

## **PREVENTION STRATEGIES RELATED TO HIV/AIDS**

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### **Background**

In Wisconsin the two primary modes of HIV transmission are unsafe sexual behavior and nonsterile injection practices. More specifically, the major behavioral sexual risk behaviors for HIV transmission are unprotected anal and vaginal intercourse and having multiple sex partners. There is also some risk of HIV transmission associated with oral-genital sexual contact. The major behavioral drug use risk behaviors are use of nonsterile drug injection equipment in which there is blood-to-blood contact.

In addition to behavioral risk factors, biological factors also affect risk of HIV transmission. Of particular importance is the prevalence of HIV in the local population. Other biological factors include the presence of untreated sexually transmitted diseases and an individual's use of alcohol and other drugs. Social factors, including social norms and values including religious beliefs, and the marginalization of certain populations, indirectly affect risk behaviors. Still other social factors include laws and regulations, and the influences of poverty, racism, and homophobia. The availability of public health services and supplies, including condoms and sterile injection equipment, are still other factors that affect HIV transmission.

Behavior change interventions are currently the most effective way of slowing the spread of HIV infection. HIV prevention interventions designed to change behavior take place in a wide variety of settings, including:

- Health care settings
- Schools
- Substance abuse treatment programs
- Community-based organizations
- Sexually transmitted disease clinics
- Outreach settings, including streets, parks, bars, prisons, etc.

The ultimate measure of the outcome of an HIV prevention intervention or strategy is seroconversion, yet other markers provide more realistic measures of outcomes associated with an intervention. Self-reports of behavioral outcomes are frequently used as indicators of intervention effectiveness.

### **Guiding Principles**

The rapidly growing body of literature on HIV prevention interventions has identified guiding principles for effective HIV prevention programs:



- **Effective interventions show evidence of behavior change to significantly reduce HIV risk among program participants.** Research based on the work of behavioral and social scientists identify the impact of interventions in controlled circumstances, and the work of clinicians and HIV prevention practitioners helps determine the effectiveness of interventions in fostering behavior change in real-world settings.
- **Interventions target persons at highest risk of HIV transmission.** In Wisconsin populations at highest risk of acquiring or transmitting HIV as a result of their risk behaviors include men who have sex with men (MSM), injection drug users (IDUs), HIV-infected individuals and their partners, and heterosexuals at high risk. Epidemiological and case management data, in addition to assessment of individual clients, can be used to identify individuals at greatest risk. In Wisconsin the Behavioral Risk Assessment Tool (BRAT) has recently been developed for prevention providers to assess the risk behaviors of individual clients. It is important to remember that prevention programs should focus on individuals whose behavior puts them at greatest risk, not just the population group to which an individual identifies.
- **Effective interventions are based in behavioral and social science theory.** Theories can help guide decisions about the design and implementation of effective interventions. Some theories focus on ways in which an individual can change his or her behavior; others focus on changes within groups, organizations, communities and public policy. Theories frequently used in HIV prevention are the Health Belief Model, Theory of Reasoned Action, Theory of Planned Behavior, Stages of Change Model, Social Learning Theory, Social Cognitive Theory, Diffusion of Innovations, and the Theory of Popular Education. The Wisconsin HIV Prevention Community Planning Council emphasizes a harm reduction theory of behavioral risk reduction in which health education and risk reduction education are nonjudgmental and support an individual's incremental steps toward positive behavior change.
- **Effective interventions involve peers, or individuals from the target population, at every phase of the planning and implementation step of the process.** Examples include leadership institutes for gay and bisexual men of color, activist groups for injection drug users, house parties for women living in public housing, computer bulletin boards for HIV-positive MSM and gay, lesbian, bisexual, transsexual and questioning teen peer groups.
- **Effective programs are culturally competent.** Program staff understand and respect the values, attitudes, and beliefs that differ across cultures, and have the knowledge and skills to work effectively with individuals from various cultural groups. "Cultures" of particular relevance to HIV prevention are based on race/ethnicity, language, social class, age, sexual orientation, gender, HIV-status, geography, etc.



- **Interventions are intensive.** Prevention program planners are encouraged to deliver interventions with an appropriate “dosage” reflecting intensive and repeated services rather than one-time interventions. The combination of number of sessions, length of interactions, and availability and sequencing of booster sessions contribute to more intensive interventions.
- **Educational interventions involve a skills-building component.** Although there is a place for prevention strategies that disseminate information and increase awareness, effective prevention programs are an alternative that focus on development of skills. Effective interventions are those in which participants must be able to demonstrate attainment of a skill taught through the intervention.
- **Policy and environmental interventions complement individual, group, and community-level interventions.** Behavioral change continues to offer the most promise in preventing HIV transmission. Supplemental interventions address the social and cultural barriers related to behavioral risks, including policies and practices to reduce homophobia, racism, gender inequality, etc. and environmental changes to make available resources to reduce transmission, including condoms and clean drug injection equipment.

## Evidence-Based Strategies

### **Biomedical Interventions**

HIV can be transmitted from an HIV infected mother to her infant during pregnancy, during labor and delivery, or during the postnatal period through breast feeding. Testing of pregnant women for HIV antibodies and subsequent pharmacologic treatment of HIV positive pregnant women and infants can reduce vertical transmission of HIV from a mother to her newborn child.

Sexually Transmitted Infection screening and treatment, and especially syphilis treatment, decreases an individual’s susceptibility to HIV and the infectiousness of HIV in a person who is HIV-positive.

### **Individual Level Interventions**

Individual level interventions include risk reduction counseling with a skills building component provided to one person at a time over multiple sessions. These interventions usually occur face-to-face and involve a service provider learning about an individual’s risk and then teaching the individual risk reduction skills and strategies to sustain behavior change over time. As appropriate, the service provider also facilitates linkages to additional support services.



## **Group Level Interventions**

These interventions provide risk reduction counseling with a skills building component to more than one person at time over multiple sessions. In some cases there are a fixed number of sessions; other interventions involve ongoing groups. Although the number of hours of interaction varies, some literature indicates that four hours is the minimum for behavior change to occur.

## **Outreach**

Outreach is defined as educational interventions with a focus on information dissemination (rather than on skill-building) conducted face-to-face in places where clients congregate. This type of intervention is most effective when it is conducted by a peer who is seen as credible, non-judgmental and trustworthy. The intervention is delivered at a location convenient to the target population, including streets, “shooting galleries”, gay bars, homeless shelters, public housing, methadone maintenance programs, and corrections settings.

Needle exchange programs are one type of outreach. Needle exchange programs provide injection drug users with syringes and other supplies in exchange for used syringes, helping users avoid sharing drug-using equipment. This form of outreach provides opportunities for one-on-one health education and referral to other services such as drug treatment and HIV counseling and testing. Research studies have demonstrated that needle exchange programs result in decreases in needle sharing and no increase in drug use or needle use. Needle exchange is legal and several programs operate in Wisconsin. At present, however, federal funds cannot be used to support needle exchange programs.

## **Prevention Case Management (PCM)**

HIV prevention case management combines individual risk reduction counseling with an individualized case plan developed with the client to address a range of potential risk factors that can lead to unsafe behavior. This type of intervention concentrates on providing prevention education and risk reduction counseling through intensive one-on-one, client-centered interaction and is particularly appropriate to support individuals who have difficulty complying with health promotion regimens or who need flexibility and intensive support based on individual situations and needs. The PCM protocol in Wisconsin includes provision of the following services to clients:

- Assessment of HIV risk behavior
- Development of a case plan in which the client actively participates
- Implementation of the plan through follow-up and referral
- Ongoing HIV risk-reduction counseling
- Advocacy for client services



## **Partner Counseling and Referral Services (PCRS)**

Partner Counseling and Referral involves the systematic notification of sex and/or needle sharing partners of an HIV- positive individual by a PCRS provider and/or the HIV-infected individual. This notification of partners who are not aware they may have been exposed to HIV enables them to receive a personalized risk reduction message and obtain appropriate services. When a PCRS provider makes a contact the name of the HIV-infected individual is not shared with the partner being notified. When contacted, the partner is offered an opportunity for on-site HIV testing or a referral for HIV testing. The purposes of the contact to:

- Refer the HIV-infected individual to appropriate medical and psychosocial services
- Discuss risk reduction strategies to prevent the exposure of current and future partners to HIV
- Elicit the names of sexual and needle-sharing partners who may have been exposed to HIV and
- Develop a plan for contacting partners.

## **Counseling, Testing, and Referral Services (CTR)**

The purpose of Counseling and Testing is to provide risk reduction counseling and to identify cases of HIV infection for referral to early intervention and treatment. HIV counseling, in the context of HIV testing, focuses on identification of individual risk behaviors, risk reduction strategies, information regarding the HIV antibody test, assisting the individual in making a decision regarding HIV testing, HIV testing, interpreting the test result, support for risk reduction strategies, and provision of referrals if needed. HIV testing may occur in different settings, including local health departments, community health clinics, STD clinics, community-based organizations, AIDS service organizations, outreach settings, and private physicians' offices. Depending on the provider, anonymous or confidential testing is available. The anonymous test does not require the individual to give his or her name. Rather, a unique code is selected to identify the individual. A confidential test is a name-associated method for learning one's serostatus.

## **Health Communication and Public Information**

Health communication and public information includes the use of electronic or print media, educational presentations or lectures, hotlines, or clearinghouses to deliver planned prevention messages to support risk-reduction, provide information, increase awareness, or build support for safe behavior.

- Public health media campaigns involve print, radio, television, or signage to increase awareness and health promotion.
- An AIDS/HIV hotline is a confidential telephone service that provides immediate information, support and referral to anonymous callers.



- HIV awareness initiatives provide the general population with information about state and federal anti-discrimination laws with the objective of improving social conditions and decreasing discrimination against people with HIV disease.
- HIV lectures or presentations can increase audience members' knowledge about HIV transmission and change attitudes about persons with HIV and groups disproportionately affected by HIV. These presentations disseminate information but lack sufficient dose and intensity to be effective in changing behavior. Examples include presentations made by teen peer educators.

### **Policy, Regulation and Environmental Interventions**

Policies, regulations, and environmental interventions can remove barriers to protective behavior. For example, research indicates the availability of sterile injection equipment can reduce HIV transmission. Research also finds that sex education programs that teach risk reduction skills, and not just abstinence-only, result in behavior change that reduces risks of HIV transmission.

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