

A large, stylized grey ribbon graphic is centered on the page, forming a loop at the top and two long tails extending downwards. It serves as a background for the main title and subtitle.

# **INTEGRATION OF FAMILY PLANNING/MCH WITH HIV/STD PREVENTION**

## **PROGRAMMATIC TECHNICAL GUIDANCE**

**Priority for Primary Prevention with a Focus on High Transmitters**

**December 23, 1998**

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**Summary**

This document reviews the latest global research and country program experience to determine the most effective integrated approaches to prevent transmission of HIV and STDs. In recent years, an increasing number of USAID programs have supported the integration of family planning/MCH with efforts to prevent transmission of HIV and STDs. However, it is now important to recognize the following common weaknesses of these integrated programs that can limit their ability to achieve any significant impact on the spread of HIV and STDs:

- ◆ Over emphasis on the clinical management of STDs;
- ◆ Significant problems in implementing clinical management protocols;
- ◆ Ineffectiveness of the syndromic algorithm for vaginal discharge (SMVD);
- ◆ Inadequate support for primary prevention of sexual transmission of HIV and other STDs, especially for condom promotion and behavior change intervention; and
- ◆ Need for increased efforts to reach high transmitters, rather than general populations.

**Priority Interventions**

This guidance endorses priority integrated interventions that capitalize on the strengths of FP/MCH programs. These additional components can often be added at a low marginal cost, promote synergy, and complement other efforts to prevent transmission of STD/HIV:

- ◆ Prevention and STD treatment for high transmitters, complementing other efforts;
- ◆ Social marketing of condoms (and potentially antibiotics for men with STD symptoms);
- ◆ Behavior change communication to reduce unsafe, unprotected sex;
- ◆ Aggressive condom promotion both in clinics and non-clinical settings;
- ◆ Advocacy / policy reform to promote appropriate resources and STD/HIV prevention;
- ◆ Counseling services to increase knowledge, perception of personal risk, behavior change,

contraceptive method selection, etc;

- ◆ Programs directed at adolescents;
- ◆ Antenatal syphilis testing and treatment;
- ◆ Utilization of syndromic management interventions in carefully selected settings;
- ◆ Link with programs which treat symptomatic men and add a component to treat their partners; and
- ◆ Voluntary HIV counseling and testing, as appropriate.

In addition, this document provides guidance on factors to consider in designing successful programs integrated into FP/MCH clinical settings and minimum steps that should be taken before clinical STD management interventions are undertaken (particularly syndromic algorithms). WHO has recently held an expert consultation on the use of STD management to reduce HIV transmission where similar concerns were raised.

**Action:** As appropriate, USAID Missions are requested to assess their support for integrated FP/MCH and HIV/STD interventions in light of this guidance. USAID Missions and programs are empowered to determine the appropriate mix of Population and HIV/AIDS funds for these integrated activities, provided there is a plausible and defensible case that the principal objectives of each source of funding are being well served. Effective programs are the first priority.

## I. Purpose

This guidance is to assist USAID officials and other health experts to think critically about successful HIV/STD efforts. It is intended to help USAID-supported programs attain the most effective balance of program interventions based on the best available evidence and within the limited resources available. These programs should have a significant impact on reducing the incidence of *both* HIV and STDs while supporting prevention of unwanted pregnancy and providing other MCH services such as antenatal care. This guidance was developed jointly by the Office of Population, the Office of Field and Program Support, and the HIV/AIDS Division of the Office of Health and Nutrition.

## II. Background

The integration of HIV/STD interventions into family planning and MCH programs has increased in response to the escalating incidence of HIV infection in many countries. With the recognition that STDs are a strong cofactor in HIV infection, HIV prevention programs broadened their efforts to include the diagnosis and treatment of STDs. Because women are often the unsuspecting recipients of STDs and HIV infection, the integration of STD diagnosis and

treatment was considered by clinicians, health experts and women's health advocates to be a way to provide better reproductive health care and reduce HIV and STD infection of women.

The syndromic approach evolved as a tool for STD clinical management for many reasons: (1) the majority of health care facilities (in the developing world) do not have adequate laboratory diagnostic capabilities; (2) there is evidence that many STD patients are infected by more than one pathogen at a time; (3) the majority of service providers have little formal training and few skills in STD management; and (4) for individual and public health benefit, it is better to provide treatment at the first encounter with the health system. The syndromic management of STDs uses a combination of antibiotics chosen to treat the most common specific infections that cause specific STD syndromes. Although the practitioner may over treat, at least the combination of drugs would treat the most likely causes of the symptoms.

As more programs began to use the syndromic approach and more research was undertaken, however, it became clear that the syndromic approach worked for some syndromes but not others. The approach toward genital ulcers for both men and women and urethral discharge in men appears to be effective. The syndromic management of vaginal discharge (SMVD), however, may be effective against vaginitis (trichomonas, bacterial vaginosis) but is not an effective tool against cervical infections. In addition the syndromic management of vaginal discharge in FP/MCH settings has been shown to be inefficient and problematic to implement. This is disturbing particularly since it has been widely adopted and many health experts thought that SMVD would assist greatly in combating cervicitis and HIV infection in women.

This finding requires the FP and HIV/STD communities to rethink interventions for combating the continuing increase of HIV and STD infections. Two specific areas that should be reconsidered are primary prevention and "targeting" of a variety of STD services to high transmitters - those most likely to contract and transmit STDs. These two approaches offer considerable potential to reduce the level of STDs in the population. While some resources have already been devoted to these interventions, FP/MCH programs can do much more at a relatively low marginal cost.

### **III. Primary Prevention Through Condom Promotion and Behavior Change**

Given the inadequacies of SMVD and the specific prerequisites needed to implement successful clinical management (described in section VI), primary prevention deserves greater emphasis in the integration of STD/HIV with FP/MCH. Most important, primary prevention can prevent essentially all STDs, including those, such as HIV and other viral STDs, for which there are no practical or effective treatments. In addition, primary prevention holds greater promise for reducing cervical infections in women in typical FP/MCH settings. Also, the programmatic capabilities of FP/MCH programs include many strong primary prevention elements that can reduce both STD/HIV infection and unwanted pregnancy in a synergistic fashion at a relatively low marginal cost (see section IX for recommended strategies for primary prevention). One example is the social marketing of condoms, which has already made a major contribution to the

global fight against HIV/STDs. While many USAID-supported programs have included some support for these elements, they can be promoted and deployed much more effectively. As evidence from the 100% condom only brothels program in Thailand (described below) attests, targeted primary prevention can contribute substantially to the public health objective of reducing the level of STDs in the entire population.

#### **IV. Addressing the Critical Role of High Transmitters Balanced with Interventions for the General Population, Especially Men**

The epidemiology of many STDs is that they are sustained and spread to a large degree by individuals who engage in frequent, repetitive high risk sexual behavior and thus have a high likelihood of infection and transmission (e.g., commercial sex workers - (CSWs) and their clients; truckers; military, etc.). Without such a dynamic of infection and transmission, a number of STDs would in fact not be sustained in many general populations.

Interventions that reduce high-risk behavior can reduce the prevalence of STDs. This concept was clearly manifested in the resounding success of the "100% condom only brothels" program in Thailand. This effort included very aggressive condom promotion among brothel-based CSWs and their clients, intensive work with brothel owners, national campaigns for sex education in schools and respect for women messages. It has contributed significantly to an 80% decline in all five reportable STDs in men and declines in HIV prevalence in military recruits.

Interventions aimed at men are important in curtailing the spread of STDs. Men typically have more partners, are more likely to engage in risky behavior and to have sex with CSWs. STD treatment for men can be effective because urethritis and genital ulcers can be quite painful, motivating men to seek early treatment, and syndromic management is more effective for men. In addition, referral of their partners for treatment is likely to have an impact on overall prevalence. Lastly, men often play a pivotal role as decision makers, strongly influencing social norms as well as individual decisions such as those concerning the use of condoms.

Programs aimed at persons who engage in high risk behavior should be approached with sensitivity. There are two pitfalls to be avoided. Strategies targeting higher risk groups can inadvertently give a false sense of security to the general population. Many people who engage in risky practices are not identified by or do not identify themselves as members of a high risk group. Thus, programs aimed at the general population are an essential companion component to any targeting strategy. A second problem that can arise is the stigmatization of target groups. In particular, programs and messages directed at marginalized populations such as CSWs or drug users, if not carefully executed, can alienate the very people they are trying to reach. Worse, if these groups become the targets for blame, they can be further marginalized and subject to human rights abuses, greatly diminishing the impact of the program. To some extent, all members of the population can be vulnerable to STDs and HIV infection. Of equal importance, interventions for the general population support a social norm for action against STDs that is necessary for the overall effort.

## V. Clinical Management of STDs, an Important Part of a Comprehensive HIV/STD Program

A number of studies have indicated at least a twofold to ninefold increased risk of HIV transmission among persons who have other STDs. This is especially true for the ulcerative STDs (e.g., syphilis and chancroid) but also for the main non-ulcerative STDs (e.g., gonorrhea and chlamydia.) More recently, evidence has suggested that bacterial vaginosis, a common cause of vaginitis, though not strictly an STD, may also be linked to increased risk for HIV infection. Thus, early detection and treatment of STDs, where it can be implemented cost-effectively, should be a critical component of national and local strategies to prevent HIV infection. In addition, persons who have STDs are logical targets for specialized prevention measures designed to increase awareness of personal risks; introduce methods to reduce risk; and improve health seeking behavior in the presence of selected signs and symptoms. Even in the absence of HIV infections, reducing the prevalence of STDs will affect significant causes of morbidity and mortality for men, women and newborns.

To implement clinical management interventions to reduce the prevalence of STDs, we are confronted with two very distinct populations and multiple possible approaches.

1. Symptomatic Persons: Individuals who have symptoms that might indicate an STD, can be approached using one of three methods:

- 1) clinical -the health provider examines the patient and makes a judgement as to which STD the patient is most likely to have and treats accordingly.
- 2) etiologic - the health provider obtains biologic samples and identifies the causative organism with laboratory tests.
- 3) syndromic - based on the symptoms and physical exam, the health provider gives treatment for ALL the organisms that could be causing those symptoms. This is done with knowledge of which STDs are common in the community and along with their antibiotic sensitivities.

2. Asymptomatic Persons: Many persons who have sexually transmitted infections do not have recognizable symptoms, especially women. Though there is no easy approach to such persons, multiple approaches have been attempted. These include mass or targeted screening using laboratory testing and mass or focused presumptive therapy, as well as sexual contact follow-up.

On the one hand, integrating STD clinical management services into FP/MCH programs has an intuitive appeal. It allows access to some women and youth who may not be well served in traditional STD and primary care clinics. Further, STD risk is an important part of contraceptive choice, especially for IUDs. Initial concerns about stigmatizing FP/MCH services by including STD services have not been borne out in data from multiple settings. Also, client satisfaction on the availability of a broader spectrum of services appears to be positive. However, integrating

these services must be carefully considered. Dilution and deterioration of the quality of service delivery, diversion of limited resources, and inability to achieve actual impact at population levels are real and ever present dangers of poorly conceptualized and designed integrated programs. It is critical to remember that there are inherent limitations in the tools that are currently available for our use, especially surrounding SMVD, and not all interventions are equally effective in achieving real public health impact.

## **VI. Limitations of Syndromic Management of Vaginal Discharge (SMVD) in an FP/MCH Setting**

Syndromic management of STDs has been promoted in many programs as a major approach to STD control. A large part of its appeal has been its anticipated simplicity in service delivery settings where laboratory diagnosis is not feasible. Unfortunately, experience has shown weaknesses in this approach:

- X In the case of SMVD, women with a discharge have only a slightly greater risk of having a cervical infection than those without a discharge. Conversely women with a cervical infection often have no perceptible discharge. Therefore, a large number of uninfected women are treated unnecessarily, while many women who have a cervical infection go untreated. (A major recent review of many of these studies is: Dallabetta GA, Gerbase AC, Holmes KK. Problems, solutions, and challenges in syndromic management of sexually transmitted diseases. *Sex Transm Inf* 1998;(Suppl 1):S1-S11.)
- X Many resource-poor countries have difficulty with the necessary support systems, training, supervision, physical space, logistics, quality control, and especially obtaining a consistent and reliable supply of the multiple antibiotics required of STDs
- X Implementation of A Syndromic Management in FP/MCH and other service delivery settings is particularly problematic. Even after comprehensive training, service providers often fail to: ask about symptoms, follow the recommended algorithms, prescribe the right drugs, counsel about taking medication and STD prevention, provide condoms, and discuss partner notification.
- X In typical FP/MCH service delivery settings, relatively few women will present for STD treatment and often those who do present are less likely to pass the infection on to multiple other partners.

A unique model of syndromic management has been associated with a reduction in HIV infection in the 1995 study in Mwanza, Tanzania. In Mwanza, syndromic management led to about a 42% reduction in HIV incidence with only a small but statistically significant reduction of STDs. It is not clear why a small reduction in STDs resulted in a large reduction in HIV incidence. What made the Mwanza study unique were several distinct features: it was community based; provided well run and accessible services; included services to both symptomatic men and women; and was

conducted in an area with a relatively high prevalence of STDs, especially genital ulcer disease. Paradoxical to the Mwanza study, recent results from a study of periodic community-based mass treatment of men and women in the Rakai district of rural Uganda resulted in reduction in certain STDs but no apparent impact on HIV incidence. While this appears to be a contradiction, it needs to be pointed out that the two studies tested different interventions, using different measurement tools, in different populations.

One important difference was the prevalence of HIV infection in the two populations studied. HIV prevalence was about 16% in Rakai while it was about 4% in Mwanza. In computer modeling, the contribution of STDs on HIV incidence has been shown to decline as the HIV epidemic matures and prevalence rates increase. A second possible explanation for the results of the Rakai trial is the higher baseline STD prevalences in the intervention communities. Following the first round of treatment, the STD prevalences in the intervention communities may have dropped to the levels of the control communities and thus no difference in HIV incidence was seen.

Of note, syndromic management in FP/MCH programs does not typically resemble the very high quality, community-based model applied in Mwanza and certainly not Rakai. Most FP/MCH services are provided almost exclusively to women in the "general" population. Much of the impact of the Mwanza study may have come from treating symptomatic men.

## **VII. When to Integrate Clinical STD Management Interventions (Especially STD Syndromic Algorithms) into MCH/FP Programs**

Before integrating clinical STD services into FP/MCH programs, the following are minimum steps program managers should take:

1. *Determine the prevalence of various STDs in the FP/MCH population.* It is essential that STD prevalence studies be performed on client populations and that these include drug sensitivity studies. Laboratory screening tests, suitable for prevalence surveys are increasingly available and possess extremely high sensitivity and specificity. The costs for these surveys is not excessive, and sample sizes of 200-300 service delivery clients may be sufficient to guide decision making about locating and targeting integrated services. Prevalence of gonorrhea and chlamydia in typical FP/MCH settings in Africa are on the order of 6-10%. While there is no critical prevalence at which SMVD is deemed appropriate, all the factors below should also be considered.
2. *Assess the risk profile of clientele who utilize the particular FP/MCH service delivery setting.* Integration of clinical STD services may be more justified in those settings that serve a higher proportion of clients at high risk (e.g., CSWs and their partners). Simple instruments can be utilized to determine basic demographic information and assess level of risk behavior.
3. *Ascertain the level of staff expertise and available infrastructure.* The level of expertise of

FP/MCH provider staff will either enhance or limit the implementation of STD management protocols. Same sex providers are often more effective. Also, staff prejudices about STDs and those who are infected must be overcome. The setting should have adequate space for private consultations and physical exams and the ability to procure, control and manage specific commodities (e.g., STD treatment drugs, diagnostics, gloves, etc.)

4. *Assure that integrated FP/MCH interventions will receive necessary training, supervision, technical standards, and other organizational support to ensure quality of services delivered.* Proper training and ongoing monitoring/supervision of adherence to proper treatment protocols is critical. Use of standard quality of care evaluation indicators, such as the proportion of symptomatic clients who are diagnosed and treated according to established national standards, have consistently demonstrated poor training and supervision in both vertical STD programs and integrated settings.

5. *Assure that sufficient resources are available, especially for STD drugs, recognizing that STD drug procurement is not one of USAID's comparative advantages.* STD clinical management can require substantial amounts of antibiotics as well as other supplies and materials. Antibiotics need to be of the right kind and amount for the specific program and need to be supported by the appropriate logistics and control procedures.

There is no simple way of determining when integration of STD clinical management with MCH/FP will be a cost-effective intervention. However, given the weaknesses of SMVD, it is generally not useful in the typical MCH/FP setting in general populations where prevalence of gonorrhea and chlamydia are relatively low. Programs should consider clinical management only after careful review of the elements above, making sure first that primary prevention interventions are fully implemented (see section I). If STD treatment is to be undertaken, the priority should be to target high transmitters and symptomatic men (and their partners) in the general population.

**The special case of vaginal infections:** Another possible option is syndromic management of vaginal discharge directed toward vaginal infections such as trichomoniasis and bacterial vaginosis (BV) as opposed to cervical infections such as gonorrhea or chlamydia. Both trichomoniasis and BV are common and may enhance HIV transmission. Indeed, the SMVD algorithm in Kenya calls for treating first for vaginal infections, and only treating for gonorrhea and chlamydia if symptoms persist. While the symptoms can be easily treated with metronidazole, an inexpensive and widely available antibiotic, symptoms often recur over time. The costs and benefits of treating vaginitis should be weighed against the host of other diseases and ailments so common in the developing world.

## VIII. STD Management Research Agenda

It is important to remember that the approach to STDs continues to evolve. USAID has continued to invest in the development of rapid, simple, low cost, accurate STD diagnostics that can be used to screen asymptomatic women and can help refine approaches to symptomatic

individuals. A number of research efforts that will support the management of STDs, as well as other reproductive tract infections, are planned or underway. These fall into four categories: diagnostic technologies, refinements of algorithms for the management of vaginal discharge, testing of novel intervention strategies, and development of program management tools.

**Diagnostic technologies:** Under an agreement with PATH and through support of the WHO STD Diagnostics Initiative, rapid diagnostic technologies are being developed to bring accurate, easy, inexpensive diagnosis of syphilis, gonorrhea, and chlamydia. These products are in various stages of development with rapid syphilis testing being closest to completion and chlamydia testing being the most problematic.

**Refinements of algorithms for the management of vaginal discharge:** While studies to date on SMVD to address cervicitis have been disappointing, additional studies are underway in a number of settings to determine if algorithms for vaginal discharge can be improved to better deal with vaginal infections as well as cervical infections.

**Testing new approaches to STD control:** The new HORIZONS HIV Operations Research Project has proposed a three country, 15 site, study to compare the efficacy of *targeted presumptive* treatment of STDs in combination with behavior change and enhanced clinical services.

**Program management tools:** HORIZONS, in collaboration with UNAIDS and WHO, has proposed to develop and test a management tool for control of STDs and other reproductive tract infections. This tool will help managers collect and analyze the data necessary to establish effective STD control programs.

As these new tools become available, program protocols must be adapted and expanding services to larger populations should be considered. The Office of Population and the Office of Health and Nutrition will update this guidance as new information becomes available. Meanwhile, the following section summarizes the recommendations for priority elements of FP/MCH B STD integration interventions.

## **IX. Recommendations of Priority Elements for FP/MCH-STD Integration**

Efforts at integration should: 1) promote synergy; 2) complement efforts by other components of the health system; 3) be tailored to the specific country situations; and 4) promote a balanced set of interventions for real public health impact. The following are recommended general priorities that draw upon common FP/MCH program strengths:

- X Improved reproductive health services designed to serve high transmitters (e.g., contraception, condom promotion, counseling, and STD treatment services.).
- X Social marketing (condoms, potentially STD antibiotics for men) including targeting as

appropriate toward specific groups such as men, adolescents, etc.

- X Behavior change communication - for general awareness, education, and behavior change especially through popular media. FP and STD prevention and treatment messages and themes can be integrated, but the messages must be clear and simple.
- X Linkage with programs that treat symptomatic men and add a component to treat their partners.
- X Aggressive condom promotion through clinics and non clinical distribution. Condoms made available everywhere in clinic sites such as through the "no missed opportunity" approaches and promotion of "dual protection." Easy access to condoms in brothels was part of the success of the Thai A100% condom only brothels effort.
- X Advocacy and Policy - to develop awareness and support among opinion leaders, service providers, NGOs etc.
- X Counseling - behavior change, negotiation, method selection including dual protection, etc.
- X Adolescent programs - emphasizing cultural norms, skill development, peer support, delay of sexual debut, safe sex practices, condom promotion, decreased number of partners, adolescent friendly services, etc.
- X HIV testing and counseling - may be appropriate in some FP/MCH settings of high risk.
- X Antenatal syphilis testing and treatment.
- X Carefully selected syndromic management (see above).

## **X. Use of Population and HIV/AIDS Funds**

Obviously, integration between two funding categories such as Population and HIV/AIDS does not allow for clear discrimination. The activities described above are to be encouraged when there is a complimentary effect on both preventing STDs and unwanted pregnancies.

Accordingly, program managers are empowered to use the appropriate mix of funds for such activities, provided there is a plausible and defensible case that the principal objectives of each source of funding are being well served. Effective programs are the first priority.

*This guidance was a collaborative effort of the three offices within the PHN Center (Office of Population, Office of Health and Office of Field and Program Support), including the work of the following individuals: Jim Shelton (G/POP), David Stanton (G/H&N), Paul de Lay (G/H&N), Linda*

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