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PEPFAR TECHNICAL CONSULTATION REPORT ON HIV PREVENTION IN MIXED EPIDEMICS: ACCRA, GHANA, FEBRUARY 8–10, 2011

CONVENED BY THE PEPFAR GENERAL POPULATION
AND YOUTH TECHNICAL WORKING GROUP, MOST-
AT-RISK POPULATIONS TECHNICAL WORKING
GROUP, AND AIDSTAR-ONE

AIDSTAR-One
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ACRONYMS

CDC	U.S. Department of Health and Human Services Centers for Disease Control and Prevention
GFATM	Global Fund to Fight AIDS, Tuberculosis and Malaria
HTC	HIV testing and counseling
IBBS	integrated biological and behavioral surveillance
M&E	monitoring and evaluation
MARP	most-at-risk population
MSM	men who have sex with men
OGAC	Office of the Global AIDS Coordinator
PEPFAR	U.S. President's Emergency Plan for AIDS Relief
PLHIV	people living with HIV
PMTCT	prevention of mother-to-child transmission
STI	sexually transmitted infection
TWG	Technical Working Group
USAID	U.S. Agency for International Development

EXECUTIVE SUMMARY

BACKGROUND

As countries learn more about their HIV epidemics, some have discovered that they are simultaneously experiencing different epidemics among most-at-risk populations (MARPs) and within the general population (U.S. President's Emergency Plan for AIDS Relief [PEPFAR] 2011). These “mixed epidemics” (as defined in the recent PEPFAR *Guidance for the Prevention of Sexually Transmitted HIV Infections*) may account for one-third of the global HIV pandemic (Wilson and Fraser 2011).

As a result, epidemics occurring among some MARPs have likely been overlooked by programs that focus on the needs of the general population and youth. For example, some core MARPs—sex workers, people who inject drugs, and men who have sex with men (MSM)—and other subpopulations (e.g., fishermen and migrant workers) are without adequate access to HIV prevention services targeted to their specific needs.

These mixed epidemics call for a national response tailored to meet the needs of populations at high risk of HIV infection. National AIDS control programs are beginning to respond. As global HIV resources tighten, countries now increasingly employ information on the epidemic, context, and response to improve how they target resources to the populations and geographic regions most affected by HIV. By triangulating data from multiple sources (sentinel surveillance, biobehavioral surveillance studies, and quantitative and qualitative surveys of special populations, including size estimations of MARPs), countries can track the dynamics of their HIV epidemics among risk groups and in different locales. PEPFAR and multilateral and bilateral development partners also use these data and analyses to optimize their allocation of resources.

But countries face challenges as they seek the best information to use for developing HIV prevention programs. For example, countries can expect to encounter gaps in epidemiological, social, and programmatic data and need to make the best use of available resources while identifying situations that require additional data collection. Good prevention programming also requires a deeper understanding of the specific social, cultural, and other risk factors that drive the spread of HIV in a given context. Countries will also need to carefully set priorities and negotiate trade-offs between programming for the general population and MARPs.

In response to these challenges, PEPFAR sponsored a technical consultation in Accra, Ghana, in February 2011 to examine the latest available data on mixed epidemics and the use of data for PEPFAR resource allocation, and to identify best practices and priorities for HIV prevention programming in a mixed epidemic. Attending the expert consultation were 70 participants from 12 sub-Saharan African countries, all of which are experiencing mixed epidemics (see Appendix 1 for a full list of participants). Meeting presentations are available at: www.aidstar-one.com/focus_areas/prevention/resources/technical_consultation_materials/mixed_epidemics_ghana.

OBJECTIVES

The purpose of the meeting was to share best and promising practices for resource allocation and HIV prevention programming within mixed epidemics. The objectives of the meeting were to:

- Build a shared understanding of the definition of a “mixed epidemic” and of common risk behaviors and vulnerable groups found in these settings.
- Compare data across mixed-epidemic country settings and identify relevant common epidemiological situations that should be addressed in prevention programming.
- Review country experiences and challenges to HIV prevention programming in mixed epidemics.
- Highlight three main topics to inform HIV prevention programming in a mixed epidemic:
 - Strategic information tools to inform programmatic decisions
 - Strategic prioritization and targeting of programs based on use of available strategic information data
 - Lessons learned from country programs about high-quality HIV prevention programming in a mixed epidemic.

OVERVIEW OF THE AGENDA

The meeting was opened with welcoming remarks from Fazle Khan, Country Director, Centers for Disease Control and Prevention (CDC)/Ghana; Donald G. Teitelbaum, U.S. Ambassador to Ghana; and Caroline Ryan, Director, Technical Leadership Office of the Global AIDS Coordinator. David Wilson, Director, Global HIV/AIDS Program, World Bank, and Fareed Abdullah, Director, Africa Unit, Global Fund to Fight AIDS, Tuberculosis and Malaria, provided an overview of epidemiology and issues related to mixed epidemics, including definition, epidemiology, and implementation.

Country representatives then presented information on the epidemiology of HIV in their countries and the national response. Afternoon sessions focused on best practices in prevention programming for mixed epidemics, HIV prevention policies, political issues and policymaking, guidance, and implementation issues. During the evening of Day 1 and the morning of Day 2, participants made site visits in and around Accra to observe interventions with different at-risk populations, including sex workers and MSM.

Morning sessions on Day 2 dealt with strategic information, covering various measurement methodologies that countries use to align their national prevention efforts with their HIV epidemics. This presentation session was followed by small group sessions during which participants discussed their experiences with strategic information and other issues, such as policy, resources, and sociocultural practices.

During Day 3, country teams worked independently to put together action plans, using information from previous small group sessions. During a moderated discussion, country representatives and participants from the U.S. Agency for International Development and CDC headquarters worked together to identify specific needs and find possible solutions (see Appendix 2 for the full agenda).

KEY THEMES

The following key themes emerged.

Characterizing mixed epidemics: According to a presentation by David Wilson of the World Bank, there are different types of mixed epidemics, and epidemiological and analytic rigor is necessary to categorize mixed epidemics and optimize prevention resources (see presentation, [Mixed HIV Epidemic Dynamics: Epidemiology and Program Implications](#)). There are three types of mixed epidemics:

1. *Mixed transmission sources in the same area.* For example, Zimbabwe and much of East Africa are experiencing simultaneous epidemics in the general population and among MARPs.
2. *Geographically mixed epidemics.* Examples include Nigeria and Kenya, with generalized epidemics in some regions and, in other regions, concentrated epidemics within high-risk groups.
3. *Temporally mixed epidemics.* Because epidemics are dynamic and change over time, countries can transition between epidemics that are primarily concentrated among MARPs to epidemics occurring among the general population and youth, or vice versa.

Addressing the “right” population, at sufficient scale, with adequate quality of services:

Countries should ask themselves these questions:

- Are we addressing the “right” populations?
- Are we focusing clearly on the key drivers and behaviors?
- Do we adequately understand the context and structural factors?
- Are we prioritizing the right geographic areas?
- Given current experience and evidence, are we using the optimal mix of interventions?
- Are our interventions achieving sufficient scale?
- Are our interventions of adequate quality?

Focusing on higher-risk subpopulations within the general population: In addition to core MARPs, specific groups within the general population—such as migrant workers, older women, mobile populations, and certain occupational groups—also experience higher rates of HIV. Epidemiologic and other data can be used to identify and prioritize subgroups in the general population that are also at greater risk of acquiring HIV infection. To increase efficiency, countries should determine whether they can mainstream services for specific populations within existing services for the general population where possible, such as family planning and prevention of mother-to-child HIV transmission programs.

Addressing the gaps in HIV data: Although the situation is improving, HIV information gaps are all too common. Countries are encouraged to undertake regular population-based health surveys, conduct special studies on MARPs, and take advantage of opportunities to include MARP indicators in ongoing data collection efforts. It may be useful to rigorously define the fraction of new infections attributable to MSM to support the optimal allocation of resources. Mapping of “hot spots” and other related methodologies could also improve a country’s ability to focus on high-transmission geographic areas.

Implementing a minimum package of HIV services for MARPs: Countries should consider implementing a minimum package of such evidence-based interventions as peer education and outreach, risk reduction counseling, condom and lubricant promotion and distribution, HIV testing and counseling, screening and treatment of sexually transmitted infections, disease control and prevention, HIV care and treatment, treatment for drug addiction, and access to and safe disposal of injection equipment.

Addressing and understanding epidemic drivers: Good prevention programming requires a deeper understanding of the array of risk behaviors and social and cultural forces that influence people's risk of infection. Strategic information about epidemic drivers can help countries decide how to set program priorities as well as help countries make necessary trade-offs between prevention activities for people in the general population and for different MARPs and other subpopulations.

Creating an enabling environment for MARP interventions: Although hostile social, political, religious, and legal environments can impede mixed epidemic programming, participants from Kenya and Ghana demonstrated that an enabling environment for MARPs can be created with persistence and ongoing action. Countries should strive to gain support from political leaders, community stakeholders, and the media through advocacy efforts, involvement of key stakeholders and vulnerable populations, and community mobilization activities. National HIV prevention programs can share epidemiologic and other data with policymakers to support evidence-based planning and effective targeting of populations most at risk of acquiring HIV.

Coordinating the national response: Good national prevention planning is essential. National programs should conduct strategic discussions and set program priorities based on evidence. National prevention technical working groups can create forums for conducting key conversations, with the goal of developing and implementing a single national, coordinated prevention plan. The national plan should strive to achieve a balance between programming for the general population and for MARPs.

Increasing quality assurance of data collection and monitoring and evaluation: HIV prevention can be improved by using a systematic, data-driven approach, with interventions of adequate coverage, quality, and intensity. Countries should consider developing quality assurance approaches. In countries where monitoring and evaluation plans are not complete, HIV programmers will aim to finalize and implement this guidance.

Increasing collaboration between funders and implementers: Collaboration between national governments, the Global Fund to Fight AIDS, Tuberculosis and Malaria, PEPFAR, and other development partners is essential to maximize scarce prevention resources. Epidemiological evidence should be used as the basis for prioritizing resources, yet it will also be necessary for the national program and donor agencies to take into account their political, social, and economic contexts. Collaboration will ensure that programs in high-priority areas are scaled up.

Promoting south-to-south exchange of technical assistance: South-to-south technical exchanges can be an effective way to share experiences and practice and to facilitate scale-up of prevention programs in mixed epidemics. Relevant data can be shared among countries to help improve program planning.

CONCLUSION

Prevention programming in mixed epidemics is not as simple as exporting best practices from generalized and concentrated epidemics. Countries can expect to face many challenges as they design and implement effective prevention programming in mixed epidemic settings. These include creating enabling environments, increasing strategic data collection and utilization, identifying epidemic drivers, implementing quality assurance, and prioritizing resources.

Throughout the meeting, participants highlighted some pressing needs. For example, countries need more information on cost and cost-effectiveness to optimize limited prevention resources. Planners need more practical advice and tools to help them get started. Advocacy will be an ongoing challenge for countries as new challenges arise and setbacks occur.

Countries should be prepared for a non-linear process and expect some setbacks along the way. Despite this, effective HIV prevention programs for mixed epidemics will be possible for many countries, with persistence, good strategic information programs, effective use of data, attention to lessons learned, and the south-to-south exchange of ideas.

INTRODUCTION

Emerging evidence from across sub-Saharan Africa, and especially West and East Africa, suggests that many countries are experiencing mixed HIV epidemics. These mixed epidemics call for a national response tailored to meet the needs of populations at risk of HIV infection.

While international consensus on a definition does not currently exist, “mixed epidemics” are generally considered to be low-level generalized epidemics (prevalence ranging from 2 to 5 percent) with high rates of transmission among some most-at-risk populations (MARPs) or other at-risk groups (prevalence above 15 percent). Countries experiencing mixed epidemics also tend to have significant geographical variation in HIV prevalence and different epidemics occurring among different groups. For example, in Kenya, different HIV epidemics occur simultaneously in the general population and youth, among sex workers along major transportation routes, among people who inject drugs in the capital city, and among fishermen living in lakeside communities.

To address the challenges of mixed epidemics, the U.S. President’s Emergency Plan for AIDS Relief (PEPFAR) sponsored a technical consultation in Accra, Ghana, in February 2011 to examine the latest information on mixed epidemics data and the use of data for PEPFAR resource allocation, and to identify best practices and priorities for HIV prevention programming in a mixed epidemic. Seventy participants from 12 sub-Saharan African countries attended the expert consultation, all of which are experiencing mixed epidemics: Burkina Faso, Burundi, Cameroon, Côte d’Ivoire, Djibouti, Ethiopia, Ghana, Kenya, Nigeria, Rwanda, South Sudan, and Uganda. Also participating were members of the General Population and Youth, and Prevention among MARPs Technical Working Groups (TWGs) from the U.S. Agency for International Development (USAID)/Washington, staff from the Centers for Disease Control and Prevention (CDC), and representatives of other multilateral and partner organizations (e.g., the Global Fund to Fight AIDS, Tuberculosis and Malaria [GFATM], the World Bank, the World Health Organization, CARE, FHI 360, and Save the Children). Meeting presentations are available at: www.aidstar-one.com/focus_areas/prevention/resources/technical_consultation_materials/mixed_epidemics_ghana.

OBJECTIVES

The objectives of the meeting were to:

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- Highlight three main topics to inform HIV prevention programming in a mixed epidemic:
 - Strategic information tools to inform programmatic decisions

- Strategic prioritization and targeting of programs based on use of available strategic information data
- Lessons learned from country programs about high-quality HIV prevention programming in a mixed epidemic.

The meeting was also designed to allow participants to plan concrete next steps for reallocating resources, setting programming priorities, and using available strategic information to better address the mixed epidemic in each country.

This report synthesizes key discussions and highlights emerging priorities and recommendations for future programming considerations in response to mixed HIV epidemics.

THE DYNAMICS OF MIXED EPIDEMICS— UNDERSTANDING THE EPIDEMIOLOGY AND IMPLICATIONS FOR PROGRAMMING

Mixed epidemics are widespread in sub-Saharan Africa, potentially accounting for one-third of the global HIV epidemic (Wilson and Fraser 2011). To illustrate the impact of mixed epidemics, David Wilson of the World Bank’s Global HIV/AIDS Program discussed the relevance of new HIV infections globally from mixed epidemics (see Table 1 and presentation [Mixed HIV Epidemic Dynamics: Epidemiology and Program Implications](#)). Understanding the epidemiology of mixed epidemics is necessary to develop effective HIV prevention efforts in these settings.

Table 1. Percentage of New HIV Infections Globally from Mixed Epidemics

Country	Rank Order of New HIV Infections (among nations reporting new infections)	Number of New HIV Infections	Percentage of New HIV Infections (new infections as a percentage of new infections globally)
Nigeria	2	340,000	13
Uganda	5	120,000	5
Kenya	6	110,000	4
Tanzania	7	100,000	4
Cameroon	11	58,000	2
Democratic Republic of Congo	12	58,000	2
Ghana	14	22,000	1
Côte d'Ivoire	15	17,000	1
Total		825,000 new HIV infections	32% of new HIV infections globally occur in eight countries with mixed epidemics

Source: Wilson and Fraser 2011.

Next, Wilson explained the characteristics, epidemiology, and resource considerations of mixed epidemics. Three types of mixed epidemics should be considered when initiating HIV programming in mixed epidemics: 1) mixed transmission sources in the same location (high levels of transmission in both the general population and among MARPs, such as in much of East Africa); 2) geographically mixed epidemics (concentrated in some areas and generalized in others, such as in Nigeria); and 3) temporally mixed epidemics (trending from concentrated to generalized or vice versa, such as in Tanzania). Additionally, Wilson suggested that the threshold-based definitions of concentrated and generalized epidemics be discarded in favor of definitions based on transmission dynamics for different epidemics.

Wilson hypothesized that three major determinants are likely to have led to the heterogeneity of epidemics currently observed in sub-Saharan Africa: variations in sexual behaviors, the practice of voluntary medical male circumcision, and regional variety of HIV substrains (e.g., C, D, and A/G).

The ability of countries to address mixed epidemics depends greatly on resource availability. A significant amount of donor funding goes to countries with mixed epidemics. For instance, in his presentation, Fared Abdullah of GFATM indicated that approximately 40 percent of GFATM's resources are given to countries that participated in this technical consultation (see presentation, [Issues in the Financing of HIV Prevention in Mixed Epidemics](#)).

Abdullah discussed recent trends in GFATM funding of HIV prevention programs, including the following:

- Increased scrutiny of awareness campaigns that show no evidence of effectiveness
- Increased attention to baseline HIV transmission data and how intervention strategies aim to interrupt transmission
- Reduced funding for grants with little measurable impact.

Countries need information to align limited prevention resources with existing needs. In addition, governments and donors now require baseline and impact data to allocate funding and maintain funding flows. Unfortunately, many countries have information gaps and an incomplete understanding of epidemic dynamics, drivers of HIV transmission, and sources and patterns of HIV transmission within MARPs and key at-risk subgroups within the general population.

COUNTRY RESPONSES TO MIXED EPIDEMICS

Using a template completed prior to the meeting, countries shared information on their HIV epidemics and their approaches to prevention programming for mixed epidemics, including key successes and challenges. (See Appendix 3 for a detailed description of country contexts.)

RISK FACTORS AND CONTEXTUAL FACTORS

Good prevention programming requires an understanding of the array of risk behaviors and social and cultural forces that influence people's risk of infection. Strategic information on epidemic drivers can help countries decide how to set program priorities and make necessary trade-offs between prevention activities for people in the general population and for different MARPs and other subpopulations. Participants highlighted the following risk factors and cultural drivers:

- Low personal risk perception and knowledge of HIV

- Multiple (and often concurrent) sexual partners
- Transactional and intergenerational sex
- Inadequate access to health services
- Gender issues, including gender-based violence
- Prevalence of poverty
- Widespread stigma and discrimination against people living with HIV (PLHIV)
- Cultural norms and traditions
- Unprotected sex and sexually transmitted infections (STIs)
- Sex work
- Mobile populations
- Mother-to-child HIV transmission.

KEY HIV PREVENTION SUCCESSES AND CHALLENGES

Several countries have successfully addressed mixed epidemics. Country representatives shared their success stories, including the following:

- Reduction or stabilization of HIV incidence and prevalence in different populations
- Introduction of national HIV-related policies and guidelines
- Expansion and integration of HIV services
- Implementation of behavior change communication programs
- Scale-up of MARPs-targeted programs/services.

Country representatives also identified programming challenges for mixed epidemics, including the following:

- Slow scale-up of services for MARPs and other vulnerable populations
- Inconsistent application of HIV data, gaps in data, quality concerns, and lack of information systems
- Limited availability of resources and concerns about sustainability
- Limited involvement and capacity of government/political sectors
- Widespread poverty
- Prevalence of HIV-related stigma and discrimination
- Poor implementation of HIV policies or guidance

- Lack of involvement of certain subgroups (e.g., men, serodiscordant couples, men who have sex with men [MSM], sex workers, youth)
- Harmful and unequal gender norms.

UPDATE ON PEPFAR’S APPROACH TO HIV PREVENTION

Caroline Ryan of the Office of the Global AIDS Coordinator provided participants with an update on PEPFAR’s approach to HIV prevention. She emphasized four recommendations to consider when developing programs: apply combination prevention, know the epidemic and adjust the response if needed, scale up effective programs, and support evaluation of all prevention efforts.

Countries should be sure to allocate sufficient funding for prevention activities that are supported with strong evidence of effectiveness. Prevention, especially for MARPs, requires immediate, targeted activities and human resources, as well as long-term commitment to addressing policy and environmental factors.

COUNTRY RESPONSES TO THE COMPLEXITIES OF MIXED EPIDEMICS: EXAMPLES FROM GHANA, KENYA, NIGERIA, INDIA, AND ETHIOPIA

National responses to mixed epidemics: Participants from Ghana and Kenya—two countries at the forefront of prevention programming for mixed epidemics—discussed keys to success and ongoing challenges in prevention programming for mixed epidemics.

For Ghana, Richard Amenyah of the Ghana AIDS Commission discussed the challenges of implementing prevention interventions for MARPs (see presentation, [Navigating MARPs Politics and Policies in Ghana: A Historical Perspective](#)). Programming for MARPs in Ghana has seen continual change and challenges within the political context. Yet Ghana has also seen advances in its HIV prevention efforts for MARPs, and political leaders increasingly accept HIV programming for MARPs. In 2011, Ghana adopted a national strategic plan for addressing HIV. Highlights of Ghana’s successful approach to HIV efforts include the following:

- Perseverance in generating and using strategic information on MARPs
- Persistence in mobilizing investment for vulnerable and marginalized populations
- Development of an enabling environment through high-level advocacy and engagement of key stakeholders
- Consensus on streamlining HIV programming and funding using evidence-based interventions for a targeted and sustainable response.

In Kenya, one-third of new infections occur among MARPs (Mwamburi 2011). Emma Mwamburi of USAID/Kenya discussed some of the challenges Kenya faced as it tried to expand prevention programming for MARPs (see presentation, [Navigating the Politics and Policies of MARPs in Kenya](#)). A contentious political context improved as PEPFAR strengthened its partnership with national stakeholders such as the Kenya National AIDS and STI Control Programme, the Ministry

of Health, religious leaders, nongovernmental organizations, MARPs, and law enforcement agents. Moreover, training and sensitization of the media and health providers helped change negative attitudes about MARPs.

Kenya's energized national prevention program began to pursue several important goals: ensuring the provision of comprehensive rights-based, evidence-informed, and gender-responsive services; creating an enabling policy environment; and designing HIV prevention programs to target MARPs. The national program supported the implementation of a package of HIV services for MARPs, including peer education, outreach, risk assessment, skills building, targeted HIV testing and counseling (HTC), STI and tuberculosis screening and services, access to HIV care and treatment, and structural interventions (e.g., a 100 percent condom use program and social services for MARPs).

Kenya's achievements in HIV prevention in a mixed epidemic setting include improved collaboration with partners; a functional, active prevention working group; size estimation studies of MARPs; the development of [National Guidelines for HIV/STI Programs for Sex Workers](#); development of quality assurance standards for outreach programs for sex workers; and initiation of a wellness center for MARPs. Moving forward, Kenya aims to finalize a national condom policy, complete a peer education manual for sex workers, identify interventions that use evidence-based strategies, and publish policy documents for people who inject drugs.

Using data to align national prevention efforts with country HIV epidemics: Participants from Nigeria, India, and Ethiopia presented actions their national programs took to align prevention efforts using epidemiological data and information on the HIV response.

The HIV prevention response in Nigeria has evolved over recent years. Before 2008, prevention efforts were poorly coordinated and primarily donor-driven; there was little knowledge about epidemic drivers, and monitoring and evaluation (M&E) were insufficient. In 2008, the National Prevention Technical Working Group was instituted, which created the first National HIV/AIDS Prevention Plan (2008–2010). The current prevention response harmonizes its tools and guidelines with the characteristics of the national epidemic. However, Nigeria remains largely dependent on donor funds, and gaps exist in some prevention components.

Nigeria implements data triangulation exercises. HIV strategies have an increased focus on HIV prevention, including implementation of mapping and size estimation of MARPs. Jerry Gwamna of CDC/Nigeria highlighted a recent HIV prevention programming evaluation in Nigeria that revealed that national HIV prevalence is declining and that HTC has increased nationally for first-time testers (see presentation, [Nigeria: Using Data for HIV Prevention Programming and Prioritization](#)). Despite this, condom use has decreased and multiple partnerships reportedly remain common, though transactional sex has declined.

Despite Nigeria's prevention efforts, the country faces challenges. These include limited knowledge of transmission dynamics among MARPs and the general population, lack of clarity on how to regularly sustain evidence generation, and limited formative research for baseline data and impact evaluation at the subnational and community levels.

HIV prevention efforts in India currently focus on programming scale-up. Gina Dallabetta of the Bill & Melinda Gates Foundation discussed Avahan, a 10-year initiative to reduce HIV incidence by increasing access to HIV prevention services in six Indian states (see presentation, [India: Lessons from the Avahan Project: What Can We Learn?](#)). Avahan is currently transferring program activities to the government and other stakeholders. To enable scale-up, programmers plan to expand services

in the initial phases and then deliver them with the collaboration of lead partners, grassroots nongovernmental and community-based organizations, and through peer education. A management information system helped achieve coverage and improve program management. Program monitoring data show scale and coverage are being achieved.

HIV prevalence among adults in Ethiopia has remained steady, with higher prevalence in females and populations along major transport corridors. Before 2008, HIV programming was broadly targeted to the general population, with minimal emphasis on MARPs, and lacked combination prevention approaches. After prevalence data were reviewed in 2008, a new national prevention strategy was created and retargeted in line with the new data and government policy. MARP data indicated high HIV prevalence among sex workers, truck drivers, and male daily laborers; however, no prevalence data exist for MSM.

Kassa Mohammed of USAID/Ethiopia discussed Ethiopia's current HIV prevention programming targeting MARPs, which implements structural (e.g., mobile HTC and increased access to services, including private sector and confidential STI clinics) and behavioral (e.g., comprehensive and integrated prevention services, peer education, and condom distribution) interventions (see presentation, [Ethiopia: Aligning the HIV Prevention Response](#)). Ethiopia's next steps for HIV prevention include increasing demand, increasing use of data, developing standard operating procedures and more consistency for programs, scaling up coverage while maintaining quality, and addressing the needs of MSM.

BEST PRACTICE PREVENTION PROGRAMMING: FUTURE DIRECTIONS IN MIXED EPIDEMICS

ADAPTING APPROACHES TO HIV PREVENTION

Representatives from the MARPs and General Population and Youth TWGs provided insight into best practices for prevention programming.

MARPs and other vulnerable populations: Gaston Djomand of the CDC provided an overview of promising practices for HIV prevention among MARPs and other vulnerable populations (see presentation, [Strategic Response to MARPs and other Vulnerable Populations](#)). Quantitative and qualitative data are essential to design effective HIV prevention programs. These data also support national and local advocacy efforts and are an important element of effective M&E programs. To help create an enabling environment for MARP programs and address stigma and discrimination, Djomand emphasized the ongoing need for advocacy efforts, interaction with a full range of stakeholder groups, and collaboration between national programs, governments, and development partners. Djomand recommended collaborations with existing organizations working with MARPs as well as training and capacity building of new partner organizations.

Best practices for programs targeting MARPs or other vulnerable populations include developing a minimum package of services, including peer education and outreach, risk reduction counseling, promotion and distribution of condoms and lubricant, screening and treatment of STIs, and HTC. Services should be accessible, targeted, and acceptable to the populations using the services. To scale up, programs should focus on coverage, quality, and intensity of services. Developing MARP indicators prior to implementation allows for improved M&E activities.

Generalized epidemics: In generalized epidemics, many national programs are now adopting combination prevention approaches and incorporating behavioral, biomedical, and structural interventions to reduce HIV transmission.

Yet research suggests the importance of exploring new types of interventions. For instance, a 2010 randomized controlled trial of conditional cash transfers for school girls in Malawi reduced HIV incidence by half, primarily because girls chose younger male partners, who are less likely to be infected (Baird et al. 2009). Additionally, in Kenya, the X-gen program led to reductions in unprotected sex with older men and a decline in teen pregnancy. Shanti Conly of USAID discussed how emerging approaches have implemented large-scale behavior change communication campaigns targeting adults, especially men, to reduce concurrent partners; expanded school-based and peer education for youth; increased attention within facility-based HIV services to prevention for

PLHIV, discordant couples, and male partners of prevention of mother-to-child transmission (PMTCT) clients; and scaled up voluntary medical male circumcision.

STRATEGIC INFORMATION AND DATA NEEDS FOR HIV MIXED EPIDEMICS

Quantitative and qualitative methods, integrated biological and behavioral surveillance (IBBS), population size estimation, and data triangulation were discussed as useful approaches to addressing gaps in strategic information on mixed epidemics.

Tim Mah of USAID/Washington provided an overview of qualitative and quantitative methodologies (see presentation, [Surveys and Qualitative Research](#)). Data produced by these methodologies are helpful for both designing and improving the quality of interventions, and they provide a basis for targeting HIV prevention activities. Quantitative population-based surveys—surveys whose samples are designed to represent a given population—are useful for understanding trends in key HIV indicators and related behaviors. Examples include the Demographic and Health Survey and the AIDS Indicator Survey. Standardized data collection tools can be used in different countries, allowing comparisons. However, sampling methodologies employed in population-based research tend to under-represent key MARPs and overlook underlying heterogeneity in the population. Moreover, the information obtained through these surveys is time-sensitive, self-reported data can be biased (e.g., social desirability bias), and survey results can be misinterpreted or wrongly applied without proper care and oversight.

Qualitative research methodologies (including focus groups, key informant interviews, case studies, ethnography, and participant observation) can contribute to formative research and to M&E activities. Data from qualitative research tend to be primarily descriptive, providing information on the social and cultural context and on the motivations for personal behaviors. Qualitative findings can be used to design messages or other program activities in ways that resonate with the target population. A limitation of qualitative methods is that samples are non-representational, resulting in limited generalizability of research findings. These limitations lead some to believe that qualitative studies are “not scientific” and to mistrust their findings.

Neither qualitative research nor population-based surveys provide all of the answers, and by integrating the results of population-based surveys with qualitative research, it is possible to improve understanding of HIV epidemics, particularly mixed epidemics, where sources of transmission vary and underlying behaviors are complex. Abu Abdul-Quader of the CDC discussed IBBS, which links HIV prevalence data to behavioral data about MARPs (see presentation, [Integrated Biological and Behavioral Surveillance and Size Estimation Methodologies](#)). IBBS surveys are most useful in monitoring short-term changes in epidemics; they keep track of changes in behaviors that drive epidemics, evaluate case surveillance systems, and test the acceptability of interventions as well as evaluate their impact. These surveys may allow for analysis of trends over time, if they are repeated using standardized research instruments, interview guides, and training materials.

Population size estimates provide denominators for understanding the reach of program activities and the coverage of MARPs. Program managers can use data from size estimation to assess resource requirements and plan program activities. Size estimation is also used as an advocacy tool to convince policymakers and stakeholders of the magnitude of a public health problem and to influence funding. HIV programs use several size methodologies, with differing strengths and

weaknesses, including census and enumeration, capture-recapture, multiplier, network scale-up, and additional questions to population-based surveys.

Finally, John Aberle-Grasse of the CDC presented a data triangulation framework that fosters a culture of evidence, data sharing, and greater use of existing data (see presentation, [Data Triangulation: Methods and Activities](#)). High-quality data are drawn from a range of available sources, including randomized controlled trials, academic research, population-based surveys, case reports, and other survey and programmatic data. The data triangulation framework aims at achieving external validity or obtaining the best possible understanding of complicated external realities as a basis for making public health decisions, such as setting program priorities for specific groups based on the weight of evidence. The triangulation framework similarly encourages broad stakeholder involvement and country ownership of the process of formulating hypotheses, synthesizing conclusions, and communicating results and recommendations. Aberle-Grasse provided a historical triangulation synthesis of the decline of HIV prevalence in Uganda and discussed applications of the approach in Uganda, Zambia, Kenya, and Malawi.

IMPROVING HIV PREVENTION IN MIXED EPIDEMICS: KEY THEMES OF THE TECHNICAL CONSULTATION

The key themes of the technical consultation are presented below.

Characterizing mixed epidemics: There are different types of mixed epidemics, and epidemiological and analytic rigor is necessary to characterize mixed epidemics and optimize prevention resources. There are three types of mixed epidemics:

1. *Mixed transmission sources in the same area.* For example, Zimbabwe and much of East Africa are experiencing simultaneous epidemics in the general population and among MARPs.
2. *Geographically mixed epidemics.* Examples include Nigeria and Kenya, with generalized epidemics in some regions and, in other regions, concentrated epidemics within high-risk groups.
3. *Temporally mixed epidemics.* Because epidemics are dynamic and change over time, countries can transition between epidemics that are concentrated primarily among MARPs to epidemics occurring among the general population and youth, or vice versa.

Addressing the “right” population, at sufficient scale, with adequate quality of services:

Countries should ask themselves the following questions:

- Are we addressing the “right” populations?
- Are we focusing clearly on the key drivers and behaviors?
- Do we adequately understand the context and structural factors?
- Are we prioritizing the right geographic areas?
- Given current experience and evidence, are we using the optimal mix of interventions?
- Are our interventions achieving sufficient scale?
- Are our interventions of adequate quality?

Focusing on higher-risk subpopulations within the general population: In addition to core MARPs, specific groups within the general population—such as migrant workers, older women, mobile populations, and certain occupational groups—also experience higher rates of HIV. Epidemiologic and other data can be used to identify and prioritize subgroups in the general population who are also at greater risk of acquiring HIV infection. To increase efficiency, countries

should determine whether they can mainstream services for specific populations within existing services for the general population where possible, such as family planning and PMTCT programs.

Addressing the gaps in HIV data: Although the situation is improving, HIV information gaps are all too common. Countries are encouraged to conduct regular population-based health surveys, conduct special studies on MARPs, and take advantage of opportunities to include MARP indicators in ongoing data collection efforts. It may be useful to rigorously define the fraction of new infections attributable to MSM to support the optimal allocation of resources. Mapping of “hot spots” and other related methodologies could also improve a country’s ability to focus on high-transmission geographic areas.

Implementing a minimum package of HIV services for MARPs: Countries should consider implementing a minimum package of such evidence-based interventions as peer education and outreach, risk reduction counseling, condom and lubricant promotion and distribution, HTC, screening and treatment of STIs, disease control and prevention, HIV care and treatment, treatment for drug addiction, and access to and safe disposal of injection equipment.

Addressing and understanding epidemic drivers: Good prevention programming requires a deeper understanding of the array of risk behaviors and social and cultural forces that influence people’s risk of infection. Strategic information on epidemic drivers can help countries decide how to set program priorities as well as help countries make necessary trade-offs between prevention activities for people in the general population and for different MARPs and other subpopulations.

Creating an enabling environment for MARP interventions: Although hostile social, political, religious, and legal environments can be an impediment to mixed epidemic programming, participants from Kenya and Ghana demonstrated that an enabling environment for MARPs can be created with persistence and ongoing action. Countries should strive to gain support from political leaders, community stakeholders, and the media through advocacy efforts, involvement of key stakeholders and vulnerable populations, and community mobilization activities. National HIV prevention programs can share epidemiologic and other data with policymakers to support evidence-based planning and effective targeting of populations most at risk of acquiring HIV.

Coordinating the national response: Good national prevention planning is essential. National programs should conduct strategic discussions and set program priorities based on evidence. National prevention technical working groups can be initiated as forums for conducting key conversations, with the goal of developing and implementing a single national, coordinated prevention plan. The national plan should strive to achieve balance between programming for the general population and MARPs.

Increasing quality assurance of data collection and M&E: HIV prevention can be improved by using a systematic, data-driven approach, with interventions of adequate coverage, quality, and intensity. Countries should consider developing quality assurance approaches. In countries where M&E plans are not complete, HIV programmers will aim to finalize and implement this guidance.

Increasing collaboration between funders and implementers: Collaboration between national governments, GFATM, PEPFAR, and other development partners is essential to maximize scarce prevention resources. Epidemiologic evidence should be used as the basis for prioritizing resources, yet it will also be necessary for the national program and donor agencies to take into account their political, social, and economic contexts. Collaboration will ensure that programs in high-priority areas are scaled up.

Promoting south-to-south exchange of technical assistance: South-to-south technical exchanges can be an effective way to share experiences and practice and to facilitate scale-up of prevention programs in mixed epidemics. Relevant data can be shared between countries to help improve program planning.

CONCLUSION

Prevention programming in mixed epidemics is not as simple as exporting best practices from generalized and concentrated epidemics. Countries can expect to face many challenges as they design and implement effective prevention programs in mixed epidemic settings. These include creating enabling environments, increasing strategic data collection and utilization, identifying epidemic drivers, implementing quality assurance, and prioritizing resources.

Throughout the meeting, participants highlighted some pressing needs. For example, countries need more information on cost and cost-effectiveness to optimize limited prevention resources. Planners need more practical advice and tools to help them get started. Advocacy will be an ongoing challenge for countries as new challenges arise and setbacks occur.

Countries should be prepared for a non-linear process and expect some setbacks along the way. Despite this, effective HIV prevention programs for mixed epidemics will be possible for many countries, with persistence, good strategic information programs, effective use of data, attention to lessons learned, and the south-to-south exchange of ideas.

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APPENDIX I:

TECHNICAL CONSULTATION PARTICIPANTS

Name	Country	Organization
Abdallah, Ali Sillaye	Djibouti	Ministry of Health
Abdullah, Fareed	Switzerland	The Global Fund to Fight AIDS, Tuberculosis and Malaria
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Name	Country	Organization
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Name	Country	Organization
Waweru, Stephen	Sudan	CDC
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Workalemahu, Endale	Ethiopia	CDC
Yumo, Habakkuk	Cameroon	National AIDS Control Committee

APPENDIX 2:

PEPFAR TECHNICAL CONSULTATION ON HIV PREVENTION IN MIXED EPIDEMICS AGENDA

Time	Session Title	Speakers/Panelists	Session Notes
Tuesday, February 8, 2011			
8:00 a.m.	Registration		
9:00 a.m.	Welcoming Remarks	Fazle Khan, Country Director, Centers for Disease Control and Prevention (CDC) Ghana	
		Donald G. Teitelbaum, U.S. Ambassador to Ghana	
		Caroline Ryan, Director, Technical Leadership Office of the Global AIDS Coordinator (OGAC)	
9:30 a.m.	The Dynamic of Mixed Epidemics: Understanding the Epidemiology and Its Implications for Programming	David Wilson, Director, Global HIV/AIDS Program, World Bank	This plenary session will provide a broad overview of epidemiology and issues related to mixed epidemics, including definitions, epidemiological factors, emerging data, and implementation.
		Fareed Abdullah, Director, Africa Unit, Global Fund to Fight AIDS, Tuberculosis and Malaria	
11:00 a.m.	Tea Break		
11:15 a.m.	What Does Your Mixed Epidemic Look Like? Understanding the Country Context and Responses of Mixed Epidemics	Group 1. Ethiopia, Ghana, Nigeria, Sudan (10 minutes per country)	During these concurrent sessions, a representative from each country will present information based on a template, which will be sent to each country. Participants will be able to select which group they wish to participate in.
		Group 2. Burundi, Cameroon, Côte d'Ivoire, Djibouti, Rwanda (10 minutes per country)	
1:00 p.m.	Lunch		

Time	Session Title	Speakers/Panelists	Session Notes
2:00 p.m.	Best Practice Prevention Programming: What Should We Be Doing?	Gaston Djomand, Representative, Most-at-Risk Populations (MARPs) Technical Working Group (TWG) (30 minutes)	This session will focus on technical issues related to prevention. Best practices will be presented by the MARPs and General Population and Youth TWGs.
		Shanti Conly, Co-Chair, General Population and Youth TWG (30 minutes)	
3:15 p.m.	Tea Break		
3:30 p.m.	Navigating Politics and Policies	Policies, Politics, and Guidance: An Update from Headquarters Caroline Ryan, OGAC (15 minutes)	This session will take a broad look at HIV prevention policies, politics, guidance, and implementation issues, including those addressing MARPs and stigmatized populations.
		Ghana: Richard Amenyah, Ghana AIDS Commission (15 minutes)	
		Kenya: Emma Mwamburi, U.S. Agency for International Development (USAID)/Kenya (15 minutes)	
4:45 p.m. to 5:00 p.m.	Preparation for Site Visits		This session will provide logistical details about the site visits.
7:00 p.m.	Night Site Visits	Various sites in and around Accra have been identified by the PEPFAR/Ghana team and the Ghana AIDS Commission. The sites will include projects that address different populations (youth, sex workers, men who have sex with men [MSM], women/men). Participants will be able to attend either night or day site visits.	
Wednesday, February 9, 2011			
7:30 a.m.	Site Visits	Various sites in and around Accra have been identified by the PEPFAR/Ghana team and the Ghana AIDS Commission. The sites will include projects that address different populations (youth, sex workers, MSM, women/men). Participants will be able to attend either night or day site visits.	
12:00 p.m.	Lunch		
1:00 p.m.	Strategic Information and Data Needs	Integrated Biological and Behavioral Surveillance (IBBS) and Size Estimation Methodologies: Abu Abdul-Quader, CDC (20 minutes)	During this panel session, three speakers will discuss various tools and their application in mixed epidemics. The session will cover topics such as population-based surveys, IBBS surveys, MARPs size estimation, and triangulation exercises.
		Surveys and Qualitative Research: Timothy Mah, USAID (15 minutes)	
		Data Triangulation: John Aberle-Grasse, CDC (15 minutes)	
2:30 p.m.	Tea Break		

Time	Session Title	Speakers/Panelists	Session Notes
2:45 p.m.	Country Experiences: Dealing with Complexities of Mixed Epidemic Responses	Using Data for HIV Prevention Programming and Prioritization Nigeria: Jerry Gwamna, CDC/Nigeria (15 minutes)	During this panel session, three countries will present the process they have gone through or are going through to align their national prevention efforts with their HIV epidemic. The countries will discuss the various strategic information tools they have used, how these tools have helped guide their response, as well as what challenges they have encountered.
		Lessons from the Avahan Project: What Can We Learn: Gina Dallabetta, Avahan/Gates Foundation (15 minutes)	
		Aligning the HIV Prevention Response—Ethiopia: Kassa Mohammed (15 minutes)	
4:00 p.m.	Small Group Discussions		During this session, each group will discuss several issues that have been covered in the previous two days, including contextual challenges related to issues such as data, policy and politics, resources, and sociocultural factors. Groups will also discuss their experiences with the various strategic information tools or how they could use the tools, and if/how countries can prioritize at-risk populations or geographic areas.

Thursday, February 10, 2011

8:30 a.m.	Report Out and Moderated Discussion		A representative from each of the small groups from Wednesday afternoon's session will briefly report out on key discussion points (5 minutes per group). The moderator will then guide a plenary discussion among all the participants.
10:00 a.m.	Preparing for Action Planning		During this brief session, instructions for the action planning session will be discussed.
10:15 a.m.	Tea Break		
10:30 a.m.	Action Planning by Countries		During this session, each country team will work independently to put together action plans. The action plan will build off the previous small group sessions, which focused on identifying key challenges and data and resource needs.

Time	Session Title	Speakers/Panelists	Session Notes
11:30 a.m.	Report Out and Moderated Discussion		During this session, several countries will report out on the next steps that they have identified. A moderated discussion will help the countries (and headquarters) identify specific needs that can be addressed.
12:30 p.m.	Next Steps and Close	PEPFAR/headquarters PEPFAR/Ghana	
1:00 p.m.	Lunch		

APPENDIX 3:

COUNTRY HIV CONTEXTS AND CURRENT RESPONSES

BURUNDI

Overview:

Burundi has a population of 8.7 million; 90 percent live in rural areas, and HIV prevalence is 3 percent.

Key risk factors:

- Level of awareness appears sufficient, but prevention practices do not follow
- Early debut of sexual activity
- Stigma and discrimination are prevalent
- Gender-based violence
- Weak economic power of women
- Lack of information on sexual practices.

Response to the epidemic:

- National AIDS Strategic Plan 2007 to 2011
- Government policies
- Key interventions: prevention, treatment, and support services
- Challenges: how to make prevention more successful, insufficient resources
- Successes: strong involvement of civil society organizations.

Key implementation successes:

- Stabilization of HIV prevalence in urban areas
- High level of knowledge about HIV
- Progressive and significant integration of voluntary testing and counseling and PMTCT in all health facilities.

The way forward:

- [Reduce] data gaps (demographic and health survey; no data on MSM, people who inject drugs, and disabled people; no consistency among different data sources; need for specific studies).

Questions for the meeting:

- HIV prevention for discordant couples
- How to estimate the size of MARPs
- How to develop and deliver evidence-based behavior change communication messages
- Male involvement in prevention/PMTCT/HTC.

CAMEROON

Overview:

Cameroon has 19.4 million inhabitants; it is a young population, with 56.3 percent under the age of 20. HIV prevalence is approximately 5.1 percent, with women representing more than 55 percent of new infections. Cameroon's epidemic is mixed, with several highly vulnerable groups.

Key contextual factors affecting HIV transmission:

- Stigma and discrimination
- Strong cultural and traditional beliefs
- Poverty
- Insufficient coverage and inadequate quality of HIV services.

Key risk factors:

- Multiple sex partners
- Low condom use
- Poverty of women
- Migration.

Response to the epidemic:

- Local government response: series of strategic plans
- U.S. Government response: increase Cameroon's capacity for sustained HIV prevention, care, and treatment.

Key implementation successes:

- Treatment has been free since 2007
- Laboratory tests and HIV testing services are provided at a subsidized rate (free for pregnant women)

- Increased availability of polymerase chain reaction (early infant diagnosis)
- Decentralization of care and support.

Key implementation challenges:

- Coordination (limited resources, lack of mapping by partners)
- Lack of funding for HIV response
- Insufficient strategic information.

The way forward:

- Create a universal prevention program targeting key groups, including women, youth, and MARPs
- Improve capacity in strategic information (including increased support for research)
- Continue strengthening of health and community systems
- Diversify funding sources
- Mobilize internal resources to support HIV activities
- Ensure ownership of HIV response by all sectors, including contribution of resources
- Align partners' M&E processes to national M&E framework.

Questions for the meeting:

- How should services to MARPs be provided in an environment with unfavorable laws (e.g., where homosexual sex is illegal)?
- How do we improve PMTCT uptake?

CÔTE D'IVOIRE

Key contextual factors affecting HIV transmission:

- High awareness of HIV but limited specific knowledge
- Harmful gender norms
- Post-election conflict (sexual violence).

Key risk factors:

- Unprotected sex
- Intergenerational and transactional sex
- Mother-to-child transmission
- Prostitution and homosexuality
- STIs are common

- Accidental blood/fluid exposure
- People who inject drugs numbers are low but still a risk factor.

Key implementation successes:

- Impact of better modeling and intervention on trends: incidence reduction of more than 25 percent from 2001 to 2009
- Provider-initiated counseling and testing implementation in health facilities (PMTCT and sex worker sites)
- Increase of the HIV test acceptance rate in pregnant women to 97 percent
- Protocol approved for MSM
- Life skills training integrated into the national education curricula.

Key implementation challenges:

- How to target women better
- Stable condom supply and sales (female and male)
- Involvement of public authorities and community leaders
- Address gender social norms (e.g., men as partners programs)
- Continuum of care: strengthen prevention, care, and treatment
- Data quality
- How to best target HIV-negative persons and keep them HIV-free.

Questions for the meeting:

- Condom supply and STI treatment supply
- Data management (transmission, quality)
- How to support public structures working in prevention activities at the community level
- Challenges in measuring the impact of interventions.

DJIBOUTI

Key risk factors:

- Geographic: crossroad, seaport, and foreign military bases
- Regional: mobile populations, including drivers along the Ethiopia/Djibouti transport corridor
- Economic and social: extreme poverty, *kebat* consumption, commercial sex, and low levels of knowledge about HIV transmission.

Response to the epidemic:

- Multi-sectoral intervention in the fight against HIV
- Existence of prevention program for MARPs
- Programming for sex workers and mobile populations, including truck drivers
- Integrated case management of PLHIV
- Strengthened involvement of PLHIV
- High level of political commitment
- National strategic plan
- Laws to protect PLHIV and orphans and vulnerable children.

Key implementation successes:

- Enhanced screening during antenatal services, community mobilization, strong involvement of religious leaders
- Target populations: pregnant women, sex workers, youth, mobile populations, refugees, men in uniform, vulnerable women
- Overall case management of PLHIV, PMTCT, care and support to PLHIV, creation of cluster groups for PLHIV
- Strong involvement of religious leaders and civil society in the fight against HIV
- Multi-sectoral involvement in prevention interventions (11 ministries).

Key implementation challenges:

- Reinforcing the PMTCT program target of no child to be born with HIV by 2015
- Reducing risk behaviors, particularly among youth.

Questions for the meeting:

- For our PMTCT program, how can we optimize the reduction of transmission from mother to child?
- Given the high poverty rate, how can we address social and economic factors that significantly increase poor women's vulnerability to HIV?

ETHIOPIA

Key implementation successes:

- Reduced HIV incidence of 25 percent in five years
- Reduced mortality from AIDS by 50 percent
- Millennium AIDS Campaign-Ethiopia, phases I to III

- Remarkable expansion of services
- Community conversation through health extension for social transformation
- Behavior change communication programs
- Increased service uptake: HTC, antiretroviral therapy, condoms
- Reduced stigma and discrimination
- Prevention summit achieved consensus on scaling up response on MARPs and highly vulnerable groups.

Key implementation challenges:

- Scaling up services to MARPs
- Limited access and low uptake of PMTCT
- Inadequate data.

The way forward:

- Enhance generation and use of strategic information
- To “know our epidemic” and to “know our response”
- DHS+ 2011
- National MARPs survey 2011
- 2011 antenatal care sentinel surveillance
- Behavioral surveillance survey
- Intervention effectiveness studies: community conversation, etc.
- Further align programmatic response
- Planning
- Resourcing
- Implementing
- M&E.

Questions for the meeting:

- Data generation and use
- Coordination and standardization of HIV prevention programs to reach MARPs and vulnerable population groups
- Scaling up and sustaining the response
- Budget allocation to reduce HIV incidence.

GHANA

Key implementation successes:

- Declining STI rates among sex workers
- Sharply reduced HIV prevalence among sex workers
- Bringing MARPs interventions to scale.

Key implementation challenges:

- Low funding levels
- Funding allocations dictated by agenda of donor countries
- Capacity.

Barriers to the way forward:

- Data gaps:
 - Population sizes of MARPs
 - Surveillance among more subgroups, especially people who inject drugs, Kayayee
 - Incidence data (MARPs and antenatal care)
 - Operations research; evaluations of interventions.
- Political challenges:
 - Sustainable HIV funding
 - Leadership to help reduce stigma and discrimination
 - Leadership at regional and district levels.

Questions for the meeting:

- How does a country's national response make strategic decisions on resource allocations and interventions when limited data and research are available?
- How can the national response make strategic decisions on resource allocation and interventions when the final outcome is often in the hands of several bilateral donors who may respond to changing priorities from their headquarters and do not necessarily move forward in a coordinated manner?

NIGERIA

Key risk factors:

- Low personal risk perception
- Multiple sexual partnerships

- Intense transactional and intergenerational sex
- Ineffective and inefficient services for STIs, and inadequate access to and poor quality of health care services
- Entrenched gender inequalities and inequities
- Chronic and debilitating poverty
- Stubborn persistence of HIV-related stigma and discrimination.

Response to the epidemic (policies and guidelines):

- National Strategic Framework and Plan (NSF & NSP 2010–2015)
- National HIV/AIDS Policy
- National Condom Strategy (2007–2012)
- National HIV/AIDS Prevention Plan (2010–2012)
- National Behavior Change Communication Strategy (2010–2014)
- Partnership Framework Implementation Plan (2011–2015)
- Country Operational Plan 2011
- CISGHAN Prevention Plan
- National HIV Counseling and Testing Guidelines
- National PMTCT Guidelines.

Barriers to the way forward:

- Weak national capacity to respond to emerging trends in prevention programming
- Weak HIV prevention management
- Information systems (field data yet to fully inform programming)
- Irregular evaluations resulting in poor trend analysis
- Paucity of data on specific drivers of the epidemic
- Paucity of biobehavioral studies
- Lack of incidence studies
- Weak political will and commitment at all levels of government
- Yet to pass antistigma and antidiscrimination bill
- No law protecting sexual minorities
- Poor implementation of policies and strategic guidelines
- Inadequate budget provision and performance

- Escalating civil unrest within some segments of the polity
- Resistance to condom programming (socioreligious)
- Weak capacity for high-quality programming (human, infrastructural, systems, research)
- Weak capacity for commodity logistics
- Weak vertical alcohol interventions in prevention programs
- Poor coverage of workplace programs
- Insufficient funding for implementation of innovative approaches to scale
- Inadequate geographic coverage, especially in rural areas
- Lack of sexual and reproductive health-HIV integration
- Weak community support for positive health and dignity prevention programs
- Weak referral systems.

Moving forward:

- National prevention plan providing evidence-based guidance on prevention program implementation
- Improved coordination and strategic technical guidance through the National Prevention Technical Working Group
- Minimum Prevention Package Intervention and Prevention Intervention Tracking Tool enhancing quality (dosage, intensity) in prevention programming.

Questions for the meeting:

- Approaches to strategic program scale-up with an emphasis on saturation and coverage
- Strategic deployment of community-based positive health and dignity programs
- Public-private partnerships in prevention programming
- Research-diversity and heterogeneity of Nigerian epidemic.

RWANDA

Key interventions in response to the HIV epidemic:

- Develop and adopt minimum packages for HIV prevention among MARPs
- Implement effective prevention strategies, especially for discordant couples, youth, and MARPs
- Reduce mother-to-child transmission of HIV
- Increase biomedical prevention interventions, including male circumcision
- Ensure universal access to antiretroviral therapy for HIV prevention
- Develop robust, integrated M&E systems.

The way forward:

- Sex workers:
 - Population estimates, mapping, and sensitization of authorities to assist with surveillance
 - Prevention interventions: link treatment of STIs with education and condom distribution.
- Youth:
 - Train peer educators
 - Formative research to explore higher-risk youth, such as young women having sex with men 10 or more years older
 - Transactional sex: define and intervene.
- MSM:
 - Population estimates, mapping, and peer education
 - Sensitization of authorities to MSM
 - Access to condom and lubricants linked with HIV education.
- Discordant couples:
 - Couples counseling and testing and prevention with positives.

Questions for the meeting:

- How are we measuring the effectiveness of behavioral interventions?
- How can we identify subgroups among MARPs (e.g., transactional sex workers)?
- Are the countries (cultures/communities), and specifically health care providers, prepared to implement key interventions for MARPs?
- Once identified, how can we ensure the continuum of service provision for MARPs, and what is the denominator to measure the interventions?
- Which HTC service delivery models (e.g., fixed, mobile) best target PLHIV so that they receive the care and treatment they need?

SUDAN

Key risk factors:

- Knowledge is extremely low
- Widespread multiple concurrent sexual partner practices
- Displaced people returning home from the African countries hardest hit by HIV infection such as Uganda, Kenya, and Ethiopia
- Poverty, desperately low school enrollment, high levels of stigma and discrimination, denial regarding HIV, and rudimentary health care systems

- Institutionalized powerlessness among women and girls that obviate safer sex practices
- Cultural norms such as tribal marking practices, polygamy, and widow inheritance
- Alcohol abuse
- STIs
- Increased cross-border trade.

Key implementation successes:

- Several policies and guidelines are already in place
- Adoption of the Three Ones framework
- Training of various cadres of staff: counselors, supervisors, and trainers
- Linkages between prevention, care, and treatment
- Several surveys generated some data
- Successful national campaigns in 2009 and 2010
- Increased volumes of people receiving HTC.

Key implementation challenges:

- Historical data lacking
- Limited current data
- Validity of data: sample size, geographical coverage, methodology, capacity of those involved
- Vast land and sparse population
- Capacity of government
- Policy/political challenges
- Lack of policy dissemination and utilization
- Rapid turnover of political leadership
- Referendum/independence euphoria.

Barriers to the way forward:

- Data gaps/needs to help align programmatic response to the epidemic
- Lack of analysis of data generated from field sites
- No study of MARPs (RARE study planned)
- No data on stigma levels
- No data on vulnerable groups: truckers, uniformed services, out-of-school youth.

Moving forward:

- Increased awareness levels (e.g., of women aged 15 to 24, the percent who have heard of HIV and AIDS has risen from 45.1 percent in 2006 to 53.8 percent in 2010 [Sudan Household Health Survey 2006 and 2010])
- Increased number of people seeking voluntary HTC (e.g., 50,000 people tested in fiscal year 2010, which is more than those tested between 2002 to 2009 combined).

Questions for the meeting:

- After losing round 10 of GFATM funding, should we not get funds to cover the antiretroviral therapy program? How do we manage the impact on prevention?
- With the creation of a new country, how do we convince the government to prioritize prevention in their budgeting?
- How do we obtain more funds to generate data, when data are required to get more funds?
- How do we scale up behavior change communication targeting the general population with concentration in high-prevalence areas and among MARPs?
- What are two key implementation successes related to HIV prevention?

APPENDIX 4:

COUNTRY TEAM BRAINSTORMING WORKSHOPS ON RECOMMENDATIONS FOR HIV PREVENTION IN MIXED EPIDEMICS

TOPIC I: PRIORITIZATION OF SCARCE PREVENTION RESOURCES

- Prioritize resources to get population effect
- Community involvement
- Political commitment (regular discussion with policymakers)
- Information gathering (what don't we know?)
- Evidence of impact/effectiveness of interventions
- Capacity to utilize funds
- Geographic priorities
- To overcome the challenges of scarce resource allocation, we should consider the following:
 - Politicians
 - Equity
 - Donors' agenda
 - Country priorities.

TOPIC 2: STRATEGIC INFORMATION AND ITS UTILIZATION

- Use existing accepted process protocols and plans as examples
- Implement national surveillance system for MARPs
- Intervention should be specific for each group
- Implement mapping to identify potential beneficiaries
- Alignment with national M&E systems
- More data on subcategories within at-risk groups (clients, transactional sex, migrant workers)
- Epidemiological/program data.

TOPIC 3: CHALLENGES IN CREATING AN ENABLING ENVIRONMENT FOR MOST-AT-RISK POPULATIONS INTERVENTIONS

- Generate information to be used for advocacy
- Involve media in the advocacy
- Use experiences from other countries
- Start services at the local level before trying to influence policy
- Consider varying donor agendas
- Involve all donors/stakeholders
- Consider religious/cultural/political challenges when working with MARPs.

TOPIC 4: COLLABORATION BETWEEN GFATM, PEPFAR, AND OTHER DONORS TO LEVERAGE RESOURCES

- Prioritization is a must to map available resources and planned activities
- Consider experience of donors
- Leverage funding from other donors for successful programs
- Multiple funding sources for programs
- Pilot programs
- GFATM stated clearly that proposals for funding should be evidence-based.

For more information, please visit aidstar-one.com.

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