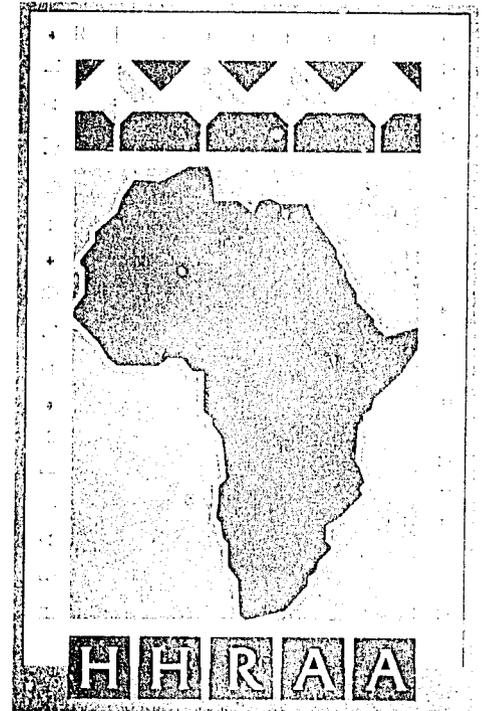


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Summary of HHRAA Strategic Frameworks for Health, Population, Nutrition, and Basic Education in Africa





Priority Information Needs and Research Issues in Health, Population, Nutrition, and Basic Education in Africa

*A summary of the strategic frameworks for research,
analysis and information dissemination of the Health and
Human Resources Analysis for Africa (HHRAA) Project,
AFR/SD/HRD*

Prepared by

Support for Analysis and Research in Africa (SARA)

April 1995

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Executive Summary

The Office of Sustainable Development (SD) of USAID's Bureau for Africa places emphasis on research, analysis, and information dissemination activities at the regional level to influence the strategic resource allocations and operational decisions of African governments, the African private sector, USAID Missions, and other donors, with the ultimate aim of increasing the effectiveness of the resources available for African development. These emphasis activities make up SD's analytic agenda.

To ensure that analytic-agenda activities reflect the strategic objectives of development in Africa, and that they have a good probability of influencing policy and programs in the field, their selection needs to be based on well-identified information needs. To accomplish this, SD has formalized, under its Health and Human Resource Analysis for Africa (HHRAA) Project, the process of identifying priority information needs in a way that ensures greater input from African decision-makers and USAID Mission staff.

For each development sector, HHRAA has developed a strategic framework to guide the selection of analytic-agenda activities. Each strategic framework presents a synthesis of available information and information gaps for that analytic area. Literature reviews, reviews of lessons learned from previous analytic activities, and expert opinions have been used to develop these strategic frameworks. **Each strategic-framework document assesses and analyzes fundamental information gaps/needs crucial to develop better policies and programs in each area. Each strategic framework also rank orders potential analytical activities to assist/support the selection of analytical activities.**

This summary document presents the rationale for and the process of developing the niche strategic frameworks and the priority issues identified in each. A strategic framework for research, analysis, and dissemination has been developed for the following areas:

1. HIV/AIDS, STIs, and TB
2. Malaria Prevention and Control
3. Improved Child Nutrition
4. Integrated Case Management of the Sick Child

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5. Population and Family Planning
 6. Safe Motherhood and Reproductive Health
 7. Behavior Change and Maintenance for Child Survival
 8. Health Sector Financing and Sustainability
 9. Basic Education

This document also briefly discusses a number of cross-cutting issues related to human-resource development for public health, emerging health-related threats including complex humanitarian emergencies, institutional development, and integrated health services. Also provided is a summary of a strategy paper HHRAA produced to guide its information-dissemination activities.



Acronyms

AFR/SD	Africa Bureau, Office of Sustainable Development
AID	Agency for International Development
AIDS	acquired immunodeficiency syndrome
BASICS	Basic Support for Institutionalizing Child Survival
DAE	Donors to African Education
DHS	Demographic and Health Surveys
FGM	female genital mutilation
FP	family planning
HHR	Health and Human Resources
HHRAA	Health and Human Resources Analysis for Africa Project
HIV	human immunodeficiency virus
HPN	Health, Population, and Nutrition (Office)
IEC	information, education, and communication
JHPIEGO	The Johns Hopkins Program for International Education in Reproductive Health
JSI	John Snow, Incorporated
LSS	life saving skills
OMNI	Opportunities in Micronutrients Initiative
SARA	Support for Analysis and Research in Africa
SD	Office of Sustainable Development
STD	sexually transmitted diseases



STI	sexually transmitted infections
TB	tuberculosis
TBA	traditional birth attendants
USAID	United States Agency for International Development
WHO	World Health Organization

Introduction

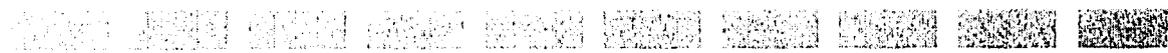
The Office of Sustainable Development (SD) of USAID's Bureau for Africa places emphasis on research, analysis, and information dissemination activities at the regional level to influence the strategic resource allocations and operational decisions of African governments, the African private sector, USAID Missions, and other donors, with the ultimate aim of increasing the effectiveness of the resources available for African development. These emphasis activities make up SD's analytic agenda. SD's Health and Human Resources Research and Analysis for Africa (HHRAA) Project has been designed to increase the use of research, analysis, and information to improve health, nutrition, education, and family planning policies and programs in Africa.

To ensure policy and program improvement, the research, analysis and dissemination issues need to be selected carefully and to reflect field needs. The challenge for HHRAA has been to design a process for setting priorities that targets project funds at issues that will provide the greatest benefit per dollar and that the analytic activities are relevant to host governments, African professionals, and USAID field staff. AFR/SD recognizes that the process of setting the analytic agenda is crucial to the success of a project like HHRAA.

Under the HHRAA Project, a contract designated Support for Analysis and Research in Africa (SARA) was awarded to the Academy for Educational Development in collaboration with Tulane University, JHPIEGO Corporation, MACRO International, Morehouse School of Medicine, Porter/Novelli, and the Population Reference Bureau. SARA supports HHRAA in the identification of issues, technical guidance, research management, and dissemination, and in establishing links with African experts and institutions. SARA has been instrumental in setting the AFR/SD analytical agenda within the HHRAA project.

AFR/SD has sought to increase the use of research, analysis, and information in support of improved health, nutrition, education, and family-planning strategies, policies, and programs in Africa. Therefore, a strategic framework for research, analysis, and dissemination has been developed in each of the following areas:

1. HIV/AIDS, STIs, and TB

- 
2. Malaria Prevention and Control
 3. Improved Child Nutrition
 4. Integrated Case Management of the Sick Child
 5. Population and Family Planning
 6. Safe Motherhood and Reproductive Health
 7. Behavior Change and Maintenance for Child Survival
 8. Health Sector Financing and Sustainability
 9. Basic Education

Development of the Strategic Frameworks

A process for identifying information needs and gaps was designed to ensure greater input from African decision-makers and USAID Mission staff. The issues-identification process includes the following steps:

- a review of current AFR/SD analytical activities;
- formal consultations with African decision-makers and USAID field staff;
- review of the formal and informal literature on issues identified; and
- organized discussion groups of experts in Health and Human Resource areas.

The following criteria are used to identify and rank issues:

- Does the issue represent an information need or gap?
- Is the issue a priority for African decision-makers?
- Does the issue fall within AFR/SD's field of interest?
- Is the issue of regional significance?
- Can the issue be translated into a research and analysis question or product for dissemination?



- ♦ Will an analytic activity on the issue affect decision-making, policy, strategy, or program development?

A strategic framework was developed to guide the selection of analytic-agenda activities in each of the nine analytic areas. Each strategic framework presents a synthesis of available information and information gaps for the analytic area, drawing on literature reviews, lessons learned from previous analytic activities, and expert opinions. **The strategic framework document assesses and analyzes fundamental information gaps and needs necessary to develop better policies and strategies in each analytic area. The strategic framework also rank orders potential analytical activities to assist decision-making for specific SD analytical activities.**

The strategic framework presents not only information gaps, but also defines proposed approaches to the design and implementation of research, analysis, and information dissemination to address these gaps. Selection of issues should take into account USAID's comparative advantage, the importance of the issue, and the likelihood that the analytical activity will affect decision-making for programs in Africa.

Each strategic framework includes:

1. background information on the importance of the analytic area;
2. the purpose of this strategic framework;
3. the analytic area's objective tree;
4. a presentation of information needs and gaps for the analytic area, supported by relevant references;
5. ranking of information needs by applying the AFR/SD set of criteria;
6. proposed approaches and methodologies for implementing research, analysis, and dissemination activities to fill the gaps;
7. recommendations for selecting, sequencing, and phasing research, analysis, and dissemination activities; and
8. a monitoring and evaluation framework.

Field input was sought to refine each strategic framework. The field input was gathered by sending drafts of the strategic frameworks to selected decision-makers and experts in Africa for their comments. These drafts were

also discussed by consultative groups organized in Africa, usually in conjunction with regional meetings or conferences.

A number of issues papers have also been produced to examine such cross-cutting issues as human-resource development in public health, emerging health-related threats and complex humanitarian emergencies, institutional development, and integrated health services. The issues papers are not discussed in this document. SARA has also produced a strategy paper to guide information dissemination activities under the HHRAA Project.

Summaries of Priority Information Needs and Research Issues

The rationale behind the HHRAA project is that regional and national information is needed to guide policies and programs. While host governments and USAID Missions properly focus on their national needs, information exchange within regions or sub-regions may contribute greatly to national programs; similarly, national experiences and information need to be compared across countries to provide a broader perspective on issues that affect more than one country.

A brief summary of the rationale, process of developing the strategic framework, and priority issues identified is presented here for each strategic framework.

HIV/AIDS, Sexually Transmitted Infections (STIs) and Tuberculosis (TB)

Analytic area:	Infectious and Tropical Diseases
Leading author(s):	May Post, Public Health Advisor, SARA/Tulane University
Responsible SARA core staff:	Sambe Duale
Responsible AFR/SD/HRD staff:	William Lyerly, John Paul Clark

The human immunodeficiency virus (HIV) and acquired immunodeficiency syndrome (AIDS) pandemic is being recognized as a development issue by national and international development agencies.

Africa is very hard hit by HIV/AIDS and the pandemic will remain a major problem in Africa for the foreseeable future. USAID's Health and Human Resource Analysis for Africa (HHRAA) project emphasizes identifying issues of regional significance to African governments, non-governmental organizations, and USAID missions and supporting research, analysis, and information dissemination on these issues, including HIV/AIDS as well as sexually transmitted infections (STIs) and tuberculosis (TB), which are inextricably linked to the HIV issue.

This strategic framework highlights the key issues in which knowledge gaps and research and information needs exist. The framework aims to guide selection of research, analysis, and dissemination activities that will have regional significance for decision-making for HIV/AIDS programs in Africa, ultimately contributing to the overall reduction of HIV/AIDS, STIs, and TB in Africa.

The issues identification and ranking process for the framework development involved:

- ♦ consultations with African researchers and program managers;
- ♦ desk and case-study analyses of relevant literature;

- an “issues prioritization workshop” held December 9-10, 1993, in Marrakech, Morocco, prior to the VIIIth International Conference on AIDS and STDs in Africa. The participants in this workshop were HPN staff from the REDSOs and USAID field missions and their counterparts from about fourteen African countries; and
- a consultative meeting held May 20, 1994, in Washington, D.C., on priority research issues for the prevention and control of STIs in Africa, with experts from USAID and its cooperating agencies.

Based on the results of the issues identification and ranking processes, the key strategic areas that have emerged as priority topics for research, analysis, and information dissemination are:

Information, Education and Communication to Promote Behavior Change

There is general agreement that until a cure for AIDS becomes available, success in HIV/AIDS programs is based on the ability to influence the behavior of large numbers of individuals through information, education, and communication (IEC). Many approaches have been used in public IEC campaigns—mass media programs, peer educators, theater, the workplace—to promote safer sexual behavior and behavior modification.

However, HIV/AIDS information, education, and communication is valuable only if it leads to change and adoption of safer sexual practices. Based on information gained and lessons learned from the first decade of the HIV/AIDS pandemic, there is growing consensus about *increased need for social and behavioral research as essential to the development of higher-impact IEC approaches. Fundamental to the development of effective IEC interventions is a thorough knowledge of the behavior patterns that facilitate the epidemic.*

Integrated Services: Implementation and Evaluation

While integration of family planning and STI services seems natural, we need to be aware of hurdles that programs will have to overcome. *The biggest barrier to bringing the fields together is that the most effective choices to prevent pregnancy are not necessarily the most effective for preventing STIs.* Staff familiar with each field will need to be cross-trained so that they are sensitive to and

informed about the other; adequate supervision will also be necessary to ensure that STI patients are correctly counseled in contraception, and that family planning clients at highest risks of infection are screened for STIs. Integration will require a shift in the focus of IEC activities to emphasize that contraception can reduce not only the risk of unplanned pregnancy but also that of STIs and their aftermath. Establishment of effective referral mechanisms will also be critical in an integration strategy. Since it is unlikely that family planning services will be able to provide the full spectrum of services initially in the other discipline and vice versa, referral systems must be developed. At a minimum service providers will need to know where other services are available, and there must be a mechanism to monitor and follow-up referred cases.

Some family planning agencies that work in areas of low contraceptive acceptance fear that adding STI/AIDS-related activities could stigmatize their services and keep potential clients away. Some health personnel feel the addition of new responsibilities could overwhelm the staff within current structures. These reservations indicate *a lack of information on service integration. Models of appropriate integration strategies need to be developed. More studies on impact and cost-effectiveness of integrated services are needed.*

Policy Reform: Assessing the Impact of the HIV/AIDS Epidemic on Sectors Other than Health;

Prevention programs and research (operations and behavioral research) alone will not be able to stem the tide of HIV/AIDS. Gaining the support of key public and private sector policy makers for HIV/AIDS prevention efforts is critical. Research for policy reform to develop policies that will reduce barriers to program effectiveness and create a favorable policy framework must be supported.

Quantitative and epidemiological research to *increase policy-makers' awareness of the potential impact of HIV/AIDS on development and the impact of development on the spread of the disease* is critical.

Effectiveness of HIV Counseling and Testing

Voluntary counseling and testing (C&T) has been shown to induce behavior change in some high-risk groups in the United States. An evaluation study conducted in Uganda at the AIDS Information Center (a facility offering free voluntary counseling and testing in Kampala), showed that the

program was able to induce behavior change among its clients. Clients reported substantial changes in certain risk-reducing behaviors, including monogamy and condom use with regular and nonregular partners.

Voluntary C&T can play an important role in HIV/AIDS prevention, but *it must be part of a comprehensive program where preventive and supportive measures are available* (condoms easily accessible, referral services in place for clinical, social, and psychological care and support), and where the social environment is informed, educated, and fully supportive, and seropositive persons are not faced with severe psychological distress.

One of the strongest criticisms against C&T is its high cost. Nevertheless, *further research and evaluation is still needed to provide information on efficacy, cost-efficacy, and cost-benefits of HIV counseling and treatment* in inducing behavior change.

Strengthening STD Services

A strong correlation between STDs and HIV exists not only in the role played by STDs in HIV transmission but also in the population subgroups mostly affected. The predominant mode of transmission for both STDs and HIV is sexual; many of the measures for preventing sexual transmission of STDs and HIV are the same, as are the target audiences for these interventions; and STD clinical services are important access points for diagnosis, treatment, and education of people at high risk of contracting both STDs and HIV. Given these facts, public health professionals and donor agencies are increasingly recognizing the importance of strengthening STD services to increase the success of HIV/AIDS control efforts.

Improved surveillance of STDs is needed to track trends over time and geographic trends. *More information is needed on the prevalence of different STDs (particularly in women and adolescents), as well as their antibiotic resistance patterns.* In women and adolescents, surveillance on incidence/prevalence of certain selected STDs can be conducted; this data will be useful in defining program directions and monitoring the effectiveness of program interventions.

Studies to assess factors that affect use of STD services are urgently needed. Also included should be an assessment of knowledge, attitudes, and beliefs regarding STDs among health providers and the consequences of provider attitudes on quality of health care and health-care-seeking behavior.

Monitoring and Evaluation

Program monitoring and evaluation are integral parts of program delivery and essential to building appropriate modifications into ongoing programs and determining whether programs achieve their objectives. Monitoring and evaluation require information to link program inputs/interventions with program outputs/outcomes. Evaluation of the comparative cost-effectiveness of different interventions with the same objective, and the effectiveness of vertical versus integrated services are among the issues to be addressed.

Adolescents

The increasing incidence of AIDS among the young lends urgency to the need for effective HIV prevention programs focusing on adolescents. The World Health Organization (WHO) estimates that half of those infected with HIV are under age 25, and about one-fifth of people with AIDS are in their twenties, a large proportion of whom became infected in their teens.

There is a need to compare and evaluate the effectiveness of different health promotion strategies targeted at youth and adolescents in educational settings as well as those out of school. The effectiveness of school-based approaches to reduce the incidence of adolescent STIs needs to be assessed as well. A major constraint of school-based approaches has been that teacher training, which is crucial in promoting effective learning, has been insufficient or inappropriate in AIDS education.

Equally important is *research on adolescent sexuality and sexual behavior and condom use*. Awareness of HIV among adolescents is generally high, but personal perception of risk is usually low. *More information is also needed about the predominant norms and values that govern adolescent sexuality.*

Other Research and Information Needs

Other research and information needs regarded as equally critical based on USAID's HIV/AIDS strategy focus, relevant literature reviews, and priorities identified by groups of international expert for the effectiveness of existing HIV/AIDS and STI prevention and control programs include:

Increasing the demand for, access to, and use of condoms

The AIDS epidemic ushered in a new era of condom promotion. Strong evidence exists that condom use protects against HIV infection. The more consistently condoms are used, the more protection they provide. Because *significant levels of demand can be created very rapidly through promotional campaigns and social marketing efforts*, the challenge lies in increasing condom accessibility and availability, and ensuring sustainable condom supply. Thus, programs will *need to identify ways to increase accessibility to condoms, decrease condom costs, and design sustainable condom programs*.

Targeting

Interventions that target core groups are likely to be particularly cost-effective because they may have an amplifying effect. Core groups are defined as groups of people who are disproportionately responsible for disease transmission in the population. They are the reservoir for many STIs and their frequent change of partners permits STI pathogens to persist in a community or to increase rapidly through continuous dissemination. Control programs targeted at core groups are the most cost-effective and will ultimately have the highest impact on public health—for example, an intervention in the core group will have a ten-fold or more effect.

There is *a need for information on the impact and cost-effectiveness of interventions targeting “core groups” versus interventions implemented in non-core groups*, to assist health planners and program managers in selecting interventions for HIV/AIDS control and prevention programs.

Women and HIV/AIDS

In many parts of Africa the incidence of HIV/AIDS in women is increasing at a faster rate than in men. Studies in Ethiopia and Zimbabwe revealed dramatic differences in the sex distribution of AIDS, particularly in adolescents aged 15 to 19 the studies showed that adolescent girls are three to five times more likely to be infected than males in the same age group.

The implications of these data are that women in general and younger women in particular are susceptible to infection. Thus, *the importance of gender/age specific issues should be recognized and initiatives to adjust gender power relations need to be incorporated into HIV/AIDS policies and programs*.



Providing a safe blood supply

There have been a number of WHO/GPA studies and reviews related to prevention of HIV transmission through blood or blood products, but none has focused on blood screening programs themselves. Because prevention is the cornerstone of USAID's HIV/AIDS program, if prevention of HIV through blood transmission is to be achieved, routine screening of donated blood should be implemented more widely. Thus, *more information on blood screening programs, such as constraints faced by the programs, the sustainability of screening programs, and the cost-effectiveness of blood screening compared with other preventive interventions will be important.*

Health care and support

Humane and dignified care of AIDS patients is expensive. The harsh reality is that antivirals or antibiotic therapies for AIDS-related opportunistic infections are not going to be available soon in developing countries. Nevertheless, rational plans and protocols need to be identified and developed to provide health care and support to AIDS patients so that the rising burden of HIV-related illnesses does not displace the treatment of other diseases with cost-effective profiles. Research will be essential *to assess the needs and managerial capacity of health care systems to provide services to deal with the influx of HIV/AIDS-related cases without compromising other diseases with proven cost-effective profiles.*

Much remains to be learned about the different models of home and community care, factors complementing and enhancing community response capacities, the impact and costs of different strategies, and their replicability as well as their expandability.

Addressing tuberculosis

Trends in case notification from sub-Saharan Africa are sufficiently consistent to indicate that a tuberculosis (TB) epidemic is growing alongside the HIV/AIDS pandemic. Worldwide, one in every three people is infected with the TB bacterium, and in people harboring the bacterium, HIV infection is a strong risk factor for reactivation of subclinical tuberculosis infection and the development of active, clinical disease.

Research is needed in many areas—epidemiology, diagnosis, treatment and prevention, and economic and social impact—to better address the serious public health implications of combined TB/HIV infection.

Malaria Prevention and Control

Analytic area:	Infectious and Tropical Diseases
Leading author(s):	Donald Krogstad, Tulane School of Public Health and Tropical Medicine
Responsible SARA core staff:	Sambe Duale
Responsible AFR/SD/HRD staff:	William Lyerly, John Paul Clark

Malaria in Africa is an increasing problem, the dimensions of which are unlike those seen anywhere else in the world today. The World Health Organization estimates that 80 percent of the 267 million people infected with malaria are Africans and that 90 to 95 percent of malaria-related deaths in the world occur in Africa. Population, political, and economic pressures have been forcing Africans to leave non-malaria endemic areas throughout the region (such as Ethiopia and Somalia) and to live and work in endemic areas without the benefit of having acquired natural immunity. Long-term migrants, as well as seasonal laborers and nomadic populations, suffer some of the gravest consequences because of their transient status. Increased urbanization and attendant overcrowding and poor sanitary conditions have caused increases in human and vector pools. These population movements and various climatic factors have introduced malaria into areas that had been previously malaria-free. The extensive spread of drug-resistant malaria parasites throughout Africa, as well as the emergence of resistance to numerous previously effective insecticides, have significantly exacerbated the impact of malaria in Africa. The greatest adverse impact of malaria is seen among children and pregnant women, especially the rural and peri-urban poor.

Reducing malaria morbidity and mortality and its impact on development should be the most important goal for malaria prevention and control in sub-Saharan Africa. USAID's Bureau for Africa has supported a combined effort, involving experts at national, regional, and global levels, to develop of the Global Malaria Strategy. In the process of implementing this Global Strategy at national and regional levels in Africa, certain issues need to be addressed through analysis, research, and information dissemination to guide program managers in their efforts. AFR/SD hopes, under its Health

and Human Research and Analysis in Africa (HHRAA) Project, to play a major role in this process.

The malaria strategic framework provides a summary of available literature and other sources of information on priority issues related to malaria prevention and control in Africa, and indicates the policy-relevant information gaps that need to be addressed through research, analysis, and information dissemination activities. This strategic framework was drafted on the basis of a consultative meeting and on previous consultations with African decision makers, a review of the literature, and the products of international expert bodies convened to discuss malaria prevention and control. The draft document was then vetted during the meeting of the program managers of malaria control in anglophone countries of Africa in September 1994 in Kampala, Uganda. It assesses, analyzes, and sets priorities for information and research needs, as follows:

Malaria Epidemiology and Control Programs

Malaria exists in a range of African environments from coastal swamps through forests, savannas, desert fringes, and the ever-expanding periurban slums around major African cities. Perennial or seasonal transmission depend on yearly rainfall patterns or the regular availability of water. Africa's ethnic diversity creates an array of life-styles, habits, housing types, and concepts of malaria prevention, treatment, and control. These are factors to be taken into account when developing malaria-control policies, strategies, and programs.

Studies in key areas with seasonal and year-round malaria transmission are needed to build models for the development and testing of malaria-control strategies suitable to the various regions and ecological zones of malaria transmission on the continent.

Case Management of Malaria (Diagnosis and Treatment)

Integrated case management of the sick child

Early diagnosis and prompt treatment—disease management—are fundamental to malaria control. Improving case management of malaria among children and pregnant women, on whom malaria's adverse impact is greatest, is a high priority. Because malaria is mainly a problem of young children, health services should receive guidelines and training in diagnosis

and treatment of malaria as part of WHO/UNICEF's "sick child" approach. This approach combines disease management of malaria, diarrheal disease, acute respiratory infections, measles, and malnutrition. Operations research should be conducted to assess health-seeking behavior related to malaria and to test and evaluate the implementation of the "integrated case management of the sick child" approach. It is important to look at different ways of strengthening and improving the quality of malaria case management at different levels of the district health system, including the household level.

Antimalarial drugs

Availability and affordability to patients of effective antimalarial drugs is crucial to control malaria. Because chloroquine is an economical antimalarial that is still effective in most regions of Africa, it is essential to define chloroquine-resistance prevalence and develop strategies to prolong chloroquine's useful life. To address the first objective, studies should be performed using modern methods to determine the prevalence of drug resistance. To address the second objective, different policies and strategies to control antimalarial use should be studied to determine their impact on drug use and prevalence of resistance.

Recognition and diagnosis

The practical importance of diagnosis is that it is the initial step before treatment. To define the value of early diagnosis, it is essential to determine whether delay (time from onset of symptoms to intervention) is an important determinant of outcome. This question can be answered with methods currently available and the answer is essential to set health priorities for local versus regional health centers in sub-Saharan Africa. There is also a need to support development of rapid and cost-effective tests for better biological diagnosis of malaria at all stages of the disease, from asymptomatic to severe malaria.

Malaria Prevention

Insecticide-impregnated materials (bednets, curtains, etc.)

Additional studies may be necessary to determine the efficacy of using insecticide-impregnated mosquito nets on malaria morbidity and mortality.



However, because several studies of the efficacy of bednets are in progress, substantial investment in studies of implementation and sustainability should be considered with caution until it is clear whether insecticide-impregnated materials in fact reduce malaria mortality.

Vaccine development

Immunization against malaria may be possible in the future. Although some vaccines have been tested in the field, they are still at an early stage of development (WHO). Support for applied research on vaccine development should continue to receive a high priority, including development of field sites in sub-Saharan Africa and studies of transmission-blocking vaccines based on gametocyte (sexual stage) antigens.

This priority should include development of screens/models to determine whether immunization with a candidate antigen prevents infection (parasitemia) or disease (e.g., cerebral malaria), and development of appropriate primate models that allow study (relevant for vaccine research) of human complications such as cerebral malaria and renal failure in *Plasmodium falciparum* malaria.

Monitoring and Evaluating the Impact of Malaria on Development

The potential impact of malaria on development, and the impact of development activities on the spread of the disease, should be monitored and evaluated carefully. Any malaria strategy adopted at the national or local level should be monitored to determine compliance with guidelines, and to determine its impact on morbidity and mortality. Process and health indicators should be used to assess the effectiveness of malaria-control programs. Innovative and cross-sectoral approaches that include malaria prevention and control activities in other relevant development sectors should be designed, tested, and evaluated.

Improved Infant and Young Child Nutrition

Analytic area:	Child Survival
Leading author(s):	Ellen Piwoz, Nutrition Advisor, SARA/ Academy for Educational Develop- ment
Responsible SARA core staff:	Suzanne Prysor-Jones
Responsible AFR/SD/HRD staff:	Hope Sukin

In 1990, approximately 28 million—or 30 percent—of sub-Saharan African preschool children were estimated to be underweight. Nearly 38 million children—or 40 percent—had stunted skeletal growth due to chronic undernutrition and infection. In addition, it is estimated that 18 million Africans are at risk of vitamin A deficiency, 150 million are at risk of iodine deficiency, and 206 million are affected by iron-deficiency or anemia.

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

A number of factors constrain successful implementation of interventions to improve child nutrition in Africa. These 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 affect nutrition. 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.

The strategic framework for infant and young child nutrition synthesizes existing information, while pointing out gaps in our understanding of effective means for improving infant and young child nutrition in Africa. It

proposes a list of priority activities that merit future A.I.D. support, especially under the HHRAA Project. Recommendations are based on:

- ♦ semi-structured group discussions with more than 50 African policy makers and program implementors held at international meetings;
- ♦ structured questionnaires administered anonymously to 20 African nutrition specialists attending international meetings and US training courses;
- ♦ personal interviews with experts and two mailings to other experts for comments on the framework draft; and
- ♦ the consultative meeting held in June 1994 and attended by representatives of USAID, UNICEF, The World Bank, Cornell University, Emory University, Tulane University, Johns Hopkins University, and major cooperating agencies working in Africa on child survival (e.g., Wellstart, OMNI, MotherCare, WINS, BASICS, DHS/MACRO, and the Manoff Group).

The issues-identification and ranking process resulted in the identification of four priority areas that include multiple recommendations for research, analysis and information dissemination. These include:

Behavioral and operational research to improve the efficiency and effectiveness of programs to improve feeding practices at the household and community levels, with active dissemination of all research findings.

Priority activities identified during the strategic framework preparation process include:

- ♦ preparation and testing of revised guidelines for formative research on the motivations and constraints to exclusive breastfeeding and improving complementary feeding practices;
- ♦ behavioral research and analysis to improve providers' nutrition counselling skills in different contexts;
- ♦ research to identify additional inputs (other than improved counseling skills) that are required to increase the effectiveness



of nutrition education and to make sustainable improvements in child feeding practices; and

- ♦ dissemination of findings from research on operational and technical obstacles encountered in the implementation of programs to improve breastfeeding and young child feeding practices.

Operations research and analysis to enhance the integration of nutrition services and activities into child survival, health, and family planning programs, with active dissemination of all research findings.

Priority activities identified during the strategic framework preparation process include:

- ♦ research on the feasibility, potential benefits of, and constraints to providing nutrition services and education to mothers of children visiting health facilities because of acute illness (i.e., as part of the integrated case management of the sick child);
- ♦ research on the feasibility, potential benefits of, and constraints to providing nutrition services (including counselling and micronutrient supplementation) through family planning programs; and
- ♦ research on the potential benefits of nutrition education during pregnancy-related care and its impact on breastfeeding and complementary feeding practices.

Advocacy directed at policy makers and donors (including A.I.D. mission and regional staff) to increase awareness and support for nutrition improvement activities and programs;

Priority activities identified during the strategic framework preparation process include:

- ♦ preparation of a synthesis of the arguments in favor of investing in nutrition combined with experiences from African countries;
- ♦ in concert with other donors and members of the nutrition community, developing a consensus on the most promising approaches to improving nutrition, and developing a menu of

options for nutrition activities and interventions that can be shared with different audiences;

- ♦ training members of appropriate African focal institutions in nutrition advocacy; and
- ♦ using advocacy tools and materials to motivate U.S.A.I.D. missions to include nutrition improvement goals and activities in child survival, population, and reproductive health programs.

Improved, program-oriented nutrition training for para-professional and professional workers, coupled with concerted efforts to strengthen African institutions' capacities to conduct behavioral and operations research and analysis, and to exchange and disseminate information on their experiences.

Priority activities identified during the strategic framework preparation process include:

- ♦ develop and test simplified tools and modules for training health and other providers to appropriately and effectively interact with households and communities (in assessing problems and potential solutions), and to be effective nutrition counselors;
- ♦ strengthen existing research centers in Africa, particularly with respect to their capacities to a) participate in community-level, program-oriented research, b) to work in or coordinate multi-sectoral activities, c) serve as clearinghouses or disseminators of information, and d) to received funding from international donor agencies; and
- ♦ support regional centers of excellence for training in applied nutrition, in short courses and degree programs.

Integrated Case Management of the Sick Child

Analytic area:	Child Survival
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Activities and interventions to promote child survival are important priorities of USAID's Africa Bureau. This is appropriate given that the countries with the highest infant and under-five mortality rates in the world are in Africa. 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. Although considerable progress has been made in implementing child survival interventions since 1987, the impact on infant and child mortality has been less than hoped.

A new clinical protocol for the *Integrated Management of the Sick Child* has been drafted jointly by WHO and UNICEF. This document guides first-level health-care workers in assessment and management of diarrhea, acute respiratory infections, fever, measles, and malnutrition, and the associated conditions of otitis media, iron-deficiency anemia, and acute eye problems associated with measles and vitamin A deficiency.

This new formalized approach to treating the "whole child" aims to encourage the health worker to apply more than one case-management protocol when indicated, to take advantage of opportunities for preventive action, and to identify severely ill children rapidly to refer or manage them appropriately. By standardizing and specifying recommendations for home care and follow-up, the integrated approach may simplify and clarify messages about initial home management and facilitate communication between health-care providers and health-care users.

The Africa Bureau supports a standard approach to addressing the most common and important health problems of children presenting to primary-care facilities. The Bureau views the protocol for the *Integrated Management of the Sick Child*, however, as just one of a set of institutional, logistical, and managerial interventions needed to improve health systems to improve health-facility case management.

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; 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 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 Prevention and with a representative of A.I.D.'s Africa Bureau and Global Bureau/Health. The document was subsequently revised and reviewed with African nationals and with representatives of international and donor organizations.

The most pressing research and analysis needs under the headings of "operational research" and "documentation of national approaches" were identified during discussions within USAID and with other donors. These priorities, and possible approaches to addressing them, are summarized below.

Develop effective methods of achieving sustained behavior change among health workers

In most settings implementing an integrated approach to caring for sick children will require significant changes in the behavior of health-care providers. Improvement will be needed in compliance with following a clinical algorithm, prescribing practices, and counseling skills. Although there has been a wealth of program experience in attempting to change health-worker behavior, there has been little systematic research or analysis of this experience on the topic.

Perhaps the most pressing need is for articulation of an analytic model of health-worker behavior change based on existing data and program experience. This model can then be used to define the research questions that are most relevant to program decisions and to guide the design of interventions.

Identify mechanisms to improve the supply of essential drugs

The effectiveness of the clinical algorithm for the *Integrated Care of the Sick Child* depends upon 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 experience of these different programs to develop a systematic approach through which countries can solve the drug-supply problem.

Experiment with different strategies to maximize the effectiveness of supervision

Individual disease-control programs have found effective supervision to be an enormous challenge. Although integrated supervision holds promise for reducing the overall cost of supervision, integration increases the difficulty of the task. The supervisor of integrated care must be able to assess a much broader range of health-worker skills, provide ongoing training related to multiple illnesses, and 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 quality training in case management, interpersonal communication skills, and 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.

Identify simple ways to facilitate compliance of caregivers with advice received during health-facility encounters

The provision of comprehensive, integrated care implies treating multiple illnesses or conditions when they occur, and offering preventive services such as immunizations and nutrition counseling. This complicates the health worker's task of providing effective face-to-face communication, and increases the amount of information that a caregiver is expected to absorb.

Work is needed to verify the minimal necessary components of effective face-to-face communication. We need to know if the use of simple, pictorial counseling cards improves caregiver understanding and retention of information. It would also be useful to estimate the maximum amount of information that can be communicated during one visit and to develop strategies (for example, home visits or return visits) to present additional information.

The degree of caregiver compliance with recommendations received in developing-country health facilities should be documented. Alternative ways of supporting recommended behaviors and improving compliance should be explored.

Develop an assessment tool for countries planning to implement integrated care of sick children

The minimal requirements necessary for implementing integrated care of sick children have yet to be defined. The costs of doing so have not been estimated. Clearly, this information is critical to the planning process of countries choosing to implement the *Integrated Care of the Sick Child* initiative.

Guidelines are needed to assess the key components of integrated care, to estimate budgetary and personnel requirements, and to plan an appropriate sequence of interventions.

Describe 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



needs to be given, however, to operationalizing integration at the level of ministry 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 ministry of health level.

It is important to conduct process evaluations of early attempts to implement an integrated approach to the care of the sick child. The conceptualization and conduct of these evaluations might be done in collaboration with university groups interested in health systems.



Population and Family Planning

Analytic area:	Population and Family Planning
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In 1960 African population growth rates were not high compared with those of Asia and Latin America (2.5 percent per year versus 2.5 and 2.9 percent, respectively). Today, however, Africa's growth rate has risen to 3.0 percent while Asia's and Latin America's have fallen to 2.1 and 1.9 percent. The growth rate has remained high because mortality rates have dropped and the fertility rate—the average number of births per woman—remains exceptionally high, more than six. Since 1965 the total fertility rate has decreased only about 5 percent, from 6.7 to 6.4 births per women.

According to UN estimates, at least 45 percent of the population in most African countries is under age 15. This large proportion of children creates a built-in momentum for future population growth. Even if fertility were to drop immediately to replacement level, the region's population would still increase by an estimated 250 million people by the year 2025.

This extraordinary population surge will be accompanied by massive pressures for social services, food security, and jobs at a time when governments are facing a number of crises: economies are stagnating, external indebtedness is mounting, and people are becoming poorer. The challenges to addressing these issues will become more strenuous in the face of competing demands for national and international resources, the restructuring of domestic economies, and the emergence of other problems such as AIDS, environmental degradation, rapid urbanization, and growing numbers of unemployed, disillusioned youth. In summary, population growth is outpacing the ability of economies to expand, thus swamping Africa's development efforts.

To ensure greater impact of its analytical activities on the challenges summarized above, AFR/SD devoted a significant effort to identifying priority issues for Africa, as well as information needs and gaps, in the area of population and family planning. The process included a review of current AFR/SD analytic activities; formal consultations with African decision-makers, cooperating-agency representatives, and USAID field staff; formal and informal literature reviews on potential issues; and organized discussion groups with population experts. The Bureau also created a population objective tree that provides a framework for assessing how sector-level targets will contribute to the overall Development Fund for Africa strategic goals and objectives.

During the issues-identification process, a number of topics consistently emerged. These topics were reviewed and ranked by consultative-group members, USAID staff, and African family-planning and reproductive-health experts. Because research, analysis, and dissemination activities need to be demand driven, the Bureau for Africa will revise and update this framework as new information and requests are presented by African population experts and decision-makers and by USAID Mission and field staff.

Priority issues identified thus far are:

Adolescent Reproductive Health

The rapidly escalating number of youth constitutes one of the single most compelling challenges for sub-Saharan Africa. Today, there are nearly 188 million young people between the ages of 10 and 24. By the year 2025, that number is projected to increase by another 246 million, bringing the total to 434 million. Currently, in some parts of Africa between one-third and one-half of young women have a child by age 19. Clearly the number of pregnancies, and probably abortions, will increase dramatically, along with the incidence of STIs and HIV infection. Many African experts believe that to achieve changed sexual attitudes and behaviors, and reduce disparities in gender roles and responsibilities, information, counseling, and services are needed in the early, formative years.

Sectoral Policies: Reducing Medical and Other Barriers to Family Planning Access—Maximizing Access and Quality of Services (MAQ)

Medical barriers are defined as “practices, derived at least partly from a medical rationale, that result in a scientifically unjustifiable impediment to, or denial of, contraception.” Major medical barriers include inappropriate contraceptive eligibility criteria and excessive laboratory testing prior to contraceptive provision. Removing these barriers, and such hurdles such as provider bias or unjustifiable restrictions on who may provide contraceptives, directly affects policies conducive to improved family planning service delivery. Moreover, elimination of restrictive policies and program level protocols will likely result in increased client satisfaction, with a strong potential for increasing demand.

Although many countries are beginning to eliminate access restrictions, concerns about quality issues and the role of allied professionals persist. Owing to isolation and lack of current scientific information, particularly in francophone Africa, progress has been slow. Potential approaches to address priority needs in this area include region-wide questionnaire sampling and periodic conferences involving participants from a number of subregional countries. These approaches could enhance the possibilities of cross-country analyses and promote the exchange of experiences among technicians and decision-makers. By focusing on removal of barriers, family planning services—particularly nascent programs—may be able to accelerate service expansion.

Gender Issues in Family Planning

Traditionally, family planning programs in Africa have largely targeted women. This emphasis appears to be changing, however, as more national family planning program managers recognize the importance of men’s role and motivation in fertility decision making and prevention of STIs. The need to examine gender issues is receiving additional reinforcement from a new regional emphasis on family planning as a fundamental right of both sexes, and sexual decision making as the joint responsibility of partners. To date, no country program appears to be initiating activities in a systematic fashion. Operations research projects and further analysis of existing programs are needed to give decision makers and program managers a basis for developing comprehensive strategies.

Strengthening Reproductive Health Services: Integrating Family Planning and STI/HIV/AIDS Programs

Although the advantages and disadvantages of program integration are still unclear in sub-Saharan Africa, experience from other regions suggests that integration, particularly at the client level, could improve the efficiency and effectiveness of family planning and reproductive health services. To the extent that providing integrated services is perceived as increasing service quality, activities associated with program integration could have a positive impact on family planning demand.

First, scarce resources in sub-Saharan Africa mandate careful examination of the potential benefits of program integration. Second, the significance of this topic is accentuated by the growing incidence of HIV infection found throughout the region. Infections of the reproductive tract—including the common STIs and HIV/AIDS—are of central concern to policy-makers and providers of health/FP services because these infections influence the safety and quality of programs and the prevalence of infertility, affect the demand for fertility regulation, and drain limited government resources. Much remains to be learned about the feasibility, costs, and outcomes of integrating services.

Post-Abortion Management and Family Planning Service Provision

Because unsafe abortion is a leading cause of disease and death among reproductive age women in Africa, post-abortion management, counseling, and family planning service provision is a high-impact focus area of concern. Evidence indicates that, in general, the target group—women who have had abortions—is not receiving effective contraceptive information or post-abortion family planning services.

Collecting primary and secondary data that illustrate the magnitude and costs of the problem, and promoting effective post-abortion management linked to quality family planning services can inform policies conducive to better family planning operations, improving family planning services delivery, and increasing demand for family planning.

National Population Policies

National population policies directly and indirectly affect family planning policies, service delivery, and demand generation. Current efforts to for-



ulate national population objectives include helping countries to develop realistic and measurable demographic and contraceptive prevalence targets. Setting and adopting quantifiable objectives enhances political commitment and sector-level accountability toward achievement of goals.

Formulation and implementation of national population policies is gaining momentum throughout the region. Creation of these policies and concern for their effective implementation serves as impetus to keep population and family planning issues high on national agendas. Population experts also underscore the importance of fostering population policies and family planning programs in francophone Africa.

Accelerating Urban Family Planning Programs

In Africa many family planning programs originated with a handful of clinics in the largest cities, usually run by private agencies or health providers. As programs expand, urban residents are clearly a prime target audience for family planning programs: they tend to be better educated, more accessible, and more motivated to limit and space births than rural residents. Yet today, the demand for family planning in urban areas continues to outstrip available services. How can public and private sector providers mount more vigorous programs and intensify urban operations?

Comprehensive assessments of existing services could serve as the basis for new projects to upgrade services and as the rationale for directing bilateral assistance in a more concerted way to meet urban family planning needs.

Vertical and Integrated Approaches to Family Planning Programs

Analyzing the performance of vertically organized family planning service delivery systems with that of integrated or various linked alternative networks is important for the subregion. Experience with different kinds of delivery systems is new and relatively limited. If one approach or combination of approaches proves to be markedly superior in terms of service outputs, use, and cost-effectiveness, this should be considered when new family planning programs are created or old ones expanded. Selecting the appropriate system is particularly relevant in designing delivery strategies for urban and rural settings or for countries with low to moderate levels of family planning demand, where population density and existing demand could significantly influence the cost-effectiveness of a delivery approach.

Safe Motherhood and Reproductive Health

Analytic area:	Population and Family Planning/ Child Survival
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A woman's health not only affects her own opportunities and her potential contribution to development, but also those of her family, particularly her children. Thus, it is appropriate that policies and programs continue to place emphasis on pregnancy, childbirth, and reproductive health in developing countries.

The Safe Motherhood and Reproductive Health strategic framework draws from previous consultations with African program managers and researchers, a review of the literature, and the products of international bodies convened to set women's health agenda and research priorities. The strategic framework assesses, analyzes, and ranks the information gaps and needs, from a broad reproductive-health point of view.

The strategic framework presents a synthesis of existing knowledge and information gaps and sets research priorities relevant to decision-making that might contribute to the following objectives:

- ♦ To expand and strengthen the analytical base for reproductive-health policy and program implementation by identifying, discussing, and ranking knowledge gaps and information needs in the following areas:
 - the extent, causes, and distribution of women's morbidity and mortality;



- the relative effectiveness, efficiency, impact, and costs of alternative safe-motherhood and reproductive-health strategies; and
 - the economic, social, medical, and legal constraints to safe motherhood and improved reproductive health.
- ♦ To identify approaches for increasing policy and program support, community participation, and individual empowerment for safe motherhood and improved reproductive health.

This framework was reviewed and revised based on comments from a working group of experts from JSI's MotherCare project, The World Bank, the International Center for Research on Women, the American College of Nurse-Midwives, USAID, the Program for Appropriate Technology for Health, and the SARA project.

The working group's consensus recommendation was to focus on three major areas:

Social and Cultural Issues

Identify through community surveys and through existing studies and literature reviews, **cultural and traditional barriers** that affect motivation to seek or not seek appropriate care and use of maternity services. Findings can be used to develop specific approaches to address these barriers. Special attention should be given to adolescents and women in rural, isolated settings where the majority are illiterate with little access to information.

There is a need to **evaluate the effectiveness of social support networks**, their different approaches, and their impact on improved women's reproductive health. Also, research can focus on how community-based support networks might be formed and used to help provide women with better health information and better access to health facilities through establishment, for example, of cooperative transportation arrangements. Best practices and lessons learned from the research can be disseminated and used to develop and strengthen community-based networks, based on specific sociocultural settings.

Community involvement is crucial to the success of any safe-motherhood intervention. Therefore, there is a need to support information dissemina-



tion and research studies on innovative community interventions that have the potential for expansion and replication to support safe motherhood and improved reproductive health in Africa.

How can we **increase awareness about risk factors**, not only of pregnant women but also among the community as a whole to prompt their support when need arises?

Given the **role traditional birth attendants (TBAs)** play in the community, mechanisms to link traditional and modern care systems for efficient and effective maternity care should be explored.

Female genital mutilation (FGM) should receive special attention. Social-science research is needed to learn more about the attitudes of community members toward female circumcision to reduce the incidence of the practice. Analysis and information dissemination on the devastating consequences of FGM on women's reproductive health and its social and psychological impact should be carried out. Disseminating the initiatives and action agendas of the organizations involved in the fight against FGM might sensitize policy makers and stimulate the creation of joint advocacy groups. Young people themselves should be involved; the potential role of youth organizations in the fight to eradicate female genital mutilation should be looked at.

Interventions and Services

What important and practical interventions will increase safe motherhood and improve reproductive health in poor and undeserved areas?

There is a need to carry out **situation analyses of existing reproductive health services**. The results should determine how infrastructure and services can be made accessible to patients. A optimum service package, based on a synthesis from different countries, should be designed to guide a standard African approach for pregnancy management, patient care, and norms to include in training curriculums.

What **components of prenatal care** are most useful in reducing maternal mortality? What should optimum prenatal care be? Research needs to be carried out to identify appropriate standards and methodologies for urban and rural areas. The percentage of women coming for prenatal care is increasing, while the percentage coming for delivery in health facilities is

not. What concrete actions should be taken so that women deliver at safe sites: health education, husbands' involvement, increasing health-care providers' awareness about socio-cultural factors opposed to hospital delivery?

Further research on **risk assessment in maternity care** in the African environment is a priority, to develop and adapt guidelines for health providers to screen women for the most important complications. Screening should not be limited to the prenatal period but should be continuous during intrapartum and postpartum periods.

Once high-risk women are at the **first-referral facility**, what can be done to shorten the waiting time before intervention? By increasing provider competence through revised curriculums or emphasizing life saving skills (LSS) training, providing role models or incentives to increase morale? What can be done to ensure quality care at that level?

There is a critical need to raise awareness of policy makers of the magnitude of **unsafe abortion** by doing epidemiological studies specifically focused on high-risk groups (e.g., adolescents, single or divorced women) and looking at the effectiveness and impact of different treatment techniques.

The effectiveness and efficiency of **integrating family planning** into maternal and child-health services need to be addressed. When are women most receptive to family-planning counseling and services—during prenatal care, postnatal care, or post-abortion care? Studies are needed on the effectiveness of focusing family-planning activities on postpartum and post-abortion patients.

Monitoring and Evaluation

Monitoring and evaluation should be an important component of each safe-motherhood program. The community should be involved in the process and kept informed about its progress. Policy makers should be informed as well. A major constraint to effective program monitoring and evaluation is the lack or the weakness of **management information systems** in most African countries. Alternative strategies can be introduced to monitor program performance and impact. Selection of a limited number of indicators, development of simplified data collection tools for program operations, periodic household interviews, focus-group discussions, and oc-

casional surveys (such as the DHS) can elicit information for monitoring and evaluation of safe motherhood and reproductive health.



Behavior Change and Maintenance for Child Survival

Analytic area:	Child Survival
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Child survival depends on preventive and curative practices in households 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 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. Health workers' case management skills and performance are also directly related to 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. So mothers need regular support and encouragement to continue performing desired behaviors over the long term until the positive impact of these behaviors becomes apparent and they gradually become social norms. A similar reinforcement process 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. We use the term behavior maintenance to refer to the support and reinforcement necessary to sustain learned behaviors over time.

The Behavior Change and Maintenance strategic framework provides a comprehensive review of 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 practice for mothers and health workers. Emphasis was placed on the importance of a long-term perspective in fostering behavior change, and, particularly, maintaining learned behavior through continued supporting activities.

The strategic framework offers conclusions resulting from the literature review, and points out information gaps in the literature and in our current understanding of what brings about and maintains health behaviors in sub-Saharan Africa. The recommended research, analysis, and dissemination activities below are based on the information gaps identified.

Develop a synthesis paper

A synthesis paper is needed on 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 that determine the composition of an appropriate package of supporting systems for maintenance will vary by setting—so while a *general approach* to maintenance will be appropriate across settings, specific research will be necessary to design each *maintenance package*. This principle applies just as much for the support of health workers, where analysis of their needs and skills is a prerequisite to improving performance, as for the support of mothers' behaviors.

Develop guidelines for interventions

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 include assessment, initial research (qualitative and quantitative), definition of maintenance functions, intervention design (focusing on tiers of support), monitoring, and evaluation.

Develop implementation instruments

Instruments are needed to implement the 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 to design additional interventions in the future.

Analyze training methods

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 training functions package necessary for maintenance could then be tested.

Evaluate interventions

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

- ♦ functional analysis of existing interventions that teach and support mothers' and health workers' behaviors;
- ♦ the supports are necessary to sustain maintenance interventions—cumulative results would help establish content of support packages;
- ♦ the benefits of maintenance interventions relative to their cost; and
- ♦ case studies of attempts to promote institutionalization of methodologies and skills in ministries and training schools—for example, curriculum changes that include counseling skills in medical, nursing, and public health schools.



Health Sector Financing and Sustainability

Analytic area:	Population/Health
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Health financing and sustainability in the health sector are key factors influencing overall sustainable development in sub-Saharan African countries. 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 reduced productivity losses due to illnesses; school enrollment and educability of children are improved, providing long-term economic benefits; and resources that would otherwise be used to treat illnesses are freed to be used for other purposes.

Because health is a significant development issue, the factors that affect health status are also important. These factors include income, nutrition, education (of the individual and his or her mother), and the quality and availability of health services. This last factor depends on the human and financial resources that buttress a nation's health services. Therefore, health care financing and 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 directly affects a population's health status.

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. These objectives are broad measures against which the performance of health financing measures can be assessed.

The Health Sector Financing and Sustainability 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. An extensive review of existing literature and documentation formed the basis of the strategic framework, complemented by a series of individual interviews and consultative group meetings held in Washington, D.C., and Dakar, Senegal.

As intended, the strategic framework raises questions and points out 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 and presents a summary of the major points. The strategic framework concludes with the following priority topics for future research and analysis activities:

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 factors influence 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 incentive measures 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?



Basic Education

Analytic area:	Basic Education
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African primary education systems can be characterized as under-financed, poorly managed, and suffering from poor quality with inherent inequities in the provision of access and general insufficient supply to serve growing populations. As a result, the foundation for human resource development in Africa is sorely lacking. Compared with other regions with developing countries, Africa ranks lowest in the quality of its stock of human capital. This is even more significant when one considers that Africa comparatively expends a larger share of GDP on education. Because the population over 25 in Africa has had on average only 2.4 years of education, with just 7.6 percent of the people having completed primary school, this poorly educated pool of human resources may represent the continent's greatest constraint to economic and social development.

The most critical challenge facing education systems in Africa is to make the best and most equitable use of available resources to effect classroom-level improvements for more students. Experience in the education sector in Africa and a review of the literature have raised several key questions concerning how African education systems can meet this challenge.

A recent review of USAID experience carried out by AFR/SD/HRD concluded that the complexity and interrelatedness of the problems facing basic education require a system-wide approach to improving the delivery of educational services. The SD/HRD Education team has identified key issues for an educational strategic framework through: 1) consultation and input on specific research agenda areas from the missions; 2) consultations

with African policy makers and the international donor community; 3) a survey of the literature on issues in improving primary school education in Africa; and 4) internal analysis of SD/HRD resources and capacity.

The first input into the development of a strategic framework was consultations with missions. Two activities contributed to this process.

First is the technical field visits that all members of the SD/HRD education team regularly make to countries with basic education programs. Second, a workshop for all Africa USAID staff in the education sector was held at Kadoma, Zimbabwe, January 17-21, 1994, to gain input in the process. The purpose of the workshop was to examine the current state of USAID's experience supporting basic education reform programs in Africa, and to formulate recommendations on how to maximize the impact of our efforts through improved design, management, and evaluation of the education programs. One specific objective for the workshop was to establish consensus on research priorities.

In addition, SD/HRD/HHR staff commissioned a survey of key issues related to basic education reform in Africa identified in the literature. The literature review first identifies the unifying themes on priority policy concerns (access, quality, equity, and efficiency) and then identifies the strategic issues and research related to the means of attaining policy goals.

The issues identified are expressed below as topics, and organized in terms of interrelations with major topical areas.

Development of National Programs of Educational Reform

- ♦ *A Framework of Basic Education Reform*—to develop a framework that will assist USAID in analyzing the design, interventions, impact, and outcome of its education programs.
- ♦ *Improving the Process of Policy Analysis and Dialogue*—to develop an approach for policy dialogue as part of program development and implementation.
- ♦ *Conditionality: analysis of intents, compliance and results*—to examine experience with conditionality in education sector reform programs.

- ♦ *Policy and Strategy Formulation*—to identify successful process patterns of leading to educational improvement through government and private sector action.
- ♦ *Education Expenditures in Reforming Systems*—to analyze changes in education budgets and expenditures during periods of reform that are accompanied by external budgetary support.
- ♦ *Decentralization*—to identify the variety of possible concrete actions and policy changes encompassed by the term decentralization.

Support for National Reform Programs

- ♦ *Program Design Process*—to lay out the program design process to assist missions in planning and improving program design.
- ♦ *Economic Analysis of AID Education Programs*—to provide guidance on the use and conduct of economic analysis in education program design and planning.

Teaching and Instructional Methods

- ♦ *Development of Child-centered Instructional Systems*—to build on A.I.D.'s earlier study of African success in using primary and secondary curricula to prepare children for healthier, more productive lives.
- ♦ *Schools as the Unit of Analysis*—to look at the school as the unit of analysis and input in a Third World context.
- ♦ *Rethinking the Roles of Principals, Head Teachers, and/or Inspectors*—to examine the roles of principals and inspectors in achieving improvements in school quality.

Teacher Training, Management, Support, Incentives, and Motivation

- ♦ *Cost-effectiveness of Teacher Training*—to compare cost effectiveness of pre-service and in-service training and/or different approaches to in-service delivery.

- ♦ *The Teaching Profession*—to examine links between teaching career structures (salary scale, training, work load, etc.) and quality of instruction.
- ♦ *Teaching Support Services*—to explore methods for training inspectors/administrators to support teachers and schools as resources for policy and planning decisions.
- ♦ *Teacher Motivation and Incentives*—to explore mechanisms to improve the morale of the teaching force and increase the supply of competent candidates willing to work in the profession.

Evaluation: Measuring learning, Exam Systems, and Assessment in the Classroom

- ♦ *Linkages among Assessment, Support Systems, and the Teaching/Learning Process*—to document experience and practice in the development of effective assessment mechanisms and procedures.
- ♦ *Qualitative Measures to Assess What Is Happening at the School-Level*—to identify daily practices that influence learning and teaching.

Textbooks and Curriculum

- ♦ *Health and Education Linkages*—to provide policy-makers and donors with a handbook on school-based health and nutrition interventions to improve the health and nutritional status of the child for better learning, especially in the African context.
- ♦ *HIV/AIDS Education and Teenage Pregnancy*—to focus initiatives on prevention activities and emphasize educating school-age children about protection from disease and unwanted pregnancy.

Participation of Stakeholders

- ♦ *Definition of Participation*—to explore models for participation and ways in which participation can be promoted; to describe hindrances to participation and ideas about how to overcome such problems.
- ♦ *School/Community Relations*—to examine USAID interventions in school-community relations and to develop an approach to NGO



support to improve school-community relations and school-based management.

- ♦ *Role of NGOs in Education*—to explore African governments and A.I.D. experience with NGOs in education.
- ♦ *Role of Parent-Teacher, Parent-Student Associations in the Reform Process*—to study the role of parent-teacher or parent-student associations in the educational reform process and reform objectives themselves.
- ♦ *Policy Change through Grassroots Developments*—to review the impact of school-level improvements in grassroots community schools outside of Africa on national policy change, in which school-based reform is articulated as a strategy for policy reform.
- ♦ Teachers as “Policy Brokers”—to determine: 1) the teacher’s impact as policy-broker and how this influences educational reform initiatives; and 2) how to prepare teachers for this critical role.

Decentralizing Financing and Management Authority

- ♦ *Private and Community Finance of Primary Schools*—to study the extent to which communities/the private sector in Africa can be expected to finance (primary) education, probable types of support, and methods for encouraging support and managing interventions in this area.
- ♦ *Guidelines on Impact Assessment: identification of process indicators*—to develop guidelines for education program designers and evaluators on the various benchmarks at the system level associated with educational reform, and a set of intermediate and process indicators.
- ♦ *Policy Implementation Process*—to research the routes policy changes generally take and analyze what happens along these routes, what personnel are involved, and what could be done to improve implementation at each juncture, to assist the speedy and consistent implementation of policy changes.

- ♦ Decentralization of administration and management—to explore how much of the relative success of different reform programs (or different aspects within a given program) depends on the degree to which their development and implementation was managed in a decentralized way.
- ♦ *Use of (Existing) Data*—to develop simple, decision maker-friendly ways in which existing data can be analyzed to raise questions about school systems and assist in decision making.
- ♦ *African Education Indicators Database*—to continue and maintain the data set on key statistics and indicators for African education from 1980 through 1990 compiled by the DAE, through agreements with the UNESCO Bureau of Statistics and The World Bank.
- ♦ *Indicators of School-Level Quality*—to develop school-level micro-indicators, focusing on school effectiveness and measuring dispersion of quality.
- ♦ *Finance Mechanisms*—to explore how central financing mechanisms can be designed to promote greater equity, efficiency, and instructional quality at the school level.
- ♦ *Building Institutional Capacity to Manage Reform*—to develop an approach as part of program design and implementation strategies for developing ministry of education capacity to seek out stakeholder participation and make use of it in decision-making, planning, and budgeting.

Incentive Programs to Increase Equity, Availability, and Accessibility

- ♦ *Formulation of Incentive Programs for Communities, Parents, Students, etc.*—to review and suggest models of incentive programs to alleviate the financial and economic burdens frequently associated with non-enrollment and lack of persistence of children, particularly in certain disadvantaged groups, such as girls, ethnic groups, and rural children.
- ♦ *Analysis of Social Marketing in USAID Education Programs*—to study and document the information campaign approaches used in

education programs (in Africa and elsewhere) aimed at enrollment/persistence issues, and to distinguish among the different types of programs to encourage parents to enroll their children in school.

- ♦ *Process of Translating Girls' Education into Social Change*—to investigate what aspects of the education process and what definition of education (number of years of formal schooling, literacy, etc.) are significant in creating the desired impact, and the changes in the girl who receives the education (in her social and economic relationships, her status, her behavior, etc.) that can be related to her having fewer children, having healthier children, etc.
- ♦ *Repetition*—to research why students repeat, why parents and teachers often encourage their repetition, whether and how students benefit from repetition, and what effectively discourages repetition.



Strategy for Information Dissemination

Analytic area:	Information Dissemination
Leading author(s):	Gail Kostinko, Consultant, SARA/AED; Judy Brace, SARA Dissemination Manager
Responsible SARA core staff:	Judy Brace
Responsible AFR/SD/HRD/HHRAA staff:	Subhi Mehdi

The HHRAA Project considers dissemination to be part of the overall planning process of the analytic agenda and an essential activity required to meet the pressing information needs of decision-makers in Africa as well as those in the community of donors and PVOs. While meeting those information needs is the primary objective of the project's dissemination activities, it is further recognized that the decision-making process, at any level, is complex, fluid, and influenced by many factors. **Therefore, a more general goal of dissemination activities is to influence not just decision-makers but also as many of the factors as possible that play a role in the decision-making process.** These include defining the problem, suggesting solutions, and obtaining political consensus.

Perhaps the broadest factor that influences decision-making is the socio-political context in which the decision-maker operates. Using dissemination to affect that context is a possibility if one considers that, within the general framework of mobilizing for a democratic society, **one of the conditions necessary to develop a knowledgeable, professional middle class is access to an extensive and comprehensive information base.** Dissemination can support this development with information required to advocate, mobilize, and educate, and it can strengthen and validate networks of those working to create change in their fields.

Dissemination by itself will not bring about extensive societal transformations. However, the potential impact of information is greatly increased when the focus of dissemination activities is expanded beyond a select few, easily identifiable individuals in positions of authority and the dissemination

strategy takes into account not just the decision-maker but also the context and factors that affect decision-making. It is within this context that the tool of advocacy can be used.

HHRAA will use diverse, reiterative strategies for focused and wide dissemination using—preferably several of—the following:

- ♦ preparing reports on HHRAA research findings in clear, accessible language, with executive summaries that suggest how to effectively translate findings into action;
- ♦ assisting African professional groups to develop action plans for advocacy, based on research findings;
- ♦ encouraging and assisting African partners to work with groups and individuals (researchers, journalists, PVOs) to develop materials such as overheads, slides, press releases, and computerized graphics to present research findings and mobilize for action;
- ♦ identifying and collecting information relevant to HHRAA Project activities, then synthesizing, summarizing, and repackaging that information into products appropriate for a wide range of users;
- ♦ issuing multi-lingual versions (either full or summary versions) of information products;
- ♦ presenting research findings and distributing information products at national, regional, and international meetings and conferences;
- ♦ supporting and developing partnerships with national and regional information service facilities (information centers, documentation centers, libraries, clearinghouses) and, in particular, identifying and working with those facilities that have or are developing strong dissemination capacities through other project initiatives;
- ♦ cooperating in dissemination efforts (formally and informally) with international agencies and other institutions and organizations that support research and information activities in Africa

(for example, the International Development Research Centre, the AAAS Sub-Saharan Africa Program, SatelLife and the APHA Clearinghouse on Infant Feeding and Maternal Nutrition);

- ♦ developing appropriate mailing lists (both compiling new lists and acquiring and reviewing lists from other projects and organizations) and providing assistance to dissemination partners in Africa in techniques for building and maintaining lists;
- ♦ promoting visibility of HHRAA information products by placing publication notices in journals and newsletters and sending copies of documents to abstracting/indexing services and databases (for example, the International Children's Centre, the WHO Office of Library and Health Literature Services, POPLINE, ERIC);
- ♦ expanding opportunities to obtain HHRAA information products by including a complete list of project publications and an order form in each document produced and identifying a central contact point for requesting documents (the central contact may route requests as they are received); also, by preparing and disseminating a list (and order form) of all HHRAA Project publications with annotations sufficient to inform a potential user about the basic content and conclusions of the documents; and
- ♦ encouraging audience feedback on information products by including in each document issued a notice that invites comment on the usefulness of the material and provides information on where and to whom comments should be addressed.

The HHRAA Project uses meetings as a forum for information dissemination, and print material as the main form for information products. New information technologies are also being used or planned for dissemination:

- ♦ encouraging and assisting dissemination partners in Africa to acquire electronic networking capability whenever possible;
- ♦ providing support to HealthNet sites in Africa to expand their electronic dissemination activities, including organizing computer conferences and sharing information on research in progress and research results via the network;



- ♦ placing full-text electronic versions of project publications on essential networks, in particular HealthNet;
- ♦ coordinating compilation of CD-ROM versions of project documents and complementary material, should this medium become cost-effective;
- ♦ using videotaping and other audiovisual media to document effective presentations of key research findings and information produced by the project; this type of documentation can extend the effectiveness of a presentation by making it available beyond a one-time-only basis and also can be used as a building block in the preparation of other presentations; and
- ♦ using teleconferencing to reach special audiences with panel discussions on areas of topical interest.