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EN AFRIQUE

Developing a Framework and Agenda for Sexually Transmitted Disease Research in Africa

Summary Document from a Consultative Meeting

Washington, DC: May 20, 1994

**Prepared by:
Morehouse School of Medicine
The SARA Project**

February 1996



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Acronyms

ACSI	Africa Child Survival Initiative
ADB	African Development Bank
AED	Academy for Educational Development
AIDS	acquired immunodeficiency syndrome
AIDSCAP	AIDS Control and Prevention Project (USAID)
AIDSCOM	AIDS Public Health Communications Project (USAID)
AIDSTECH	AIDS Technical Support Project (USAID)
ARI	acute respiratory infection
ARTS	Analysis, Research, and Technical Support
BUCEN	Bureau of the Census
CAR	Central African Republic
CCCD	Combatting Childhood Communicable Diseases Project
CDC	Centers for Disease Control and Prevention
CDD	controlling diarrheal diseases
CHW	community health worker
DHS	Demographic and Health Surveys
EIS	Epidemic Intelligence Service
EPI	Expanded Program on Immunization
FDA	Food and Drug Administration (USA)
FETP	Field Epidemiology Training Program
GPA	Global Programme on AIDS (WHO)
HANES	Health and Nutrition Examination Survey (USA)
HEALTHCOM	Communication for Child Survival Project
HHRAA	Health and Human Resources Analysis for Africa Project

HIS	health information systems
HIV	human immunodeficiency virus
HPNO	Health Population and Nutrition Officer (USAID)
HPV	human papilloma virus
HRD	Human Resources and Democracy
ICRW	International Center for Research on Women
IDA	International Development Assistance (World Bank)
IDRC	International Development Research Centre (Canada)
IEC	information, education, communication
IHPO	International Health Program Office (CDC)
IMR	infant mortality rate
IPPF	International Planned Parenthood Federation
IRB	Institutional Review Board
KAP	knowledge, attitude, and practices
MCH	maternal and child health
MOH	Ministry of Health
MPH	Master of Public Health
MSM	Morehouse School of Medicine
NCID	National Center for Infectious Diseases (CDC)
NGO	non-governmental organization
NIAID	National Institute of Allergy and Infectious Diseases
NIH	National Institutes of Health
OCCGE	Organisation de Coordination et de Cooperation pour la Lutte Contre les Grandes Endemies

PATH	Program for Appropriate Technology in Health
PHC	primary health care
PVO	private volunteer organization
RFA	request for assistance
RFP	request for proposals
RPR	rapid plasma reagin
RTI	reproductive tract infection
SARA	Support for Analysis and Research in Africa Project
SBI	small business initiative
STD	sexually transmitted diseases
STIs	sexually transmitted infections
TB	tuberculosis
TBA	traditional birth attendant
TRUST	toluidine red unheated serum test
UNDP	United Nations Development Program
UNHCR	United Nations High Commission for Refugees
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
VHW	village health worker
VDRL	Venereal Disease Research Laboratory
WFS	World Fertility Surveys
WHO	World Health Organization
WHO/AFRO	World Health Organization Africa Regional Office

Executive Summary

The May 20th Consultative Meeting on STD Research was convened to offer guidance to the Health and Human Resources Analysis for Africa (HHRAA) Project of the United States Agency for International Development (USAID) Bureau for Africa with respect to issues of importance to its proposed agenda of research in sexually transmitted diseases (STDs). The conference participants included program managers and technical personnel representing USAID, other government agencies, academic institutions, contractors and non-governmental organizations (NGOs).

Six objectives were proposed for the meeting: 1) to assess what is "working" and what is not working in African STD programs; 2) to develop clear perspectives on the specific STD work that identified institutions are doing in defined areas of Africa; 3) to clarify and attempt to reconcile points of disagreement on the direction of research, analysis and programs; 4) to arrive at consensus on the gaps in the work on African STDs; 5) to define the STD priority areas in Africa in terms of timing, cost, impact, and country needs; and 6) to establish a firm groundwork upon which to make recommendations for ongoing and proposed field programs.

The meeting reviewed the policy of USAID with respect to HIV/AIDS, and the role that the prevention and control of STDs plays in that strategy. The members also reviewed a draft strategic framework document prepared for USAID that sought to identify existing priorities in STD research based on a review of ongoing activities, published literature, and feedback from experts. This document identified research priorities in four main areas: 1) information, education and communication, 2) integration of STD services, 3) strengthening of STD services, and 4) monitoring and evaluation.

Following presentations of ongoing activities by eight represented agencies—USAID, the AIDS Control and Prevention (AIDSCAP) Project of Family Health International, the World Bank, the Program for Appropriate Technology in Health (PATH), the Centers for Disease Control and Prevention (CDC), the National Institute of Allergy and Infectious Disease of the National Institutes of Health (NIAID/NIH), the University of Washington, the MotherCare Project of John Snow Inc., and Morehouse School of Medicine—working groups considered priorities for an STD agenda in the areas of research and analysis, and information and dissemination.

Although the meeting did not produce a consensus document at the time of its convening, several common points of agreement were identified from the day's proceedings. Of the suggested research and analysis issues, several were raised by both working groups independently, and were generally accepted as priorities for research. These were:

Executive Summary

1. identification of innovative treatment approaches for core groups;
2. specific approaches to reaching adolescents;
3. partner referral;
4. integration of STD services;
5. the syndromic approach to diagnosis; and
6. mass treatment of populations or subpopulations.

No specific ranking was assigned to these priorities.

Group members agreed that a planned dissemination strategy should be an integral part of any proposed research. The group also noted that the audience for dissemination would be varied, and that different products were needed for different audiences.

In the general discussion, the group identified a number of operational constraints to successful STD prevention and control in Africa. Supplying effective STD drugs and providing reliable laboratory support are among the main constraints that face STD prevention and control in sub-Saharan Africa.

Recommendations for establishing consensus on unresolved issues were also suggested by the meeting. It was decided that the suggested priorities should be further examined in the context of ongoing research in order to prevent duplication of effort and to identify possible collaborators. Subsequent steps would include circulating the suggested priorities among involved parties, including African decision makers. This stage should concentrate particularly on issues such as feasibility, regional importance, and potential impact on policy makers.

I. Introduction

The May 20th Consultative Meeting on STD Research was convened to offer guidance to the Health and Human Resources Analysis for Africa (HHRAA) Project of the United States Agency for International Development Bureau for Africa with respect to issues of importance to its proposed agenda of research in sexually transmitted diseases (STDs). The conference participants included program managers and technical personnel representing the United States Agency for International Development (USAID), other government agencies, academic institutions, contractors and non-governmental organizations (NGOs).

Dr. Charles Finch (Director, International Health Program, Morehouse School of Medicine) welcomed the attendees. He noted the objectives of the meeting, placing them in the context of USAID's stated "Strategy for Sustainable Development." This context included emphasis on multidisciplinary approaches, attention to the health and educational needs of women and adolescents, involvement of indigenous PVOs and NGOs, and measures to meet the emerging threats of HIV/AIDS as well as the persisting challenge of rapid population growth.

II. Background

Mr. William Lyerly (Tropical and Infectious Disease Coordinator, Bureau for Africa, USAID) established the background to the consultative meeting by defining the role of USAID and the Health and Human Resources for Africa Project (HHRAA) within USAID.

The Role of USAID in Development Assistance and Health

Perhaps the most fundamental principle which defines USAID's involvement in the health sector is USAID's role as an "economic development agency," rather than a public health agency. Because of this, the agency's involvement in international health is fundamentally linked, directly and indirectly, to the process of promoting national development. In this respect, USAID cannot simply be seen as another "public health agency" such as WHO or CDC. Instead, the activities of USAID are intended to place public health, population, and education activities within the larger context of development (moreover, with specific emphasis on "sustainable" development). Health is but one component of this.

In this context, USAID has identified three major areas of public health concern for specific emphasis with respect to Africa. Each of these problems represents a significant and persistent threat to child survival and public health in Africa, and is equally important as a constraint to development. These three health and population priorities are:

Rationale for Establishing a Strategic Framework

1. high fertility and population growth,
2. drug resistant malaria, and
3. the HIV/AIDS pandemic.

The importance of sexually transmitted infections (STIs) as an entity has been accepted by USAID (after some initial reluctance) as a necessary and integral part of any comprehensive approach to HIV/AIDS. (This is particularly true in the African context, where the dominant mode of transmission of HIV/AIDS is overwhelmingly by heterosexual contact). Of the three priority areas identified above, two relate fairly closely to STI interventions—population and fertility, and HIV/AIDS. In keeping with USAID’s emphasis as a development agency, the agency does **not** wish to look at STIs in a purely biomedical context. The group was therefore charged with examining the task of setting an analytic agenda in multisectoral, multidisciplinary terms, and to pay close attention to intended policy consequences and impact on development as well as immediate biomedical issues. The task, in simplified terms, is one of identifying how best to develop effective programs for HIV/AIDS and other STIs, and to do so in a way that is acceptable to all parties, cognizant of local cultural and social mores, and consistent with good public health practice.

Rationale for Establishing a Strategic Framework—the Role of HHRAA and SARA

The concept of an **analytic agenda** for specific focus areas was put forth by USAID to express, in concrete terms, the collective needs put forth by African colleagues, USAID principals, resident field staff, and acknowledged experts in the discipline. The process is focused, in general terms, on identifying “what are the most important questions that need to be answered to help us do our job better?”

The reality of setting a research agenda for Africa must take account of several overriding factors which, of necessity, will define the nature of the effort. Two of these concerns are foremost: First is the fact that Africa is physically a vast continent, ranging from temperate to tropical climates, and second, is the vast range of political and cultural diversity.

The agenda-setting process endeavors to satisfy several guiding principles:

1. The process is “field driven.”
2. It actively seeks input from African colleagues and USAID field staff.
3. It seeks to “maximize African participation.”
4. Its intent is to become “an independent analytical voice” for agenda setting and program planning.

HIV/AIDS and STIs in AFR/ARTS/HHS's Strategic Development Plan

5. Its focus is regional and cross-national.
6. Its objective is specifically to support research, analysis and dissemination which is focused on strategy, policy, and decision making.
7. Its approach is cross-sectoral and multidisciplinary in nature.

The activities of the consultative group are in support of the **Health and Human Resources Division**, which in turn serves the **Office of Analysis, Research, and Technical Support (ARTS)**, of USAID's **Bureau for Africa**. The **Health and Human Resources Analysis for Africa (HHRAA) Project** an approximately \$40 million project within the ARTS Office, currently approved for five years, is the specific vehicle which addresses and supports the analytic agenda process.

The goal of the HHRAA Project, it should be noted, includes not only immediate health-related objectives, but is also intended "to improve health and nutritional status, increase literacy and educational achievement, and decrease fertility in sub-Saharan Africa."

There are essentially four components of the HHRAA project: 1) research and analysis, 2) dissemination, 3) support of the agenda setting and implementation process, and 4) support of resident technical advisors.

The end product that the HHRAA project seeks is to ensure that "project-generated research, analysis and information is received by our project clients—who are African public and private institutions, and various USAID missions and personnel—to improve resource allocation, strategies, policies and programs in health and human resource sectors in at least 15 countries."

The **Support for Analysis and Research in Africa (SARA)** contract within HHRAA supports and facilitates the research, analysis and dissemination activities of HHRAA. The SARA Project accounts for approximately one fifth of HHRAA project funds.

The Place of HIV/AIDS and STIs in AFR/ARTS/HHS's Strategic Development Plan Under the HHRAA Project

Analysis of existing surveillance and other epidemiological data with respect to HIV/AIDS (and using this also as a surrogate for STIs, which are similarly transmitted), the impact of STIs are generally found at a greater rate in people with 1) a higher education, 2) higher monthly income, and 3) in higher status occupations. This suggests that morbidity and mortality associated with these diseases will inevitably have an impact on some of the most productive sectors of society, and therefore must be of importance to any program which purports to be concerned with economic development.

Summary of Presentations and Discussions

With respect to STIs as an entity, USAID has chosen, in general, to approach STIs in relation to HIV/AIDS. Conceptually, the Agency has chosen to represent its analytical activities in the form of a question. One analytic activity within the agenda, then, is how to best develop effective programs for effective prevention and control of HIV/AIDS and other STIs. HIV/AIDS and STDs can also be included within another province of USAID activities—that of “emerging disease threats,” a heading that includes not only new diseases, but old threats re-emerging programmatically (for example, tuberculosis and STDs).

III. Summary of Presentations and Discussions

Statement of Objectives and Agenda Priorities for the Consultative Meeting

The purpose and objectives of the consultative meeting were established and circulated prior to the May 20th session. The stated purpose was “to advance the work in sub-Saharan Africa of reducing STD morbidity and STD’s impact as cofactors in transmitting HIV/AIDS, by discussing and establishing priority issues in STD research and information dissemination for recommendation to the HHRAA/SARA Projects.”

Six objectives were proposed:

1. Assess what is working and what is not working in African STD programs.
2. Develop clear perspectives on the specific STD work that identifiable institutions are doing in defined areas of Africa.
3. Clarify and attempt to reconcile points of disagreement on the direction of research, analysis and programs.
4. Arrive at consensus on the gaps in the work on African STDs.
5. Define the STD priority areas in Africa in terms of timing, cost, impact, and country needs.
6. Establish a firm groundwork upon which to make recommendations for ongoing and proposed field programs.

Review of Draft Strategic Framework and Summary of Developments Arising from the Marrakech AIDS Conference

Dr. May Post, consultant to the SARA Project, outlined the progress made to date on the identification of priority areas for STI research. She walked the group through the draft analytic agenda, as amended following the Pre-Conference Workshop conducted at the VIIIth International Conference on AIDS in Africa held in Marrakech, Morocco in December 1993, and provided background information on 1) the

framework objectives, 2) the identification process, and 3) the criteria for prioritization.

The strategic framework is the instrument that describes the information needs and gaps within a specific focus area. The objective of the strategic framework document is “to identify and prioritize the information gathering and research needs necessary to develop priority impact interventions, effective service delivery systems, and better monitoring and evaluation.”

The research topics identified as priorities were determined through consultation with African decision makers and professionals in the field, review of published literature, and at consultations during the 1994 Marrakech AIDS Conference (with Health, Population and Nutrition staff and counterparts of USAID missions in 14 African countries).

Five criteria were used for prioritization of research issues:

1. Does the issue represent an information gap or need?
2. Is the issue important, and a priority for African decision makers?
3. Is the issue of regional significance?
4. Can it be translated into a research or analysis question or a project for dissemination?
5. Is there potential for direct impact on decisionmaking?

As a result of the issues identification process and preliminary screening, four priority areas for STI research were identified from eight that were initially proposed. It should be noted that the initial approach to issues identification did not seek to dissociate STIs from HIV/AIDS as a separate priority, but identified priorities for HIV/AIDS as well as for other STIs and for tuberculosis—these two entities (STIs and tuberculosis) bearing directly or indirectly on the population impact of HIV/AIDS. The consultative meeting, however, was intended to address only STIs exclusive of HIV disease, and the strategic framework priorities were presented with emphasis on those aspects directly related to STI interventions.¹

The four priority research areas centered on the following:

1. effective information, education and communication (IEC) to promote behavior change,

¹Two other priority areas that were identified during the Marrakech workshop were excluded from the May 20th presentation because they were specifically related to HIV/AIDS, rather than STDs as a group. These items were 1) the effectiveness of HIV/AIDS counselling and testing, and 2) evaluation of the impact of HIV/AIDS on sectors other than health.

Review of Draft Strategic Framework

2. implementation and evaluation of integrated services,
3. strengthening of STI services, and
4. monitoring and evaluation of program impact.

Within each area, specific research questions were highlighted, corresponding to identified gaps within the sector.

Priority 1: Promoting safer sexual behavior through information, education and communication.

- ◆ **How effective are current messages and approaches** used in ongoing behavior change communication?
- ◆ What are the **factors contributing to the effectiveness of IEC methods** and interventions in promoting behavior change?
- ◆ What are the **predominant norms and values**, and the determinants (socioeconomic and behavioral) influencing sexual decisions, risk perception, sexual practices and health-seeking behaviors in population subgroups that can be used to positively influence behavior change in population subgroups?

Priority 2: Integrated services.

- ◆ **How can STI control be effectively integrated** into a comprehensive health care package with HIV/AIDS prevention programs and other existing health services to make it more accessible and acceptable (particularly to women)?
- ◆ What is the **impact of integration** of services on quality of care and service utilization?

Priority 3: Strengthening STI services.

- ◆ **How can existing STD services at the community level be reorganized and strengthened** to treat and prevent classic STIs as well as prevent sexual transmission of HIV?
- ◆ What are the factors affecting **utilization of STI services**?
- ◆ What is the **role of provider knowledge, attitudes, and practices on client utilization** and quality of care in STI services?

- ◆ What is the **cost and impact of syphilis screening**, treatment and counselling of pregnant women attending antenatal clinics?
- ◆ What newly-developed **diagnostic methods** are feasible for improved STI diagnosis in field settings? How do these methods rate with respect to cost, quality, and benefit?
- ◆ What are the **barriers to counselling** in STI clinic settings? What are the parameters associated with success or failure of STI counselling services? What is the impact of STI counselling on different audiences?
- ◆ What are the **determinants of domestic condom use** between regular partners?
- ◆ How does the **syndromic approach** to diagnosis and treatment of STIs compare with laboratory and clinical approaches (particularly for female patients) in terms of acceptability and cost-effectiveness?
- ◆ What are the **comparative roles of the private and public sectors** in the provision of STD services? How can the resources of health providers in the private sector be mobilized and strengthened to reinforce existing STI control activities?
- ◆ What are effective and cost-effective **models for partner notification** and referral? How should partner notification be conducted in resource-poor settings?

Priority 4: Program monitoring and evaluation.

- ◆ Can **better surveillance systems** be established and sustained 1) to monitor HIV/AIDS and other STIs in adolescents, 2) to monitor (screen?) STIs and HIV/AIDS in women in the general population, and 3) to monitor microbial sensitivity of STDs and to track trends, particularly in adolescent women?
- ◆ How can **management information systems** be strengthened to effectively assist program managers in the tasks of planning, operation, evaluation, supervision, management and decision making processes?
- ◆ What are the best **measures of HIV/AIDS and STI program impact** in Africa? Validate priority prevention indicators for 1) reliability and validity, 2) social acceptability, and 3) cost of data collection.

Review of STD-Related Initiatives by Represented Agencies

- ◆ What are the best **country-specific STI prevention indicators** and measurement methods to assist in program monitoring and evaluation?

The presentation also highlighted two additional areas of potential importance: 1) **the identification of target groups**, and 2) **addressing STIs among adolescents**. Further areas of emphasis that were suggested by literature review, but not specifically endorsed by the review group included 1) **the role of women**, 2) **condom production and use**, and 3) **methods to improve advocacy and policy**.

Several questions were raised in response to the presentation. The question of **differing strategies among STD control programs and family planning programs (the latter do not generally stress barrier methods), and the potential this creates for mixed messages** should be addressed as part of the analysis on integrated services.

The emphasis on women was included in the proposed topics in response to concerns about the unequal status of women, and the role that this inequity may play in perpetuating the spread of sexually transmitted diseases. However, the role of males as a subpopulation will be introduced as a specific topic.

Review of STD-Related Initiatives by Represented Agencies

Dr. Paul Delay, USAID Global Bureau/Health/HIV-AIDS

Dr. Delay reviewed the work of his office with respect to sponsored activities in STDs and HIV/AIDS—reporting on agency support of the Demographic and Health Surveys, and bilateral and multilateral activities.

Demographic Health Surveys III (DHS III)—approximately \$500,000 is being spent in DHS III to include questions looking at self-reported health seeking behavior related to STDs. Because of the target population surveyed by the DHS surveys (emphasis on women and fertility) STD information in women was far more important than HIV information (although some questions are included relating to HIV knowledge). Another “possibility” being explored for DHS III is the use of biological assays, “using the DHS infrastructure” (in much the same manner as the HANES surveys supplement the HIS surveys in the United States). The most appropriate (and acceptable) assays have not yet been determined, but the current emphasis is more likely in favor of STDs rather than HIV seroprevalence. (Malaria smears and micronutrient assays are also among the bioassays being proposed). What is feasible will depend on what resources are available.

Modelling is another priority area of involvement. This is focused on determining/predicting the impact of effective STD programs on specific target groups. These efforts are also meant to address certain fundamental program questions—Where should we target our STD interventions? Should we stay with symptomatic males?

Review of STD-Related Initiatives by Represented Agencies

What is the value of going into antenatal clinics? What is the value of screening asymptomatic women? Some of these questions may be answered by the new simulation models currently being evaluated.

The Health Office has funded a number of research activities through multilateral agencies such as WHO, UNDP, and UNICEF. These agencies' emphasis is generally away from "bench" research (although they do support a limited amount of basic research) and currently includes the following focus areas: 1) development of a **global drug resistance database** for STDs, and 2) **validation of syndromic approaches** to STD diagnosis and treatment.

The Office has an interagency agreement with the National Institute for Allergy and Infectious Diseases to supplement existing research grants. The supplements focus primarily on prevention of STDs, TB, and HIV transmission.

The **International Center for Research on Women (ICRW)** has undertaken surveys relating primarily to self-reported behavioral aspects of STDs, including health-seeking behaviors—in Jamaica, Nigeria and others.

The **International Planned Parenthood Federation (IPPF)** is documenting the realities of **integrating STD services** with primary and secondary prevention in family planning settings—Jamaica, Brazil and Honduras.

Development of microbicides is being supported through a small grant to the **Population Council** for evaluating the effectiveness of a group of sulphated polysaccharides. This area is a relatively new initiative, and is expected to grow in the future.

Reproductive Tract Infections (STIs and post-abortion complications) are a relatively new initiative in the domain of population and reproductive health, for which new monies have not yet been identified, but for which specific funds should become available. This area overlaps the interests of population programs, maternal health programs (safe motherhood), and related provinces. The current interest in this field is mainly in **developing reliable prevalence data**—through baseline information gathering in family planning settings.

Ms. Patricia Coffey of USAID Global Bureau/Office of Population briefly described the Office's activities in this area. This office is also examining the issue of RTIs as part of its mandate in reproductive health. It has begun to look at reproductive health as a paradigm that includes, but goes beyond family planning. The Office is, therefore, actively pursuing the question of evaluating the integration of STI services into family planning—from the perspective of population/family planning programs. The Office also intends to look at the feasibility and acceptability of fe-

Review of STD-Related Initiatives by Represented Agencies

male condoms, and has also developed draft guidelines for addressing STI/HIV prevention within family planning programs. These focus mainly on primary and secondary prevention possibilities—including IEC, policy, training, social marketing, operations research, and biomedical research.

The Bureau of the Census/Center for International Research is currently compiling an STD database for Africa (similar to the AIDS database), with funding from USAID. The database is still being revised, but the intent is to make it widely available once compiled.

Dr. Gina Dallabetta, AIDSCAP Project, Family Health International

Dr. Dallabetta, the Chief of the STD Unit at AIDSCAP—the AIDS Control and Prevention Project funded by USAID—delivered a presentation detailing the areas of STD control and prevention which fall within the mandate of AIDSCAP.

The mandate of AIDSCAP is to prevent HIV infection through behavior change, condom promotion, and sexually transmitted disease control. Research within AIDSCAP is conducted in support of its role in implementing programs—AIDSCAP does not have a separate pool of research funds. Therefore, the research that AIDSCAP conducts is mainly implementation and evaluation research. The areas in which it is involved, with respect to STDs, include primary prevention and secondary prevention.

Primary prevention issues include **behavior change, counselling in STD prevention, centers for education in STDs, barrier methods** (which includes condoms, microbicides and research in other female-controlled methods), and **control in core groups**.

In secondary prevention, AIDSCAP is looking at symptomatic and asymptomatic cases. Research relating to symptomatic cases includes **improved case management**, and research into health-seeking behavior—AIDSCAP is currently working with WHO on **validating the algorithm for asymptomatic females**. It is also examining **barriers to care** and **alternative sources of care** that patients use (for example, pharmacists) as well as the use of **prepackaged urethritis care kits** (which include both therapy and prevention materials) in these settings. A major constraint on this aspect of the program is drug availability. One of AIDSCAP's interests is therefore to examine possibilities for **cost reimbursement/cost recovery** in these settings.

For asymptomatic cases, research includes **case finding, improved screening methods and strategies, and partner referral**. AIDSCAP is working with the Program on Appropriate Technology in Health (PATH) to field test some of their **rapid diagnostic tests for STDs**. AIDSCAP is also interested in **evaluating partner referral** and

Review of STD-Related Initiatives by Represented Agencies

STD screening as ways of identifying and gaining access to asymptomatic women with STDs and/or core groups or high risk groups to whom primary prevention activities can be extended.

The group asked for examples from the AIDSCOM and AIDSTECH projects that preceded AIDSCAP, of large scale interventions in behavior change, peer education, case finding, or partner referral that worked. AIDSCAP has examples of peer education programs that worked, but the STD control component is relatively new and there are no current examples of where this has worked on a large scale. What has occurred in many cases is that peer education programs are referring individuals to existing STD programs, only to find that these clinics have no drugs or resources for treatment.

Ms. Wendy Roseberry, the World Bank

Ms. Wendy Roseberry, from the Africa Technical Department, Population Health and Nutrition Division of the World Bank, discussed the role of the World Bank in international development assistance and social sector financing. Ms. Roseberry oversees STD/HIV activities for Africa, and in this capacity reviews and advises project officers on how to design projects—specifically in STDs and AIDS prevention and mitigation.²

Unlike development agencies, the World Bank does not make grants. Instead it makes loans. These are of two types:

- ◆ Interest bearing loans (at 7 percent interest) to the “richer” of the developing countries makes a profit (currently about \$1 billion per year) for the Bank. The proceeds from this lending goes to support running of the Bank;
- ◆ The profit also goes to fund interest-free, long term loans to the fifty poorest countries under **international development assistance (IDA) financing**. IDA loans fund activities in education, health and population.

There are, therefore, two significant differences between World Bank operations and those of other development agencies: 1) Monies are received as a loan, and countries are required to repay it; and 2) loans are disbursed directly to governments.

²A more detailed discussion of World Bank priorities with respect to AIDS and other STDs is contained in the 1992 World Bank document: **Combating AIDS and other STDs in Africa—a review of the World Bank agenda for action**, by LAMBORAY JL and ELMENDORF AE (World Bank Discussion Paper #181, 1992).

Review of STD-Related Initiatives by Represented Agencies

Because the World Bank does not have a specific “AIDS desk” or an STD/HIV program, the activities in this field are basically driven by country priorities, and by the prerogative of individual governments. Although the Bank does NOT have a specific defined strategy for STD/HIV in Africa, it does have an “agenda” of issues it would like to see addressed in AIDS and STD prevention.

The World Bank is involved in **STD Risk Assessment** exercises based on a “rapid STD prevalence assessment” among different subpopulation groups—for example, pregnant women, the military, commercial sex workers, and factory workers. These studies have been carried out in Senegal, Uganda, Niger, Mali, and Lesotho. These activities are an acknowledgment that there is little known with respect to the prevalence of STDs other than HIV/AIDS. Subsequent study sites planned include Chad, Burkina Faso, Zimbabwe, Nigeria, and “maybe” Kenya. A household survey is also being contemplated for Nigeria. In addition to prevalence data, these surveys have also measured behavioral factors such as condom use, social demographics, and similar indices.

As a result of some of these needs assessments, several countries have taken out AIDS-specific loans (rather than health project loans with an HIV/AIDS component)—they include Kenya, Uganda, Zimbabwe and Nigeria. It is expected that this activity will continue for a number of years.

It is expected that WHO, in conjunction with the World Bank will be developing a “**standardized STD epidemiologic protocol**” from these activities. A first draft has already been developed, and the instrument should be finalized by December 1994.

In **Zimbabwe**, the government has taken a \$65 million AIDS loan over five years to be used primarily for commodities, including STD drugs, antituberculous drugs, and diagnostics.

One operational research activity being undertaken is a study of **HIV counselling and testing**, which will include syphilis screening “if it turns out to be cost-effective.” This pilot study of “drop-in information services” is currently being proposed for Uganda and one European country.

In **Nigeria**, two states—Lagos and Plateau, and three Local Government Areas have been chosen to pilot a program of **strengthening STD services** in the facility and the community, utilizing the “typical STD/AIDS education approach,” of IEC, condom promotion, and STD care.

In **Kenya**, a similar \$40 million loan is being applied to a very decentralized program of AIDS/STD prevention and mitigation. NGOs will have access to some \$4

Review of STD-Related Initiatives by Represented Agencies

million to \$6 million dollars which will be available to them in response to proposals in the areas of IEC, condom promotion and STD care.

In **Uganda**, \$50 million is being applied to a similar program.

In **Burkina Faso**, a population and AIDS prevention project of about \$28 million is intended to strengthen the links between population and HIV/AIDS programs—across a wide range of activities, from policy and management to service delivery.

There are a number of areas of potential research interest and research needs of STD programs from the Bank's perspective:

- ◆ There is need for a **treatment algorithm for counselling services** and a more systematic approach to the interpersonal side of STD case management, just as much as there is need for attention to the biomedical aspects of treatment.
- ◆ **Improved diagnostics** are a priority.
- ◆ **Health care services on school premises** is a possibility worth exploring; other prospects for extending services beyond the facility and into the community should also be explored.
- ◆ **“Innovative reproductive health activities”** such as introducing the community to the facility—women's groups, girl's clubs, and similar groups, for example; and using “coming of age” rituals to introduce reproductive health messages should also be explored.
- ◆ Effective **involvement of men** in reproductive issues, including sexual responsibility, sexual decision making and primary prevention is also a priority. Methods to achieve more effective involvement and responsiveness are important.

The group raised the question of the potential mismatch between the Bank's direct loan policy to governments, and the generally acknowledged weakness of government institutions in Africa. The Bank's principle means of addressing that challenge is its “capacity building” strategy. The group inquired about the large amount of approved but unexpended funds that the World Bank controls. The Bank has had both successes and failures. There is probably room for more collaboration, but an appreciable amount of consultation has taken place between the World Bank and other agencies to explore ways for alleviating this problem of unexpended funds.

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Dr. David Mercer, Program for Appropriate Technology in Health (PATH)

Dr. Mercer detailed the work of PATH in developing and field testing “appropriate” diagnostic tests for STDs suitable for resource-poor settings and African field conditions. He also mentioned additional activities over the entire range of PATH’s activities—including IEC activities, drug and diagnostics procurement in support of existing programs, and feasibility assessments of local condom production. His presentation described the status and future plans for technologies currently being tested, and also proposed priorities for future consideration.

The vast majority of PATH’s work with diagnostics are being undertaken as part of the WHO-sponsored **STD Diagnostics Initiative**, (SDI) recently rehoused within the Global Programme for AIDS (GPA) in Geneva.

The main disadvantages of existing diagnostic tests include the fact that they are expensive, have poor stability and a short shelf life, are technically demanding, take too long to perform, and have low levels of patient acceptance (particularly among women). They are therefore particularly unsuitable as screening tests. PATH’s emphasis has been on tests that are rapid and easy to perform. Several of these are existing methods that have fallen into disuse in the United States and elsewhere as more advanced methods were developed.

Dehydrated Thayer-Martin (T-M) Media for gonococcal culture: This is an adaptation of a test originally developed by Ames about 30 years ago. It is reconstituted by adding a measured amount of glycerol solution. Several operational difficulties have been encountered with this reconstituted medium in recent tests, but further field testing in Senegal and Malawi will be carried out starting in June 1994, and is currently in progress in Mali.

A **portable field incubator** has also been developed for storage and transport of media under field conditions. It has already been successfully tested in several sites (including Tanzania, Ghana and Nigeria) and will be provided to the sites testing the dehydrated T-M culture medium.

Plasma separator cards for syphilis testing by rapid plasma reagin (RPR): These cards also represent the use (with modifications) of existing technology. They allow three or four drops of finger stick capillary blood to be used, with stirring, to pro-

*The **toluidine red unheated serum test** or **TRUST test** is a macroscopic flocculation test—one of a number of macroscopic non-treponemal tests for syphilis. Unlike the more common VDRL test, however, the TRUST test uses a toluidine dye indicator to magnify the reaction and allow interpretation without a microscope. The test also has two other advantages—the reagents do not have to be prepared fresh every day (as is the case with the VDRL antigen suspension), and the test does not require heating of the reagents or sample.

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vide a sufficient amount of plasma for the TRUST test method of RPR testing (tear-drop test).³ These are being field tested (Mozambique, Kenya), together with a battery powered rotator.

Tests to improve syndromic diagnosis: include an oxidase indicator being developed to detect gonorrhea in male urethritis. This test is being compared for cost-effectiveness against standard syndromic diagnosis with presumptive treatment and the more sophisticated (and expensive) genetic probe.

Future initiatives are expected to focus on 1) noninvasive and minimally invasive methods of disease detection and diagnosis—including urine, saliva and capillary blood assays; 2) new test algorithms; and 3) further efforts to adapt currently available technologies.

The impediments to adoption of these technologies once they are developed should also be analyzed. Production and marketing remain a big problem. By and large, PATH's efforts at development end at the point of production. Although the utility and value of these technologies are often immediately obvious to program managers, in many cases they are still not commercially available, except for research applications. The assumption, however, is that if the program is able to identify and refine the technology, it may be able to convince WHO or another agency to undertake actual production. These other institutions have the advantage of not having to operate under FDA limitations or "buy America" provisions.

Dr. John Moran, Centers for Disease Control and Prevention, Division of HIV/STD Prevention

Dr. Moran discussed details of several activities being carried out by his division, and by others at CDC. Several CDC divisions are involved in STD/HIV-related activities internationally: the STD laboratory program at CDC, and the Division of STD/AIDS which has research stations in Zaire (currently closed), Côte d'Ivoire, and Thailand, and in planning for Brazil. The Division of Reproductive Health also has ongoing research in Thailand and other sites. All of CDC's work in Africa and internationally is in partnership with USAID and/or host governments. Virtually all of the research is secondary to CDC's role in technical assistance to governments, and is generated by practical questions arising from this involvement.

In primary prevention, some behavioral work is being done (most of it domestically) on the problem of distinguishing between those who acquire STDs and those transmitting the disease (**high frequency transmitters**). These subpopulations are not necessarily the same.

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Overseas, the Behavioral Sciences Division has been very involved with counselling and testing in **Uganda**, and in the **Republic of South Africa** with community assessment in Alexandria township.

Reducing community prevalence is the objective of primary and secondary prevention efforts among commercial sex workers in **Bolivia** (screening and early diagnosis of STDs, increasing condom use, and improving monitoring). Case finding and screening techniques (for example, among antenatal clinic patients) are also the focus of an initiative in collaboration with the World Bank in **Senegal**, and the **Central African Republic** (some of these also including field use of the TRUST test).

Partner notification as a means of identifying high frequency transmitters has been evaluated in an operational research project in the Central African Republic—approximately 40 percent of partners were reached by this method, including almost 80 percent of contacts to people diagnosed with gonorrhea.

Operational research on providing STD services was explored following initial CDC evaluations of STD services three years ago in about 15 countries. In virtually all of these countries, **availability of drugs** to treat STDs was a major constraint. A subsequent program providing drugs to patients in the Central African Republic has provided useful baseline data on STDs (including demographics and health-seeking behavior) among approximately 5,000 clients in central facilities, and about 1,000 in more peripheral facilities. Follow-up of this study's findings is intended to look more closely at the accuracy of diagnosis and treatment by using confirmatory tests to validate clinical diagnoses. Findings from the initial study also suggest that "leakage" of STD drugs from the program is fairly high (at 40 percent), but is probably accounted for mainly by use on non-STD complaints rather than theft by or wastage.

The **cost sensitivity of STD services** is also being evaluated subsequent to introduction by the government of cost recovery measures in the health services. (There is reason to believe that women may be more affected than men by introduction of fees).

Development of predictive models are also being studied by CDC, with the aim of using available prevalence data (for example from World Bank data) to model HIV/STD population risk.

Dr. Ken Schulz, Centers for Disease Control and Prevention

Dr. Schulz's presentation supplemented that of Dr. Moran and consisted of an appeal for high quality intervention research. He cited one CDC study in Indonesia which identified bacterial vaginosis as a factor in preterm delivery, and another study which demonstrated effectiveness of clindamycin vaginal cream in bacterial

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vaginosis. He noted that many agencies interpreted these studies as confirmation that intravaginal clindamycin could be used to substantially reduce preterm delivery. However, in a randomized clinical trial of clindamycin versus placebo, no such benefit was demonstrated. This illustration was used as an example of policy makers extrapolating from research data without rigidly testing the hypotheses so derived.

With respect to research issues, he identified the following as priorities:

- ◆ Counselling services—CDC has carried out a number of **randomized trials of counselling services**, all in the US. It is feasible to do comparable studies in an international setting.
- ◆ Evaluating the **effectiveness of partner notification** and partner referral is important.
- ◆ **Social marketing of condoms** is another intervention whose effectiveness needs rigorous evaluation.
- ◆ Similarly, **female barrier methods** need to be evaluated for effectiveness and acceptability.
- ◆ “**Rapid reduction methods**” such as **mass treatment** of subpopulations or specific core groups are another prospective intervention whose feasibility needs to be examined. These methods may be applicable where the infrastructure for traditional intervention does not exist.
- ◆ The cost-effectiveness of these interventions also needs to be assessed.

The correlation between age prevalence of Herpes Simplex Virus and HIV risk has been reported in a number of populations. Increasingly, it appears to be a valid and reliable marker for the “vulnerability of a population to HIV/AIDS, and probably should be part of any population assessment proposed in future studies. It is not likely that CDC will perform the HSV test for free, but it should be commercially available soon, if not yet available.

Dr. Karl Western, National Institute of Allergy and Infectious Diseases/National Institutes of Health

Dr. Western outlined the role of the NIAID/NIH in domestic and international research, and outlined some of the specific areas of research undertaken by NIAID.

As domestic agencies, the NIH and NIAID are mandated to conduct international research primarily through legislation that empowers them to conduct research “relevant to the health and safety of the US population.” Additionally, Congress in

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1988 gave broad authority to NIH to conduct HIV/AIDS related research internationally, including technology transfer, training, and institutional strengthening. However, no additional resources were appropriated to carry out this mandate.

STD research (primarily domestic) has been a mandate of NIH since 1962. Because of the mechanism under which HIV/AIDS money is appropriated, these activities are separated programmatically from STDs (although the distinction is largely an artificial one). HIV/AIDS research is currently about 10 percent of NIH's \$11 billion budget, and about 50 percent of NIAID's total effort (about \$600 million). Non-AIDS STD research at NIAID is about \$60 million. Operationally, only 10 percent of NIH research is intramural, whereas 90 percent is extramural, through external competitive awards. Most extramural funding is through uncommitted research funds and is disbursed in response to investigator-initiated proposals. Most funding is to US investigators. Although foreign investigators are eligible to apply and to respond to requests for assistance (RFAs) and requests for proposals (RFPs) under certain conditions, the success rates for foreign applicants are generally low.

Program priorities are identified by expert consensus, and are communicated to the research community through program announcements (which do not have funds attached), and RFAs and RFPs (which do have program funds). Current priorities for STD research at NIAID are as follows (**not** in order of priority or importance):

- ◆ Vaccine development research
- ◆ Behavioral research
- ◆ Pelvic inflammatory disease
- ◆ Adverse outcomes of pregnancy
- ◆ Adolescent STDs
- ◆ STD diagnostics (being coordinated with the WHO STD Diagnostics Initiative)
- ◆ Human papilloma virus
- ◆ Topical microbicides

There is a considerable degree of interagency cooperation in NIH initiatives—for example interagency agreements between NIAID and USAID, and collaborations between AIDSCAP and NIAID-sponsored Cooperative Centers for STD Research.

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NIH/NIAID also supports a domestic program of **Small Business Innovative (SBI) Research** with congressionally mandated set-asides of approximately \$125 million in 1994, and estimated funding of \$250 million by 1997. Although these are grants to American small businesses, regulations allow for as much as 50 percent of the award to be conducted outside the USA. NIH is simply one player in the research universe. It is heavily committed to basic research, although some research may be fairly applied and field oriented. On the other hand, project development and evaluation (when it is supported by NIH) is usually effected through direct contracts, controlled directly by NIH. Funds for such directed efforts are small. NIH generally relies on the US private sector, some other country's private sector, or on UN agencies to translate research advances into "product" and to make those products available.

Dr. Peter Perine, University of Washington

Dr. Perine outlined the University of Washington's involvement with program development and applied research in Zambia's STD program.

The University's involvement with STDs in **Zambia** began in 1983 in response to a very high antenatal prevalence of congenital syphilis (nearly 250 births a year or 1 percent of births at the University Teaching Hospital in Lusaka). As a result, the Ministry of Health of Zambia and the Canadian IDRC, instituted an antenatal syphilis screening program. Among the important findings arising from early evaluations: they soon found that women treated in the first trimester often were reinfected by the third trimester.

Possibly the most important contribution of this project was the training of approximately 500 clinicians and nurses in basic skills, including simple technology, such as the RPR card test and microscopy for gonorrhea and non-gonococcal urethritis. As a result, there are now trained personnel in almost all "Class A" clinics with wide experience in diagnosing and treating STDs. This was the situation in 1985 when HIV was became recognized as a significant problem with findings of 5 percent HIV prevalence in antenatal clinics. The STD program strengths, it is hoped, can translate into strengths in dealing with the HIV/AIDS epidemic.

In concrete terms, the impact of this straightforward intervention—training and simple technology—has been appreciable, with an overall drop of about 25 percent to 30 percent in patients seen for STDs in these clinics. This program has been tremendously cost-effective, the whole program costing less than \$3 million over the past 15 years. The program has also trained 75 other health workers from neighboring countries. Moreover, the entire program of teaching and training is carried out by Zambians.

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The one remaining problem has been availability of drugs. Part of this has resulted from a decline in Zambia's economic well-being over the past decade. Another problem is the diversion of STD drugs from STD programs to treat other patients for other illnesses—understandable, but a problem none the less.

It is important, however, that people not come away with an exaggerated view of the drug supply problem. For example, the CDC program in the Central African Republic calculated that the entire program needs of CAR could be satisfied by a couple of million dollars a year. The estimated cost for Zambia was about \$ 0.50 per patient, and for Zambia might be in the order of \$100,000. However, there are other problems with drug supply in addition to cost—for example there is emerging resistance, and there is no easily available drug beyond kanamycin for STD treatment.

Mr. Bill Brady, STD advisor, MotherCare Project, John Snow Inc.

Mr. Brady, STD advisor, described the operation, objectives, and some of the activities of MotherCare, a project of John Snow International.

The MotherCare project is funded by USAID, and has just entered a second five-year funding phase. The goal of MotherCare has been to reduce maternal and perinatal mortality and morbidity, and to promote healthy women and newborns.

In the first phase, the project operated in seven countries, working with midwives and traditional birth attendants to minimize delivery complications. In the next phase, the project seeks to focus on morbidity and will include all women of reproductive age. The project will have long term relationships with project countries, and also provides short term technical assistance on request. Research in the project is applied in nature, and largely initiated in response to project needs and objectives. Some of this research carried out during the first phase is probably relevant to the agenda considerations.

In Nairobi, Kenya a **congenital syphilis prevention program** which began operating in about 10 antenatal clinics two years ago has encountered many of the same problems described in previous presentations. There are currently about 30 facilities in Nairobi offering RPRs on site. There is also an **IEC program with partner notification**—approximately 50 percent of those notified come in for treatment. Review of data for some 13,000 women screened by this program has shown rates of 7–8 percent seropositivity for syphilis. Review also showed that 85 percent of partners reporting were treated, but 15 percent were not treated because of lack of drugs.

The response rate for partner notification is quite high, all things considered. The context in which partners were notified may have had something to do with the re-

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sponse. This was generally represented as an issue of risk to the pregnancy rather than a risk to the partner—in reality this is true, because reinfection of the mother does threaten the fetus. This may be one factor responsible for the result—culturally, the responsiveness to threats to the infant or pregnancy may be greater than response to individual risks.

This again reinforces a possible role for a cross-sectoral, multi-disciplinary approach. While not actually advocating the integration of HIV/STD/family planning, we should note that it is happening in many places, and maybe we should look closely at the prospects for beneficial synergy in some such programs.

Several research issues have been generated by this program: outcomes (for example, low birth weight, mortality) have not been evaluated, and impact evaluation has not yet been done; WHO is interested in validating training guides and IEC materials. Research priorities for this and other activities are currently being formulated.

Morehouse School of Medicine: STD-related dissemination and training proposals

Dr. Stephen Margolis, Association of Minority Health Professions Schools AIDS Consortium, Morehouse School of Medicine

Dr. Margolis outlined a proposal for a training practicum or fellowship program in HIV/AIDS and STDs for African health professionals at Morehouse School of Medicine (MSM).

This proposed program would take advantage of MSM's local and international activities in HIV/AIDS and community medicine and would, in the first year, target African graduates of Tulane's MPH program. The program would build on the didactic learning provided by the MPH program by affording an additional year of practicum experience, similar to that provided by a preventive medicine residency practicum, but more focused on international issues, and on HIV/AIDS and STDs. Three candidates had already been identified for the first year's activities. These candidates would engage in a multidisciplinary program at MSM, and would participate in ongoing public health research and program activities.

Ongoing programs with which they would be expected to work include MSM's involvement in a multi-year HIV/AIDS prevention and control project in Zambia, a program operating with traditional healers in Senegal, and an NIH grant supporting additional HIV/AIDS activities; cooperative relationships with CDC, Fulton and DeKalb counties, and the Grady Infectious Disease clinic and the Emory HIV/AIDS program. MSM's collaborative relationship with Tulane is another resource which

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would be actively exploited by this program, which would be in partnership with that school.

The ideal situation would be to establish two centers—one Anglophone, one Francophone—in Africa. The reality, however, is that key people from Africa are now scattered all over the US in various programs. We simply see an opportunity to try to keep the people and the programs a bit more focused in one place and in contact with ongoing programs. In an initial phase, starting the program at Morehouse would allow its sponsors to get the program off the ground immediately without the start up problems associated with setting up the whole program in Africa. This then, would allow Morehouse to work toward that option as a prospective approach.

Dr. Emanuel Joseph, Morehouse School of Medicine

Dr. Joseph briefly outlined the principles underlying Morehouse's proposal to establish a clearinghouse for STD information.

The main premise of MSM's dissemination proposal is that carrying out research is not an end in itself. In fact, if one could achieve the same endpoint without doing research, there is probably no logical justification for initiating research.

The activity that Morehouse proposed is to establish, in conjunction with any of a number of active African institutions, a repository for some of this information—specifically related to STD research, and to oversee a process of transforming some of it into an accessible and acceptable format. This would not necessarily be restricted to reviewing published literature, but would include published articles in traditional journals, published articles in non-traditional journals, and unpublished sources. Possible options for the actual dissemination of this information could be effected through a number of means—periodical newsletter, non-traditional periodicals, or electronic dissemination through networks—for example, Internet, Fidonet, or HealthNet. In some respects, however, the “means” of dissemination is less important than the information processing necessary to create “information” from “research.”

In this respect, dissemination should be seen as an integral and inseparable component of every aspect of our research and analysis activity. It is extremely important in looking at research priorities that we ask what is the dissemination strategy for that activity, and who are the recipients or clients for those research findings.

World Health Organization, Global Programme on AIDS

Although the WHO Global Programme on AIDS (GPA) was not officially represented at the consultative meeting, a briefing document was received from the Of-

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Office of Sexually Transmitted Diseases of the GPA, through Dr. David Heymann. This document identified six GPA priorities for STD research. These priorities are summarized as follows:

1. **Flow charts for syndromic diagnosis and management of symptomatic STDs:** including evaluation of sensitivity and specificity and predictive value, and identification of demographic markers or simple diagnostic tests to improve sensitivity or specificity of the algorithm.
2. Flow charts for **case finding and management of asymptomatic STDs:** including simple tests for gonorrhea and chlamydia trachomatis in asymptomatic women.
3. Development and evaluation of simple, rapid, accurate, and inexpensive **STD diagnostic tests.** (Some of these are the subject of collaborations with PATH and USAID, through the STD Diagnostics Initiative, and were explained in their respective presentations).
4. Development and evaluation of simple, accurate and inexpensive **tests for antimicrobial susceptibility monitoring.**
5. Development and evaluation of **methodologies for assessment of the STD situation and surveillance:** including study of the accuracy and cost of current or proposed methods for the surveillance and assessment of STD prevalence and incidence.
6. Development and **evaluation of policies and delivery systems** for STD control: for example, the impact of mandatory partner notification, the effectiveness of disease-specific STD clinics (versus integration into routine health care), and activities that may discourage care-seeking by high risk groups (e.g., commercial sex workers).

IV. Summary of Workshop Recommendations

Criteria for Prioritization of Research and Instruction to Working Groups

Two working groups were formed to identify priorities for "Research and Analysis," while one group was assigned to identify information and dissemination strategies. Research and Analysis group members were instructed to propose a list of "about six" consensus topics which they identified as high priorities for research. The following criteria for prioritization were established:

1. Selection should take into account identified gaps and needs (i.e., What is it that should be done that hasn't been done?).
2. Topics could be culled from those suggested in the Strategic Framework, or from others identified by participants.

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3. Decisions should take into account “the social, economic and cultural realities in Africa.”
4. Projects proposed should be “doable” within the 2–4 year timeframe of the HHRAA project; should provide for African participation and ownership; should provide results likely to result in measurable impact on policies and programs; and should be cost-effective.

After agreement on an initial list of topics, the groups were instructed to evaluate the suitability of the chosen research topics as HHRAA-sponsored activities, and to consider ranking the selected topics.

The group was charged with proposing topics that were consistent with the applied nature of HHRAA’s mandate—“operationally oriented, policy linked research.” Groups were asked to concentrate on identifying needs as they saw them, with consideration of their suitability for funding as a later priority.

Report of Analysis and Research Working Group A

Group A identified nine priority areas.

1. **Integration of services:** includes both the question of “What is the best way to integrate services?” and the larger question of whether it is advisable to integrate services at all. In what surroundings might it be most cost effective? What is the impact on other services?
2. **Impact of cost recovery** on service utilization and on overall health status.
3. **Partner referral** issues: What methods are most effective and cost-effective?
4. **Drug logistics/policy:** What are the policy constraints and logistical problems impeding adequate drug supply for STD programs?
5. **Patient management** including **evaluation of diagnostic tests** and techniques for **syndromic diagnosis**.
6. **Mass treatment** of core groups: Are these approaches effective and cost-effective?
7. **Adolescents:** 1) How best to do primary prevention; 2) How to evaluate programs, and 3) How to develop “teen friendly” services.
8. **Health-seeking behavior:** determinants of health facility use.
9. **Surveillance:** identification of the most effective and cost-effective methods.

Report of Dissemination Working Group

Report of Analysis and Research Working Group B

Group B identified eight priority research and analysis issues among those presented for discussion. They did not prioritize them. The selected issues were as follows:

1. **Targeting:** Identification of ways to identify and intervene with core groups and special risk groups, including high frequency transmitters at increased risk of contracting STDs.
2. **Adolescents:** identify ways to identify and intervene with adolescent populations to introduce and promote reproductive health services.
3. **Core groups:** Randomized intervention study of accessing "core groups." Do interventions in core groups reduce incidence of STDs/HIV? How can programs best intervene with core groups?
4. **Partner notification:** What are successful and cost-effective models for partner notification, referral, and treatment (passive vs. active partner notification).
5. **Treatment effectiveness** and reinfection: What is the most effective and cost-effective method of breaking the cycle of syphilis and genito-urinary disease infection and reinfection?
6. **Mass treatment:** Should mass treatment be given when rates of ulcerative STDs exceed a certain level of prevalence? Compare selective mass treatment vs. total mass treatment (for example, 50 percent of ANC population with female gonorrhea infection).
7. Compile a **decision maker's guide** (clinic managers, district health officers) for STD program management.
8. **Syndromic approach:** Can trained community health workers provide syndromic diagnosis and treatment?
9. **Integration:** How best can programs integrate STD services with MCH and Family Planning programs?

Report of Dissemination Working Group

This group presented a list of the issues raised in the working group that relate to information and dissemination.

1. **Data sources:** Consensus was that these should include all forms of data that it is important to collect, including published literature, orphan literature that exists within countries, and surveillance or routine monitoring data relevant to policy questions.

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2. **Impediments to gathering data**, and to the effective dissemination and use of research information were identified. These included the questions of physical access (to data), lack of innovative approaches to collecting existing data, lack of money, the variable quality of research and data.
3. **Reprocessing and packaging:** The group conceded that a processing stage was necessary to transform research findings or data into an information format that is usable at the Ministry of Health level, at the clinic level, or anywhere over a spectrum of potential users. This stage also included a quality assurance phase, necessary to evaluate the quality of the research or data, and to assess its validity (i.e., do its findings justify its conclusions?). Traditionally the process of peer review serves this function during journal publication, but for orphan literature and unpublished studies, an alternative process may be needed.
4. **Identification of users and potential users** was identified as an important priority for dissemination activities. The potential audiences for dissemination activities included: MOH decision makers (policy makers), MOH program managers (implementers of policy), health care workers, academics, other ministries (e.g., Finance and Planning), NGOs, USAID and USAID missions, and other donors. The group did not attempt to determine who was most important among these groups, conceding that different audiences would be targeted by different research or data activities. There was consensus, however, that different dissemination formats would be needed for different audiences.
5. **Physical mechanisms of dissemination** were identified. These included electronic media, print, radio, workshops, conferences, and the African Development Bank. The importance of strengthening existing networks was stressed. The group did not attempt to establish any consensus about any preferred method or methods of dissemination.

V. Conclusions and Recommendations Arising from Consultative Group Discussions

Although the meeting did not produce a consensus document at the time of its convening, several common points of agreement were identified from the day's proceedings. These can be grouped into general considerations and specific research recommendations.

General considerations were expressed in the following areas of consensus:

1. Although it is feasible to identify specific STD research priorities distinct from HIV/AIDS research, the separation of other STDs from HIV/AIDS is a somewhat artificial distinction. Programs focusing on STD interventions and

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research must consider HIV/AIDS as a related issue, and vice versa. No specific consensus was stated as to whether the STD framework and agenda should be separated operationally from the agenda for HIV/AIDS, but the group did not view the proposal as unreasonable.

2. The group acknowledged that the major justification underlying current interest in STDs is the role of STDs as cofactors in increasing transmissibility of HIV/AIDS. In the face of current evidence, this was a very valid concern, and one that should drive current efforts very aggressively.
3. Determination of suggested priorities by the consultative group should be seen as a preliminary stage of determining a final agenda. The final determination of priorities should involve feedback from African policy makers prior to adoption.
4. A planned dissemination strategy should be an integral part of any proposed research. The group generally agreed that the audience for dissemination would be varied, and that different products were needed for different audiences.

Of the suggested research and analysis issues, several were raised by both working groups independently, and were generally accepted as priorities for research. These were the following:

- ◆ identification of and innovative treatment approaches for core groups;
- ◆ specific approaches to reaching adolescents;
- ◆ partner referral;
- ◆ integration of STD services;
- ◆ the syndromic approach to diagnosis; and
- ◆ mass treatment of populations or subpopulations.

No specific ranking can be assigned to these priorities at this point.

There were several areas identified in which there did not exist any strong consensus among the assembled group members. The group also identified several issues that were raised during the course of discussions but were not discussed at length, and therefore remain as unresolved issues:

- ◆ The group acknowledged that the identified priorities may reflect, to some degree, the interests of the assembled members. One suggestion for broadening the pool of expertise was to carry out a Delphi survey of

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experts in the discipline, actively recruiting a number of African researchers and policy makers into the process. This recommendation was endorsed by some members and referred for future consideration.

- ◆ The need for a dissemination strategy related to “project-generated research” was well established. However, there was no consensus on whether the HHRAA/SARA dissemination and information strategy governing STD research should actively pursue existing research that was not project-generated.
- ◆ With respect to information and dissemination, although there was an expressed need to inventory what information is already available, and what research has already been done, there was no specific discussion of how best to achieve this end, largely because of time constraints.
- ◆ There was no consensus expressed on the advisability of a clearinghouse for STD information.
- ◆ There was no consensus on the need or advisability of MSM’s training and fellowship program.
- ◆ Although the meeting initially hoped to identify “what is working and what is not in African STD programs,” the issues were not generally stated in terms of success or failure, (with the possible exceptions of essential drug supply, which was a clearly identified failing, and the Zambia STD training program, which was a success). The meeting did not attempt to propose a clear list or prioritization of “successes versus failures” that might guide the process further.
- ◆ There was no clear consensus on the ranking of priorities with respect to selected research topics. Such ranking would be based not only on the importance of the topic, but also upon considerations such as cost and whether other agencies were already actively engaged in such research.
- ◆ Although the group generally agreed on the importance of addressing the unequal status of women as an issue, it did not arrive at consensus on which program would be the most appropriate to house a specific activity for this area of focus.
- ◆ The group expressed concerns about the issue of drug supply for STD programs in Africa. In view of the fact that programs, by their very success, are creating demands for therapeutic drugs, the group suggested that donor agencies should look seriously into the question of how best to help STD programs in Africa with their drug supply problem. The

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World Bank might fill this void since its vice president for the Africa Region announced last year (at the African Development Bank's meeting of Finance and Planning Ministers) that the Bank would be able to find money for any country willing to fight STD/HIV and presenting a suitable plan. However, it is the governments who must finally decide whether it is worth taking a loan for this purpose.

Recommendations for establishing consensus were suggested by the meeting. It was decided that the suggested priorities should be further examined in the context of ongoing research in order to prevent duplication of effort and to identify possible collaborators. Subsequent steps would include circulating the suggested priorities among involved parties, including African decision makers. This stage should concentrate particularly on issues such as feasibility, regional importance, and potential impact on policy makers.

The meeting considered integration of STD services to be a likely priority for immediate research, based on the consensus of the working groups and combined consultative group. It was noted that a high proportion of the suggested topics centered on treatment issues rather than problem definition, disease epidemiology or prevention. The group conceded that this may have been a reflection of the disciplines and interests represented by the participants.

Appendix A—Meeting Agenda

Meeting Agenda

9:00–9:15: Welcome and Introduction of the day

Presenter: Dr. Charles Finch, Morehouse School of Medicine
Mr. Ian Roberts, TempleR

9:15–9:30: Objectives and Overview of HHRAA/SARA Project

Presenter: Mr. William Lyerly (AID/AFR/SD)

9:30–9:50: Presentation of priority issues related to STDs as identified in the draft AFR/SD strategic framework for research, analysis, and dissemination on HIV/AIDs, STDs, and TB.

Presenter: Dr. May Post (SARA)

9:50–10:00: Questions/clarifications

10:00–11:00: Presentation on ongoing and planned activities, and perceived gaps

Presenters: 1. Dr. Paul Delay (AID/G/H/HIV-AIDS)
2. Dr. Gina Dallabeta (AIDSCAP/FHI)
3. Ms. Wendy Roseberry (World Bank)
4. Dr. David Mercer (PATH)

11:00–11:15: Coffee break

11:15–12:30: Presentation on ongoing and planned activities, and perceived gaps

Presenters: 1. Dr. John Moran (CDC)
2. Dr. Karl Western (NIAID/NIH)
3. Dr. Peter Perine (Univ. of Wash.)
4. Mr. Bill Brady (MOTHERCARE/JSI)
5. Dr. Steve Margolis and Dr. Emmanuel Joseph (Morehouse)

12:30–1:00: General discussion and introduction to the working group sessions

1:00–2:00: Lunch

2:00–3:30: Working groups: Prioritization of information needs and gaps, and recommendation of approaches to fill those gaps.

Area 1: Research and Analysis
Area 2: Dissemination
(coffee)

3:30–4:30: Working Group reports: suggestions for research, analysis, and dissemination activities for consideration by HHRAA/SARA.

4:30– 5:00: Future plans and closing remarks

Summary and next steps: Dr. Rudy Jackson (Morehouse)

Closing remarks: Mr. William Lyerly (AFR/SD)

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5:00–5:45: AFR/ARTS/HHR and HHRAA/SARA working group meeting to discuss follow-up actions of Consultative meeting

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