (for example, by reducing waste in the procurement and distribution of essential drugs) as a step toward improving the affordability of health services.[7] More broadly, the definition of a cost recovery or other health financing strategy does not address the institutional capacity of the health system to implement such policies successfully. Thus, the issues of health finance and health sector sustainability need to be addressed both individually and together.

---

5 For example, see Bossert 1990.

6 The Save the Children Fund (1993a, p.1) used this definition for their research into health sector sustainability in five low income countries.

7 Brunet-Jailly 1991.

II. Review of the Major Issues in Health Sector Financing and Sustainability

A. Allocative and Technical Efficiency

Much of the literature and discussion concerning health financing and sustainability in sub-Saharan Africa focuses on the need to mobilize additional financial resources for health through cost recovery and other systems. African Ministries of Health are indeed faced with critical funding shortages; however, there is significant evidence that African health systems could allocate and use existing resources in a much more efficient manner. More efficient allocation of existing financial and human resources, and more technically efficient use of those resources, would by no means eliminate the need for additional resources. But greater efficiency could nonetheless successfully address many of the fundamental health problems in sub-Saharan Africa.

1. Resource Allocation

Health authorities in all countries must address certain basic issues related to the definition, provision, organization and funding of health services to be provided, and the role of government in the delivery, financing, and organization of services. Given sufficient information on the epidemiological characteristics (i.e., the causes of the burden of disease) of a country, the costs and effects of alternative health care interventions, and a knowledge of the total resource envelope for health services (i.e., the budget constraint), a cost-effective network of providers of care can be defined.

Such an approach is described in the World Bank's *World Development Report*. Based on an assessment of the burden of disease and the cost-effectiveness of interventions, this document recommends that priorities for health sector investments by governments are: (1) public health measures, such as immunizations, AIDS prevention, and information and services for family planning and nutrition; and (2) essential clinical (i.e., personal) health services, including interventions focused on safe motherhood, tuberculosis and STD treatment, treatment for the major causes of childhood illness, and treatment for minor infection and trauma.

These essential clinical services do not require highly sophisticated technical inputs -- they can all be delivered at the level of the district hospital or below. The *World Development Report* estimates an annual per capita cost for this clinical package of eight dollars, plus another four dollars for the public health interventions. This is consistent with the estimate from *Better Health in Africa* of thirteen dollars per capita for a package of health services, provided by a two-tiered network of health centers and a referral hospital, public health interventions, and support to district health management (Shaw and Elmendorf 1993, p.127).

International comparisons indicate that many African countries lag behind other developing countries in terms of their expenditures on health, both as a share of GNP and on a per

capita basis. For African countries with low levels of expenditures on health (see Table 1), the basic package of clinical, public health, and management services ($13 per capita) would represent 5.8 percent of average per capita GNP, whereas average spending from all sources (government, private, and donor) is currently 4.6 percent of per capita GNP. In these poor countries (which represent more than half of sub-Saharan Africa's population), an increase in the absolute level of health spending is needed to provide a basic minimum package of services to the population (Shaw and Elmendorf 1993, p.130-31).

Moreover, the evidence from all African countries is that actual allocations are far from the cost-effective pattern on which the $13 per capita estimate is based. The challenge for policy makers is to change historical patterns of budget allocation. Improvements in resource allocation would mean that far greater health benefits could be derived from the existing levels of resources used in the health sector of African countries. In the poorest countries, however, reallocating existing resources will not be sufficient to enable the poorest, most remote groups to gain access to essential public health and clinical services. For these countries, additional resources are needed to achieve this coverage.

Table 1. Groupings of Countries by Relative Level of Expenditures on Health, 1985-90

Country Characteristics	Country Grouping		
	High	Medium	Low
Population (Millions)	21.4	102.3	210.7
Average GNP/Capita	$818	$395	$225
Expenditures Per Capita			
- Government	$20-30	$3-7	$1-2
- Private	$26-33	$7-11	$7-9
- Donor	$4-12	$2-7	$1-2
Total (crude range)	$50-75	$12-25	$9-13

High Countries: Botswana, Lesotho, Mauritius, Swaziland, Zimbabwe
Medium Countries: Burundi, Cameroon, Gambia, Ghana, Kenya, Liberia, Malawi, Mali, Niger, Rwanda, Senegal, Togo, Zambia
Low Countries: Burkina Faso, Ethiopia, Nigeria, Somalia, Sierra Leone, Uganda, Zaire

Note: Expenditure range for each group of countries excludes highest and lowest figures, in the interests of establishing a range closer to the median.

Source: Reprinted from Shaw and Elmendorf 1993, p.130.

Even if governments were able to increase their financial commitments to the health sector, the amounts available would probably be inadequate to provide basic care for a large part of the population. Clearly, the private sector has an important role to play in funding essential health services. The challenge is to create a system where the limited resources available from all sources are used in the most cost-effective manner. Governments should focus on the financing and provision of public health measures, promote private providers, and develop private sources of financing (such as community financing through user fees or prepayment) to help support delivery of clinical services.

The two-tiered organization of health centers and district hospital recommended in *Better Health in Africa* reflects an assessment of the types of providers that can provide the greatest population coverage at low levels of resource availability. If resources are well allocated, this would also be an organization that minimizes costs to users. The top priority for resource allocation is to improve and maintain the quality of care in facilities designed to be the point of first contact between the population and the health system -- generally the health center. The pricing of services should also encourage people to use health centers first. Resource allocation and financing policies should be coordinated to maintain quality at the point of first contact and encourage appropriate use of the referral system.

Most African governments have endorsed the principles of primary health care laid out in the Alma Ata declaration. Often, however, patterns of investment and recurrent resource allocation are not consistent with official statements of health sector strategy. Detailed data are not available for a conclusive determination of the cost-effectiveness of health sector resource allocation in African countries. However, the evidence available on access to care and the allocation of government health budgets to facilities strongly suggests that there is considerable scope for improving the efficiency of current allocations. Approximately half of Africa's population does not have regular access to modern medical facilities, and in different countries from 30 to 80 percent of government health expenditures are absorbed by urban-based hospital care (Shaw and Elmendorf 1993, p.2).[8]

The need for increased hospital autonomy. This pattern of spending undermines the desired model of use of the referral system and conflicts with a more efficient approach wherein all or nearly all cost-effective interventions can be delivered at the level of the district hospital or below. A heavy concentration of government resources in large tertiary hospitals is not only inefficient but is also inequitable, because most of the consumers of the care provided in these facilities will be from urban areas, where incomes tend to be higher.

One option that has been suggested for reducing the drain that large tertiary hospitals place on recurrent health budgets is to grant them financial and managerial autonomy.[9] By generating a substantial share of their revenues through user fees or insurance reimbursements, the hospitals would be able to reduce their dependence on central treasury

---

[8] Examples from Zambia, Kenya, and Zimbabwe illustrate the high percentages of government recurrent health expenditures devoted to large tertiary facilities (Barnum and Kutzin 1993, p.26).

[9] See, for example, Shaw and Elmendorf 1993, p.114.

financing. However, evidence from several countries where one or more large hospitals have been made parastatals or been granted some measure of autonomy (Burundi, Kenya, Nigeria, and Zimbabwe, for example) indicates that these policies have not resulted in a decrease in the amount or share of government subventions to these hospitals. Research is needed to develop ways to reduce government subventions to large hospitals by enabling them to function effectively with financial and managerial autonomy.

To achieve a more effective allocation of resources, policy makers should address the demand for resources as well as supply. Although the majority of Africa's people are disadvantaged by current patterns of expenditure, there is little public lobbying for more emphasis on primary health care. Improving information to the public concerning the allocation of resources could lead to more support from consumers (or potential consumers) for reallocation, and may ease the political difficulties involved in moving resources away from politically powerful institutions such as large urban hospitals.[10]

Consumer preferences and political factors. Unfortunately, not enough is known concerning consumer preferences for care and what type of information will encourage people to seek modern health services. Data available from the Living Standards Measurement Surveys (LSMS) suggest that 50-60 percent of people who become ill in Africa do not visit health facilities but rather self-treat. The considerable activity of private traditional practitioners clearly meets some level of consumer demand. More basic information is needed concerning private household health expenditures and how these affect patterns of total national health resource allocation.

Efforts to reallocate resources available for health care are often compromised by political factors and historical patterns of resource allocation. Changing these patterns will likely take a considerable amount of time; donors concerned with improving allocative efficiency should recognize the complexity of resource allocation decisions and adopt realistic time frames for achieving reallocation. This is particularly true in poor countries with as little as $1 per capita government health expenditures -- these countries have less to reallocate.

2. Cost Containment -- Reducing Waste and Technical Inefficiency

Funding shortages are usually considered to be the principal issue of health financing and sustainability in Africa. The idea that costs could be excessive in a low resource environment has received far less attention. Nevertheless, the available evidence suggests that far greater benefits could be attained with the current level of resource inputs to the sector if waste and inefficiency are reduced. Unnecessarily high costs of providing services directly affect financial sustainability. A concerted effort to reduce costs by minimizing waste can yield relatively rapid results.

---

[10] Even with good information, consumers will not forsake all cost-ineffective interventions. However, governments should not subsidize the provision of cost-ineffective health services.

Even if nothing is done to change patterns of resource allocation in African health sectors, considerable gains could be achieved if current levels of waste and other forms of technical inefficiency were reduced. Or, if resources are allocated toward a more cost-effective organization of services, improvements in technical efficiency can magnify the benefits of this improved pattern of allocation. The magnitude of the benefits to be gained is great, as evidenced by findings regarding pharmaceuticals. Waste and inefficiencies are so great in the procurement, storage, prescription, and use of drugs that only 12 percent of the total amount spent by governments on drugs actually reaches patients in the form of good quality drugs. Reducing waste and inefficiency has the potential to make an important contribution to the sustainability of health services in Africa (Shaw and Elmendorf 1993, p.58).

Some authors have argued that reducing waste and technical inefficiency should receive higher priority than implementing cost recovery mechanisms. The former does not entail the negative equity consequences associated with the latter, and can save as much in the way of revenues as can be generated through fees (Gilson 1988, Brunet-Jailly 1991). Indeed, an analysis of the drug system in Mali led to the conclusion that no additional resources are needed to make drugs available in that country's health units and dispensaries (Brunet-Jailly 1991, p.31).

Moreover, for community financing schemes such as the Bamako Initiative (BI), keeping the costs of obtaining drugs low is essential to maintain user charges at an affordable level.. In other words, reducing waste and inefficiency is a critical precondition for the sustainability of the health financing mechanism (in this case, user fees for drugs) as well as for the delivery system. Cost recovery is a more feasible option when costs are kept under control because this enables prices to be kept low as well (McPake, Hanson, and Mills 1992, p.xii).

Waste and inefficiency can be reduced. A study in one university hospital in Sudan found that there was excessive waste in food purchasing and provision at the hospital. Based on this study, a new food system was introduced, and food costs at the hospital were reduced by 65 percent within four months of the change. This represented a savings of fully 21 percent of the region's hospital non-staff recurrent budget (Bekele and Lewis 1986, p.120-21).

Financial gains from reducing various forms of waste can be substantial. A study from Malawi suggested that 44 percent of non-staff recurrent expenditures in the national hospital could be saved by simple management improvements.[11] Large urban tertiary facilities are major consumers of health resources and are no doubt characterized by high levels of waste and inefficiency. There are potentially large financial returns to measures that would correct these problems, allowing for a degree of reallocation of resources away from these facilities toward those affecting a larger proportion of the population.

Contracting out. Contracting of specified services to the private sector is regarded as a means to improve efficiency and reduce public sector expenditures. The motivating assumption is that private suppliers would be more technically efficient in providing the

---

[11] Creese 1991, p.312.

specified service. Gains in efficiency could be expected from competition for contracts among potential suppliers and from the involvement of private sector firms with more advanced and flexible management structures than exist in the public sector. To ensure these gains, public sector managers of contracts would need to have the skills to establish and supervise contracts to ensure that cost containment goals are achieved.

However, little is known about the extent or success of contracting reforms in Africa. In other countries limited success has been achieved in contracting out some non-clinical services, such as cleaning and laundry, in large hospitals. The potential for success, in terms of quality improvement and cost containment, may be less in African countries without a well-developed market of competing private suppliers. It is important to understand the preconditions necessary for contracting out to yield efficiency gains and quality improvement, in both clinical and non-clinical settings.

NGOs and technical efficiency. In most African countries, an important portion of total health services are provided by non-governmental entities -- in particular, not-for-profit (NFP) organizations which often have religious affiliations. The World Bank estimates that NGOs provide a third or more of all clinical care in Cameroon, Ghana, Malawi, Uganda and Zambia. There is a need to address the relative efficiency of public and private providers, and the circumstances under which the private sector may be more efficient than the public. Similarly, what are the implications of alternative organizations of health services (such as church-based groups) for technical efficiency?

There may be scope to establish explicit contracts between Ministries of Health and the NGO providers that they subsidize, if the NGOs would accept a greater degree of government influence over their policies (Gilson and Mills 1993). An example of successful collaboration comes from Malawi, where the government pays the salaries of staff working at health facilities run by the Christian Health Association of Malawi (CHAM), while CHAM provides the remaining resources. Research is needed on the potential of measures to improve coordination between government and NGO providers.

Incentives and managerial autonomy. More information should be disseminated regarding the ways in which waste and inefficiencies can be reduced. Are savings just a matter of better management practices, or can incentives be put in place to encourage waste-reducing behavior? The question of incentives is important because in centrally-budgeted health systems, the overriding financial incentive is to guarantee next year's budget by spending this year's budget as rapidly as possible. If part of a budget is unspent, this is generally not rewarded but rather punished by a reduction in allocation. Developing incentives to reward efficient management is a challenge that needs to be addressed through research and the dissemination of successful examples.

In addition to reducing waste and cutting costs, technical efficiency can be improved by improving quality of care and making services more responsive to consumer needs. Changing the hours of a health center, for example, to adapt to the needs of the surrounding population might increase effective access and coverage rates. In order to implement

measures to improve technical efficiency in decentralized health systems, district level managers should be conscious of costs and have enough autonomy to control costs and institute changes which can lead to greater technical efficiency.

3. AIDS -- A Threat to Sustainability

Cost containment is urgently needed because of, among other reasons, the implications AIDS for the sustainability of African health systems. AIDS has already erased some of the health gains achieved by African countries and threatens to overwhelm the health systems of many others.

In addition to its devastating health effects, the spread of the AIDS pandemic in Africa poses a threat to the sustainability of effective health systems. It is a special case because of the current magnitude and projected growth of HIV infection, the high costs of treating infected people, and, of course, because it is a fatal disease. An estimated one in forty adults in sub-Saharan Africa is already infected with HIV, and in some high-prevalence cities, such as Kigali, one-third of the adult population is infected (World Bank 1993a). Even if prevention programs are successful in stopping the annual number of new infections from growing, the number of new cases of full-blown AIDS will continue to increase due to past growth in infection rates.

AIDS affects the sustainability of the health sector primarily because of its impact on the demand for care and the costs of that care. Ainsworth and Over (1992, p.12-15) present some "order of magnitude" estimates of the impact of treating all existing AIDS cases in five African countries. The costs range from 23 percent of government health spending in Kenya to 65 percent in Rwanda. While actual costs are probably somewhat less because not every person with AIDS seeks treatment, these figures demonstrate that AIDS can absorb a substantial share of government resources allocated to the health sector. In effect, the use of services for terminal AIDS cases may be crowding out patients with curable conditions.

Moreover, as more HIV cases convert to AIDS during this decade, the demands on health sector resources may be overwhelming. A South African study predicts that the costs of treating AIDS patients and other HIV-positive persons are will increase from less than one percent of total public and private health spending in 1990 to between 19 and 40 percent by 2000.[12] Similarly, a World Bank study estimates that the costs of drugs and nursing for Tanzanian AIDS patients may consume up to two-thirds of the government's recurrent health budget by the year 2000 (World Bank 1992c).

These early findings on the costs of treating patients with AIDS raise obvious concerns. Clearly, there is a need to redouble prevention efforts, but this, too, absorbs scarce financial and human resources. The donor community is providing much support for AIDS prevention, but not enough is known about effective prevention strategies. Even with strong prevention, the demands on African health systems will grow rapidly during the rest of the

---

[12] Broomberg *et al.* 1991, cited in Ainsworth and Over 1992, p.14.

decade, unless patients with AIDS simply do not seek care. More research is needed on treatment seeking behavior of HIV-infected persons in Africa, but the likelihood is that they do seek some care, at least in the early stages of the disease when opportunistic illnesses such as tuberculosis occur frequently. Strategies need to be developed now to deal with the burden that AIDS will place on health services in the near future. Low cost alternatives to inpatient care are needed.[13]

B. Resource Mobilization

A growing number of countries have implemented alternatives to central treasury financing of publicly provided health services. The alternative financing measures involve, either separately or together, direct user charges and public or private risk sharing schemes (i.e., health insurance). The impetus for adopting these alternative financing measures has been the need to mobilize additional funds to maintain service provision and the inefficiency and inequity that arises from using public resources to fund personal health services that do not have broad societal benefits.

1. User Fees

Charging users of health services on a fee-for-service basis is a common practice of private non-profit and for-profit providers in Africa and is increasing among public providers as well. While increasing revenues is one objective of cost recovery policies, achieving a high degree of cost recovery should not be, in and of itself, an objective of public health policy. Cost recovery measures can be useful instruments for achieving public health objectives, such as a sustainable health service of adequate quality. In the public sector, therefore, cost recovery is a means to an end rather than an end in itself.

Cost recovery can nonetheless be very important for achieving policy objectives. Because government budget allocations are subject to total resource availability which is, particularly in African countries, often closely linked to the international price of a few export commodities, government funding for health facilities and programs is often unstable. Health system users are often the only alternative revenue source, particularly in rural settings. Therefore, good cost-recovery performance (i.e., collecting a high proportion of operating costs in the form of user fees) can be the only way to ensure the availability of publicly provided health services.

The revenue potential of user fees. The revenue performance of user charges in African countries is mixed. On a national level, as Table 2 shows, user fees have contributed a small percentage (usually less than five percent) of operating revenues for publicly provided services. This has been due to several factors: (1) prices are set at low levels relative to service costs, especially in hospitals where government recurrent resources are concentrated;

---

[13] See Over and Piot 1993, p.500,503 for a discussion of cost-effective case management strategies.

(2) the poor quality of services and the low income level of much of the population limit the willingness to pay for government health services; and (3) many users who are able to pay avoid payment because public user fee schemes are poorly administered, and exemptions exist for non-indigent persons.[14]

The potential exists to increase cost recovery by adjusting prices and improving the administration of user fee systems,[15] but the potential for user fees to generate a substantial share of total recurrent revenue for government health services is limited to probably no more than 15 percent (Creese 1991, p.311; Korte *et al.* 1992, p.8). It would be difficult to collect a greater amount than this without severe consequences for the utilization of services by the poor.

Thus, as a financial resource, user charges can be expected to generate only a modest supplement to national health revenues. Moreover, for user fees to serve as a financial resource for health services, the revenues collected must be retained for use within the health system. In some countries, all fee revenues must be sent to the central treasury, and there is no guarantee that government budget allocations will reward good fee collection performance.[16] Conversely, even if the health services can retain fee revenues, government budgetary authorities seeking to reduce their overall expenditures may reduce their budget allocations by the amount of fees collected.

Table 2.
Revenue from User Charges in Government Health Facilities as a Percent of Recurrent Government Expenditures on Health

Country and Year	Percent of Recurrent Expenditures
Botswana, 1983	1.3
Burkina Faso, 1981	0.5
Burundi, 1982	4.0
Côte d'Ivoire, 1986	3.1
Ethiopia, 1982	12.0
Ghana, 1987	11.8
Kenya, 1984	2.0
Lesotho, 1986/7	5.8
Malawi, 1983	3.3
Mali, 1986	2.7
Mauritania, 1986	12.0
Mozambique, 1985	8.0
Rwanda, 1984	7.0
Senegal, 1986	4.7
Swaziland, 1988/9	4.6
Zimbabwe, 1987/8	3.0

Sources:
Barnum and Kutzin 1993 (Botswana, Lesotho); Collins 1990 (Swaziland); Hecht 1992 (Zimbabwe); Vogel 1988 (Côte d'Ivoire, Mali, Senegal); Vogel 1989 (Burkina Faso, Burundi, Ethiopia, Kenya, Malawi, Mauritania, Mozambique, Rwanda); Waddington and Enyimayew 1989 (Ghana).

---

[14] In 1986 in Ghana, for example, most statutory exemptions from payment of user fees in government health facilities were granted to Ministry of Health employees and their dependents. The revenue that would have been collected if there were no exemptions was estimated to represent about 21 percent of total collections for that year (Waddington and Enyimayew 1990).

[15] For an example from Zimbabwe, see Hecht, Overholt, and Holmberg 1992.

[16] See Barnum and Kutzin 1993, p.214-220, for a discussion of fee retention policies in a number of countries.

Despite the relatively minor contribution of user fee revenues to national health budgets in Africa, studies have demonstrated that community financing schemes such as those operating as part of Bamako Initiative[17] type programs have been successful at generating a substantial percentage of operating costs through user charges.[18] Because the costs per unit of service tend to be much less at a health center or community pharmacy than at large hospitals where most government funds are concentrated, community facilities can set prices at levels that more closely reflect operating costs. Community financing systems often benefit from close oversight and involvement of a village or district health committee. There also appears to be a greater willingness to pay for tangible products such as drugs.[19] These factors are likely explanations for the better cost recovery performance of community financing schemes as compared to overall national programs.

Although user fees for publicly provided health services have not made a significant contribution to overall health revenues, cost recovery has enabled the continued operation of many important community level health programs. Revenues generated through user fees can be very important at the facility level because of the discretionary income they provide to managers, and the productivity implications of adding non-staff recurrent inputs. Despite its relatively small contribution to national health revenues, therefore, cost recovery for publicly provided services can make an important contribution to the financial sustainability of health services.[20] This evidence also suggests that, among government health facilities, hospitals have been the least successful at covering their operating costs via user charges.

A review of country experiences with cost recovery policies for financing public hospitals in developing countries concludes that the most important measure for maintaining the revenue potential of user fees is that the level of prices be regularly adjusted to keep pace with inflation (Barnum and Kutzin 1993, p.197-203). This conclusion has general application throughout the sector. In several countries (Botswana, Lesotho, and Zimbabwe, for example) for which an act of government was needed to change fee levels, prices remained unchanged for many years. The consequences of this were that the percentage of government health expenditures recovered through fees fell dramatically. Maintaining the real level of prices does not negatively affect equity, so the policy recommendation of the authors is that periodic adjustment of fees be built in to any system of user charges. This

---

[17] In their review of five country case studies (Burundi, Guinea, Kenya, Nigeria, and Uganda) of Bamako Initiative (BI) schemes, McPake, Hanson, and Mills (1992, p.ii) identified a set of minimum criteria that define the initiative. Features of BI programs are community financing, community participation (community health development committees), and national involvement to integrate local programs into national health policy. The aims of BI schemes are to improve quality and increase access, and strengthening management and accountability are the key strategic elements needed to implement the BI effectively. The review also describes the price structure, price setting mechanisms, and exemption policies in each of the five countries (p.33).

[18] McPake, Hanson, and Mills 1992; Parker and Knippenberg 1991; Shaw and Elmendorf 1993, p.114; Unger, Mbaye, and Diao 1990, p.372.

[19] See, for example, Waddington and Enyimayew 1990, p.305.

[20] A related finding is that, in order to keep community financing schemes affordable, waste and inefficiency must be reduced. With lower costs, less revenue is needed, and thus facilities can charge lower prices (Brunet-Jailly 1991; Creese 1991; Korte *et al.* 1992).

policy is most likely to be successful if price changes are an administrative (for example, if fee levels are tied to a price index) rather than a political act.

NGOs and user fees. Experience with user fees for the services of private non-profit providers is very different. In the private mission sector, user financing often supports more than 50 percent of recurrent resource needs.[21] Evidence from a sample of 88 NGO hospitals shows a slightly lower contribution of fees to total revenue, ranging from about 25 to 45 percent (van Lerberghe, van Balen, and Kegels 1989, p.27-28). Nevertheless, these amounts tended to be greater than the amounts coming from government subventions to the NGO hospitals.

Why are mission facilities more successful at cost recovery than those owned by government? There are a number of possible explanations, some or all of which may apply to different degrees in different settings. These can be grouped into two categories: conditions that lead to greater revenue collection and conditions that lead to lower costs. Greater revenues can arise as a result of higher prices, more willingness to pay fees, and greater efforts to collect fees. Lower costs could result from greater efficiency or underestimation of the costs of providing services in mission facilities. Evidence on each of these potential causes of greater cost recovery in mission health facilities is limited, and more research and analytical work is needed to assess the relative importance of each. The critical policy issue is to define the elements of the reasons for better cost recovery performance in NGO facilities that can and should be transplanted to government facilities.

Revenue collection may be greater in NGO facilities if, at a given level of prices, they do a better job of actually collecting payments. This may result from the relative administrative capacity of the facility, different incentives for efficient collection, or both.[22] Fee collection would also be greater if mission facilities charged higher prices or served a higher income segment of the population. Finally, fee collection would be greater if the population's willingness to pay were greater for NGO than for government services. Apart from any possible income differences among users, greater willingness to pay would result from the belief that NGO services were of better quality. While there have been no studies that have conclusively demonstrated that NGO services are of superior quality, strong anecdotal evidence and observations suggests that most people in Africa prefer being treated in mission facilities.[23]

---

[21] For examples from Tanzania and Uganda, see Mujinja and Mabala 1992 and World Bank 1992b, respectively, and see Shaw and Elmendorf 1993, p.112-13, for a general discussion.

[22] In Swaziland, government and mission hospitals are required to charge the same fees to patients, but public facilities must return all revenues to the central treasury whereas mission facilities use the revenues to meet recurrent costs. Collins (1990) found that mission hospitals collect substantially more revenues per patient and concluded that the difference in policies with regard to fee retention was an important cause of this difference in revenue performance.

[23] See, for example, Mwabu, Ainsworth, and Nyamete 1993.

The reported costs of providing services in NGO facilities may be lower for two reasons. First, NGOs may manage their resources more efficiently than government facilities and thus provide services at a lower cost per patient.[24] Another possible reason for the differences in cost recovery is that the costs reported by missions may be artificially low because they often receive donations of free supplies or other in-kind contributions, including expatriate services that are externally funded (DeJong 1991, p.9). If these inputs are not monetized and included as part of total health facility costs, revenue collections will appear to be a higher percentage of total recurrent expenditures than they would be if all operating costs were valued.

Attempts should be made to incorporate some elements of NGOs' user fee revenue performance into government health facilities. It would be beneficial for public facilities to strengthen their administration and also be given incentives to collect fees by being allowed some measure of fee retention.[25] One aspect of quality that has been raised as an issue in many community focus group studies and that can be changed in public facilities is improving the attitude of health workers toward patients.[26]

Nevertheless, it is easy to recommend that the quality of care be improved and that waste and inefficiency be reduced in government facilities, but several reasons why mission facilities appear to have higher quality services may be difficult for government facilities to replicate, at least in the short run. These have mostly to do with the managerial and administrative capacity of missions, which often receive external support. Making similar improvements in government facilities will take a long term commitment to building the necessary institutional capacity (Korte *et al.* 1992, p.3-4). Additionally, if the poor tend to use public facilities more than higher income groups,[27] there may be substantial negative equity effects if government facilities raise their prices to match those in mission facilities in an attempt to increase revenue collection.

Demand, price, distance, quality, and income. A recommendation to impose or increase user fees in order to increase revenues is based on an implicit assumption that the percentage increase in price would be greater than the percentage decrease in the number of patients using the services as a consequence of the price increase. A number of studies have found that, indeed, the demand for health services appears to be relatively price inelastic, at least for the range of prices that have been studied.[28]

---

[24] See, for example, World Bank 1993a, p.127; Korte *et al.* 1992, p.3.

[25] Even if the central government has as its objective the maximization of revenues flowing to the central treasury, some retention of fees is warranted to provide a collection incentive (Barnum and Kutzin 1993, p.152, 177-178). More importantly, the retention of fees for use within the health services can be critically important for improving the quality of care available and is recommended for this reason. This is discussed in more detail below.

[26] See, for example, Waddington and Enyimayew 1990, p.305.

[27] As Mwabu, Ainsworth, and Nyamete 1993, found to be the case in the Kenya's Meru district.

[28] See Gertler and van der Gaag 1990; Mwabu, Ainsworth, and Nyamete 1993; Mwabu and Mwangi 1986; and World Bank 1991.

However, demand does not depend solely on the price charged for a service. Demand for care from any particular provider depends on a great many factors in addition to the expected price of treatment, including: underlying epidemiology, individual perception of illness (i.e., does my health problem merit medical attention?), perceived quality (i.e., expectation that a specific provider will solve the health problem), expected transport costs, expected time cost (and how the individual values this time), who decides (at the household level) whether an individual will seek care, household income, and control of household resources. This paper focuses on five policy-relevant demand determinants: user fees, monetary costs of travel to health facilities, time costs, income, and perceived quality.

While studies have shown demand for health services to be relatively price inelastic, higher prices do deter demand to some extent. Indeed, one of the rationales commonly used to support the implementation of fees is that, if they have to pay each time they use services, "consumers will be more sensible in their demand for services" (Akin, Birdsall, and de Ferranti 1987, p.26). However, there is no evidence from any study that implies that the utilization reduced because of the imposition of fees was "unnecessary" (Creese 1991, p.317). The other monetary and time costs that individuals face when seeking care are probably enough of a deterrent to inappropriate use, and thus, in general, this justification for the implementation of user fees in African countries is not warranted.[29] Studies have also shown that price elasticity increases as income falls. In other words, utilization by poorer people is deterred more by price increases than is that of richer persons.[30] Analyses from Zaire, Ghana, Swaziland, and Lesotho reach the same conclusion (Creese 1991, p.316-317).

Travel time has been shown to have a similar deterrent effect, as shown by a household survey conducted in Côte d'Ivoire in 1985; at that time there were no user fees in government health facilities. Multivariate analysis of the data revealed that the effect of travel time, which reflects both the monetary cost and time cost of accessing a health facility, was very similar to the effect of user fees. The elasticity of demand with respect to travel time was highest for the lowest income quartile and lowest for the highest income quartile. In other words, travel time was found to be a greater access barrier for the poor than for higher income persons. This evidence suggests, therefore, that an increase in the user's cost of gaining access to care will deter utilization by lower income persons to a greater extent than by higher income persons (Dor, Gertler, and van der Gaag 1987; Dor and van der Gaag 1988; Gertler and van der Gaag 1990).

While studies have examined the effects of price increases on utilization, little is known about how different systems of payment for services would affect demand. It would be useful to know, for example, the likely effects on demand of different systems, such as flat fees, differentiated fees, fees per episode vs. fees per service item consumed, and

---

[29] Akin, Birdsall, and de Ferranti (1987, p.26) note this in their parenthetical statement that "time and travel costs will probably do more than any small fee to discourage the frivolous use of services."

[30] See Gertler and van der Gaag 1990 for an analysis of data from Peru.

prepayment (Creese 1991, p.314).[31] Under Kenya's cost recovery program, a switch from a consultation fee to a drug fee resulted in increased use rates, primarily because consumers associate drugs with effective treatment.[32] Also of concern are the "ethical" implications of each type of payment. For example, payment based on taxation requires legal enforcement -- a more coercive form of user fee than some other systems such as voluntary prepayment for health insurance. Taxes, however small, also set a precedent -- as health care costs rise, so will taxes.

The effect of different fee collection systems on the poor is an important policy issue. Although an increase in user fee levels would, by itself, reduce utilization most for lower income persons, a study from Cameroon suggests that when improvement in the perceived quality of services accompanies an increase in user fees, demand for services may actually increase, and the poorer strata of the population may increase their utilization by proportionately more than any other group (Litvack and Bodart 1993). This study looked at health center fees and the perceived quality of services (as proxied by the availability of high quality drugs) in the Adamaoua province. Overall utilization of services increased significantly more in areas where fees were implemented and the new revenues used to improve drug supply than in areas that witnessed neither fees nor quality changes.

Since the time and travel costs of reaching alternative sources of care (where the availability of drugs was relatively assured) were high, household survey data revealed that the availability of good quality services at the local health center encouraged more people, and proportionately more poor people, to seek care. Even though users faced increased costs from higher fees, this was more than offset by the reduction in travel and time costs made possible by the improvements in the quality of local facilities. In effect, implementing user fees and using the fee revenue to improve quality resulted in a decrease in the total cost of accessing care of acceptable quality.

The Cameroon study does not imply that fees are good for the poor; the rise in price and change in quality are two separate effects. However, in areas where governments cannot be relied upon to provide sufficient resources for health services, charging fees and retaining the revenue to improve the quality of services can be an appropriate means for making care more available to the poor, if the overall effect is to reduce the individual's expected total cost of receiving effective treatment. Increasing fees without measures to improve quality will hurt the poor disproportionately and will likely create or increase general discontent with government health services.[33] In other words, fee increases should be linked to improvements in the quality of care (Ellis 1987, p.996; Barnum and Kutzin 1993, p.154-55).

---

[31] The Health Financing and Sustainability Project funded by USAID is examining some of these issues in its major applied research work in Niger. The cost recovery systems being evaluated and compared are a fee per episode of illness and an individual tax accompanied by a small copayment at the point of service. The study will allow for an evaluation of the revenue and equity effects of each alternative (see Annex III).

[32] David Collins, personal communication, 1994.

[33] See Epstein and Coultas 1991 (p.1467) for a description of events leading to the temporary cessation of Kenya's user fee program in September 1990.

Based on analysis of household data from Meru, Kenya, a policy simulation found that increasing the availability of drugs and reducing the distance to facilities would increase demand (Mwabu, Ainsworth and Nyamete 1993, p.30). Other policy simulations of fee increases and quality enhancements in Kenya (Mwabu and Mwangi 1986) and Nigeria (World Bank 1991) found that quality-induced demand increases would outweigh price-induced demand decreases, leading to estimates of an overall increase in utilization as a consequence of these policies. Conversely, simulations of policies in Côte d'Ivoire and Peru that would achieve full cost recovery and reduce travel time to zero were found to reduce both utilization and welfare (Gertler and van der Gaag 1990).

The only "real world" experience of a price increase combined with quality enhancement that has been reported to date has been in Cameroon (Litvack and Bodart 1993). This experience suggests that it is possible to use fee revenues to improve quality and reduce the cost of obtaining effective care. To determine if a price increase will lead to an increase in demand if the revenues generated by the price increase are used to improve quality, one must know the quantitative impacts of each of these measures on demand. Several empirical questions result and suggest a need for further exploration: (1) by how much will utilization by specific socioeconomic groups fall in response to a price increase; (2) how much of an increase in revenue is needed to improve quality in a way that consumers will perceive; and (3) by how much will utilization by specific socioeconomic groups increase in response to a given improvement in perceived quality?[34]

Another less technical but no less relevant issue concerns the capacity of health facilities to use revenues to improve quality. Indeed, a study in Ghana found that many health facilities which were entitled to retain revenues for their own use had not spent any of the funds to which they were entitled (Waddington and Enyimayew 1990). The successful experiment in Cameroon described above may prove difficult to replicate on a large scale basis because it received considerable external support. In addition to financial management skills, success in using fees to improve quality requires that there be institutions, such as rural banking facilities, where revenues can be safely stored with their value maintained. This is particularly important in highly inflationary environments. More dissemination of field successes is needed to provide information regarding the institutional preconditions for using retained fee revenues to improve quality.

Many of the studies cited above (for example, Mwabu, Ainsworth and Nyamete 1993; Litvack and Bodart 1993; World Bank 1991) have found that the extent to which drugs are available in a health facility has an important positive impact on the demand for services in that facility. In other words, people seem to equate the availability of drugs with a higher probability that they will receive effective treatment. Thus, in many studies, drug availability is used as a proxy measure of the population's perception of health facility

---

[34] Barnum and Kutzin (1993, p.140, 295-298) suggest that, conceptually, because improving quality will often mean increasing supply-side costs (e.g., by increasing the supply of essential drugs), information is needed on three elasticity measures: (1) elasticity of demand with respect to price; (2) elasticity of cost with respect to quality; and (3) elasticity of demand with respect to quality.

quality. This perception of quality may differ from a professionally determined assessment of quality, however. Financing schemes that are organized around cost recovery for drugs, such as those that are part of the Bamako Initiative, may create an incentive to sell pharmaceuticals to a greater extent than is medically necessary (McPake, Hanson, and Mills 1992, p.iv).

The experience of China suggests that drug pricing policy can lead to overuse. Health facilities are allowed a substantial markup over their acquisition costs for the sale of drugs, and, by the late 1980s, an average of 2.3 drugs was prescribed per patient contact with the health system; nearly one-half of all health expenditures in the country was for drugs (Bumgarner 1992). The issue that policy makers must face is how to charge for drugs yet limit the incentive to overprescribe. On the demand side, information is needed on how people assess quality and whether informational interventions are needed to counteract the idea that, when it comes to pharmaceuticals, "more is better."

Incentive pricing. One rationale for the implementation of user fees is that a positive price will encourage more efficient consumption of health services than a zero price. As stated above, there is no evidence to date that suggests that the utilization that has been deterred through the imposition of user fees was not necessary or desirable. The other costs facing potential users of gaining access to services are probably sufficient to deter superfluous use.

However, the structure of prices across different types of facilities does affect patterns of utilization. Prices should therefore be used to encourage desired patterns of use by, for example, rewarding or penalizing appropriate or inappropriate use of the referral network of facilities (Ellis 1987, p.996; Barnum and Kutzin 1993, p.154). Penalties, such as bypass charges, are not appropriate for people who happen to live near a hospital and would thus use this facility as a point of first contact with the health system. Measures to provide first contact services in an efficient manner to this group need to be developed.

For services provided by African Ministries of Health, fee levels are generally highest in large tertiary hospitals and lowest in the most peripheral facilities, as in Ghana and Zimbabwe. In Kenya and Uganda, free hospital services (and, in Kenya, free health center services as well) provided an incentive for people to bypass lower level services for which a fee was charged for drugs (McPake, Hanson, and Mills 1992, p.34). Even in Zimbabwe, where fees for MOH services are graded according to facility complexity, the presence of municipally-funded health centers operating under different pricing rules has led to problems. In one town, for example, the price for an outpatient consultation at the provincial (MOH) hospital is lower than the fee for a consultation at a nearby municipal clinic.[35]

A related issue concerns the coordination of prices among government and non-government health facilities that serve overlapping populations. In some countries, government health authorities regulate the level of prices that can be set by NGO facilities (Swaziland, for example), but this is not true for all countries. In regions where non-government providers

[35] Author's observations during World Bank Mission to Zimbabwe, May 1992.

play an important role in the delivery of services, health authorities should work with these facilities to encourage price coordination. Examples of successful price coordination across facilities owned by different institutions are needed to suggest ways in which this can be achieved.

Another aspect of efficiency in the consumption of health services related to pricing policy is that policies should be in place to increase the use of services that would otherwise not be adequately consumed because of market failures such as externalities or informational deficiencies. For example, treatment of patients with communicable diseases benefits not only the patient but also other members of the community who would have caught the disease (for example, tuberculosis, syphilis, or HIV) from these patients if they had not been successfully treated. One way to encourage persons with communicable conditions to be treated is to provide such services free of charge.

In many countries (for example, Ethiopia, Ghana, Mali, Niger, and Zimbabwe), no fees are charged for treatment of tuberculosis in government health facilities. However, all of these countries charge for treatment of sexually transmitted diseases (STDs), which are also communicable. If these charges are causing persons with STDs to delay seeking care (an empirical question), policy makers should consider waiving them because the social costs from not treating a case of an STD are far greater than any revenue foregone by exempting the case from payment.

2. Risk Sharing

An increasing number of countries are examining risk sharing options as a means to increase cost recovery in health, improve the organization of services, and expand access (Vogel 1990). Nevertheless, as indicated by Table 3, health insurance is not well-developed in Africa. Since most health services are heavily subsidized, governments are implicitly covering an individual's risk of incurring a catastrophic level of expenditures, even though this coverage is not actuarially based.

Interpreted in this light, government finance and provision of services is a form of social insurance, with any user charges serving as a copayment. This system limits the demand for more explicit forms of health

Table 3.
Percentage of the Population Covered by Health Insurance in Selected Countries

Country and Year	Population (millions)	Percent Covered by Insurance
Burkina Faso, 1981	6.7	0.9
Burundi, 1986	4.9	1.4
Kenya, 1985	21.2	11.4
Mali, 1986	7.6	3.3
Nigeria, 1986	103.1	0.04
Senegal, 1991	7.2	13.0
Uganda, 1991	16.8	0.0
Zambia, 1981	5.6	6.1
Zimbabwe, 1987	8.7	4.6

Reprinted from Shaw and Elmendorf 1993, p.119.

insurance. High administrative costs and the lack of strong management skills or institutional mechanisms for premium collection in rural areas also impede the growth of health insurance in Africa. Health insurance is usually organized for employees working in the formal sector of the economy, and this represents a small percentage of Africa's population. In a few countries, most notably Zaire, health insurance programs have been implemented for persons, such as self-employed farmers, working in the non-formal sector. Experience with these rural, population-based (as opposed to employment-based) schemes is limited, but suggests that they may have the potential to make an important contribution to health financing.

Should governments promote insurance coverage of formal sector workers? There is considerable room for expansion of employment-based insurance in African countries, even though such insurance would inevitably be limited to a minority of the population. Some studies have recommended that governments promote this type of health insurance because the higher income groups that would be covered by insurance would use more privately provided care, freeing up government resources that could then be better targeted to providing services for lower income groups.[36] It might also be possible to use revenues raised through employment-based plans to fund large urban tertiary hospitals because, in many countries, most of the beneficiaries would live in the same city as the largest hospital -- potentially permitting government funds to be reallocated to more cost-effective services.

However, the limited available evidence suggests that the result of such measures is not a greater concentration of government expenditure on services provided to low income groups, but rather the reverse. The reasons for this have to do with the manner by which governments encourage expansion of insurance and the source of financing of the services consumed by the insured. The equity problem is magnified because the insured tend to consume more services as a consequence of the improved financial access provided by insurance (this is often referred to as "moral hazard"). Because of these problems, several authors recommend caution when considering expansion of insurance for a relatively well-off segment of the population.[37]

Under what circumstances will the expansion of health insurance lead to increased provision of health services for poor? Governments can encourage expanded health insurance coverage of formal sector workers by making contributions from employers and employees mandatory (Shaw and Elmendorf 1993, p.119). A problem is that, in most African countries, government itself is one of the largest employers, and so it would be increasing its expenditures for the benefits of a group that is relatively advantaged compared to the economic position of most of the population.

In Burundi, for example, there are four times as many beneficiaries of the insurance program for government employees and their dependents (the "*Mutuelle de la Fonction Publique*," or

---

[36] See, for example, Shaw and Elmendorf 1993, p.118-121.

[37] For example, Kutzin and Barnum 1992, p.71.

MFP) as there are employees (and their dependents) in the formal private sector. The MFP has been the cause of gross inequity in health care spending in Burundi. In 1991, for example, total reimbursements paid out on behalf of MFP beneficiaries were equivalent to 68 percent of the Ministry of Health budget, yet MFP beneficiaries constituted less than six percent of the entire population. Moreover, government was the source of 60 percent of MFP revenues through its "employer" contributions (World Bank 1993b). As a result of these factors, a disproportionate share (about 30 percent) of government health expenditures (MOH plus government contributions to the MFP) was allocated to services consumed by a small and economically advantaged group.

Governments can also encourage employment-based private health insurance through the tax system. In South Africa and Zimbabwe, for example, private insurance is highly subsidized via tax deductions for employer and employee contributions (World Bank 1993a, p.121). While the ultimate impact of these measures upon equity depends also on the source of financing for the health services consumed by the insured groups, this method of encouraging private health insurance, similar to programs that use direct contributions from government (as in the Burundi example above), constitutes a government subsidy for a relatively well-off segment of the population and is thus questionable on equity grounds.

Despite the problems discussed above, government support for insurance of formal sector workers in African countries may be justified if newly insured persons switch from publicly-financed care to privately-financed care to such an extent that the magnitude of public revenues "freed up" from this switching is greater than the government subsidies used to induce this change. Unfortunately, the limited evidence available only provides examples of where this has not occurred. An important reason why insurance of only a small part of the population has led to inequities is that such coverage increases financial access to care for a group that already had better access, and this has resulted in increased consumption of both privately and publicly financed care. This issue of easier access for the insured to services that remain heavily subsidized must be addressed by African health policy makers considering expansion of formal sector employment-based insurance coverage.

Policy makers need to define the conditions under which expansion of health insurance for formal sector employees will improve the targeting of government health expenditures on the neediest groups. They then need to determine the likelihood that those conditions can be met in their country. These are topics for which country-specific research is needed before proceeding with policies to expand coverage. If sufficient political will can be mustered, governments should consider measures that would minimize subsidies to insured groups, such as charging insured persons in public facilities rates that would more than cover their costs of care, thus allowing for some cross-subsidization of services provided to the uninsured.

There is little available documentation concerning private, employer-sponsored health insurance in sub-Saharan Africa. While the formal private sector does provide some health insurance, in nearly all African countries it is not of sufficient size to cover a significant portion of the population. Nevertheless, governments may be able to draw lessons from employer-sponsored insurance systems, and the relationships between these systems and

service providers. Another potential, but unexplored, area for government involvement is in pooling together small insurance schemes, public and private. This could in theory lead to a reduction in administrative overhead, economies of scale, and expanded coverage.

Rural health insurance. Although health insurance is usually considered as an option only for the population working in the formal sector, rural prepayment schemes are drawing increasing attention as a means of financing and organizing health services within a district setting. Indeed, Korte *et al.* (1992, p.8) suggest that the development of decentralized risk sharing schemes is of paramount importance for the sustainability of health services in Africa. Interest in these schemes comes from their potential to generate a much greater amount of revenues than has been witnessed with user fees and to do so in a manner that has fewer demand-dampening effects than a system based on charges at the point of service.

One important advantage of prepayment is that it can limit the effects of seasonal income fluctuations on access to care. The review of five country examples of the BI noted that, in each case, survey respondents indicated that the seasonality of income was an important constraint on utilization (McPake, Hanson, and Mills 1992, p.27). By collecting a contribution when cash incomes are highest, financial access can be guaranteed even during seasons when much of the rural population is cash poor. For example, a village-level prepayment scheme for drugs and basic services in Guinea-Bissau is funded through annual collections made shortly after the harvest, when cash was readily available in the village (Chabot, Boal, and da Silva 1991, p.48).

Similarly, in Zaire's Bwamanda health zone, annual collections for a prepayment scheme for hospital services are made during the season when cash incomes are highest (Shepard, Vian, and Kleinau 1990). The success of this approach is reflected in the enrollment rates achieved in these voluntary schemes. Seventy-five percent of the adult population was enrolled in the villages studied in Guinea-Bissau, and 60 percent of the population was enrolled in Bwamanda.[38] Those not covered by insurance were required to pay the full fees charged at health facilities. During periods of the year when cash incomes were low, these fees posed a particularly difficult economic barrier to access. Those who prepaid for their care circumvented the full effects of this problem.

The prepayment plan organized and managed by the Bwamanda health zone in Zaire illustrates a number of features critical to the short- and long-term viability of rural health insurance in Africa. Conversely, the voluntary nationwide rural health card scheme in Burundi (the *Carte d'Assurance Maladie*, or CAM) illustrates some of the problems that can arise with a rural health insurance program if it is not well-organized. In brief, beneficiaries of the Bwamanda plan are covered for 80 percent of the existing fees for hospital care if they were referred from a health center (where patients must pay). The health zone and the

---

[38] In Bwamanda, health center nurses were given financial incentives to enroll members of their community in the prepayment scheme. This probably gave further impetus to enrollment in the zone.

prepayment scheme are managed by the same entity, which is heavily supported by Belgian technical assistance.[39]

In Burundi, the CAM entitles the card holder and his or her direct dependents listed on the card to free health care, including drugs, in government health centers and hospitals. Unlike the Bwamanda plan, the card can be purchased at any time during the year. Despite these provisions, however, only about 20 to 25 percent of the population buys the card in a given year (World Bank 1993b). The experience of these rural health insurance programs illustrates several important lessons for the design of such schemes.

The Bwamanda insurance plan has achieved much better financial performance than Burundi's CAM. Reasons for this have to do with differences in enrollment rates, premium levels, and the use of funds. The relatively high enrollment rate in Bwamanda can be attributed to a number of factors. First, and perhaps most importantly, most of the population believes the scheme provides access to good quality health services. Second, high fees are charged at the hospital, so there is real financial risk associated with an illness requiring hospitalization. Third, the premium is affordable to most of the population, even though premiums have been increased every year to keep pace with high inflation rates by linking the price to the value of two kilograms of soybeans, a commonly produced crop. The revenues from premiums and copayments directly finance the operating costs of the zone's health facilities.

In Burundi, quality of care in public facilities is reported to be poor, with drug stockouts a common occurrence. A survey of the rural population found that this was the leading reason for not buying or not renewing the card. The need for the card is also undermined by the very low fees charged at health centers. The contribution of the CAM is also limited by the low level of the premium, which has not been adjusted since the scheme was introduced in 1984. Finally, revenues from CAM sales revert to local government authorities and thus do not finance health services directly. The consequence of each of these factors was that revenues from CAM sales represented only about three percent of Ministry of Health recurrent expenditures in 1990. In Bwamanda, substantial revenues were generated from the combination of prepayments and copayments from the prepayment scheme and used to finance health services in the zone. All hospital costs for beneficiaries were covered by premium income in 1987 and 1988, and cost recovery in the hospital went from 48 percent in 1985 (before the insurance scheme) to 79 percent in 1988.

The Bwamanda plan illustrates how a financing mechanism can be a means to organize district health services by enforcing strict referral requirements and allocating resources to ensure adequate quality is provided at the point of first contact with the health system. Even though the insurance plan does not cover health center care, the plan will only pay for hospital care if a beneficiary has been referred. The incentive for using the appropriate first contact facility is thus built directly into its reimbursement rules. These rules are made easier to enforce because the insurer and the provider/manager of care for the district are the

---

[39] See Shepard, Vian, and Kleinau 1990 for a full description of this and other prepayment plans operating in Zaire.

same entity (i.e., direct rather than third party insurance). In Burundi, the CAM is merely a financial mechanism.

A potential problem with any voluntary insurance program is adverse selection, the greater propensity to enroll of those persons who expect to need care. If this problem is widespread it can cause severe financial imbalances because the self-selected enrollee is likely to incur far greater costs than would an average member of the population. The Bwamanda plan attempts to limit adverse selection in two ways. First, enrollment is limited to one period during the year. In Burundi, persons could purchase the CAM at any time during the year, and many would enroll just prior to hospitalization. Second, coverage by the Bwamanda plan is for individuals rather than families, but if any member of a family joins, all must join. This provision limits the effects of adverse selection.

Nevertheless, the insured used hospital care at nearly seven times the rate of the uninsured in Bwamanda, and this was probably due in part to the enrollment of persons who expected to have an adverse health event. Most of this difference, however, was probably due to the greater financial access to care for insured persons. This illustrates a problem similar to employer-based schemes in poor countries: where coverage is not universal, utilization patterns between the insured and uninsured differ markedly.

Critical factors contributing to the sustainability of the Bwamanda plan are strong management and the provision of services perceived to be of high quality. Both of these factors are lacking in Burundi. The Bwamanda plan benefits from several characteristics that may not be easy to replicate in other settings. First, there has been the presence of a management team that has, over time, gained the confidence of the population. Strong management was developed with the support of Belgian technical assistance. There were also strong community health and community development committees involved in the development of the scheme and in spreading awareness of it among the population.

Second, essential drugs procured at low cost were regularly available in Bwamanda. Third, the zone has one reference hospital and several geographically separate health centers, so there was little competition among providers in the zone, which made it possible to reach a critical mass of subscribers. Fourth, local institutions for the investment of money were available to invest collected revenues at a positive real interest rate, and funds were also used to immediately purchase drugs as a hedge against inflation. Finally, the zone's infrastructure was developed sufficiently to allow for frequent supervision visits to peripheral facilities in order to monitor quality at this level.

C. Equity – Protecting the Poor

Part of the discussion of resource mobilization, above, focuses on the consequences for utilization by the poor of implementing or raising user charges. The advent of cost recovery in most countries of sub-Saharan Africa, together with declining GNP per capita in many of those countries, makes protection of the poor an especially important issue. The devaluation of the CFA franc in February, 1994 intensified this issue for the countries in the CFA zone -- leading to general inflation and higher prices for drugs in particular.

The policy that is generally recommended to mitigate the effects of fees on access for the poor is to exempt them from payment of fees. A review of fee exemption policies in developing countries found that most countries include provisions to exempt the poor from payment of fees in government hospitals (Barnum and Kutzin 1993, p.221-29). However, there is also an array of other exemptions that ran contrary to equity goals, such as exemptions for civil servants and members of the armed forces. For example, a survey of patients at Niger's central government hospital in Niamey found that the median income of patients who were not entitled to exemption from payment was less than the median for the entire sample of patients (Weaver, Handou, and Mohamed 1990). In some countries, therefore, fee exemption policies do not promote equity.

Even where exemption policies are designed in such a way as to be clearly pro-poor, actual practice often varies from policy intent. It is administratively difficult to accurately determine a patient's income, particularly when most income is generated through subsistence farming and patients have little incentive to be truthful about their economic status.[40] A review of five BI-type schemes found that exemption mechanisms either had an extremely limited scope, were ineffective in practice, or, in one case, did not exist (McPake, Hanson, and Mills 1992, p.35).

Conversely, a review of 23 targeted social programs in Latin American countries concluded that (1) targeted programs were more progressive than general subsidies; (2) administrative costs were less than expected; and (3) the most appropriate targeting mechanism depended on the local situation and implementation capacity (Grosh 1992, p.vii). Good targeting devices depend on sound project management and local factors. Records and accounting are very important for successful targeting. Because administrative capacity is an important determinant of the effectiveness of targeting, African countries are probably less successful than those in Latin America in implementing these measures. Exemption mechanisms can easily lead to decapitalization, particularly when they are ineffectively administered.

The basic issues regarding exemptions are how to identify persons too poor to pay fees and ensure that they have access to needed services while guaranteeing that the non-poor pay the designated fee. There is a direct relationship between the accuracy of measures to target the poor for exemption and the cost and administrative complexity of such measures. Even if

---

[40] These problems are highlighted in Gilson's (1988, p.46) review of evidence from the few studies that have examined the implementation of exemption policies.

the administrative capacity were in place, the costs of implementing a strict means testing program might be greater than the revenues that could be collected from fees, especially where fee levels are low. A cost-benefit framework could be used to address this issue, and should explicitly identify the tradeoff between accuracy and cost. Unfortunately, little is known about the costs of targeting and the means to improve its accuracy.

For many African countries that are in the process of "structural adjustment," cost recovery mechanisms are being recommended and implemented for a range of government services in addition to health, such as education. The existence of fees for different social programs means that households face an array of user charges for basic social services. Cross-sectoral work is needed to get a better understanding of the burden of all social service fees facing households and to develop methods for ensuring that the lowest income groups have access to programs for basic education, nutrition, and health. Ideally, the same means testing method would be used for determining fee exemptions for a variety of services, including health, education, and water and electricity supply.

Implementing a prospective means test to identify those who are eligible for free services is a very resource intensive approach that can probably be justified only when the findings are to be used to determine qualification for a range of services. Because many countries have programs in addition to health for which only the poor qualify, Ministries of Health should not be the government agency responsible for implementing measures to conduct a prospective means test (Barnum and Kutzin 1993, p.227-29). Where they exist, countries should use pre-existing means tests and have them apply to payment for health services as well. In Jamaica, for example, individuals identified by local government authorities as qualifying for nutritional assistance are recognized by Ministry of Health facilities as qualifying for free treatment. More information is needed on means testing in African countries to determine if this is a relevant policy option.

While there are several recommendations in the literature for targeting exemptions, very few have been assessed analytically. The 1993 *World Development Report* identifies four mechanisms for targeting an essential package of services to the poor: (1) individual assessment of income, nutritional status, or assets; (2) targeting easily identifiable subgroups, such as those living in poor geographic regions;[41] (3) self-targeting, by charging a price for certain amenities or shorter waiting times, leaving those who do not choose to pay with less costly (in monetary terms) or less convenient services; and (4) targeting services that are used disproportionately by the poor. Unfortunately, this study does not provide much information on how to implement any of these options successfully nor on the conditions that must be in place to have an effective method of targeting. Regardless of the mechanism that is selected, the key question for policy makers is how to implement it with an acceptable degree of accuracy and at a cost that is considerably less than the amount of revenue that is expected to be recovered through fees.

---

[41] Based on their analysis of survey data from Côte d'Ivoire and Peru, Gertler and van der Gaag (1990) recommend that, because identifying individual income is administratively difficult, a useful alternative would be to charge lower prices in low income regions.

D. Institutional Issues -- The Capacity for Health Policy Reform

This strategic framework has identified major policy issues in health financing and financial sustainability. Unfortunately, identification of policy does not mean implementation of policy. Implementation capacity cuts across all aspects of the specific policies discussed earlier in the paper and can be categorized as institutional sustainability. Improving institutional sustainability involves human resource development, with particular emphasis on building financial management skills and the capacity to use information for management decisions. These skills are, in general, not well developed in Africa, and important issues relate to how rapidly these skills can be generated and what should governments and donors do before these are in place. Institutional sustainability is of overriding concern to development in the health sector because it influences all measures that may be taken to improve the functioning of a country's health services.

Building the institutional capacity to develop, implement, and manage health policy reform is clearly a priority for the creation of sustainable health services in Africa. An important characteristic of sustainable health systems is the capacity to use information for management and related spending decisions. It is known that it takes time to build institutional capacity, but, unfortunately, there is little information available on how to build this capacity. There is no shortage of good ideas regarding policies to improve the financing and operation of health services in Africa. What is needed most is the means to translate policy into practice on a broad basis within each country.

1. Replication of Policy Successes

A limitation on all of the health financing measures reported above which have been successfully implemented is that they have received considerable support from donors and have been relatively small-scale. For new policies or programs to be considered truly sustainable, there would need to be replicable beyond the pilot stage and successful without using donor assistance. The fact that there are few, if any, examples of successful replication or "scaling up" without the involvement of external support speaks to the institutional limitations of Ministries of Health in Africa and the need for the dissemination of basic management skills.

For example, conditions for success in the collection and use of fee revenues in peripheral health facilities probably include having staff trained in basic financial management, the availability of local banking arrangements, development of audit procedures, and the establishment of community committees to oversee the use of revenues. For policy reforms or the lessons learned from pilot projects to have a lasting impact, basic skills and conditions such as these have to be widely available throughout a country.

2. Decentralization

Many African countries are moving to decentralize management within health systems, usually to the level of the health district. The objectives of decentralization are to improve management, efficiency, accountability, and responsiveness of health services -- to increase the population's exposure to, and control of, modern health care. The ways in which decentralized institutions should be organized has not been clearly defined, however. Two possible problems which may arise with decentralization are that (1) it will result in an increase rather than a decrease in administration expenditures, and (2) it will add more bureaucratic layers and bottlenecks in decision-making (Bossert 1993, p.13-14).

Another potential problem area concerns the capacity of the central ministry to play a supervisory and monitoring role in a decentralized system, as opposed to the previous focus on direct service delivery. Finally, the success of decentralization policies depends critically on the administrative and managerial capacity of the unit to which responsibility is devolved. For example, decentralization to the district level may be going "too far" if sufficient management skills are not available at this level, if local institutions are not well developed, or if higher levels do not provide adequate support (Gilson and Mills 1993, p.13).

Decentralization may lead to an increase in administrative costs if central level costs can not be reduced when decentralized administrative units are created. In other words, economies of scale in administration that may have existed prior to decentralization may be lost upon implementation of this reform. Research is needed on the incremental administrative costs of decentralization, accounting for increases at the local level and any decrease that may occur centrally. Such research will assist governments to make cost-effective decisions regarding decentralization (Bossert 1993).

The equity consequences of decentralization depend on the procedures used to allocate resources to decentralized units. If formulae for allocating resources to the different units are transparent, the process can highlight any regional inequalities and provide a means to correct them (Gilson and Mills 1993). Evaluating the equity consequences of decentralization will require that measures of equity be defined. A first approximation of an equitable allocation might be resource distribution that is directly proportional to the population share of each region. However, country-specific analysis is needed to develop allocation measures that address problems such as previous inequities, lower-income regions, and regions with special needs (for example, an area with relatively low population density may require more resources to serve the same number of people as a higher density region).

The unit of administration to which management responsibility is decentralized can have consequences for sectoral efficiency. In particular, if the decentralized administrative structure is not consistent with the organization of the referral system between first contact and first referral facilities, the efficiency of patient management will be compromised. In Nigeria, for example, state governments are responsible for secondary care (i.e., first referral hospitals), and local governments are responsible for primary care (i.e., first contact facilities). National health policy calls for an integrated referral system, yet the organization

of the sector inhibits this because the administration of these two levels of care is entirely separate. Also, because the budgets of state and local governments are distinct, there is no scope for a reallocation of resources across levels of care (World Bank 1993c).

The administrative and management skills needed to run a decentralized prepayment scheme (such as the Bwamanda prepayment plan in Zaire) efficiently are the major constraint on their development. Systematic evaluation of existing rural prepayment plans in Africa is needed to identify the management aspects that are essential for the sustainability of such programs.[42] The review of Bamako Initiative schemes in five African countries concluded that strengthening the capacity of lower levels of the health system is a prerequisite for successful decentralization (McPake, Hanson, and Mills 1992, p.iii). Defining management and other institutional requirements is clearly a priority area for research and analysis. Related questions include defining the sequencing of steps to implement decentralization once the institutional requirements have been identified, and investigating the potential for NGOs to participate in government-managed decentralized health systems.

Evidence suggests that it is possible to build capacity for decentralized management with a sustained commitment. Ghana's Ministry of Health has emphasized district-level capacity building through its Strengthening District Health Systems (SDHS) Initiative, which was begun in 1988 with support from WHO and other donors. Through a series of workshops followed by implementation and supervision, SHDS has helped staff at the district level develop planning and management skills. The development of Ghana's district health systems reflects in part the importance of building the capacity to define informational needs, collect the relevant data, and use it for decision-making. District staff have gained confidence in managing their own services, and they have also been able to influence regional and national reforms (Hiscock 1993). A USAID-supported project in Indonesia achieved similar results by improving local officials' capacity to collect and use data to inform management decisions (Bossert, Soebekti, and Kumara Rai 1991).

3. Human Resource Needs

The potential benefits of alternative policies for resource allocation, cost recovery, or cost containment discussed above are limited by the capacity of African Ministries of Health to design and implement such policies. A considerable amount of analytical work has been done on health financing and resource allocation. Less is known about measures to control costs, and almost nothing is known regarding interventions to build institutional capacity throughout a health system. For example, it is not known what mix of human resources is needed to operate effectively a large scale cost recovery program that is designed to use retained revenues to improve quality and access for the poor. The needs are difficult to define, and existing capacity does not lend itself to easy measurement.

---

[42] See Korte *et al.* 1992, p.9.

The definition of human resource requirements depends on individual country circumstances, but Table 4 provides an outline of the types of skills that should be in place at various policy and technical levels of a country's health system. If financing measures are in place that allow some degree of facility autonomy in the use of collected fee revenues, then facility managers must have financial management skills as well as the capacity to define spending priorities. Further country-specific work is needed to determine how broadly these skills need to be disseminated throughout the health system.

Table 4. Skill Needs at Different Levels of the Health System

Decision level	Skill needs (type and level)
Top decision makers (Minister, PS, Cabinet, health and related sectors)	Awareness of contributions from economics, epidemiology, social, legal and political sciences.
Directors of health sector planning and budget	Working technical competence in one or more of above; ability to assess technical material from others.
National/regional health directors, categorical programme chiefs, district management team	Working competence in epidemiology, resource allocation principles, management information systems, personnel, logistics, etc.
Specialist skills (inside or outside health sector)	Health economics and financing, management accounting, contract setting, organizational behavior, industrial relations, etc.

Source: WHO 1993.

A related question concerns appropriate strategies for developing human resource capacities. USAID has invested considerable amounts of money in both long-term and short-term training of health professionals, but there has little systematic evaluation of training results. Investment in African educational institutions, such as schools of public health, is a promising, but also not well evaluated, strategy.

4. The Role of Donors

Much of the work on sustainability has focused on the capacity of countries to meet the recurrent cost and management requirements of projects begun with donor support after donor input ceases. A paper on health project sustainability in Central America and Africa notes that in Africa economic deterioration and weak government institutions make for an unfavorable environment for project sustainability. This conclusion applies to the health sector as well as to projects. Given this weak context, the objectives of sustainability need to be reconsidered. In particular, foreign assistance should take a longer term view of sectoral development and address these contextual issues by focusing on institutional development (Bossert 1990, p.1018).

A similar conclusion is reached by the Save the Children Fund–U.K. in their critique of the World Bank's 1993 *World Development Report*. They note that policy measures are unlikely to be successful in countries that have very limited capacity to implement policy, and that priority should be given to developing health systems and the capacity of government to define and implement relevant policies (Save the Children 1993b). Bossert suggests that, until the economic and political development of countries is sufficient, donors will need to provide financial support for social service activities. Similarly, Save the Children recommends that, in the poorest countries, donors should provide coordinated support for recurrent funding of government health services.

While donors are generally responsive to short-term goals and pressures, the creation of sound institutions is a long-term process. Desirous of demonstrating results, donors tend to fund activities which are programmatically or geographically not well integrated into overall efforts at institutional development. To the extent possible, donor institutions should move from a project oriented focus to a wider focus on the health sector, and should seek to promote capacity building within Ministries of Health, especially their planning units. To help define such efforts, a clear definition of indicators for institutional development is needed.

Special initiatives and vertical programs supported by donors have sometimes been successful in delivering important services, such as immunizations, but this has come at the cost of constraining the long-term development of integrated health systems (Foltz 1992). Indeed, the need to reorganize Ministries of Health in response to specific donor initiatives strains the limited administrative capacities of governments, and the disruptive effects of these programs may be "sustained" long after the end of donor involvement. This inhibits the growth of sustainable health systems that will have the capacity to effectively manage and coordinate donor inputs (Save the Children 1993b). The lesson is that short-term service delivery aims of donor-funded projects should not be pursued at the expense of long-term development of integrated health systems.

III. Lessons Learned – Priorities for Dissemination

Although health financing has been studied much more extensively than have issues related more specifically to sustainability, the latter is an important policy objective while the former constitutes a means to that end. Given the waste and inefficiency existing in African health systems, the net gains to be had by reducing costs are likely to be greater than the gains from improving recovery of costs.[43] The available evidence on the revenue and equity effects of cost recovery mechanisms and on the magnitude of technical and allocative inefficiencies in the health sector of African countries lend support to this argument.

Putting the case in more basic terms, the top priority for health sector decision makers in Africa is to do a better job using the resources they already have rather than emphasizing efforts to generate additional revenues through cost recovery or larger budget allocations from the central treasury. Emphasis should therefore be placed on developing the capacity to improve the efficiency of resource management. The paradox is that much more is known about health financing policy than about measures to improve the capacity to manage resources more efficiently.

Thus, most of the findings that can be disseminated to health sector policy makers in Africa concern cost recovery and resource mobilization, rather than measures to improve institutional and financial sustainability. The following is a list of priority messages with regard to policy and institutional development for health finance and sustainability that should be disseminated to decision-makers. (These findings are grouped in the same categories as those used for the more detailed review of the issues in Section II, above.)

Allocative and Technical Efficiency

- **Nearly all cost-effective health interventions are public health measures or clinical interventions that can be delivered at or below the level of the district hospital.** Moreover, the key characteristic of a well-functioning referral system is acceptable quality of care in facilities designed to be the point of first contact between the population and the health system (i.e., health centers and dispensaries).

  One of the principal concerns regarding government health services in Africa is that peripheral facilities located closest to the population are underutilized, even when services are provided there without charge, because the quality of care available is very poor.[44] Pricing and resource allocation policies should be coordinated to support quality in first contact facilities and appropriate use of the provider network. To achieve this end, governments should reallocate recurrent funding from large tertiary hospitals to health centers and dispensaries. Another option is to use retained

---

[43] This is the fundamental argument made by Brunet-Jailly (1991).

[44] See Mwabu 1989 for an analysis of patients' health care seeking behavior.

fee revenues to support these peripheral facilities, while maintaining appropriate price incentives across facilities to users.

- **Identifying the sources of waste and technical inefficiency and reducing their effects can extend the coverage and quality of health services without the potentially negative equity consequences of cost recovery measures.** The most immediate gains can be had by improving the performance of drug selection, procurement, distribution, and prescription. The World Bank estimates that many African countries get only $12 worth of good quality drugs for every $100 spent.[45] Reducing these costs (i.e., increasing the supply of drugs available without an increase in expenditures) will enhance sector sustainability.

  The success of community financing measures also relates to the affordability of charges levied for basic drugs. A key feature of successful programs is that the costs of procuring drugs have been minimized by measures that reduce losses and other forms of waste. Controlling costs is critical to the success of a sustainable community-financed service. In addition to drugs, large tertiary hospitals should be the focus of cost cutting measures because of the large share of recurrent resources they absorb. Strong management, including financial management skills, is needed to control costs and keep services affordable.

Resource Mobilization

- **Revenues raised from user fees should be retained within the health sector and used to improve or maintain the quality of care.** If prices are raised without any commensurate change in quality, the services will lose the confidence of the population. Using retained revenues to improve quality may ultimately provide disproportionate benefits to the poor despite the presence of user fees. If, prior to an increase in fees, care of acceptable quality was available only at distant facilities or at expensive private providers, many persons, especially members of low income households, may not have sought care when they were ill. If fees at local facilities are raised and if the revenues from these fees are used to improve the quality of care in a manner that is perceptible by the local population, utilization will increase if the total cost of obtaining acceptable quality services (the sum of time cost, the monetary cost of travel to the health facility, and the user fee) falls. Moreover, utilization may increase most by the poorest segment of the population because they may have otherwise not sought care at all.

- **User fees for government health services will not provide a substantial increment to national health resources.** Nevertheless, they can play a crucial role in sustaining community-based facilities by funding essential drugs, and can provide facility and

---

[45] Shaw and Elmendorf 1993, p.58.

district level managers with important discretionary revenue. NGOs have generally recouped higher proportions of their costs than is the case in government services -- the reasons for this include management and administrative advantages, better perceived quality, and, in some cases, external support.

- **Health financing mechanisms must account for the seasonality of individual incomes**, especially in rural areas. Decentralized rural prepayment schemes can limit the demand-inhibiting effects of seasonal income fluctuations by collecting contributions during a period of the year when incomes are highest. Strong management of finances and patient circulation through the referral system are critical to the success and sustainability of decentralized insurance schemes. Insurers must be actively involved in managing the system rather than acting merely as financial intermediaries. This is most easily achieved when the insurer and provider of services are the same entity (i.e., direct rather than third party insurance).

- **Adjustment of fee levels or insurance premium rates over time to keep pace with inflation should, to the extent possible, be institutionalized as an administrative action** rather than be left to political bodies to decide. This can perhaps be most easily achieved by tying fee levels to price indices or, for example, to the value of a fixed quantity of a staple food.

- **Expanding insurance coverage for formal sector workers should be supported only if sufficient political will can be mobilized to generate profits from the coverage of the well-off-insured and use them to cross-subsidize services for the uninsured.** No study has demonstrated that the theoretical benefits of "freed up" resources have actually been realized as a consequence of expanded coverage of high income groups. For African countries, the key will be to determine the conditions under which expansion of health insurance in the formal sector will support the sectoral objectives of equity and efficiency and the likelihood that these conditions can be met.

Equity -- Protecting the Poor

- **Fees should be consistent with ability to pay and not prevent access to essential services.** The evidence from several studies suggests that although the demand for care with respect to price is relatively inelastic, elasticity increases as income falls, and so the poor are more deterred by a price increase than are the relatively well-off. Policies to exempt the poor from payment of fees are present in most countries, but these policies have proven difficult to implement effectively and often exempt many categories of non-poor persons, such as civil servants.

  In many countries, user fees exist for a range of social services, including health and education -- calling for a method of means testing which is valid for multiple sectors. The Ministry of Health is probably not the most likely government body to implement

such a means test. Exemptions from user charges or mandatory prepayment should be limited to those made on the basis of poverty, except for services with important health externalities that would otherwise not be adequately consumed.

Institutional Issues -- The Capacity for Health Reform

- **Interventions to improve institutional sustainability require a long-term commitment over many years for successes to be achieved.** The economic, political, and institutional context within which African governments attempt to implement reform is weak. As the experience of Ghana's support for district-level decentralization demonstrates, a key element in building institutional capacity is to strengthen the ability of managers to use information for decision making.

- **The presence of vertical programs and administrative structures within Ministries of Health undermines the development of sustainable, integrated health services.** Donors should avoid the temptation to establish parallel management structures for the projects they fund where government implementation capacity is weak. Short-term project objectives should not be pursued at the expense of long-term development of integrated health systems.

IV. Conclusions: Priority Topics for Research and Analysis

As stated in the background information provided above, measures to improve institutional and financial sustainability are urgently needed in the health sectors of African countries, yet for these issues relatively little is known that can usefully be disseminated at this time. While more is known about health financing measures, there also remain many issues relevant to financing for which more work is needed.

The list of priority topics for research and analysis which follows below is based on an extensive review of existing literature (as reflected in Section II, "Review of Major Issues") in addition to interviews with experts in the field and consultative group meetings held in Washington, D.C. (in January, 1994) and Dakar, Senegal (in February, 1994). Both of these meetings involved voting on priority topics -- a summary of that voting, combining the two meetings, is attached as Annex VI.

Criteria for the determination of priority research and analysis topics for the HHRAA Project are attached as Annex V. These criteria emphasize the pertinence of the topic for decision makers, feasibility of the research and analysis activity, and correspondence of the proposed activity with the strengths of USAID for research and analysis (see Annex IV, "Strengths of USAID Related to Research and Analysis"). Additionally, HHRAA activities should complement, rather than duplicate, the research and analysis of other donors. Annex III, "Recent and On-Going Research and Analysis Activities," provides a summary of the current major activities undertaken by donors in the field of Health Financing and Sustainability.

Priority research and analysis topic areas as determined by this process are the following [topics which have been chosen for financing through the HHRAA Project are marked with an asterisk (*)]:

- **Hospital autonomy.*** Under what conditions would granting managerial and financial autonomy to hospitals result in improved efficiency, quality of care and equitable delivery of services? What is the experience to date of developing countries in granting autonomy to hospitals? In most sub-Saharan countries hospitals consume a disproportionate share of health budgets, compromising referral systems and contributing to poor services at lower level facilities. Large hospitals located in urban centers serve relatively well-off segments of the population -- while the majority of public health problems can be addressed more effectively through the delivery of a package of essential clinical and educational services at the level of district hospital and below. Reallocation of public resources to primary and secondary levels of care would result in higher levels of efficiency, equity, and quality of care. Research is needed concerning the prerequisites for successfully increasing financial and managerial autonomy for large urban hospitals.

- **Resource mobilization.*** What are the revenue, equity and efficiency effects of various resource mobilization schemes? Almost every Ministry of Health and many NGOs in sub-Saharan Africa are currently putting into place cost recovery and other resource mobilization systems. Several options exist to collect revenue from consumers: taxes, health insurance, prepayment, and copayment are among the possibilities with which governments and NGOs are currently experimenting. But understanding of the trade-offs in efficiency, equity and revenue generation inherent in different resource mobilization schemes is not well developed -- particularly when placed into the context of different levels of care, different packages of care, and the social, economic and political environment of which the health care delivery system is a part.

  Public sector insurance schemes represent a particular challenge, as they are politically popular but can create serious problems of equity. Research is needed to inform decisions regarding expansion of health insurance to public sector workers, and to formal sector workers in general. Under what conditions will the net effect of measures to encourage insurance (or the direct provision of health care by large employers) for this relatively well-off group have beneficial equity effects? In other words, under what conditions will this result in public expenditures being more concentrated on health services for the poor?

- **Equity in the financing and provision of health care.*** In the context of cost recovery for health care, how can poor segments of the population be identified, and how can health systems ensure that the poor have access to reference facilities? The recent implementation of cost recovery systems in the majority of sub-Saharan African countries coincides with a time period when real per capita incomes are declining in many of these countries. To date, many systems designed to exempt the poor from payment have proved to be either too expensive or administratively burdensome. With the recent devaluation of the CFA currency, and concomitant increases in the cost of drugs and transport, the countries of West Africa are particularly concerned with equity problems.

  Policymakers need examples of mechanisms that accurately and efficiently target the poorest segments of the population for exemption from payment. In particular, alternative measures are needed to reach the poorest, most remote populations which have little contact with modern health services. Associated research should demonstrate explicitly any tradeoff between the accuracy of the means-testing mechanism and its cost.

  In many countries, cost recovery is not unique to the health sector, but is also being increasingly used to help finance education, water and sanitation, and other critical social services. Identifying mechanisms to consolidate the identification of the poor is thus a concern beyond the Ministry of Health. Priority should be given to cross-sectoral solutions to this problem -- solutions which would be much more efficient than for means testing systems for health care alone.

- **Efficiency, equity and quality implications of different types of decentralization.** What are the consequences of, and most appropriate strategies for, decentralization within the health sector? What management skills need to be in place at the district level for decentralization to work? International donors and national governments are increasingly advocating the decentralization of the health sector as a means to improve allocative and technical efficiency and increase accountability to the local population. Decentralization, however, has been increasingly advanced as a generic, all purpose solution to numerous problems in the health sector, including "overcentralization" and unsustainable programs. The advocacy for and implementation of decentralization polices lack specificity and grounding in empirical and theoretical analysis. Decentralization of the health sector must occur as part of a broader public sector framework.

- **Consumer preferences for different sources of health care.** Where does a given population seek health care, and what are the factors influencing consumer preferences for different sources of care? Most African Ministries of Health are currently putting into place a package of essential health services, typically based at the health district level, as part of efforts to improve coverage of their populations. A key component of this "essential package" is that it respond to consumer needs; the factors determining demand (including financial, sociological, and cultural factors) are important factors to consider in redesigning health systems to increase coverage and use.

  Another method of increasing coverage is to encourage private sector providers (including traditional healers, NGOs, and private clinics) to provide care which is consistent with public health goals. Efforts to work with the private sector, underway in many African countries, depend heavily on reliable information about why populations resort to these sources of care. In many cases, information about why consumers prefer private provision can be used to improve the quality of care in the public sector.

- **Reducing waste and technical inefficiencies in health services.** What cost-reducing or productivity-enhancing measures are available to correct the problems of waste and inefficiency, especially in drug procurement and distribution systems and in large tertiary hospitals? The lessons from successful essential drug programs need to be widely disseminated. Another focus of this work should be the large urban hospitals which absorb large shares of government recurrent expenditures. Policies for gradually reducing government financing of these institutions need to be developed and implemented.

  There may be scope for cooperation between the public and private sectors to achieve this end. Options that should be considered are hospital management autonomy and contracting out of specific services for which a competitive market of suppliers exists in the private sector. It will be important to strengthen the capacity of governments to regulate the private sector if these reforms are to be effective. The potential for

this type of reform and the conditions (management skills, for example) that must be in place for either of these options need to be analyzed and disseminated.

- **Incentive measures for health workers and managers.** Research is needed to identify appropriate incentive measures which reward rather than punish efficient resource management and cost recovery in centrally budgeted health systems.

- **The costs of AIDS, and strategies for care.** More work is needed to determine the economic and financial consequences of AIDS and to develop optimal strategies for health systems to cope with the forecasted demands of patients suffering from this disease. AIDS has already had a significant economic impact in some countries and the growth in the number of cases threatens to overwhelm the health systems of many others. Despite the need for more research, however, the problem demands an immediate response even while waiting for the results of the research to arrive.

Annex I. Persons Contacted During Preparation of the Strategic Framework

Howard Barnum, The World Bank, Population, Health and Nutrition Department
Abraham Bekele, Senior Economist, USAID
Peter Berman, Harvard University, Data for Decision Making Project
Ricardo Bitran, Abt Associates, Health Financing and Sustainability Project
Thomas Bossert, LAC Health, Population and Nutrition Sustainability Project
Guy Carrin, World Health Organization
David Collins, Director, Health Financing Program, Management Sciences for Health (MSH)
Andrew Creese, World Health Organization
Dayl Donaldson, Consultant
A. Edward Elmendorf, The World Bank, Africa Technical Department, Human Resources and Poverty Division
Helmut Görgen, GTZ
Charles Griffin, The World Bank, Eastern Africa Department, Population and Human Resources Operations Division
Davidson Gwatkin, The World Bank, International Health Policy Program
Kara Hanson, Harvard University, Data for Decision Making Project
Anne Lafond, The Save the Children Fund (U.K.)
Jennifer Litvack, The World Bank
Jean-Louis Lamboray, The World Bank, Population, Health and Nutrition Department
Timothy Marchant, The World Bank
Marty Makinen, Abt Associates, Health Financing and Sustainability Project
Barbara McPake, UNICEF, Bamako Initiative Management Unit (and also the London School of Hygiene and Tropical Medicine)
Anne Mills, London School of Hygiene and Tropical Medicine
Nancy Mock, Tulane University, SARA Project
Jeffrey Muschell, World Health Organization
Suzanne Prysor-Jones, Academy for Educational Development, SARA Project
R. Paul Shaw, The World Bank, Africa Technical Department, Human Resources and Poverty Division
Paul Smithson, The Save the Children Fund (U.K.)
John Tomaro, Office of Health, USAID
Vincent Turbat, Economic Development Institute, The World Bank.
Gerald Wein, Project Director, Abt Health Financing and Sustainability Project
Holly Wong, Abt Health Financing and Sustainability Project
Annemarie Wouters, Johns Hopkins University

Annex II. Participants at Consultative Group Meetings

A. Washington, D.C., January 13-14, 1994

Howard Barnum, The World Bank
Abraham Bekele, USAIDDavid Collins, Management Sciences for Health
Christine Comito, SARA Project
Ed Elmendorf, The World Bank
Fred Golladay, The World Bank
Kara Hanson, DDM ProjectJoe Kutzin, SARA Project
Chuck Lerman, USAID
Marty Makinen, Abt Associates
Barbara McPake, London School of Hygiene and Tropical Medicine
Nancy Mock, SARA Project (Tulane University)
Millie Morton, SARA Project
Kasirim Nwuke, DDM Project
Samuel Ofusu-Amaah
Suzanne Prysor-Jones, SARA Project
Duale Sambe, SARA Project (Tulane University)
Paul Shaw, The World Bank
Jim Sheppard, USAID
Peter Spain, SARA Project
Hope Sukin, USAID
John Tomaro, USAID
Ronald Vogel, University of Arizona
Hugh Waters, SARA Project
Jerry Wein, Abt Associates

B. Dakar, Senegal, February 14-18, 1994 [organized by the Health Financing and Sustainability Project in collaboration with the USAID Regional Economic Development Services Office (REDSO) for West and Central Africa]

Bineta Ba, USAID/REDSO
Jonathan Balley, Benin
Abraham Bekele, USAID/Washington
Ricardo Bitran, HFS Project
Pascal Brouillet, Ministry of Health, Senegal
Jean-Claude Crinot, USAID/Benin
Perle Combary, USAID/Burkina Faso
Seheri Bernard Darret, Direction of Public Health and Social Affairs, Côte d'Ivoire
Lamarana Diallo, Association Guinéenne pour le Bien-être Familial (AGBEF)

cont ...

Previous Page Blank

Abdou Dieng, Ministry of Health, Senegal
Salif Coulibaly, Ministry of Health, Mali
Aline Correa, USAID/Senegal
Félicien Hounye, CREDESA/SSP, Benin
Issouf M. Ibrango, Ministry of Health, Burkina Faso
Djibrilla Karamoko, Ministry of Health, Niger
Oumarou Kane, USAID/Niger
Rudolph Knippenberg, UNICEF
Eckhard Kleinau, BASICS Project
Ngaradje Ngarmadjigaye, Ministry of Health, Chad
Abdoulaye Ly, Ministry of Health, Senegal
Laurentine Bihina, Ministry of Health, Cameroon
Marty Makinen, HFS Project
Mouhsine Sant'Anna, Ministry of Health, Togo
Suzanne McLees, HFS Project
Alioune Mbaye, Ministry of Health, Senegal
Anita Mackie, USAID/Chad
Emmanuel Nguembi, Ministry of Health, Central African Republic
Joseph Niangue, Ministry of Health, Côte d'Ivoire
Katherine Jones-Patron, USAID/REDSO
Ramadan Malick Saleh, Ministry of Health, Chad
John Stanback, Family Health International
James Setzer, Emory University
Fatimata Sy, USAID/Senegal
Barbara Stevens, HFS Project
Alex Ross, USAID/Washington
Nena Terrell, HFS Project
Lamine Touré, Ministry of Health, Guinea
Andy Thompson
Hugh Waters, SARA Project

Annex III. Recent and On-Going Research and Analysis Activities

This annex is intended to provide an overview of current and planned research and analysis activities related to health financing and sustainability in sub-Saharan Africa. This overview is not comprehensive, but provides a general idea of research and analysis topics which are presently receiving emphasis in this field.

A. Activities Sponsored by USAID

In addition to the planned activities to be financed by USAID through the HHRAA Project (see Section IV for a description of these topics), research and analysis activities in Africa supported by centrally-funded USAID projects include:

- The Health Financing and Sustainability (HFS) Project, managed by Abt Associates, is conducting several major applied research projects in Africa in the areas of cost recovery, quality of care, and comparisons of public and private sector efficiency. In Niger, the HFS Project is working with the government to implement cost recovery, comparing prepayment (tax with small copayment) and fee for service approaches in different districts. An applied research project designed to evaluate the results includes elements of quality of care, utilization levels, and availability of drugs, as well as the impact of each alternative on revenue and equity (results available 1994).

- In Senegal, the HFS Project has completed a study of utilization, costs, efficiency, and quality of care in the public sector. A similar study is underway for private health facilities and will produce data permitting a comparative analysis of differences in efficiency and quality in the public and private sectors. The HFS Project will conduct an overview study of the private health sectors in Senegal and Tanzania, focusing on factors affecting the development of the private sector (results available 1994).

- The Data for Decision Making Project, managed by the Harvard School of Public Health, has begun a study of the private health sector in Zambia and Kenya. DDM has also developed a series of analytic tools for promoting cost effectiveness and setting priorities, including burden of disease analysis and a methodology for analyzing National Health Accounts -- by sources, amounts, and spending patterns -- which allows decision-makers to improve resource allocation. Other centrally-funded USAID projects which have undertaken research and analysis activities related to health financing include the REACH Project, which has developed methods for costing vaccination and primary health care services in decentralized health systems, PRICOR, and PRITECH.

USAID missions in several countries have financed country-specific health financing studies and projects. A study sponsored by USAID in Cameroon shows that user fees, when accompanied by improvements in quality, can lead to increased use by the poor (Litvack and

Bodart 1993, discussed above in this Strategic Framework). The USAID mission in Swaziland supported an assessment of the effectiveness of user fees in that country. The assessment pointed out problems related to the non-payment of inpatient fees; principal recommendations included revising prices periodically in line with inflation and allowing for retention of revenues for use by the facilities charging the fees (Collins 1990).

USAID has provided financial and technical support, through Management Sciences for Health (MSH), for the implementation of the Kenya Health Care Financing Program. This program has established a cost sharing system for national, provincial and district hospitals (with plans to introduce the system at the health center level). Seventy-five percent of the revenues generated under this system is retained at the institution in which the fees are generated; the remaining 25% is used at the district level. Since 1991 the new system, supported by management reforms and training, has resulted in considerable increases in revenue at the facilities involved (Collins and Hussein 1993).

B. Activities Sponsored by Other Donors

The U.K. Overseas Development Agency (ODA) supports the Health Economics and Financing Programme, which is located within the Health Policy Unit of the London School of Hygiene and Tropical Medicine. Major work undertaken within this program includes an evaluation of the Bamako Initiative in five African countries (1992), discussed earlier in this strategic framework. The evaluation defines a minimum set of criteria for a Bamako Initiative cost recovery scheme and points to the need to design effective exemption mechanisms to ensure equity and to develop management skills at peripheral levels in a decentralized health system. The evaluation found that Bamako Initiative activities have generated considerable revenues for financing drug supply and deserve continued support, and that special attention should be given to issues of quality, supervision, affordability and community involvement.

Also under the Health Economics and Financing Programme, the London School is conducting several studies on user fees, exemption mechanisms and the use of revenues. Community financing through health insurance is another important topic, with research underway in Ghana; a workshop is planned for risk sharing in health care in West Africa. For issues related to the public/private mix, a collaborative research network has been set up; Ghana, Malawi, South Africa, Tanzania, Uganda and Zimbabwe are all part of this network and will be involved in cross-country research. Specifically, a study of contracting out and competitive tendering is planned for South Africa and Zimbabwe.

Save the Children (U.K.) conducted a five country study (Ghana, Nepal, Pakistan, Uganda, Vietnam) entitled Sustainability in the Health Sector, the major findings of which were discussed in a May, 1993 workshop. The results emphasize the need for management skills within Ministries of Health and suggest that, in very poor countries such as Uganda, donors should be prepared to help finance recurrent costs which government budgets are unable to meet. The study also found that user fees do not cover a high percentage of health costs, generally representing less than 5% of total funding for health.

In addition to the *World Development Report* (1993), and *Better Health in Africa* (1993) [both discussed in this strategic framework], the World Bank is currently involved in several important studies and analysis activities related to health financing and sustainability in Africa. These include:

- An overview of health financing in Africa, focusing on user fees and health insurance, with case studies from Zimbabwe, Lesotho, Ghana, Kenya, Cameroon, Zaire and Guinea-Bissau. Analysis of some of these case studies, including the Kenya study (Mwabu, Ainsworth and Nyamete 1993), is included in this strategic framework.

- In Tanzania, a social sector (including health and education) survey which focuses on private household expenditures and will be used to inform future investment decisions in the social sector.

- Ongoing household survey research in several countries. As part of its poverty alleviation programs, the World Bank is assisting countries to conduct household research, using two models: (1) integrated surveys, which are similar to the Living Standards Measurement Survey (LSMS) and provide consumption information; and (2) priority surveys, which are less comprehensive and have larger sample sizes. Integrated surveys in Ghana and Côte d'Ivoire follow from LSMS surveys which had already begun in those countries. To date, 18 countries in sub-Saharan Africa have become engaged in research (either integrated or priority surveys), and nine have preliminary results. The data from these surveys belong to the countries; access to the data therefore depends on release by the country in question. With the data that will be released, the Africa Technical Department of the World Bank plans to establish a household data library. Emphasis will shift from data collection to assistance to countries for the analysis and application of the data.

- An overview entitled "Cost Recovery in Public Health Services in Sub-Saharan Africa," currently being prepared by the Economic Development Institute of the World Bank. This document provides a synthesis of cost recovery efforts in 37 countries, with broad comparisons drawn between experiences in francophone and anglophone countries. General conclusions are that cost recovery has had a positive impact in terms of increasing the availability of drugs, and that cost recovery should be seen as a complement to, not a substitute for, other sources of funding for health care.

- A paper on "The Economic Impact of AIDS: Shocks, Responses and Outcomes" (discussed earlier in this strategic framework document). This paper provides a conceptual framework for approaching the measurement of the economic impact of AIDS in Africa, reviews evidence of economic impact found in other studies, and suggests an agenda for further research and analysis.

The World Health Organization is currently sponsoring an analysis of existing data concerning health expenditures, focusing on issues of equity and efficiency. WHO is also working directly with Ministries of Health to resolve country specific problems in health

policy reform in several countries, including, Benin, Chad, Ghana, Guinea, Zambia and Uganda. Upcoming plans include support for three case studies on contracting out with, and regulation of, the private sector, as well as research to study the impact of alternative health financing arrangements on the demand for disease-specific services. During 1994, WHO will begin a work program on hospital economics and financing which will generate country case study material highlighting issues of resource allocation and management.

The Bamako Initiative Management Unit (BIMU) of UNICEF, following the 1992 evaluation undertaken by the London School of Hygiene and Tropical Medicine, has developed a research agenda focusing on the following issues:

- Quality of care at peripheral levels;
- Access to services and equity issues;
- Community participation;
- Health workers and their role;
- Essential drug arrangements;
- Systems and management sustainability.

A program of 12 research projects covering at least 13 African countries including Zambia, Tanzania, Benin and Cameroon, and involving at least 16 research institutes from Africa, Europe and North America is currently being established by the BIMU. Research activities will begin January 1994.

In addition, a large body of research on aspects of health financing and sustainability has been conducted on a country-specific level, often related to the implementation of the Bamako Initiative or other decentralized cost recovery plans. Each of the donor agencies listed above has sponsored household surveys and other pertinent country-specific research; the German bilateral aid agency GTZ has also played an important role in sponsoring country-specific problem solving research.

Annex IV. Strengths of USAID Related to Research and Analysis

Perhaps the single most important strength of USAID related to research and analysis is the presence of USAID missions and large projects working on a long-term basis in African countries. In several countries, USAID is financing large, integrated primary health care and family planning projects which emphasize decentralization and cost recovery. These projects are staffed by technically competent long-term advisors and in-country nationals. This presence lends itself to research within an on-going operational context, and to the implementation of research results to resolve specific problems within programs.

USAID regional offices in Abidjan and Nairobi offer additional technical expertise in the area of health financing and sustainability and increase the possibilities for comparable cross-country and regional studies. Several USAID projects, such as the BASICS project, also have regional offices which can help to coordinate and support cross-country research. Centrally funded projects also offer experience and technical skills, specializing in technical assistance and research design and execution. These projects can call upon a wide range of experts from cooperating agencies and universities. The Africa Bureau of USAID, particularly the ARTS Office, provides oversight and technical support for on-going research, analysis and operations activities.

USAID cooperation with and support for a variety of African institutions at the regional and national levels create opportunities for conducting research and analysis activities in close collaboration with African individuals and organizations. The presence of long-term resident advisors facilitates the identification of needs and appropriate channels for execution of activities. Additionally, USAID is involved in promoting partnerships with the private sector in Africa. Social marketing, the promotion of health and family planning services through employers' infrastructure, and the local production of pharmaceutical products (such as ORS) are among USAID's initiatives with the private sector.

Annex V. Criteria for Assessing Research and Analysis Topics for HHRAA

1. Who is the research and analysis activity for and what questions are being answered? The activity should be of strategic importance to African decision-makers, and to USAID and other donors; research should provide results of immediate relevance to decision makers.

2. To be most effective, research should be cross-country or regional, addressing specific problems found in more than one setting and in more than one country.

3. Perhaps most importantly, proposed topics for research should be researchable -- with methodologies and timeframes which are both realistic and feasible.

4. How will the results be disseminated? Timely and appropriate dissemination of results, and their impact on implementation, are key factors in determining the success of research and analysis activities.

5. How will results be used? Priority should be given to research and analysis activities which provide solutions to practical problems, with results directly linked to implementation.

6. Is the research and analysis topic appropriate for USAID, given USAID's strengths and priorities relative to other donors? (See section of Strategic Framework document entitled "Strengths of USAID Related to Research and Analysis.")

7. Research and analysis activities should be able to be completed within a time period of 12-24 months.

8. Research and analysis activities should require minimal logistical support from USAID missions.

9. Research and analysis activities should respond to gaps in information, taking into account the current and planned activities of governments and other donors.

10. Research and analysis activities should offer opportunities for increased African participation in the HHRAA implementation process.

Previous Page Blank

Annex VI. Overall Results of Consultative Group Voting

[Note: The following table reflects the results of voting concerning priority research and analysis topics at consultative group meetings held in Washington, D.C. (in January, 1994) and Dakar, Senegal (in February, 1994). The first meeting was entirely dedicated to the topics related to Health Financing and Sustainability. However, voting at the Dakar meeting also concerned topics related to Private Sector Health Development -- a separate HHRAA strategic framework area. For this reason, the combined results of the vote, shown below, include some topics which are specific to Private Sector Health Development.[46]]

Total Rank	TOPIC
1	Cross country study of hospital autonomy, including effects on MOH budget allocation, quality, efficiency.
2a tie	Study of the efficiency, equity and quality implications of different types of decentralization.
2b tie	Study of the factors (financial, sociological, cultural, traditional) influencing consumer preferences for different sources of care (modern vs. traditional, self-care, private, etc.).
4	How to design and implement the package of basic, cost effective services to meet the needs of specific populations? What is the cost of doing so?
5	Poor segments of the population: how to identify them? How to ensure that the poor will be have access to reference facilities?
6a tie	Research on public and private expenditures on health (national health accounts approach).
6b tie	Case studies of means testing / exemption systems.
6c tie	What are the revenue, equity and efficiency effects of various resource mobilization schemes?
9	Study of NGO experience with improving efficiency, pricing of services, quality and means testing.
10a tie	Traditional healers: what are the factors determining the demand for the services of the healers? What are the costs relative to the modern sector?
10b tie	Designing incentives for health workers and health system managers for application of technically efficient use of resources.

[46] See the HHRAA document *Strategic Framework for Strengthening the Contribution of Non-Governmental Health Care Provision to National Health Goals in Africa*, prepared by the DDM Project. p. 5.

Previous Page Blank

Total Rank	TOPIC
12	Test operational approaches for health insurance; evaluate different insurance schemes.
13	What are the political factors and processes influencing resource allocation; what are constraints to efficient allocation?
14	Case studies of institutional development in different countries (including multidisciplinary team in Niger); successes and failures. Case studies of natural experiments in institution building.
15	Evaluation of the efficiency and effectiveness of different traditional solidarity, insurance and risk-sharing systems.
16	Cross-country study of methods of implementing health financing measures -- not just the "what" but also the "how."
17a tie	Evaluation of training and capacity building efforts, including methods, short vs. long term.
17b tie	KAP studies of consumers concerning the basic package of services; influence on health status and personal behavior.
19	How to encourage the pharmaceutical sector to promote public health objectives (social marketing)?

Bibliography

Ainsworth, Martha and Mead Over (1992). *The Economic Impact of AIDS: Shocks, Responses and Outcomes*. World Bank, Africa Technical Department, Population, Health and Nutrition Division. Technical Working Paper 1. Washington, DC.

Akin, John (1987). "Health Insurance in the Developing Countries: Prospects for Risk Sharing." In Asian Development Bank, World Bank Economic Development Institute and East West Center, *Health Care Financing*. Washington, DC.: EDI/World Bank.

Akin, John, Nancy Birdsall, and David de Ferranti (1987). *Financing Health Services in Developing Countries: An Agenda for Reform*. A World Bank Policy Study. Washington, DC.

Alderman, Harold and Paul Gertler (1992). "Family Resources and Gender Differences in Human Capital Investments: the Demand for Children's Medical Care in Pakistan." Unpublished. The World Bank, Washington, DC.

Barnum, Howard and Joseph Kutzin (1993). *Public Hospitals in Developing Countries: Resource Use, Cost, Financing*. Baltimore and London: Johns Hopkins University Press.

Bekele, Abraham and Maureen A. Lewis (1986). "Financing Health Care in the Sudan: Some Recent Experiments in the Central Region." *International Journal of Health Planning and Management* 1:111-127.

Bossert, Thomas (1993). "Sustainability of Health Care Programs in Africa." Concept paper, August 27 discussion draft. USAID, Washington, DC.

Bossert, Thomas J. (1990). "Can They Get Along Without Us? Sustainability of Donor-Supported Health Projects in Central America and Africa." *Social Science and Medicine* 30(9):1015-1023.

Bossert, Thomas, R. Soebekti, and Nyoman Kumara Rai (1991). "'Bottom-up' Planning in Indonesia: Decentralization in the Ministry of Health." *Health Policy and Planning* 6(1):55-63.

Brunet-Jailly, Joseph (1991). "Health Financing in the Poor Countries: Cost Recovery or Cost Reduction?" World Bank Policy, Research, and External Affairs Working Paper 692. Washington, DC.

Bumgarner, J. Richard, ed. (1992). *China: Long-Term Issues and Options in the Health Transition*. A World Bank Country Study. Washington, DC.

Chabot, Jarl, Manuel Boal, and Augusto da Silva (1991). "National Community Health Insurance at Village Level: the Case from Guinea Bissau." *Health Policy and Planning* 6(1):46-54.

Collins, David H. (1990). "An Assessment of User Fees in Swaziland's Health Services." Paper prepared for USAID/Swaziland. Management Sciences for Health, Boston.

Collins, David H., and Ibrahim M. Hussein (1993). "Financial Sustainability of Health Programs in Kenya: The Role of Cost Sharing." Management Sciences for Health, Boston.

Creese, Andrew L. (1991). "User Charges for Health Care: A Review of Recent Experience." *Health Policy and Planning* 6(4):309-319. Also available as SHS Paper 1, Division of Strengthening Health Services, World Health Organization: Geneva.

de Ferranti, David (1985). *Paying for Health Services in Developing Countries: An Overview*. World Bank Staff Working Paper 721. Washington, DC.

DeJong, Jocelyn (1991). "Nongovernmental Organizations and Health Delivery in Sub-Saharan Africa." World Bank Policy, Research, and External Affairs Working Paper 708. Population and Human Resources Department, Population, Health and Nutrition Division, Washington, DC.

Dor, Avi, Paul Gertler, and Jacques van der Gaag (1987). "Non-Price Rationing and the Choice of Medical Care Providers in Rural Côte d'Ivoire." *Journal of Health Economics* 6:291-304.

Dor, Avi and Jacques van der Gaag (1988). *The Demand for Medical Care in Developing Countries: Quantity Rationing in Rural Côte d'Ivoire*. World Bank Living Standards Measurement Study Working Paper 35. Washington, DC.

Ellis, Randall P. (1987). "The Revenue Generating Potential of User Fees in Kenyan Government Health Facilities." *Social Science and Medicine* 25(9):995-1002.

Epstein, Paul R. and Linda Coultas (1991). "Kenya: Cost-Recovery Programme." *Lancet* 337(June 15):1467-68.

Foltz, Anne-Marie (1992). "Selective vs. Comprehensive Primary Care Debate Revisited: Lessons of Sustainability from the African Experience." Draft prepared for presentation at the American Public Health Association Annual Meetings, November 11.

Gertler, Paul and Jacques van der Gaag (1990). *The Willingness to Pay for Medical Care*. Baltimore and London: Johns Hopkins University Press.

Gilson, Lucy (1988). *Government Health Care Charges: Is Equity Being Abandoned?* EPC Publication 15. London School of Hygiene and Tropical Medicine.

Gilson, Lucy and Anne Mills (1993). "Health Sector Reforms in Lower Income Countries: Lessons of the Last 10 Years." Paper-in-progress presented at the conference, "Health Sector Reform in Developing Countries: Issues for the 1990s," Sept. 10-13, 1993, Durham, New Hampshire. Health Economics and Financing Programme, Department of Public Health and Policy, London School of Hygiene and Tropical Medicine.

Griffin, Charles C. (1989). *Strengthening Health Services in Developing Countries through the Private Sector*. International Finance Corporation Discussion Paper 4. Washington, DC.

Grosh, Margaret E. (1992). *From Platitudes to Practice: Targeting Social Programs in Latin America*. World Bank, Latin America and the Caribbean Technical Department, Regional Studies Program Report 21. Washington, DC.

Hecht, Robert M., ed. (1992). *Zimbabwe: Financing Health Services*. A World Bank Country Study. Washington, DC.

Hecht, Robert, Catherine Overholt, and Hopkins Holmberg (1992). *Improving the Implementation of Cost Recovery for Health: Lessons from Zimbabwe*. World Bank, Africa Technical Department, Population, Health and Nutrition Division. Technical Working Paper 2. Washington, DC.

Hiscock, Julia (1993). *Sustainability in the Health Sector. Part 1: Ghana Case Study*. The Save the Children Fund (UK), Overseas Information and Research, Overseas Department. London.

Jamison, Dean T., W. Henry Moseley, Anthony R. Measham, and José-Luis Bobadilla, eds. (1993). *Disease Control Priorities in Developing Countries*. New York: Oxford University Press.

Jimenez, Emmanuel (1987). *Pricing Policy in the Social Sectors*. Baltimore and London: Johns Hopkins University Press.

King, Maurice (1990). "Public Health and the Ethics of Sustainability." *Tropical and Geographical Medicine* 42:197-206.

Korte, R., Heide Richter, F. Merkle, and H. Görgen (1992). "Financing Health Services in Sub-Saharan Africa: Options for Decision-makers during Adjustment." *Social Science and Medicine* 34(1):1-9.

Kutzin, Joseph (forthcoming). "Obstacles to Women's Access: Issues and Options for More Effective Interventions to Improve Women's Health." World Bank Human Resources Development and Operations Policy Working Paper 13. Washington, DC.

Kutzin, Joseph and Howard Barnum (1992). "Institutional Features of Health Insurance and their Effects on Developing Country Health Systems." *International Journal of Health Planning and Management* 7(1):51-72.

Litvack, Jennie I. and Claude Bodart (1993). "User Fees and Improved Quality of Health Care Equals Improved Access: Results of a Field Experiment in Cameroon." *Social Science and Medicine* 37(3):369-383.

London School of Hygiene and Tropical Medicine (1993). "Triennial Review 1990-1993: The Health Economics and Financing Programme." Health Policy Unit, Department of Public Health and Policy.

Makinen, Marty and Charlotte Leighton (1993). "Workshop on Health Financing and Sustainability in Africa." CCCD Regional Conference on Progress in Child Survival, Dakar, Senegal. Abt Associates, Inc. Health Financing and Sustainability Project.

McPake, Barbara, Kara Hanson, and Anne Mills (1992). "Experience to Date of Implementing the Bamako Initiative: A Review and Five Country Case Studies." London School of Hygiene and Tropical Medicine, Department of Public Health and Policy, Health Policy Unit.

Mujinja, P.G.M. and Richard Mabala (1992). "Charging for Services in Non-Governmental Health Facilities in Tanzania." Bamako Initiative Technical Report Series No. 7. UNICEF: New York.

Mwabu, Germano M. (1989). "Referral Systems and Health Care Seeking Behavior of Patients: An Economic Analysis." *World Development* 17(1):85-92.

Mwabu, Germano M. and Wilfred M. Mwangi (1986). "Health Care Financing in Kenya: A Simulation of Welfare Effects of User Fees." *Social Science and Medicine* 22(7):763-767.

Mwabu, Germano M., Martha Ainsworth, and Andrew Nyamete (1993). *Quality of Medical Care and Choice of Medical Treatment in Kenya: An Empirical Analysis*. World Bank, Africa Technical Department, Human Resources and Poverty Division. Technical Working Paper 9. Washington, DC.

Over, Mead and Peter Piot (1993). "HIV Infection and Sexually Transmitted Diseases." In Dean T. Jamison, W. Henry Moseley, Anthony R. Measham, and José-Luis Bobadilla, eds. *Disease Control Priorities in Developing Countries*. New York: Oxford University Press.

Prescott, Nicholas, ed. (1991). *Indonesia: Health Planning and Budgeting*. A World Bank Country Study. Washington, DC.

Save the Children (1993a). "Sustainability in the Health Sector: Report on a Save the Children Workshop, Nuffield Institute, Leeds, 26th-28th May." The Save the Children Fund (UK), Overseas Information and Research Department. London.

Save the Children (1993b). "Investing in Health - World Development Report 1993: The SCF Perspective." The Save the Children Fund, Overseas Department. London.

Shaw, R. Paul and A. Edward Elmendorf (1993). *Better Health in Africa*. World Bank, Africa Technical Department, Human Resources and Poverty Division. Technical Working Paper 7. Washington, DC.

Shepard, Donald S., Taryn Vian, and Eckhard F. Kleinau (1990). "Health Insurance in Zaire." Policy, Research, and External Affairs Working Paper 489. World Bank, Africa Technical Department, Population, Health, and Nutrition Division, Washington, DC.

Summers, Lawrence H. (1992). "Investing in *All* the People." World Bank Policy Research Working Paper 905. Washington, DC.

Unger, Jean-Pierre, Amadou Mbaye, and Moussa Diao (1990). "From Bamako to Kolda: a Case Study of Medicines and the Financing of District Health Services." *Health Policy and Planning* 5(4):367-377.

Van Lerberghe, Wim, Harrie Van Balen, and Guy Kegels (1989). *District and First Referral Hospitals in Sub-Saharan Africa: An Empirical Typology Based on a Mail Survey*. Medicus Mundi International, Institute for Tropical Medicine, Antwerp.

Vogel, Ronald J. (1990). "An Analysis of Three National Health Insurance Proposals in Sub-Saharan Africa." *International Journal of Health Planning and Management* 5:271-285.

Waddington, Catriona J. and K.A. Enyimayew (1989). "A Price to Pay: The Impact of User Charges in Ashanti-Akim District, Ghana." *International Journal of Health Planning and Management* 4(1):17-47.

Waddington, Catriona J. and K.A. Enyimayew (1990). "A Price to Pay, Part 2: The Impact of User Charges in the Volta Region of Ghana." *International Journal of Health Planning and Management* 5(4):287-312.

Weaver, Marcia, Kadi Handou, and Zeynabou Mohamed (1990). "Patient Surveys at Niamey National Hospital: Results and Implications for Reform of Hospital Fees." Prepared under USAID Project 683-0254. Abt Associates. Bethesda, Maryland.

WHO (World Health Organization) (1993). "Capacity Building for Health Systems Reform." Background document prepared for the Ottawa Conference on a Future Partnership for the Acceleration of Health Development, October 18-20.

World Bank (1993a). *World Development Report 1993: Investing in Health*. New York: Oxford University Press.

World Bank (1993b). *Burundi: Health Sector Reform Project*. Staff Appraisal Report 12411-BU (Draft Confidential). South-Central Africa and Indian Ocean Department, Human Resources Operations Division. Washington, DC.

World Bank (1993c). *Federal Republic of Nigeria: Social Sectors Strategy Review*. Report 11781-UNI (Confidential). Western Africa Department, Population and Human Resources Division. Washington, DC.

World Bank (1992a). *World Development Report 1992: Development and the Environment*. New York: Oxford University Press.

World Bank (1992b). *Uganda: Social Sector Strategy*. Report XXXX-UG. Eastern Africa Department, Population and Human Resources Division. Washington, DC.

World Bank (1992c). *Tanzania: AIDS Assessment and Planning Study*. A World Bank Country Study. Washington, DC.

World Bank (1991). *Federal Republic of Nigeria: Health Care Cost, Financing and Utilization*. Report 8382-UNI. Western Africa Department, Population and Human Resources Division. Washington, DC.

2

ANALYTIC ACTIVITY SUMMARY: EPIDEMIC DYSENTERY AND CHOLERA

THEME: CONTROL OF EPIDEMIC DYSENTERY AND CHOLERA (1F-23)

QUESTION: What information, epidemiological, treatment, prevention and control is needed to design a cost-effective on-going, sustained, coordinated response to understand and control these epidemic illnesses.

WHY IS THIS QUESTION IMPORTANT?: In the past decade epidemic dysentery and epidemic cholera have spread through Africa. Both have caused widespread illness and death, affecting hundreds of thousands of people. Control of these epidemics has become increasingly complex: new organisms that cause them are appearing, and many strains are now resistant to several antibiotics. Recent changes in the organisms causing dysentery have also complicated treatment and control. E. Coli 0157:h7 has caused at least one large outbreak of dysentery, kidney failure and death in Swaziland. Since control and treatment approaches are different for this organism, it is important to be able to distinguish it from the usual cause of epidemic dysentery. Countries in southern Africa have been largely unable to distinguish these two cases of dysentery.

During the last several years epidemic cholera has been a particulaly severe problem in southern Africa. In 1992, 20 African countries reported 91,081 cases; cholera is a hioghly preventable disease. Recent investigations have shown that cholera prevention and control may be possible even in areas with fecal-contaminated food and water. Specific, low-cost measures which are practical and culturally acceptable can be identified and implemented.

RESEARCH DESIGN: Under this activity several areas will be addressed and strengthened. These include: 1. improved laboratory capability to diagnose bacterial pathogens and to direct treatment policy; 2. developmehnt of epidemiologic skils and surveillance systems to collect basic data which acan be used to direct public health action; 3. development of regional coordination through collection and dissemination of lab and epidemiologic results from each country that would be useful to others; 4. develop and insure that a CDC epidemiologist will be stationed in the offices of WHO/Geneva/AFRO in Zimbabwe and will work in the 3 to 5 countries in this sub-region.

WHO IS GOING TO DO IT?: CDC Foodborne and disease branch in collaboration with WHO

ACTIVITY MANAGER: Mary Harvey

EXPECTED OUTPUTS:

1. Identification of causes of epdemic dysentery in 3 to 5 countries and appropriate treatment.
2. Development of rapid identification of epidemics and rapid response for treatment and control.
3. Establishment of regular communication between each country's laboratory and its policy makers to insure that data will be used to use antibiotics rationally.
4. Dissemination strategy for regular rapids sharing of information about epidemic cholera and dysentery amoung countries in southern Africa, including treatment options and policies.
5. Identifying and testing one or more possible interventions for dysentery and cholera.

EXPECTED ACTIONS:

PRIMARY AUDIENCES: Ministry of Health personnel in 3 to 5 countries; laboratory personnel and donors.

DISSEMINATION STRATEGIES: Information will be used to develop in collaboration with WHO appropriate training materials which will be used in WHO supported courses for diarrheal disease program managers and laboratory personnel.

WHAT ARE THE RESOURCE COSTS?: $350,000-$500,000 per year for two years.

STARTING AND COMPLETION DATES: Start: FY94 Completion: FY96

ANALYTIC ACTIVITY SUMMARY: DECENTRALIZATION IN THE HEALTH SECTOR

THEME: SUSTAINABLE ORGANIZATIONS AND GROWTH (3D)

QUESTIONS: What are the consequences of and most appropriate strategies for decentralization within The health sector?

WHY IS THIS QUESTION IMPORTANT?: International donors and national governments are increasingly advocating the decentralization of the health sector as a means to increase efficiency, accountability to the local population, quality, and the cost effectiveness of the health sector. Decentralization, however, has become a generic, all purpose solution to numerous problems in the health sector, including "overcentralization" and lack of sustainable programs. The advocacy for and implementation of "decentralization" policies lacks specificity and grounding in empirical and theoretical analysis. Decentralization of the health sector also must occur as part of a broader public sector framework.

WHAT IS THE RESEARCH DESIGN OR METHODOLOGY?: Given the great complexity of the issue, a multi-step process is proposed: review all existing literature on the subject, including research conducted under the G/R&D/EID Decentralization, Finance and Management Project; development of an evaluation protocol, with specific research questions and criteria, to guide the study; field case studies in at least 3 sub-Saharan countries, two of which should be francaphone; development of reports; and depending on available resources, a regional workshop. The research will focus on questions relevant to the implementation and consequences of decentralization including the following factors: institutional arrangements, administrative responsibilities and roles at all levels, delegation of responsibilities, human resource needs at all levels, role of community and strategies for obtaining their involvement, financing and budgeting responsibilities, identifying the true costs of decentralization (financial, time, human resource and others), strategies for financing sustainability at lower levels, and identification of health sector service responsibilities at various levels.

This project will build on work being done by WHO on the topic of decentralization in Ghana and in Kenya.

WHO IS GOING TO DO IT?: Letter Grant to WHO/Strengthening Health Services Division P.I.: Dr. Katja Janovsky, WHO/SHS.

WHO IS GOING TO MANAGE IT?: Activity Manager: Alex Ross, RTA, AFR/ARTS/HHR.

WHAT ARE THE EXPECTED OUTCOMES?: The following products are envisioned: a monograph identifying evaluation/planning criteria to be used when studying the effects of decentralization in the health sector; a series of monographs presenting the results from the field case studies; and, a policy paper presenting various options for decision makers and identifying future research needs. National and local governments will use the research findings to better understand the planning and administrative needs associated with and implications of decentralization in the health sector.

WHO ARE THE PRIMARY AUDIENCES?: International donors, national decision makers in the health sector and public management sectors (education, finance, planning), national municipal government leaders, national district health officers, USAID Africa Bureau, REDSO, and Mission leadership.

DISSEMINATION STRATEGIES?: Three dissemination strategies will be pursued: monographs presenting planning tools will be distributed widely to national governments, as well as to WHO, World Bank to use their dissemination networks; production of concise options papers for use by key national and international decision makers; and two regional meetings in English and French.

WHAT ARE THE RESOURCE COSTS?: $400,000

FUNDING SOURCES?: HHRAA project Core Funds

START AND COMPLETION DATES?: Start: October 1994 Completion: August 1996

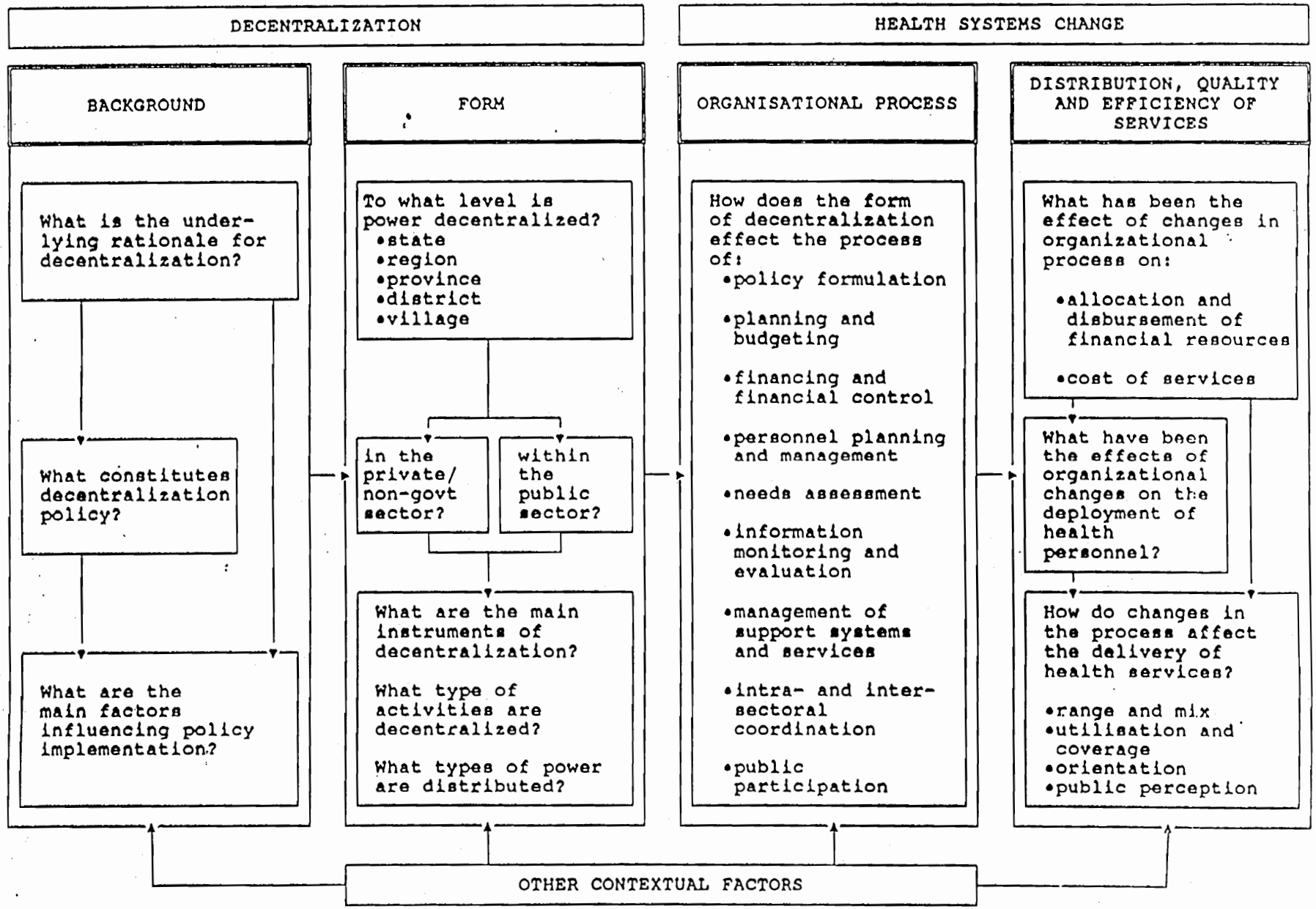
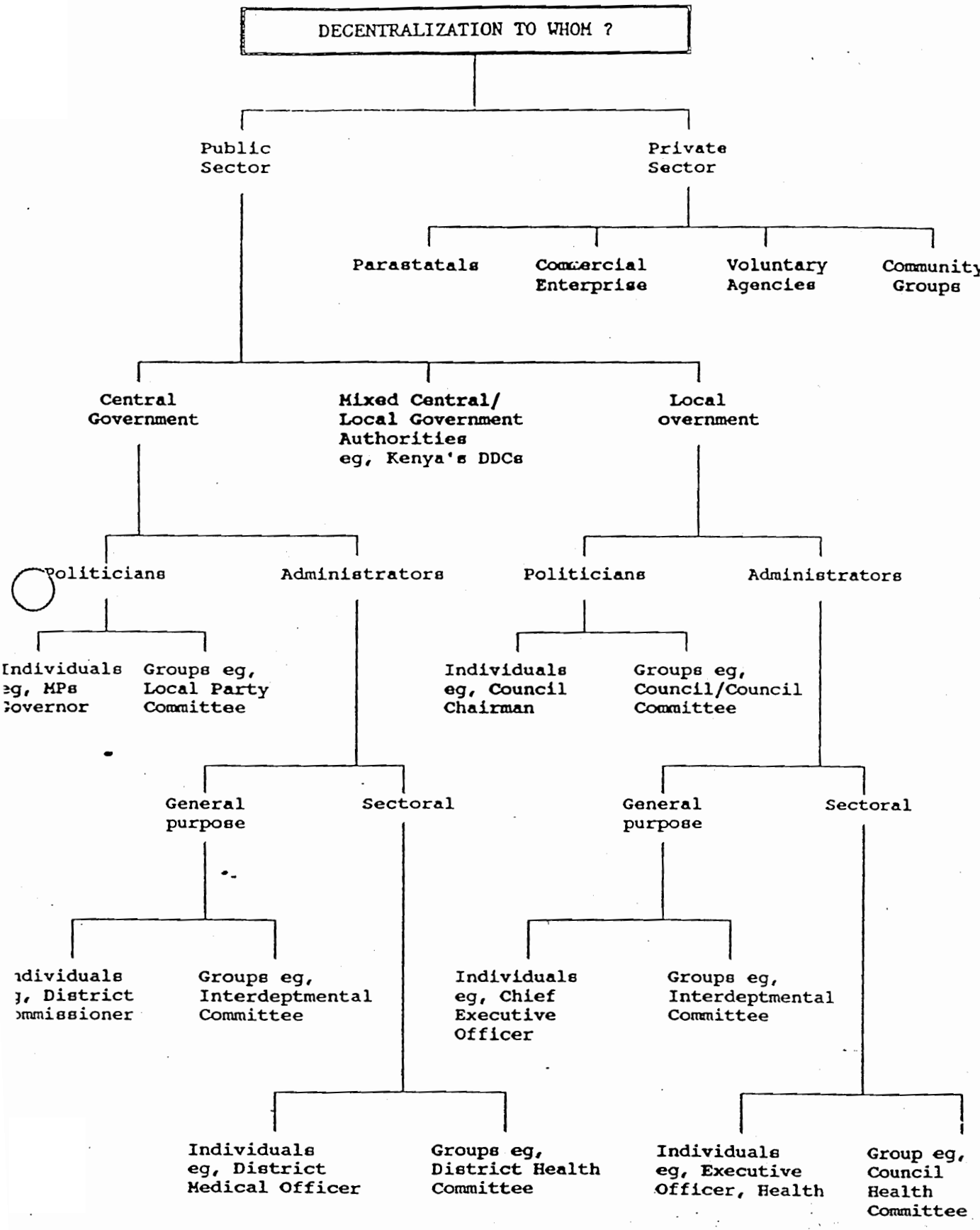

DECENTRALIZATION
HEALTH SYSTEMS CHANGE
BACKGROUND
FORM
ORGANISATIONAL PROCESS
DISTRIBUTION, QUALITY AND EFFICIENCY OF SERVICES
What is the underlying rationale for decentralization?
What constitutes decentralization policy?
What are the main factors influencing policy implementation?
To what level is power decentralized?
•state
•region
•province
•district
•village
in the private/ non-govt sector?
within the public sector?
What are the main instruments of decentralization?
What type of activities are decentralized?
What types of power are distributed?
How does the form of decentralization effect the process of:
•policy formulation
•planning and budgeting
•financing and financial control
•personnel planning and management
•needs assessment
•information monitoring and evaluation
•management of support systems and services
•intra- and inter-sectoral coordination
•public participation
What has been the effect of changes in organizational process on:
•allocation and disbursement of financial resources
•cost of services
What have been the effects of organizational changes on the deployment of health personnel?
How do changes in the process affect the delivery of health services?
•range and mix
•utilisation and coverage
•orientation
•public perception
OTHER CONTEXTUAL FACTORS

FIGURE 1

FIGURE 4



BEST AVAILABLE COPY

ANALYTICAL ACTIVITY SUMMARY: HEALTH CARE FINANCING AND SUSTAINABILITY

THEME: HOSPITAL AUTONOMY (IF 22)

QUESTION: Under what conditions would granting managerial and financial autonomy to hospitals result in improved efficiency, quality of care and equitable delivery of services? What is the experience to date of developing countries in granting autonomy to hospitals?

WHY IS THIS QUESTION IMPORTANT?: This topic was identified as a priority issue in our strategic framework on Health Care Financing and Sustainability. It was ranked number one priority by a US-based consultative group and number 2 by an Africa-based consultative group.

In most sub-Saharan countries hospitals consume the lion's share of health budgets. In some countries one or two tertiary hospitals may consume more than 50% of the health budget. This generates a number problems to the health system including break-down of the referral system due to lack of resources and the subsequent poor services at lower level facilities. Problems that could be treated inexpensively at lower levels are presented at tertiary level facilities. Large hospitals are located in large urban centers and therefore serve the relatively well-off segments of the population. Hospitals are relatively less effective in promoting the public health agenda. A great majority of health problems in developing countries can be treated at primary and secondary levels of care. Thus, reallocation of public resources to primary and secondary levels of care would result in higher levels of efficiency, equity and quality of care.

Autonomy of all tertiary level and some secondary level facilities would reduce the level of public sector involvement and increase the potential of such facilities to introduce innovative management practices that would result in efficiency, equity and quality of care.

RESEARCH DESIGN: Literature review; case studies of examples from at least three African countries and two other developing countries; identification and assessment of different forms of autonomy; interviews of stake holders; analysis of financial and service data.

WHO IS GOING TO DO IT?: Data for Decision Making project.

ACTIVITY MANAGER: Abraham Bekele

EXPECTED OUTPUTS: Clearer definition and assessment (evaluation) of different modes of autonomy. Reasonably thorough survey of experience to date on hospital autonomy -- problems encountered and solutions applied. Recommendations on how, when, and where autonomy would produce improvements in efficiency, quality and equity in service delivery.

EXPECTED ACTIONS: Decision-makers would have access to better information on hospital autonomy. Results of this research would be applied in planning and implementation of autonomous hospitals.

PRIMARY AUDIENCES: African decision-makers, USAID missions, other donors, local professional associations, medical and public health schools.

DISSEMINATION STRATEGY: Publications, presentation at conferences, and workshops.

FUNDING SOURCES: $300,000 HHRAA funds.

STARTING AND COMPLETION DATES:

	Early	Late
Start:	July 1994	Sept 1994
End:	Dec 1995	March 1996

ARTS
Office of Analysis, Research and Technical Support

ANALYTICAL ACTIVITY SUMMARY: HEALTH CARE FINANCING AND SUSTAINABILITY

THEME: EQUITY AND COVERAGE OF HEALTH CARE PROVISION (2B5)

QUESTION: In the context of cost recovery for health care, how can poor segments of the population be identified? How can health systems ensure that the poor have access to reference facilities? What are effective means testing and exemption systems? How can means testing for health care be combined with other social services?

WHY IS THIS QUESTION IMPORTANT?: The recent implementation of cost recovery systems in the majority of Sub-Saharan African countries coincides with a time period when real per capita incomes are declining in many of these countries. To date, many systems designed to exempt the poor from payment have proved to be either too expensive or administratively burdensome. With the recent devaluation of the CFA currency, and concomitant increases in the cost of drugs and transport, the countries of West Africa are particularly concerned with equity problems. Equity concerns remain the principal unresolved problems with the conception and implementation of cost recovery systems; targeting the poor is a very important subject for African decision makers (this topic was ranked #1 by the Africa-based consultative group).

In many countries, cost recovery is not unique to the health sector, but is also being increasingly used to help finance education, water and sanitation, and other critical social services. Identifying mechanisms to consolidate the identification of the poor is thus a concern beyond the Ministry of Health. Priority should be given to cross-sectoral solutions to this problem -- solutions which would be much more efficient than for means testing systems for health care alone.

RESEARCH DESIGN: Literature review; analysis of conceptual issues related to equity and means testing systems; case studies of at least three African and two other developing country experiences with means testing and exemption systems.

WHO IS GOING TO DO IT?: BASICS

ACTIVITY MANAGER: Abraham Bekele.

EXPECTED OUTPUTS: (1) Information on the conceptual problems and actual experience of means testing are made available to policy makers, managers, NGOs and donors; and (2) policy options and possibly operational guidelines are offered.

EXPECTED ACTIONS: Host governments and donors adopt measures which (1) provide for economic access of the poor and target populations to acceptable quality health services; (2) minimize the loss of revenue to the health system; and (3) where possible, bring the health sector into collaborative arrangements with other social sectors for means testing and targeting of the poor.

PRIMARY AUDIENCES: African policy makers, managers of health systems, USAID regional offices and country missions, other donors, NGOs.

DISSEMINATION STRATEGY: Publications, presentation at conferences, and workshops.

FUNDING SOURCES: $300,000 HHRAA funds.

STARTING AND COMPLETION DATES:

	Early	Late
Start:	July 1994	Sept. 1994
End:	Dec. 1995	March 1996

ARTS
Office of Analysis, Research and Technical Support

ANALYTICAL ACTIVITY SUMMARY: HEALTH CARE FINANCING AND SUSTAINABILITY

THEME: RESOURCE MOBILIZATION (3C3)

QUESTION: What are the revenue, equity and efficiency effects of various resource mobilization schemes?

WHY IS THIS QUESTION IMPORTANT?: Almost every Ministry of Health, and many NGOs, in sub-Saharan Africa are currently putting into place cost recovery and other resource mobilization systems. Several options exist to collect revenue from consumers: taxes, health insurance, prepayment, copayment are a among the possibilities with which governments and NGOs are currently experimenting. But understanding of the trade-offs in efficiency, equity and revenue generation inherent in different resource mobilization schemes is not well developed -- particularly when placed into the context of different levels of care, different packages of care, and the social, economic and political environment of which the health care delivery system is a part. Public sector insurance schemes represent a particular challenge, as they are politically popular but can create serious problems of equity.

RESEARCH DESIGN: Literature review; development of typology of resource mobilization options; analysis of conceptual issues related to the research question; case studies of at least two country experiences.

WHO IS GOING TO DO IT?: Data for Decision Making project.

ACTIVITY MANAGER: Abraham Bekele.

EXPECTED OUTPUTS: (1) Information on the conceptual issues of trade-offs between efficiency, equity, and revenue generation, and studies of specific country experiences, are made available to policy makers in the form of a "users' guide" or manual; and (2) policy options and operational guidelines are offered.

EXPECTED ACTIONS: Host governments, NGOs, and donors consider the trade-offs between efficiency, equity and revenue raising potentials of various resource mobilization schemes before adopting one or a combination of approaches.

PRIMARY AUDIENCES: African policy makers, managers of health systems, USAID regional offices and country missions, other donors, NGOs.

DISSEMINATION STRATEGY: Publications, presentation at conferences, and workshops.

FUNDING SOURCES: $300,000 HHRAA funds.

STARTING AND COMPLETION DATES:

	Early	Late
Start:	July 1994	Sept. 1994
End:	Dec. 1995	March 1996

ARTS
Office of Analysis, Research and Technical Support

ANALYTICAL ACTIVITY SUMMARY
SUSTAINABILITY OF HEALTH SERVICES (1F19)

THEME: **Social Sector Financing: Sustainable Health Care Services**

QUESTION: What strategies can be pursued to increase the sustainability of health care services in Africa?

ACTIVITY: Synthesis of lessons learned about sustainability of health care services in Africa, including recent research experiences form the Health Financing and Sustainability Project; review of NPA activities that have been linked to increasing sustainability; development of a strategic framework for African governments and USAID to guide its investments and programming in the area of sustainability; country case studies in Niger and Senegal to examine quality of care and cost recovery and its relationship to sustainability of services.

WHY IS THE QUESTION IMPORTANT?: African governments need to pursue innovative strategies for increasing sustainability of health services and reaching national health goals.

RESEARCH DESIGN: (1) Desk study to synthesize literature on sustainability of health services in Africa; (2) Field studies to evaluate quality of services as it relates to cost recovery in Niger and Senegal. Local researchers will be matched with U.S. experts to implement study. Methodology will be similar to other studies conducted by the Health Financing and Sustainability Project, which include protocol development, selection of sample sites, quantitative analysis based on modified clinic records, and observations at the clinics, as well as community focus groups.

WHO IS GOING TO DO IT?: ABT Associates under the Health Financing and Sustainability Project.

ACTIVITY MANAGER: Hope Sukin, ARTS Health Economist.

EXPECTED OUTPUTS?: A lessons-learned paper and a strategic framework to guide African policy and programs and donor strategies and investments for increasing sustainability.

PRIMARY AUDIENCES?: African governments and donors.

WHAT ARE THE RESOURCE COSTS?: $300,000.

FUNDING SOURCE: HHRAA.

STARTING AND COMPLETION DATES: July 1993 to September 1994.

ANALYTICAL ACTIVITY SUMMARY

ROLE OF THE PRIVATE SECTOR IN PROVIDING AND SUSTAINING HEALTH CARE SERVICES (1F18)

THEME: Health Sector Financing/Role of the Private Sector

QUESTION: What role can the private sector play in contributing to national health goals in African countries? What type of public/ private partnerships have worked successfully in Africa to expand coverage and increase potential for sustainability?

ACTIVITY: Background paper on "Private Financing and Provision of Health Care in Africa"; consultative meetings in U.S. and Africa to discuss issues and directions for government/private sector partnerships; Two in-country studies to examine factors influencing growth and performance of the private sector.

WHY IS THE QUESTION IMPORTANT?: To effectively increase health sector coverage and increase the potential for sustainability, the public sector provision of services will need to be complemented by the private sector--both traditional and nontraditional.

RESEARCH DESIGN?: (1) A literature review would be carried out based on published and "gray" materials focused on an analysis of data on private sector provision of health care in the African region. The database will compile the best available estimates of the numbers and types of private health care providers/facilities in Africa. The paper will summarize quantitatively what is known about private financing and provision across the African region. (2) Two country case studies will be carried out by a team of people during a two month period. The team will develop best estimates of nongovernmental financing and provision by source, type, coverage, costs, and quality--using interview and available data sources, including a description of the policy environment relative to the private health sector.

WHO IS GOING TO DO IT?: Harvard Institute of International Development, and ABT Associates.

ACTIVITY MANAGER?: Hope Sukin, ARTS Health Economist.

EXPECTED OUTPUTS?: Guidance for African countries and USAID strategies, NPA, and project support to facilitate the development and expansion of public/private partnerships to deliver health services.

PRIMARY AUDIENCES?: African Governments and USAID.

WHAT ARE THE RESOURCE COSTS?: $550,000.

WHAT IS THE FUNDING SOURCE?: HHRAA.

STARTING AND COMPLETION DATES: July 1993 through September 1994.

BEST AVAILABLE COPY

ARTS
Office of Analysis, Research and Technical Support

ANALYTICAL ACTIVITY SUMMARY
ANALYSIS OF REGIONAL HEALTH TRENDS (3B9)

THEME: **Regional Health Information For Monitoring African Child Survival/Health Trends And Emerging Problems**

QUESTION: Is the child survival situation in Africa improving? What factors are contributing to emerging trends? How can MOH and WHO information systems be improved and made sustainable to provide quality data for tracking trends?

ACTIVITY: Through the OIH PASA, CDC will work with AFRO (the Africa regional World Health Organization office) to improve their regional African health data base and provide technical support to a selected number of countries to improve country health information systems--data collection, analysis, and reporting--on infant and child mortality, EPI coverage, CDD, malaria, ARI, nutrition.

WHY IS THE QUESTION IMPORTANT?: This information will be important to ensure that USAID, WHO, and other donors and African countries have the capacity to track trends and emerging problems.

RESEARCH DESIGN: Select 10 to 12 countries and assess quality of data being generated for regional reporting and analysis. Identify in-country and WHO constraints and work with AFRO through workshops and follow-up country visits to assist a selected number of MOHs to collect, analyze, and report on critical indicators of country health status.

WHO IS GOING TO DO IT?: HHS/OIH/CDC.

ACTIVITY MANAGER: Bill Lyerly, Hope Sukin.

EXPECTED OUTPUTS: Information and analysis of child survival trends in Africa; identification of issues and emerging health problems.

PRIMARY AUDIENCES: African countries, USAID, and other donors.

WHAT ARE THE RESOURCE COSTS?: $550,000.

WHAT IS THE FUNDING SOURCE?: HHRAA.

STARTING AND COMPLETION DATES: July 1993 through September 1995.

3

HHRAA Project

Child Survival

Sub-Sector Results Report

January - May, 1994

I. Major Achievements

A. Impact on New Child Survival Project Development

The Child Survival Strategy/Framework has been used by several Missions, e.g. Eritrea in the design and development of new child survival projects. The process of putting this document together with the Global Bureau helped articulate for both the Africa Bureau and Global Bureau the importance of systems strengthening and the balance needed between focused interventions and systems strengthening. This approach has been used as criteria in Washington for reviews, new PIDs and project papers, Eritrea, West Africa Regional Project, etc. By the end of September 1994, the framework will be submitted to the Africa Bureau for review and clearance.

B. Impact on Agency's position in regards to WHO/UNICEF Sick Child Initiative

The process of putting together the Sick Child Strategic Framework helped focus the Agency attention on the importance and dangers of this new WHO/UNICEF initiative. It clarified for the Africa Bureau and the Global Bureau the position that the Agency should take in support of the initiative (a supportive, field oriented approach) as well as helped to articulate our caveats which include that a large percentage of the African population does not have access to the formal health sector. Our attention to field application has also influenced WHO in its interest in the next steps for dissemination of this approach to the field.

C. Impact on World Bank Involvement of African Leadership in Dissemination of Better Health in Africa

In discussions with the World Bank on its new Better Health in Africa strategy, AFR/SD was able to influence the direction of the document's dissemination with a focus on including African leadership in determining the approach to disseminate and utilize it in Africa. The World Bank is planning several meetings of African health leaders to develop a work plan for Better Health in Africa's dissemination throughout the continent.

D. Impact on Development of West Africa Regional Health and Population Project

With the announcement of the close-out of a number of Missions in West Africa, SARA prepared several issues papers and conceptual approaches for continuation of support of child survival, family planning and HIV/AIDS programs in the region. Based on the arguments presented in these documents, the African Bureau decided to support a regional West Africa health and population project to provide continued funding in priority areas. The Africa Bureau was able to solicit Agency concurrence to proceed with he development of this project.

2. Key Outputs

A. Strategic Frameworks

Four strategic frameworks have been completed related to child survival. These include the 1) Sick Child; 2) Nutrition; 3) Health Care Financing; and 4) Private Sector. All four strategies have been vetted in the Agency. The Health Care Financing strategy was vetted in the field with African colleagues at the Senegal Health Financing conference and was used as the basis for funding new research in FY 95.

B. Research/Analytical

After a slow start, the Centers for Disease Control (CDC) Integrated Case Management activity is proceeding in Kenya. It is understood that the Ministry of Health is interested in the results, which should be presented in September for design and implementation of follow-up activities.

Because of the critical linkages between health care financing, and child survival, the research under health care financing will be discussed here. The draft reports by Abt on the Synthesis of African Health Care Financing Experiences under the Health Financing and Sustainability Project and the research on the linkages between Quality of Care and Willingness to pay will be completed in September for our review. A shorter report for Policy Makers is also being drafted which will address the most-asked questions in health care financing.

The Commodities Logistics software package has been completed which will be used to improve country management of pharmaceutical and family planning commodities. A workshop to present the materials has been scheduled for the end of September.

The AFRO/WHO grant focused on malaria and immunizations has been implemented on schedule.

C. Technical Assistance

Mary Harvey, TACHS, introduced the integrated case management, sick child approach to the USAID Mission and team designing the child survival project in Zambia. Phyllis Gestrin in her TDY to Eritrea also provided information on the integrated case management for the sick child to the new project design.

Abraham Bekele provided technical assistance to USAID/Ethiopia in health care financing to the USAID Mission and team designing the child survival project in Zambia. Phyllis Gestrin in her TDY to Eritrea also provided information on the integrated case management for the sick child to the new project design.

Abraham Bekele provided technical assistance to USAID/Ethiopia in health care financing for the new health project design. Abraham provided technical assistance to the Directorate of

Planning of the Ministry of Health in Burkina Faso in preparation for their presentation on their cost recovery experience at the West African Conference on Health Care Financing and Sustainability.

SARA provided technical assistance to Makerere University to develop a course for Africans in Eastern and Southern Africa to interpret and utilize nutrition data from the Demographic and health Surveys.

SARA has given technical assistance to ECSA to their nutrition advisor to increase her capacity to analyze and present nutrition information to both technicians and policy makers in the region.

3. Relevance

The number of research activities are few in child survival, since the emphasis is now on implementation. However, the synthesis of experiences that led to the African Bureau Child Survival Framework and the West Africa Regional Project have been very relevant to the Bureau and country missions.

The work on the sick child strategic framework and follow-up work on field application in Kenya and in developing a field assessment tool appears to be relevant to Mission and country needs and will provide guidance for country implementation of the sick child initiative.

4. Research

Most all research has not been completed.

5. African Participation

The AFRO/WHO grant on malaria and immunization has been very important in developing a new relationship with the WHO regional office in Africa. This grant has also set the stage for other types of collaboration on the continent, e.g. EPI, malaria strategy development, etc. Funding under this grant has enabled AFRO to develop indicators for evaluation and monitoring of programs in Africa and for supporting meetings to disseminate these approaches.

The Makerere University Regional Course in Nutrition has been developed as an African regional initiative that will be implemented by Africans for Africans in Eastern and Southern Africa.

6. Dissemination

For ECSA, SARA has helped the organization with the design and publication of their nutrition bulletin for Eastern and Southern Africa.

E notes have gone to the Missions on the sick child initiative.

In State of the Arts, articles have been written on health care financing and the private sector and child survival.

7. Issues

Is the portfolio balanced with the emphasis on the sick child, nutrition, malaria and health care financing and private sector?

8. Recommendations

Move ahead with Bureau review of the framework for Design and Implementation of Child Survival Programs.

4

Name: Mary Harvey
Subject: Resident Technical Advisor Report
Reporting Period: November 1, 1993 - May 31, 1994
Date Submitted: June 25, 1994 (draft)

OUTPUTS

1. TDY'S (Objectives and accomplishments)

Lusaka, Zambia November 15-December 2, 1993

From November 15-20, Represented USAID/Africa Bureau at first meeting of the WHO/AFRO Task Force On immunization in Africa, held from 15-16 November, 1993 and the EPI managers meeting for the eastern and southern africa sub-region. At the Lusaka meeting I represented USAID and prepared the official report for the group. The Lusaka meeting served as the first meeting of the Task Force On immunization of which USAID Is a member. The purpose of the Task Force, as stated by the WHO regional director is to understand the progress and constraints of the EPI in Africa and propose concrete actions and identify resources for this program. A final report was prepared and in on file in our office. The next scheduled meeting to which AFR is invited is scheduled for November 15-16, 1994

This meeting was followed by a meeting of EPI managers from Southern and Eastern Africa. A report is on file. I served as a facilitator for the small group working sessions. The focus of the workshop was on disease surveillance of EPI diseases. Approximately 25 EPI managers, epidemiologists and laboratory personnel attended from Namibia, Zambia, Zimbabwe, Botswana, Lesotho, Swaziland, Tanzania, Uganda, Malawi, Mozambique.

Products: Report on Task Force Meeting and the EPI meeting.

From November 20- December 2, 1993 I worked with two consultants hired by the BASICS Project, in developing for the USAID mission a pre project implementation document for their proposed Child Survival Activity. A log frame was developed, scopes of work for the PID team, an analysis of NPA and the need for it, the role of other donors working in Health in Zambia and an identification of the role / niche for USAID.

Product: Trip report.

New York , UNICEF: January , 1994

Paris, France:February 6, 1994: World Bank meeting to discuss the impact of the devaluation of the CFA Franc on the pharmaceutical sector of the countries of the francophone zone.

The purpose of the meeting was to discuss short and medium term measures that could be taken by donors to ameliorate the impact of the devaluation of the CFA Franc on the pharmaceutical sector of countries of the francophone zone. The donors attending were invited to exchange views on the impact of the devaluation and to begin to consider measure that could be taken in common to moderate the effects of the devaluation. I along with my colleague from R&D/H prepared minutes of the meeting distributed them to USAID missions and relevant desk officers and commented on the official record of the meeting prepared by the World Bank.

Product: Meeting Report and memorandum from the trip.

Yamassoukro, Cote D'Ivoire: 13-20 March 1994. Forth Seminar on Vaccinations in Africa and WHO EPI Managers meeting.

Purpose: Represented USAID Africa Bureau at the fourth International seminar on Immunizations in Africa held in Yamoussoukro Cote D'Ivoire. The purpose of this seminar was to bring together all the experts who are currently working in Africa, to reflect on the future strategic biological, epidemiological, logistic and economic aspects of immunization in Africa and to build durable partnerships. Over 400 persons from MOH of Africa and International agencies attended. I presented a 10 minute speech to the Forum attended on the role of USAID/AFR in health and what we in ARTS/HHRAA are doing. I also served as the reporter for the session on donor coordination.

This meeting was followed by a meeting of EPI representatives from
the 42 countries in Sub-Saharan Africa. I served as a facilitator for the working group from the West African Francophone countries and in a special working group with the representatives from South Africa. The purpose of the meeting was to discuss the status of Epi in Africa region and in the countries, to introduce new strategies and tools (the ARTs/HHRAA funded CLM tool was presented by WHO and the Nigerian representative who participated in the filed trial) and to introduce the notion of a 2 year detailed workplan.

Product: workshop reports.

2. Technical Assistance to Africa Bureau (e.g. report/document reviews, analytical analysis, presentations, evaluations)
   - Zambia PID REVIEW
   - Niger PID Review
   - Togo, Cameroon Close-out transfer memos prepared

Micronutrient
NIGER Pre-assessment team
Cholera Dysentery Disaster / Development planning
CAR
HHRAA mgmt/MIS/EVAl
API Cables
UNICEF Grant and meetings
BASICS EPI
UNICEF Executive board
EPI Technet meeting
Congressional Presentations
PIO/t process development and tracking
PVO reviews
AA process

3. Research/ Dissemination Management (Reports on Progress/Performance of Research/Dissemination Activities)

CLM - see HHRAA MIS for status
Dysentery /Cholera- See HMIS for details
DFA report
CLM dissemination

4. Other

Dissemination Activities
Publications
Meetings Attended See above under TDY's
Presentations- Yamassoukro- Zambia
African Collaboration- WHO/AFRO

Comments By RTA
Date: Signature

Comments By Supervisor
Date: Signature

Name: Subhi Mehdi
Subject: Resident Technical Advisor Report
Reporting Period: April 11, 1994 - May 31, 1994
Date Submitted: August 15, 1994

I. HHRAA Management Information System (MIS)

- Finalized field definitions
- Reviewed and provided technical guidance on database screens, accessibility, and output reports
- Finalized software installation process with IRM/TCO, AFR/W and AFR/Rosslyn
- Coordinated and provided MIS training to staff
- Coordinated data entry to MIS

2. RTA and SubSector Results Reports

- Finalized format for RTA and Sub-Sector Results Report and provided guidance to staff on preparing the reports.

3. HHRAA Project Monitoring and Evaluation System (PMES)

- Coordinated Maureen Norton's visit to Washington and the presentation of the PMES to HHR staff.
- Collaborated with Maureen Norton and Lynne Gaffiken in developing: 1) Draft Action Plan for Midterm Evaluation; 2) Criteria for Selecting Analytic Activities for Rapid Low-Cost Evaluation; and 3) Preliminary List of Terminologies.
- Followed up with Maureen re.:
  1) RLC Plan for the next 6-8 months
  2) Selecting and prioritizing Analytic Activities according to selection criteria
  3) RLC Protocol (methodology, data collection forms, etc.) development
  4) Implementation plan for the selected RLCs (approximately 6).

4. Center for International Development (CIHI)

- Prepared scope of work and Memorandum to the File re. OYB transfer of $80,00 to CIHI for health situation analysis related to Africa.

4. UNICEF/USAID Meeting

Prepared country-specific tables on trends in USAID funding for child survival in Africa.

5. Established contacts with:

- Joan Atherton, Kathy Keel and Shery Grossman of AFR/DP
- Karen Horsch of CDIE/PRISM
- Pamela Forsythe (AFR/ROS), Libby Donargo and Dennis Lauer of AFR/W re. LAN support for the HHRAA MIS
- Rita Agarwaal of AFR/ARTS
- Maureen Norton and Lynne Gafiken re. the PMES

6. Planned Activities for Next Few Months

HHRAA MIS

- Review data and report from database
- Monitor quality of and provide support for data input
- Oversee the conversion to a Windows environment

Rapid Low-Cost Evaluations (RLCs)

- Oversee the finalization and implementation of the workplans

Mid-Term Evaluation

- Develop SOW
- Explore and establish contracting mechanism for the evaluation
- Review SOW and team composition with staff
- Ensure all necessary documents are in place for the 15 Evaluation Questions

Reports

- Write the HHRAA Annual Report for FY 94
- Prepare RTA Report for June-September, 1994

Other

- Review CS Strategy
- Strategic Framework for Information Dissemination
- Finalize API Cable

CA's Meeting: Coordinate logistics, agenda, participants list, etc.

CIHI: Oversee the health situation analysis for Africa

CERPOD Indicators Project: Finalize plans and initiate activities

Name:	William Renison
Subject:	HHRAA RTA Report
Reporting Period:	January 1 - May 31, 1994
Date Submitted:	June 13, 1994

Summary

During the reporting period, I was working on and supporting a four-person Bureau Task Force for an Initiative for Southern Africa (ISA). The Task Force was formed in response to Administrator Atwood's announcement of a new regional program for the southern African region. My responsibilities on the Task Force included (i) developing the concept for the Initiative; (ii) coordination with the Agency and the Africa Bureau in developing a strategic framework; and (iii) providing analytical and technical support on economic and human resource development issues. A report was prepared for a meeting of Mission Directors' and staff in the region in early June outlining the Initiative. Also, during the reporting period, The R&D University Center Office asked the Bureau for a ex-officio representative to serve on a BIFADEC Task Force on Community Colleges and USAID. I am presently serving in that capacity and advising on the technical inputs for a report to be presented in mid-June to BIFADEC and USAID. I continue to manage two research activities.

A. Outputs

(i) TDY. There were no TDYs during the reporting period. One three week TDY to the Southern African region was postponed.

(ii) Technical Assistance. I drafted and revised the initial concept paper for the Initiative in collaboration with the Southern Africa Missions which was approved by the Assistant Administrator and coordinated a set of USAID and inter-agency technical review meetings. In collaboration with others, I drafted a scope of work establishing the Task Force and the analytic framework and process to develop a strategy and implementation plan for the ISA. My technical role on the Task Force was to elaborate a human resource strategy to support the ISA. I authored a draft concept for a regional human resource development strategy to support the Initiative, "Investing in People," and scope of work and questionnaire for a stakeholder-driven analysis and needs assessment. I assisted in the development of sections of the CPSP document for the Initiative.

(iii) Research, Analysis, and Dissemination Management. The research activity entitled, "Improving Food Security in Africa Through Employment Promotion" has produced the anticipated outputs during the reporting period and is on-target for budgetary expenditures. After a series of informal technical reviews, the contractor, IFPRI, produced an

electronic data base and a "Methodology for Vulnerability Mapping and Geographical Targeting in Ethiopia" within the specified timeframe.

A technical review meeting was held including participants from the Africa Bureau and outside consultants to review the research in progress. The ensuing discussion was very positive concerning the new methodology's improvement of vulnerability targeting. Several conceptual issues were raised that will be resolved during the next phase of research applying the methodology using household survey data being currently being collected.

The research findings have been disseminated to REDSO, USAID Addis, Cornell and Tulane Universities, the World Bank and been presented at a workshop with WFP, other donors and NGOs and PVOs in Mombasa Kenya. Informal discussions on using the research methodology to support African capacity for early warning and employment promotion have been held with other Offices and the Mission. Several symposia and workshops have been suggested as a means to disseminate the research findings.

The research activity entitled "Economic Growth and Appropriate Sequencing of Human Resource Investments," has not begun. The Global Bureau's Office of Economic and Institutional Development has received the Africa Bureau OYB, but has been unable to obligate the money due to uncertainties with the Agency re-organization and continuance of a contractual agreement with the Institute of policy Reform. A series of technical meetings were held to agree on a work-plan and identify and agree on specific consultants. However, it appears that a new contractual cooperative agreement will not be signed until the end of the fiscal year.

(iv) African Collaboration: A workshop is being planned for Ethiopian Government and NGOs and PVOs for the IFPRI research.

(v.) Other. None

B. Impact

It is too early to indicate reliably the likely impact of this research activity on project design and national-level policies. However, there is interest in the Africa Bureau, Mission, REDSO/E and the Office of Food for Peace to use this research methodology and data base as a basis to begin broad-based dialogue to coordinate country strategy development and implementation in use of Title II/III programs, particularly with NGOs, PVOs government and donors. The two areas of interest are targeting and

development of social safety nets with labor intensive works being one component of a complimentary set of policy and program options.

RESIDENT TECHNICAL ADVISOR (RTA) REPORT

October 1, 1993 to June 30, 1994

Abraham Bekele, PhD
AFR/SD/HRD
Senior Economist

OUTPUTS

A. TDYs

1. October 4 - 8, Windhoek, Namibia: WHO Intercountry Meeting On Public/Private Sector Partnership in Health. Meeting was attended by a dozen Anglophobe Ministers of Health or their deputies, major private sector decision-makers, and staff and consultants of WHO. I and Larry Forgy for REDSO/ESA represented USAID. This Meeting gave me the opportunity to meet a large number of African decision-makers and private sector providers, learn of their concerns regarding private sector development and activities in their respective countries, share HHRAA's analytic agenda development process and the direction the Africa Bureau is taking in this area. Both Larry and I made presentations on our respective areas of activity in technical assistance and management of research and analysis activities.

2. October 12 - 13, Lusaka, Zambia: Met with Mission Director and several other relevant personnel including David Straley and discussed in depth the terms of reference of the planned HHRAA supported country case study of private sector development.

3. Nov 30 - Dec 17, Addis Ababa, Ethiopia: I accomplished three very important tasks during this TDY. First, I contributed to analysis of health care financing issues in Ethiopia as member of a group of health care financing specialists including Larry Forgy and David Dunlop. Second, I argued hard and succeeded in consideration of the private sector in Ethiopia as potentially an important partner in promoting the public health agenda. Third, I visited and analyzed research, analysis and dissemination capabilities of major research institutions in Addis Ababa.

4. Feb 6 - 12: Ouagadougou, Burkina Faso: Provided technical assistance to the Directorate of Planning of the MOH to prepare Burkina Faso's presentation of the Boulgou experience in cost recovery at the REDSO/WCA workshop on health care financing and sustainability. Discussed with Mission the health financing component of the on-going Family Health and Health Financing project. Discussed with MOH, Mission and Embassy staff consequences of 50% devaluation of the FCFA.

5. Feb 13 - 19, Saly Portudal, Senegal: A REDSO/WCA sponsored workshop on health financing and sustainability was held in Saly Portudal. The workshop was organized by the HFS project and was attended by MOH officials, some NGOs, and USAID personnel

from ten countries in the WCA region. With the help of Hugh Waters and Alex Ross I managed presentation of the HHRAA project, its approach to identification of priority topics, the two strategic frameworks in my area of responsibility, and a list of priority topics identified by US-based Consultative Group Meetings. Our presentation was made as an integral part of the workshop. In a supplemental meeting priority topics were further discussed in depth and ranked. The results were incorporated into the workshop's final report as one of the major outputs of the REDSO/WCA workshop on health care financing and sustainability.

6. Feb 20 - 25, Abidjan, Cote d'Ivoire: Discussed with Binat Ba and her colleagues at REDSO health financing issues and candidate countries for future case studies. Shared with some staff of the African Development Bank our strategic frameworks and discussed what our consultative groups identified as priority topics for research and analysis. I solicited information on the impact of the devaluation of the FCFA. We met twice with UNICEF staff and discussed our research program, their Bamako Initiative activities, and impact of the devaluation on health care provision and consumption.

7. June 5 - 10, Yaounde, Cameroon: Met with MOH, GTZ and the Mission's HPN officer and discussed at length lessons learnt and on-going activities in health care financing. Made site visit to one of the three provinces in which the SESA-II project operates and met with the TA and the provincial personnel of the project. Studied documents of the project and produced a draft summary of lessons learnt.

8. June 3, 22 - 24, Geneva, Switzerland: Met with practically every one of the economists in WHO. Discussed their research plans and shared with them HHRAA's R&A activities. Our interests complement each other in many areas. Desire to collaborate closely and regularly exchange information was expressed.

B. TECHNICAL ASSISTANCE TO AFRICA BUREAU

1. Reviewed and participated in discussions of PIDs and/or PPs from Zmbia, Ethiopia, and Eriteria

2. Review of Paper on Poverty

3. Review of World Bank's "Better Health in Africa"

4. e-Mails to J. Wolgin on some issues justifying retention of ARTS activities after reorganization of the Agency

5. e-Note on health care financing to Missions

7. Wrote an article in the State of ARTS on why the private health sector is important and what HHRAA intends to do about it.

C. RESEARCH AND ANALYSIS ACTIVITY MANAGEMENT AND DISSEMINATION

1. Provided guidance and managed development of two strategic frameworks: Health Care Financing and Sustainability; and Strengthening the Contribution of Non-Governmental Health Care Provision to National Health Goals in Africa.

2. Organized a Working Group Review of proposals on assessment of the private health sector in Africa through four country case studies.

3. Organized two US-based Consultative Group Meetings to review strategic frameworks mentioned above.

4. Supervised development of a common set of guidelines for implementation of four country case studies to assess private health care provision in Africa.

5. Organized two round-table meetings and two conference calls with HFS and DDM to standardize and harmonize implementation of the country case studies on private sector.

6. Obtained mission concurrence for country case studies from Zambia, Tanzania, Senegal, and Kenya.

7. Organized an Africa-based Consultative Group Meeting review of priority topics of research and analysis in private health sector development, and health care financing and sustainability.

8. Developed concepts of R&A activity for six priority topics. Succeeded in obtaining approval of funding of four R&A topics in FY 95. I am currently managing three of the newly approved R&A activities. The fourth topic is managed by my colleague Alex Ross.

D. COLLABORATION WITH AFRICAN INDIVIDUALS AND INSTITUTIONS

1. African scholars in the United States participated in both US-based Consultative Group Meetings.

2. The four country case studies are being implemented with the active participation of African institutions and MOHs.

3. The Africa-based Consultative Group Meeting was attended by nearly 40 African experts and decision-makers. This Meeting deliberated on priority issues and the choice of R&A topics for HHRAA funding.

4. Major PVOs and NGOs based in Nairobi, Kenya were briefed and consulted on the strategic framework development and identification of priority topics.

E. OTHER

1. NAS Workshop on Population and Family Planning in Africa

2. Cornnel University Workshop on Impact of Structural Adjustment on the Poor in Africa

3. Participation in SPA Meeting at the World Bank

4. Annual Meeting of the Allied Social Sciences Association

5. Annual Meeting of the National Council of International Health

6. Meeting at Howard University on "An African Agenda for Economic and Social Transformation in the New Global Environment"

7. TAG meetings of HFS and INITIATIVES

MID-TERM WORKPLAN (July 1 to Dec 31, 1994)

(Expect a long but feasible list of activities)

Child Survival Sub-Sector
Publications List
10/28/94

Private Sector Development in Health Care Delivery: Senegal and Tanzania - draft report.

The Use of Non-Project Assistance to Achieve Health Sector Policy Reform: Experiences in Africa - paper no. 3

Consultation on the Private Health Sector in Africa - summary of proceedings.

Strategic Framework for Health Sector Financing and Sustainability.

DHS Nutrition Report

Sick child strategic framework

Nutrition strategic framework

Health care financing strategic framework

Private sector strategic framework

Commodities Logistic Software

Information Dissemination and Communication in ECSA. Report of a Pre-Implementation Assessment for Reproductive Health and Nutrition. July 1994.

Improving Feeding Practices During Childhood Illness and Convalescence. Lessons Learned in Africa

Improving Feeding Practices During Childhood Illness and Convalescence. Lessons Learned in Africa. (French version)

E-Notes