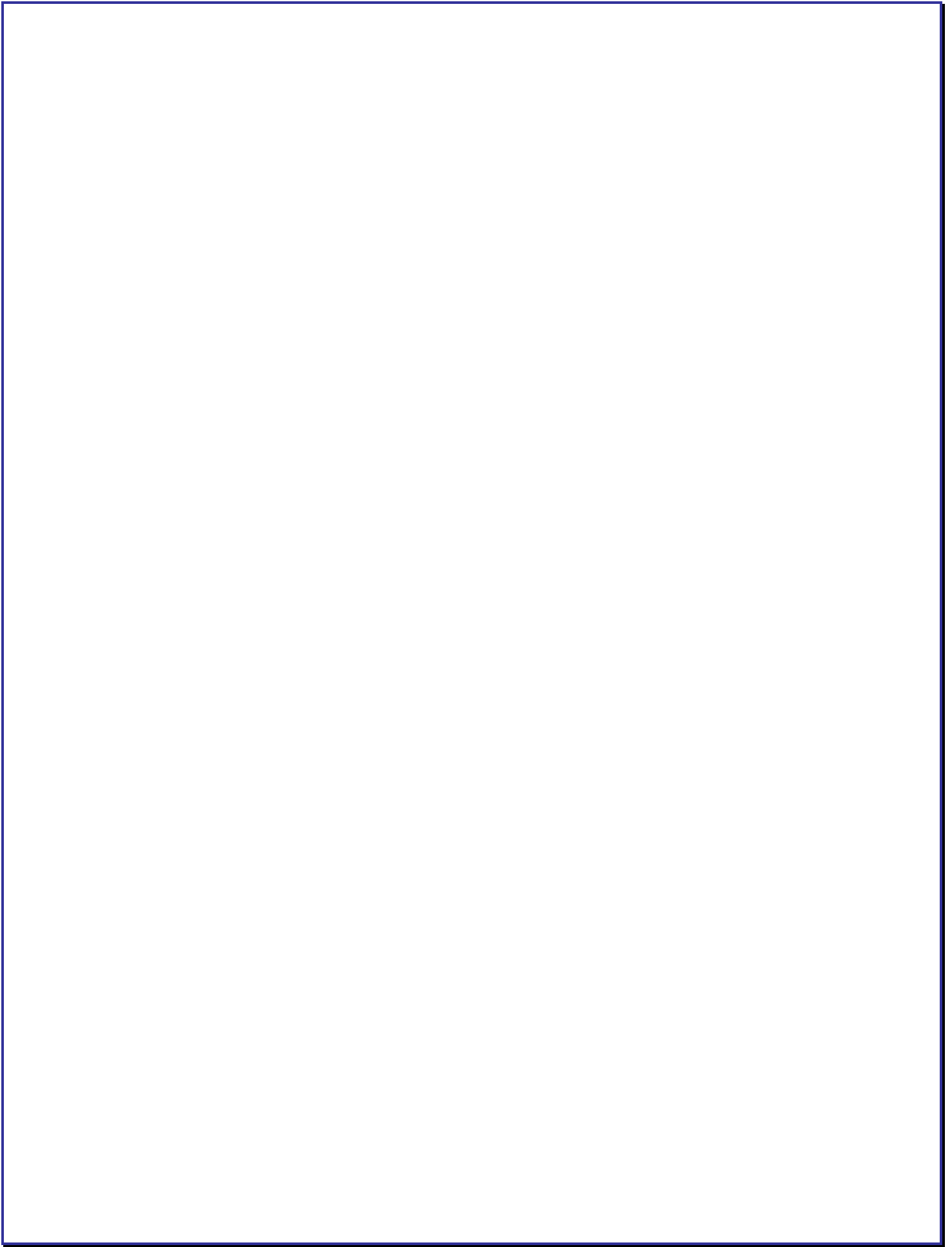


Treatment of injecting drug users with HIV/AIDS: promoting access and optimizing service delivery



**World Health
Organization**



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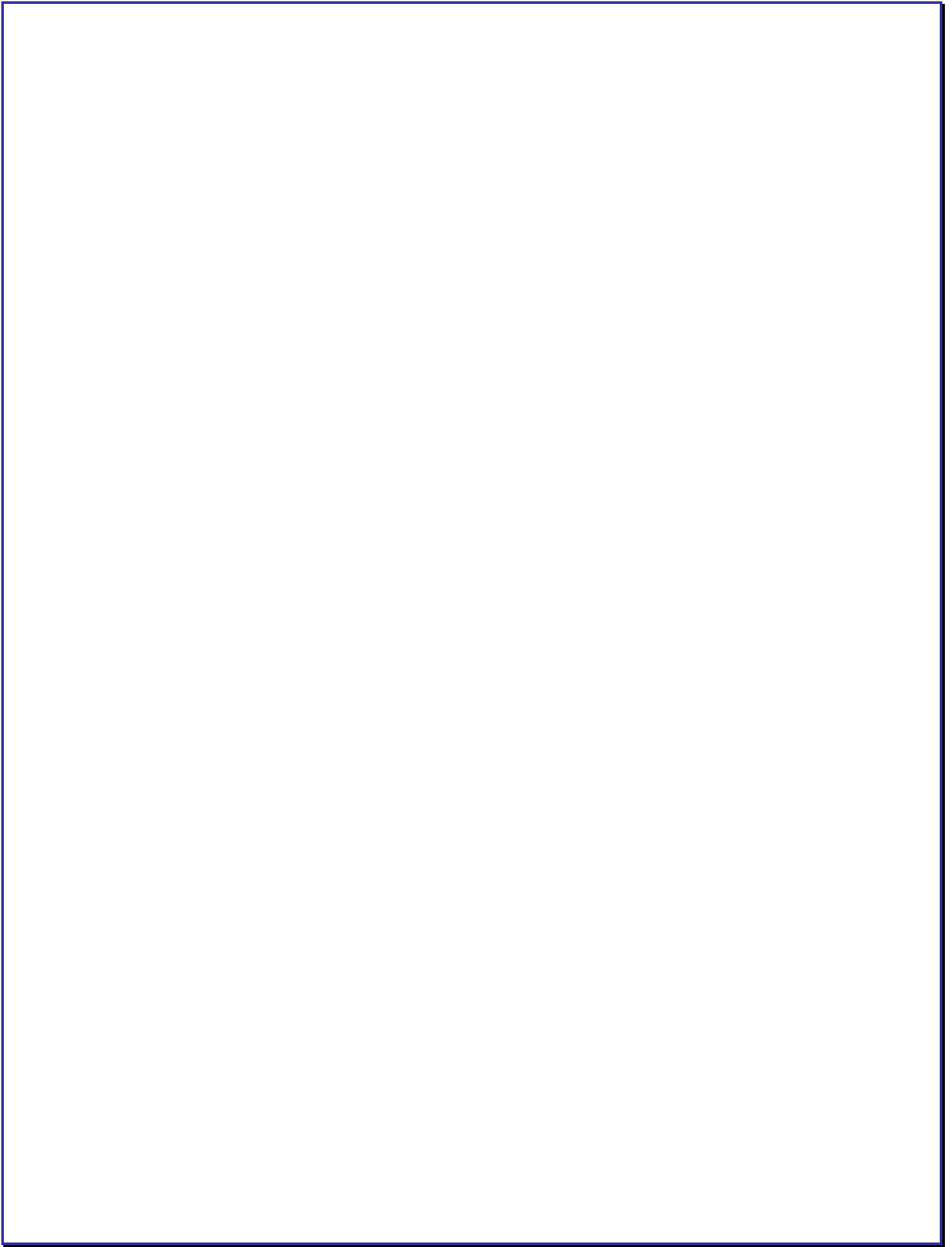
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OVERVIEW

In a number of regions, HIV/AIDS epidemics are being driven by injection drug use (IDU). Managing the multiple problems that stem from both HIV/AIDS and IDU within a population is challenging. In many regions, access to services for the prevention of HIV transmission and the treatment and care of people living with HIV/AIDS is limited. Access to such services for injecting drug users (IDUs) is frequently further complicated by a number of factors, including fear of prosecution, stigmatization, negative attitudes of care providers, and an often chaotic lifestyle. The purpose of this document is to describe approaches to enhancing the management of HIV-positive IDUs and outline issues that require consideration in the implementation of interventions for this population.

Although evidence of the important role that IDU is playing in HIV epidemics is accumulating, no consensus has been reached on the most effective approach to providing treatment for HIV-positive IDUs. A number of services targeting IDUs may be valuable in promoting the prevention of HIV-transmission and the provision of HIV/AIDS treatment. These include drug dependence treatment programs, outreach programs, HIV-testing services and syringe exchange programs.

Despite the higher incidence of medical problems among IDUs than the general population, utilization of primary health care facilities by injecting drug users is fragmented. Inconsistent and typically infrequent contact with health care service providers is compounded by a lack of coordination and communication between different components of health care delivery systems. In order to promote access to HIV/AIDS treatment and enhance overall health care among IDUs living with HIV/AIDS, the concept of linking health care services for meeting the needs of this target population has evolved. The advantages of service integration are outlined, with a description of several key service delivery models that can enhance service utilization by the target group. Further issues in the management of IDU and HIV/AIDS are discussed, with consideration of groups with specific needs, such as HIV-infected drug dependent people in prisons and IDUs with comorbid mental health disorders.



INJECTING DRUG USE AND HIV/AIDS

- About 39 million people were living with HIV/AIDS at the end of 2005 (1), the vast majority of whom live in developing countries. Injecting drug use (IDU) accounts for approximately 10% of HIV infections globally (1).
- In some regions, sharing of injecting equipment is the primary mode of transmission, accounting for over 70% of infections (2). Globally, fewer than 20% of injecting drug users receive HIV prevention services (3).
- IDU is fuelling HIV/AIDS epidemics in many countries throughout Asia, Eastern Europe, Latin America and the Middle East. It is recognized that HIV epidemics can rapidly emerge wherever there is significant prevalence of injecting drug use (4).
- Of the 136 countries in which IDU has been reported, 93 have identified HIV among this population.

ACCESS TO TREATMENT AND CARE FOR IDUs LIVING WITH HIV/AIDS

- Introduced in 1996, **antiretroviral (ARV) therapy** is the basis of medical treatment of HIV.
- Access to services for the treatment and care of individuals who are HIV positive is limited in many regions. Access to treatment for vulnerable groups such as IDUs is even more challenging. While IDUs account for more than 70% of HIV cases in Eastern Europe and Central Asia, only about 24% receive antiretroviral therapy (3).
- The **WHO Guidelines for ARV in resource-limited settings** highlight the importance of providing treatment programs targeting this vulnerable group (5).
- The majority of patients benefitting from these medications live in developed nations.
 - Of the approximately 6.5 million people in developing countries who are in need of life-sustaining HIV/AIDS treatment, only 20% these individuals are receiving it (1).
- Among those with HIV infection, drug users typically experience the greatest barriers in accessing care:
 - Receive HIV care at lower rates than other groups (7).
 - Greater difficulty accessing treatment, including entering the system, being diagnosed, and being prescribed ARV medications.
 - Even when treatment is available, many fail to connect with the system due to mistrust, fear of prosecution, stigmatization and a chaotic lifestyle.
 - Health care systems may discriminate against providing care to drug users, due to the perception that drug users will not adhere to the medication regime, or that the virus has been "self-inflicted" and thus treatment is not deserved.

INTERVENTIONS PROMOTING HIV/AIDS PREVENTION, TREATMENT AND CARE AMONG IDUs

There are a number of interventions that may reduce transmission of HIV by injecting drug use, and may also promote access to HIV/AIDS treatment and care for IDUs.

Such services include:

- **Treatment of drug dependence**
- **Information** about safe sexual and injecting practices and access to **clean injecting equipment** and **condoms**
- Confidential **HIV testing and counselling**
- **Outreach** programs

- While these services can reduce transmission of blood borne viruses including HIV/AIDS by decreasing the frequency of unsafe practices, they also represent a point of contact between treatment services and HIV positive IDUs, and may thus facilitate entry into HIV/AIDS treatment and care.

QUICK FACTS

- INJECTION DRUG USE IS DRIVING THE HIV/AIDS EPIDEMIC IN MANY REGIONS
- IDUs RECEIVE HIV/AIDS TREATMENT AND CARE AT A LOWER RATE THAN ANY OTHER GROUP
- THERE ARE A NUMBER OF INTERVENTIONS THAT PROMOTE IDUs PARTICIPATION IN HIV/AIDS TREATMENT AND CARE
- THERE ARE BOTH BENEFITS AND CHALLENGES THAT REQUIRE CONSIDERATION IN THE PROVISION OF THESE SERVICES TO IDUs

There are certain benefits, challenges and issues to be considered in the implementation of these interventions and, in particular, in their provision to IDUs living with HIV/AIDS.

- **Drug dependence treatment programs** may provide a variety of treatment interventions including brief interventions, detoxification, maintenance pharmacotherapy, psychosocial interventions, as well as interventions provided in a therapeutic community or specialized residential treatment facility. There are a variety of factors that must be taken into consideration in the provision of drug dependence treatment to IDUs who are living with HIV/AIDS. One example of this is the potential for interaction between medications administered in maintenance pharmacotherapy for opioid dependence and medications commonly prescribed for HIV/AIDS. Patients who are maintained on substitution therapy, such as methadone or buprenorphine maintenance, and are also receiving pharmacological treatment for HIV/AIDS must be closely monitored for drug interactions that may produce toxicity or increase the risk of non-adherence. Interactions have been identified between methadone and medications often administered to HIV/AIDS patients, including ARV treatment and medications used to treat other infections associated with HIV/AIDS. HIV positive IDUs who are maintained on naltrexone should be closely monitored for liver function, as there is commonly liver impairment due to associated liver disease, antiretroviral toxicity, and/or a high rate of comorbid Hepatitis C.
- **HIV testing and counselling** promotes timely detection, follow-up and treatment of HIV, which has been demonstrated to optimize clinical outcome (8, 9). Early identification of HIV is an important component of successful care for HIV-positive

associated with reduced viral load, thus the risk of onward transmission of the virus can be reduced (8).



HIV testing and counselling targeting IDUs must take several factors into account. Because drug users may be socially stigmatized and may have had negative interactions with law-enforcement agencies, they may be reluctant to access government- or hospital-sponsored services.

Outreach programs employing former drug users have been a successful strategy in encouraging HIV-testing among IDUs, and also in promoting harm reduction efforts among IDUs not ready to stop drug use (12).

Outreach programs, which are often sponsored by charitable foundations, can be beneficial in HIV prevention and promoting IDUs access to medical services. Outreach programs typically incorporate services such as syringe exchange (described in greater detail below), condom distribution, dissemination of information about safe injecting practices for HIV and other blood borne virus prevention, referral to other services, including primary care and substance dependence treatment, provision of social support and coordination of counselling and peer support networks. Outreach programs, primarily run by non-governmental organizations, have been implemented widely in response to the combined challenges presented by injecting drug use and HIV/AIDS. The potential for adapting current IDU outreach services to HIV/AIDS outreach requires consideration, as well as an assessment of the aspects of current HIV/AIDS outreach services that best serve the needs of IDUs living with HIV/AIDS.

Syringe exchange programs are one of the most widely instituted interventions designed to stop the spread of HIV among IDUs (13, 14). The goal of syringe exchange programs is to reduce the negative consequences of injecting drug use for those who continue to inject, and they have consistently been associated with reduced incidence of HIV, hepatitis B and hepatitis C (14, 15-19). Indeed, such programs have been credited with averting an HIV epidemic among IDUs in Australia and the United Kingdom (14, 16, 18, 20). Syringe exchange has been reported to be cost effective relative to treating IDUs with HIV (21). It has been suggested that such programs may be most effective when used to introduce clients to other services or when incorporated into an overall



treatment systems (22). Syringe exchange programs offer a platform from which to provide additional services to IDUs who may otherwise be difficult to reach.

DESPITE THE LARGE NUMBER OF IDUs WITH HIV/AIDS IN MANY REGIONS, THERE HAS BEEN NO AGREEMENT ON THE MOST EFFECTIVE APPROACH TO CARING FOR IDUs LIVING WITH HIV/AIDS

APPROACHES TO SERVICE DELIVERY FOR IDUs LIVING WITH HIV/AIDS

The prevalence of medical and mental health disorders among drug users is higher than the general population; however, utilization of primary health care facilities by drug users is fragmented (23). This inconsistent and typically infrequent contact with health care service providers is compounded by a lack of coordination and communication between different components of health care delivery systems.

To promote access and improve coordination of services, the concept of linking primary health care, substance use and mental health care services has evolved (24). Such linkage can be accomplished through co-location of several of these components at a single site, or by creating an effective referral relationship between them (25). The WHO treatment guidelines for ARV recommend the linking of substance abuse treatment, including substitution therapy, and HIV/AIDS treatment (5).

■ Advantages of linked services

- Convenient for patients, and may result in multiple needs being addressed more effectively.
- Improves screening for substance use disorders, decreases stigma associated with substance dependence, increases consideration of substance use in differential diagnosis, improves relapse prevention, increases the likelihood that patients will receive medical services required, provides additional training for staff, and provides support for reimbursement for substance dependence treatment equivalent to other health services.
- The broader community may benefit from a reduction in health care costs and reduction in duplication of services and administrative costs, as well as improved health outcomes in specific populations (24).





Models of service linkage

○ PRIMARY ASSESSMENT AND TRIAGE MODEL

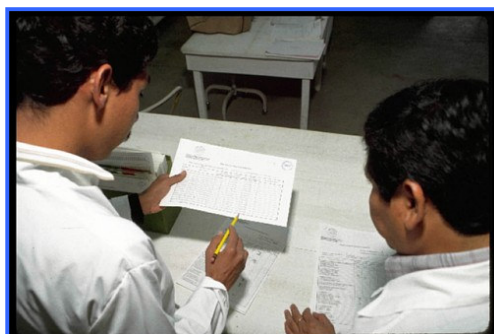
An independent assessment and triage clinic performs a primary assessment of patient needs and makes referrals to appropriate health care providers. A full medical and psychosocial evaluation is conducted over initial assessment sessions, and referral for care is made to a hospital-based AIDS clinic, a particular drug dependence treatment program, a primary care clinic or a general practitioner.

This approach may be based within a hospital, with a multidisciplinary treatment team performing the assessment. A hospital-based approach is beneficial for reducing the delays associated with the triage clinic, and has the advantage that medical staff at the hospital will benefit from the teaching provided in such a setting and exposure to the concomitant medical and psychosocial problems that may often accompany substance use disorders.

○ CO-LOCATION OF HIV PRIMARY CARE IN SUBSTANCE DEPENDENCE TREATMENT PROGRAMS

The effectiveness of co-location of HIV care and substance dependence treatment has been well documented (26, 27). Enhanced adherence to the frequently complex medical treatment regimes associated with combined HIV/AIDS and substance dependence treatment has been reported.

The implementation of Directly Observed Therapy (DOT) is a further advantage of co-located care. DOT provides a means of prophylaxis and treatment of drug users in treatment. An example of how effective this approach can be was the use of DOT to treat the high levels of tuberculosis (TB) observed among drug users in the United States during the 1990s. TB medication, which must be strictly administered daily or several times a week for an extended period of time, administered to methadone maintenance patients presenting for methadone dosing was reported to have played a significant role in reducing TB rates in the United States (28).



DOT has been reported to substantially reduce TB-related hospital costs in HIV-positive IDUs (29). This approach has also been extended to the administration of **highly active antiretroviral therapies** (HAART), which can be dosed once daily to drug users receiving agonist maintenance treatment for opioid dependence, among whom it has been shown to be effective in enhancing adherence and reducing viral load (30, 31).

○ PLACEMENT OF RELATED SERVICES IN SUBSTANCE DEPENDENCE TREATMENT PROGRAMS OR PRIMARY CARE CLINICS

As many substance dependence treatment programs providing pharmacotherapy require an on-site pharmacy service as dosing of maintenance medication (i.e.

methadone) is performed within the clinic, one approach would be to expand the pharmacy to incorporate other services, such as DOT of ARV therapy and counselling and advice regarding medication interactions.

QUICK FACTS

- UTILIZATION OF PRIMARY HEALTH CARE BY IDUs IS FRAGMENTED, DESPITE THIS GROUP EXPERIENCING A GREATER PREVALENCE OF MENTAL AND PHYSICAL DISORDERS THAN THE GENERAL POPULATION
- LINKAGE OF PRIMARY HEALTH CARE AND SUBSTANCE ABUSE SERVICES PROMOTES ACCESS AND BETTER COORDINATION OF SERVICES

- FREE-STANDING PRIMARY CARE AND SUBSTANCE DEPENDENCE TREATMENT CLINICS IN CLOSE PROXIMITY

An alternative model involves using a free-standing primary care clinic in close proximity to a substance abuse treatment program. Screening and management of tuberculosis, ARV and opportunistic infection prophylaxis is offered to eligible patients. Recommendations for vaccination for

hepatitis B, influenza and pneumococcal disease are generally well accepted by HIV-positive drug users in this setting (32).

Other issues for consideration in service linkage

Potential drawbacks and practical limitations of service linkage should also be considered:

- Linked services do not promote access to care for HIV-positive IDUs who are not in treatment for substance dependence. Furthermore, if a patient in a linked care program withdraws from the substance dependence treatment program, continued access to the other medical services in the linked system may be compromised.
- The placement of primary care providers in linked care settings may also encourage "specialization" of medical care for drug users, rather than fostering competency among all primary care providers in addressing drug use.
- Third party payers may have difficulty incorporating such systems of linked care into their reimbursement structures (32).
- Co-location of substance abuse and primary care services requires resources and facilities that may not be available in some areas.

Some alternatives include:

- OFFICE-BASED PRACTICE

An office-based practice model of pharmacotherapy for opioid dependence, in which a single primary care clinician provides treatment for both substance dependence and other medical conditions, has been established using buprenorphine in European nations and has recently been approved in the United States. This model of office-based treatment

QUICK FACTS

- THERE ARE A NUMBER OF MODELS FOR SERVICE LINKAGE. THESE INCLUDE: PRIMARY ASSESSMENT AND TRIAGE, THE CO-LOCATION OF HIV/AIDS AND SUBSTANCE DEPENDENCE TREATMENT SERVICES, AND ESTABLISHING TREATMENT SERVICES IN CLOSE GEOGRAPHIC PROXIMITY.
- ALTERNATIVE APPROACHES TO ENHANCING COORDINATION AND ACCESS TO SERVICES ARE OFFICE-BASED PRACTICE AND CASE MANAGEMENT.

has been piloted in several primary care programs, with good results (33, 34). Because of the complex medical problems of IDUs with HIV, this model could offer another option for coordinated care through a single provider.

○ CASE MANAGEMENT

Many areas will not have the resources or facilities to support co-location of substance abuse treatment with primary care services, and must function as decentralized service programs. In such circumstances, other means of assuring that IDUs with HIV disease receive the multifaceted care necessary are being explored. An approach that has demonstrated promising results is case management. Case management is most typically defined by the functions it performs, namely assessment, treatment planning, linkage, referrals, monitoring and advocacy (35). This approach is increasingly being used in areas where the needs of the target population are complex (as in the management of HIV-positive IDUs), service systems are highly bureaucratized, and resources are fragmented (25).

■ **Tracking cases and treatment**

Surveillance systems to track cases and treatment of HIV-positive IDUs are critical in order to document and disseminate advances in the delivery of care of this patient population. Two systems have been described, both of which are appropriate to the issue of treatment of HIV-positive IDUs and do not require intensive resources:

- European Monitoring Centre for Drugs and Drug Addiction (EMCDDA)/Pompidou Group (PG) Treatment Demand Indicator Protocol (36).
- Surveillance system using standard immunological request form (37).

FURTHER ISSUES IN THE MEDICAL CARE OF IDUs WITH HIV/AIDS

■ **Health care provider clinical training**

Adequate training of health care providers in the recognition of substance use disorders is critical to improve the care of substance users with HIV (38, 39). The areas of major importance to providers for assessment and treatment planning are summarized in Table 1.

Table 1. Assessment and care of drug users with HIV/AIDS

1. Obtain a complete medical history
 - Medical
 - Psychiatric
 - Psychoactive substance use
2. Make appropriate substance use disorder diagnoses
 - Dependence
 - Harmful use/abuse
 - Withdrawal
 - Screening tools include:
 - ASSIST (Alcohol, Smoking and Substance Involvement Screening Test)
 - CAGE
 - MAST (Michigan Alcohol Screening Test)
 - DAST (Drug Abuse Screening Test)
3. Physical Examination
 - Look for physical evidence of:
 - HIV/AIDS
 - Other medical illnesses
 - Substance abuse
4. Treatment Planning
 - Stage of change
 - Set realistic goals

■ **Attitudes of health care providers**

Physicians and allied health care providers may harbor negative attitudes towards drug users and drug users with HIV/AIDS. Education regarding identification and treatment of drug users with HIV/AIDS, efforts to reduce the stigma of drug dependence, and enhancing clinician acceptance of and willingness to treat drug users with HIV are critical to improving outcomes for this population.

■ **Mental health care for IDUs with HIV**

Comorbid psychiatric disorders occur frequently in IDUs living with HIV/AIDS (40, 41). Drug use complicates the assessment of psychiatric symptoms, as well as diagnosis and treatment. Psychiatric comorbidity has been associated with increased HIV risk behaviours such as sharing of injecting equipment, low rates of condom use and higher rates of alcohol abuse (42). While the benefits of service integration have been described, psychiatric services often fail to be included in linkage.



THE MANAGEMENT OF HIV/AIDS IN WOMEN

■ Women now account for approximately half of all persons living with HIV/AIDS. Most of these women are infected during child-bearing age, which is particularly problematic in developing countries where vertical transmission rates are as high as 30% (43).

■ 25% of heterosexually infected women in the United States are infected by an IDU partner (44).

■ Female drug users living with HIV/AIDS have also been shown to have difficulty accessing substance abuse treatment services, and to be in great need of secondary prevention interventions (45).

■ Barriers to female IDUs accessing treatment fall into two main categories:

- Social expectations of appropriate gender behaviour

- ⇒ Professionals working in drug treatment services may hold negative attitudes about female patients (46-48)

- Services may be unresponsive to women's needs

- ⇒ Lack of childcare, women's only groups, services for pregnant women, services are frequently male dominated and structured to cater to men's needs (49).

■ Pompidou Group has described "best practices" for developing women's substance abuse services (49).

■ Critical factors in enhancing treatment services for women with HIV are outlined in Table 2.

Table 2. Enhancing Treatment Services for Women with HIV/AIDS

Advertising/Outreach
Focus on special needs (e.g. children)
Safe, convenient, easily accessible program
Crisis intervention
Qualified staff
Ancillary service provision
Medical
Substance abuse
Mental health
Legal
Social welfare

HIV/AIDS AND IDU IN PRISON

- Despite the availability of international guidelines, HIV prevention programs and medical management of HIV/AIDS in prison remains unsatisfactory (50).
- The problem is particularly striking among incarcerated women.
- Treating drug dependent people and other disenfranchised populations as they pass through the prison system would benefit not only individual inmates, but also the general community.

CONCLUSION

The last decade has seen major shifts in the global epidemiology of HIV. New epidemics that are largely attributable to the injecting of drugs are now present in numerous regions. There have also been dramatic advances made in the treatment of HIV/AIDS and in the development of systems of care both for individuals living with HIV/AIDS and members of at-risk populations.

Integrating services for IDUs, including primary health care, substance abuse and psychiatric services may offer significant advantages in improving the treatment and care received by IDUs living with HIV/AIDS. In increased focus on the needs of particularly vulnerable groups, such as women and IDUs in prison, is required. Adequate training of health care providers is critical, and efforts should be directed towards reducing stigma associated with drug dependence and negative attitudes towards the treatment of IDUs living with HIV/AIDS.

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