



UNITED NATIONS
Office on Drugs and Crime



World Health
Organization

Principles of Drug Dependence Treatment

Discussion Paper

March 2008

DISCUSSION PAPER - PRINCIPLES OF DRUG DEPENDENCE TREATMENT

Introduction

This discussion paper aims to encourage Governments and other partners to take concerted action for the implementation of evidence-based drug dependence treatment services, which respond to the needs of their populations. Given the scale of the problem in most societies and the limited resources available, a clear and coherent approach to service planning is required. There is a need to develop services that can reach the maximum number of individuals and have the greatest impact at lowest cost. This is most likely to be achieved with broad community-based health care services that can work with individuals in their own communities over longer periods of time. While the present document recommends actions to promote each of the nine principles, these will need to be prioritized to respond to the local situation and circumstances and implemented in progressive steps in accordance with resource availability and stages of development of the treatment system.

An estimated 205 million people in the world use illicit drugs, including 25 million who suffer from illicit drug dependence. This constitutes a public health, socio-economic development and security problem for both industrialized and developing countries alike. The important role of drug dependence prevention and treatment as part of demand reduction and public health has been repeatedly emphasized in international agreements. The importance of maintaining an appropriate balance between law enforcement and demand reduction/public health approaches was most recently highlighted by the 1998 UNGASS Political Declaration and Declaration on the Guiding Principles of Drug Demand Reduction, bringing to the forefront a comprehensive approach in drug policy. Further, in recent decades important advances have been made in the understanding of drug dependence and approaches for its prevention and treatment. This joint UNODC-WHO document aims at articulating the key principles for underlying effective treatment of drug dependence.

Drug dependence is considered a multi-factorial health disorder that often follows the course of a relapsing and remitting chronic disease. Unfortunately in many societies drug dependence is still not recognized as a health problem and many people suffering from it are stigmatized and have no access to treatment and rehabilitation. Over recent years, the *biopsychosocial* model has recognized drug dependence as a multifaceted problem requiring the expertise of many disciplines. A health sciences multidisciplinary approach can be applied to research, prevention and treatment.

In the past decades, drug dependence has been considered, depending on the different beliefs or ideological points of view: only a social problem, only an educational or spiritual issue, only a guilty behavior to be punished, only a pharmacological problem. The notion that drug dependence could be considered a "self-acquired disease", based on individual free choice leading to the first experimentation with illicit drugs, has contributed to stigma and discrimination associated with drug dependence. However, scientific evidence indicates that the development of the disease is a result of a complex multi-factorial interaction between repeated exposure to drugs, and biological and environmental factors. Attempts to treat and prevent drug use through tough penal sanctions for drug users fail because they do not take into account the neurological changes drug dependence has on motivation pathways in the brain.

“Nothing less” must be provided for the treatment of drug dependence than a qualified, systematic, science-based approach such as that developed to treat other chronic diseases considered untreatable some decades ago. Many of these diseases are now preventable or treatable thanks to good practice clinical interventions and rigorous therapeutic strategies and cumulative scientific research.

Drug dependence and illicit drug use are associated with health problems, poverty, violence, criminal behavior, and social exclusion. Its total costs to society are difficult to estimate. In addition to the health care costs and other costs associated with the consequences of drug use; drug dependence involves also social costs in the form of loss of productivity and family income, violence, security problems, traffic and workplace accidents, and links with corruption. These result in overwhelming economic costs and an unacceptable waste of human resources.

Drug use, especially injecting drug use (IDU) is closely linked to HIV and hepatitis B and C transmission through the sharing of needles. Non injecting drug use is also linked to HIV transmission by increasing high risk sexual behaviors. Data on the size of the IDU population from 130 countries indicates that there are close to 10 million IDUs worldwide. Up to 10% of global HIV infections are due to unsafe injecting drug use, and if Sub-Saharan Africa is excluded, up to 30% of global HIV infections are due to unsafe injecting drug use. The sharing of contaminated injection equipment is a major route of HIV transmission in many regions, including Eastern Europe, Central, South and South East Asia and some countries in Latin America.

Drug dependence is a preventable and treatable disease, and effective prevention and treatment interventions are available. The best results are achieved when a comprehensive multidisciplinary approach which includes diversified pharmacological and psychosocial interventions is available to respond to different needs. Even taking into account the requirements for the delivery of evidence-based treatment, its costs are much lower than the indirect costs caused by untreated drug dependence (prisons, unemployment, law enforcement, health consequences). Research studies indicate that spending on treatment produces savings in terms of reduction in the number of crime victims, as well as reduced expenditures for the criminal justice system. At a minimum there was a 3:1 saving, and when a broader calculation of costs associated with crime, health and social productivity was taken into account, the rate of savings to investment rose to 13:1 . These savings can improve disadvantaged situations where opportunities for education, employment and social welfare are undermined, and increase possibilities for families to recover battered economies, thus facilitating social and economic development. Individuals involved in the criminal justice system may be at higher risk of health and social consequences of drug dependence. Drug taking behaviour inside the prison involves more harmful patterns leading to increased risk of contamination with infectious diseases like HIV and Hepatitis. The potential for imprisonment to cause harm should not be underestimated.

A WHO / UNODC / UNAIDS policy brief on the reduction of HIV transmission through drug-dependence treatment recommended drug dependence treatment to be included in HIV/AIDS prevention programmes for injecting drug users given its capacity to reduce drug use in general, the frequency of injecting, and the levels of associated risk-taking behavior. Research has also shown that treatment in prisons or alternative measures to imprisonment can reduce post release use of drugs and re-offending.

This paper outlines nine key principles for the development of services for treatment of drug use disorders. It is recognized that in some circumstances resources will be

rather limited and priorities in resource allocation need to be set. It is important that in such situations, a response to drug use disorders is developed as “building blocks” on which more diverse and sophisticated interventions can be developed and incorporated in the treatment system as further resources become available. Depending on human and financial resources available and the quality level of the existing health system in each country, the actions suggested by the present document may be progressively and gradually implemented, taking into account the outlined components for each principle as general framework.

PRINCIPLE 1: AVAILABILITY AND ACCESSIBILITY OF DRUG DEPENDENCE TREATMENT

Description and Justification

Drug dependence and its associated social and health problems can be treated effectively in the majority of cases if people have access to continuum of available and affordable treatment and rehabilitation services in a timely manner. To this end, all barriers limiting accessibility to treatment services need to be minimized for people to have access to the treatment that best fits their needs.

Components

Many factors contribute to treatment accessibility:

- Geographical accessibility, distribution and linkages.
 - Health care system and public health networks, in cooperation with social services and the broader community, can provide essential prevention and treatment services and support for people with drug use disorders in their communities. Social services and other institutions (e.g. schools, civil society organizations, and self help groups) can serve as points of first contact for potential patients and help them access treatment.
 - In a comprehensive treatment system a large scale, distributed network of treatment facilities that can respond to various needs of individuals seeking treatment permits an adequate response in each community.
 - The basic prevention and treatment services for drug use disorders need to be within the reach of people with different levels of income.
 - Within a continuum of care, people with drug dependence should have access to treatment services through multiple entry points.
 - Outreach services, as part of a continuum of care, are needed to reach the 'hidden' populations most affected by drug use, often non-motivated to treatment or relapsing after a treatment program. Outreach services are particularly important to attract problematic drug users early and to establish contact with the population of people with severe disorders who may not seek treatment because of stigma and marginalization.
- Timeliness and flexibility of opening hours. Same-day admission or short waiting time for structured services, as well as provision of immediate intermediate services, including patient information. A wide range of opening hours will facilitate access to services for individuals with employment or family responsibilities.
- Legal framework. Requirements to register drug addicts in official records, if associated with the risk of sanctions, may discourage patients from attending treatment programmes, thus reducing accessibility.
- Availability of low threshold services. Flexibility in the organization of treatment services will improve access by a larger range of individuals in need. This includes the availability of services with low threshold for patient admission and the removal of unnecessarily selective criteria.
- Affordability. Payment for treatment and rehabilitation services may constitute a significant barrier for patients in many cases without sources of income. Insurance coverage or inclusion of drug dependence care in the public health care system is therefore key to promote access for those most in need.
- Cultural relevance and user friendliness. Current knowledge indicates that a treatment climate that is culturally sensitive, preferably multi - professional, team orientated, and that encourages patient participation and involvement in treatment facilitates patient access and retention in treatment, and ultimately improved treatment outcomes.

- Responsiveness to multiple needs and diversification of settings. The availability of specialized services and residential settings to care for the more complex cases, e.g., patients with drug dependence and associated somatic or psychiatric disorders is essential to increase accessibility.
- Criminal justice system responses play a significant role in improving access for individuals affected by drug dependence to treatment services: law enforcement officials, courts and prisons may closely collaborate with the health system to encourage drug dependent individuals to enter treatment.
- Gender-sensitiveness of services. Services tailored to gender-specific treatment needs can improve accessibility by responding to differential stigmatization, child care needs, and issues in pregnancy.

Actions to promote this principle

Ensure that:

1. the system of services permeates both urban and rural areas, and builds upon the primary health care system. Key components include: proactive outreach, low-threshold, early identification and brief intervention in primary health and social care services, basic drug dependence treatment services, and referral to treatment services from the criminal justice system.
2. legal frameworks guarantee protection from potential sanctions for those seeking treatment.
3. there are functional referral and counter referral mechanisms between different services in the system as well as to and from other agencies, facilitating a continuum of care.
4. the number of people on waiting lists and waiting times are minimized, and that intermediate responses are available.
5. staff attitudes are welcoming and non-judgmental.
6. services take into account and respect cultural norms.
7. patients' perspectives are taken into account in service design and development.
8. eventual service costs to patients are affordable and waved if necessary.
9. services for women in primary health care and facilities for children of parents with drug dependence are built in close relationship with drug dependence treatment programs.

PRINCIPLE 2: SCREENING, ASSESSMENT, DIAGNOSIS AND TREATMENT PLANNING

Description and Justification

Patients affected by drug use disorders often have multiple treatment needs across a range of personal, social and economic areas that cannot be addressed when taking into consideration only their addictive symptoms in a standardized way. As for any other health care problems, diagnostic and comprehensive assessment processes are the basis for a personalized and effective approach to treatment planning and engaging the client into treatment.

Components

- Screening is a useful assessment procedure to identify individuals with hazardous or harmful drug use, or drug dependence, as well as associated risk behaviors (viral transmission via needle sharing and/or unprotected sexual activity, potential violent behavior, suicide risk). There are standardized tools to assess drug use and its severity in an individual that help to consider the degree of help required. These tools can be applied in different environments (primary health care system, school health and counselling services, and employee assistance programmes at work places).
- Assessment and diagnosis are core requirements for treatment initiation. Diagnostic criteria commonly used in the mental health field are the references to reach a diagnosis of a drug use disorder. Diagnosis of co morbid psychiatric disorders is ideally made and followed-up by a psychiatrist, while with adequate training, other health care professionals can successfully identify and manage drug use disorders and associated psychiatric co-morbidity.
- A comprehensive assessment takes into account the stage and severity of the disease, somatic and mental health status, individual temperament and personality traits, vocational and employment status, family and social integration, and legal situation. It further considers environmental and developmental factors, including childhood and adolescent history, family history and relationships, social and cultural circumstances, and previous treatment attendance. An adequate assessment process creates the environment for the development of a therapeutic alliance to engage the patient into treatment.
- The treatment plan, developed with the patient, establishes goals based on the patient's identified needs and sets interventions to meet those goals. A care or treatment plan is a written description of the treatment to be provided and its anticipated course. Care plans set the specific needs of the individual patient and how they are going to be met by the service. The plan is then monitored and revised periodically as required to respond to the patient's changing situation. While current research results do not support matching patient profiles to specific treatment approaches, there is evidence that matching responses and interventions to client needs following a serious diagnostic process and extensive assessment improves the treatment outcomes.

Actions to promote this principle

Ensure that:

1. primary health care staff, as well as employee assistance programmes and health/counseling staff in social services, at schools and in the criminal justice system are aware of the benefits of screening, early identification of drug use and brief interventions and are trained to administer such screening tools and associated interventions packages.

2. patient risk behaviors associated with drug use disorders are assessed at all relevant venues (primary health care, outreach services, emergency services, social services, etc) and responses planned in consequence.
3. accurate diagnosis of drug dependence and other co-morbid conditions is established before initiating drug dependence treatment, in particular pharmacological treatment.
4. clinical protocols specify requirements for comprehensive patient assessment and the treatment plan development, patient progress monitoring and revision of written care plans, and relevant staff is trained to fulfil these tasks.
5. documentation and standardization of all treatment steps is required from all staff involved in the treatment plan in order to ensure quality treatment for all patients

PRINCIPLE 3: EVIDENCE-INFORMED DRUG DEPENDENCE TREATMENT

Description and Justification

Evidence-based good practice and accumulated scientific knowledge on the nature of drug dependence should guide interventions and investments in drug dependence treatment. The high quality of standards required for approval of pharmacological or psychosocial interventions in all the other medical disciplines should be applied to the field of drug dependence.

Components

- There is a range of evidence-based pharmacological and psychosocial interventions relevant to different stages in the addiction career and treatment process. No single treatment is appropriate for all patients and differentiated and targeted treatment interventions respond best to the specific needs of each clinical condition. For example, moderate cases may be handled in primary care settings (e.g. general practitioners with relevant training), while more severely affected patients, especially those with co-morbidities, may require multidisciplinary interventions, including psychiatric evaluation and care.
- Sufficient duration. In treating complex chronic diseases and preventing relapse, long-lasting treatment programmes have been found the most effective strategy and may be necessary in the more severe forms of drug dependence. It is therefore key for treatment services to develop approaches to facilitate long term patient retention in treatment.
- The integration of psychosocial and pharmacological treatment methods can improve the outcome and should be proposed to the patients as part of a comprehensive approach. A holistic treatment orientation, treating the whole person, rather than the addiction only, has been shown to have better results in terms of relapse prevention.
- Multidisciplinary teams including medical doctors, psychiatrists, psychologists, social workers, counsellors and nurses can respond best to needs of patients, also due to the multi-factorial nature of drug dependence. Treatment and care for physical conditions (liver disease, infections, pain etc) and concomitant psychiatric disorders utilizing both medications and psychosocial interventions may significantly improve the treatment outcomes.
- Brief interventions. Individuals with experimental and occasional substance use can benefit from screening and brief interventions, which are an effective and economical prevention option, also at the early stages of substance use disorders.
- Outreach and low-threshold interventions can reach patients not motivated to engage in structured forms of treatment. These interventions offer a comprehensive package of measures to prevent the health and social consequences of drug dependence and have demonstrated effectiveness in preventing the transmission of HIV/AIDS and other blood-borne infections
- Basic services offering the essential support to stop or reduce drug use need to be distributed and widely available through the territory, including detoxification, psychosocially assisted opioid agonist pharmacotherapy of opioid dependence, counselling, rehabilitation strategies and social support.
- Medically supervised withdrawal is required for patients who are heavy dependent users of certain substances (such as opioids, sedative/hypnotic substances, and alcohol) and are likely to experience withdrawal complications. Detoxification is a preparatory step to start long lasting drug-free oriented programs.

- Maintenance medications with proven efficacy and effectiveness in preventing relapse and stabilizing drug dependent patients are available only for opioid dependence. These medications belong to two main groups: long-acting opioid agonists and antagonists. Opioid agonist pharmacotherapy is one of the most effective treatment options for opioid dependence when methadone or buprenorphine are administered at a individualized dosage for a period of several months to years. Alternatively, a defined group of opioid dependent patients who are detoxified and highly motivated can be prescribed an antagonist medication (naltrexone) as part of continuing relapse prevention treatment.
- Psychological and social interventions have demonstrated to be effective in rehabilitation and relapse prevention, both in out-patient and residential settings. Psychotherapies such as cognitive behavioural therapy, motivational interviewing and contingency management, have shown promising results. Social support interventions like employment programmes, vocational training and legal advice and support have been demonstrated to be effective in facilitating social inclusion.
- Self-help support groups complement formal treatment options and can support standardized psychosocial interventions
- Socio-cultural relevance. Evidence-based treatment methodologies and strategies need to be adapted to the diverse regional, national and local circumstances, taking into account both cultural and economic factors.
- Knowledge transfer and ongoing clinical research implemented in different settings and regions is key to permanently improve the treatment programs available to patients.
- Training of treatment professionals from early on in their careers, including within university curricula and continuing education is essential to disseminate evidence-based methodologies.

Actions to promote this principle

Ensure that:

1. available resources are invested in evidence-based interventions
2. a comprehensive treatment system offers a wide range of evidence-based and integrated pharmacological and psychosocial interventions, aimed at treating the whole person. The range includes interventions of diverse intensity, from outreach, low-threshold and brief interventions to long-term, structured treatment
3. the duration of treatment interventions is determined by individual needs, and there are no pre-set limits to the duration of treatment
4. whenever possible, services are staffed by multidisciplinary teams adequately trained in the delivery of evidence-based interventions
5. basic services including detoxification, psychosocially assisted opioid agonist maintenance pharmacotherapy for opioid dependence, counselling, and social support are available thorough the territory
6. more complex cases, including patients with concomitant severe somatic and psychiatric disorders receive adequate care, possibly through referral to specialized services
7. psychosocial interventions have demonstrated to be effective in rehabilitation and relapse prevention, both in out-patient and residential settings, in particular cognitive behavioural therapy, motivational interviewing and contingency management, employment and vocational training, counselling and legal advice.
8. interventions are adapted for relevance to the socio-cultural environment in which they are applied, constantly updated in accordance to research developments and diversified research is conducted in all regions of the world.

PRINCIPLE 4: DRUG DEPENDENCE TREATMENT, HUMAN RIGHTS, AND PATIENT DIGNITY

Description and Justification

Drug dependence treatment services should comply with human rights obligations and recognize the inherent dignity of all individuals. This includes responding to the right to enjoy the highest attainable standard of health and well-being, and ensuring non-discrimination.

Components

- People with drug dependence should not be subject to discrimination because of their past or present drug use.
- The same standards of ethical treatment should apply to the treatment of drug dependence as other health care conditions. These include the right to autonomy, and self determination on the part of the patient, and the obligation for beneficence and non-maleficence on behalf of treating staff.
- Access to treatment and care services, including measures to prevent the health and social consequences of drug use, needs to be ensured in all the stages of the disease, also for the patients not motivated to stop drug use or relapsing after treatment, as well as during detention periods in prison.
- As any other medical procedure, in general conditions drug dependence treatment, be it psychosocial or pharmacological, should not be forced on patients. Only in exceptional crisis situations of high risk to self or others, compulsory treatment should be mandated for specific conditions and periods of time as specified by the law.
- When the use and possession of drugs results in state imposed penal sanctions, the offer of treatment as an alternative to imprisonment or other penal sanction presents a choice to the patient/offender, and although it entails a degree of coercion to treatment, the patient is entitled to reject treatment and choose the penal sanction instead.
- Discrimination should not occur based on any grounds, be it gender, ethnic background, religion, political belief, or health, economic, legal or social condition.
- The human rights of people with drug dependence should never be restricted on the grounds of treatment and rehabilitation. Inhumane or degrading practices and punishment should never be a part of treatment of drug dependence.

Actions to promote this principle

Ensure that:

1. the legal framework guarantees compliance with human rights within drug dependence treatment and rehabilitation services.
2. service procedures require staff to adequately inform patients of treatment processes and procedures, develop individual care plans jointly with the patient, obtain informed consent from the patient before initiating interventions, and guarantee the option to withdraw from treatment at any time.
3. the privacy of patients is respected: patient data are strictly confidential and authorization from the patient in written form is requested before its use for any purposes.
4. staff are properly trained in the provision of treatment in full compliance with ethical standards, and show respectful and non-stigmatizing attitudes.
5. the provision of medical treatment services is not dependent on compliance with addiction treatment

6. evidence-based prevention and treatment interventions for drug use disorders and associated health consequences are available also in prisons.
7. for treatment research, ethical committees review and authorize research protocols, as is the case for all other medical disciplines.

PRINCIPLE 5: TARGETING SPECIAL SUBGROUPS AND CONDITIONS

Description and Justification

Several subgroups within the larger population of individuals affected by drug use disorders require special consideration and often specialized care. These groups with specific needs include adolescents, women, pregnant women, people with medical and psychiatric co-morbidities, sex workers, ethnic minorities, and socially marginalized individuals. A person may belong to more than one of these groups and have multiple needs.

The implementation of adequate strategies and provision of appropriate treatment for these patients often require targeted and differentiated approaches regarding contacting services and entering treatment, clinical interventions, treatment settings and service organization that respond best to the needs of these groups.

Components

- Adolescents: Ideally specialized training should be available for counsellors, outreach workers and other professionals involved in treatment of adolescents with drug use disorders, and child/adolescent psychiatrists and psychologists should be part of these multidisciplinary teams. It may be counterproductive for young patients in early stages of drug use disorders to get in contact with people in more advanced stages of the disease through the treatment setting, and therefore, whenever possible, separate settings for adolescents and their parents can be considered. Planning and implementing interventions with young people will benefit from close cooperation with families and when appropriate, schools.
- Women. Many treatment services and programs have been developed to meet the needs of adult men. . In most cultures women with drug problems are heavily stigmatized, though bearing large family care responsibilities. As a result, access of women to treatment can be significantly limited. In addition, women tend to have specific needs of their psychological status and psychiatric co-morbidity. Continued drug use affects their sexual and reproductive health. Gender-responsive services are needed that consider the needs of women in all aspects of their design and delivery, including locations, staffing, programme development, child friendliness, content and materials.
- Pregnant women. In many cultures, approximately one third of people with drug dependence are women of childbearing age, so the possibility of pregnancies needs to be taken into account and optional pregnancy tests made available. Pregnancies in this population should always be considered as high risk. This makes their treatment a specialized field, requiring a multi-professional approach, including prenatal care. Evidence-based standards of pharmacotherapy for opioid dependence treatment during pregnancy are available. Breast-feeding should be supported if desired by the woman if no contraindication is present. This specialized care is as an opportunity to interact early on a case management basis to reduce additional risk factors.
- People with medical co-morbidities (hepatitis B and C, HIV, TB, and cirrhosis). People with drug dependence should be afforded the same level of access to treatment and care for medical co-morbidities as any other people in the country. For patients with opioid dependence, provision of agonist maintenance therapy can enhance adherence to treatment regimens for HIV, TB and hepatitis. Individual counselling, or with extended family

members, if requested, is an important component of a comprehensive approach.

- People with psychiatric co-morbidities: Research indicates a high prevalence of personality, affective and other psychiatric disorders among drug dependent patients. It also shows that patient retention and treatment outcomes are related to the diagnosis and adequate treatment of these psychiatric co-morbidities. In consequence, treatment services can improve their effectiveness by screening for associated psychiatric disorders and their adequate psychopharmacological treatment, taking into consideration possible drug-drug interactions.
- Sex-workers: a significant proportion of drug dependent individuals are involved in sex work as a means to afford buying drugs. These individuals are exposed to increased risk of infections, victimization, violence and social exclusion. Interventions addressed to this specific group should prioritize outreach and offer a comprehensive package of measures to prevent HIV and hepatitis infection, and other sexually transmitted diseases. Sources of sustainable livelihood can be offered through social support and rehabilitation programmes.
- Ethnic minorities may encounter particular barriers to access treatment services, including language difficulties. These, as well as cultural and religious differences need to be taken into consideration when organizing treatment facilities. Cultural mediators may be involved in reaching these patients and helping them in attending treatment.
- Marginalized/street people: A full package of social assistance and support in order to achieve means of sustainable livelihoods needs to be available to addicted patients living in the street, unemployed, homeless and rejected by their families. Dormitories, vouchers, free food, and temporary job opportunities offered in collaboration with social services in parallel with treatment services will support the patients' stabilization.

Actions to promote this principle

Ensure that:

1. treatment service provision and clinical protocols take into account the requirements of patients with special needs.
2. patient assessments are comprehensive to enable broad medical and psychosocial interventions.
3. integration of services or at least standardized procedures for referrals are established in order to provide continuity of care for patients with co-morbid conditions and minimize the risk of losing a patient, also due to non-compliance.
4. special training for those who work with psychiatric patients, minors, women and pregnant women is available.
5. existing treatment policies and guidelines facilitate integration and linking of drug dependence and infectious services to guarantee evidence-based and accessible treatment for both conditions.
6. treatment services are tailored to the needs of people with drug use disorders from minority groups, and cultural mediators and interpreters are available whenever necessary in order to minimize cultural and language barriers for minorities

Principle 6: ADDICTION TREATMENT AND THE CRIMINAL JUSTICE SYSTEM

Description and Justification

Drug related crimes are highly prevalent, and many people are incarcerated for drug related offences. These include offences to which a drug's pharmacologic effects contribute; offences motivated by the user's need for money to support continued use; and offences connected to drug distribution itself. A significant proportion of people going through criminal systems worldwide are drug dependent.

In general, drug use should be seen as a health care condition and drug users should be treated in the health care system rather than in the criminal justice system where possible.

Interventions for drug dependent people in the criminal justice system should address treatment as an alternative to incarceration, and also provide drug dependence treatment while in prison and after release. Effective coordination between the health/drug dependence treatment system and the criminal justice system is necessary to address the twin problems of drug use related crime and the treatment and care needs of drug dependent people.

Research results indicate that drug dependence treatment is highly effective in reducing crime. Treatment and care as alternative to imprisonment or commenced in prison followed by support and social reintegration after release decrease the risk of relapse in drug use, of HIV transmission and of re-incidence in crime, with significant benefits for the individual health, as well as public security and social savings. Offering treatment as an alternative to incarceration is a highly cost-effective measure for society.

Components

- Diversion schemes from criminal justice system into treatment. Treatment as an alternative to imprisonment or other penal sanctions should be made available to drug dependent offenders. Such schemes bring people with drug dependence out of the criminal justice system into medical and rehabilitation programmes and allow drug treatment under a compulsory court order instead of penal sanctions. If treatment is discontinued, penal sanctions will be the consequence. In this way, treatment is offered as an alternative to incarceration or other penal sanctions, but not imposed without consent.
- Human rights principles described in a separate section certainly apply to people charged with crimes related to illicit substances. Drug dependent people in prison have the right to receive the health care and treatment that are guaranteed in treatment centres in the community.
- Human rights principles described in a separate section certainly apply to people charged with crimes related to illicit substances. This includes the right of addicted patients in prison setting to receive the health care and treatment that are guaranteed in treatment centres in the community.
- Continuity of services. Specific interventions to reduce high-risk behaviour in regard to infectious diseases should be available in prison. If prisoners go into withdrawal, treatment should be initiated following good clinical practices. For those inmates already in treatment before incarceration, medical treatment, especially pharmacological therapy, should not be discontinued when entering prison. Special facilities for pregnant women and mothers with small children are needed to provide for the best bonding circumstances.

Psychosocial interventions, including vocational training can support reintegration after release.

- Continuous care in the community upon release is crucial to meaningfully reintegrate drug dependent offenders into the community. Without access to education, job opportunities, housing, insurance, and health care including drug dependence treatment, persons in recovery face a higher risk of relapse and related mortality and also increase the burden on their communities.
- Neither detention nor forced labor have been recognized by science as treatment for drug use disorders,

Actions to promote this principle

Ensure that:

1. the legal framework allows the full implementation of drug dependence treatment and care options for offenders, in particular treatment as an alternative to incarceration and psychosocial and pharmacological treatment in prisons
2. mechanisms to guarantee coordination between the criminal justice system and drug dependence treatment system are in place and operational. Such mechanisms and collaborative work will promote the implementation and monitoring of diversion schemes as an alternative to incarceration.
3. drug using inmates are offered a range of treatment and care services, including prevention of transmission of blood-borne diseases, drug dependence pharmacological and psychosocial treatment, rehabilitation, preparation for release, and linkage to community services
4. criminal justice and prison staff are made aware of the needs of drug dependent offenders and trained to support prevention and treatment interventions in prison settings.
5. staff in charge of delivering drug dependence treatment (either health prison staff or external staff) are properly trained in the provision of evidence-based treatment and ethical standards, and show respectful, non-judgmental, and non-stigmatizing attitudes
6. links and referrals to community agencies are established for continuation of the treatment for patients in the criminal justice system.

PRINCIPLE 7: COMMUNITY INVOLVEMENT, PARTICIPATION AND PATIENT ORIENTATION

Description and Justification

A community based response to drug use and dependence can support and encourage behavioural changes directly in the community. This might imply a paradigm shift from a directive to a more cooperative form of service delivery, for which the active involvement of local stakeholders (governmental and non-governmental organizations, private sector, community leaders, religious organizations, and traditional healers), community members (families) and the target populations is needed to establish ownership and an integrated network of community-based health care services.

Components

- Patient active involvement aims to promote ownership and responsibility, change in individual behavior, and improvement of the quality and utilization of health services.
- Accountability to the community. There is increasing recognition that the process of service development needs to be accountable to and shaped by the wide range of community interests. The community and service users play an important role in helping shape an approach that ensures appropriate accountability and responsibility of all those involved in the delivery of services
- Community-oriented interventions can increase community support to people with drug problems and promote supportive public opinions and health policy. Community information and empowerment can also help reduce discrimination and social marginalization. De-stigmatization of affected individuals is substantial to improve accessibility to treatment and reintegration into society.
- Mainstreaming drug dependence treatment in health and social care interventions not only enables the treatment of a larger number of patients, it also promotes a paradigm change within society to acknowledge drug dependence as a multi-factorial disorder.
- Linkages. It is key to establish links between drug dependence treatment services and hospital services, such as emergency rooms, infectious diseases and internal medicine departments, as well as with specialized social services such as housing, vocational training and employment. Integrating psychiatric and drug dependence treatment increases retention of patients with co-morbid psychiatric disorders and reduces mortality.
- NGOs can play a significant role in the provision of services for patients with drug dependence in coordination with the public health system. They can be particularly helpful in the process of scaling up treatment and facilitation of rehabilitation and reintegration.

Action to promote this principle

Ensure that:

1. target populations, their families, community members and local organizations are actively involved in the planning, implementation and monitoring of drug dependence treatment services
2. services are integrated within the public health and social care networks, and establish links with all relevant partners in the community

3. primary health, mental health, and social care service staff are trained in and conduct screening for drug use and drug use disorders, and deliver brief interventions
4. services promote a close therapist-patient interpersonal relationship and a therapeutic alliance sharing the goals and methods of the program in advance and periodically collect patient feed-back on services provided
5. services involve and support the families of the patients in the therapeutic process, as relevant, and provide support for family members.
6. governmental and non-governmental organizations collaborate and are involved in establishing an integrated treatment network in the community.
7. patients, families and community members are actively involved in improving the community drug problems and contribute to changing the public perception of drug dependence towards a chronic complex disease model.
8. a sound and long-term educational and awareness strategy aimed at the general public is implemented to disseminate the concept of addiction as a disease and promote the value of evidence-based treatment.

PRINCIPLE 8: CLINICAL GOVERNANCE OF DRUG DEPENDENCE TREATMENT SERVICES

Description and Justification

A drug dependence treatment service requires an accountable, efficient and effective method of clinical governance that facilitates the achievement of its goals.

Service organization needs to reflect current research evidence and be responsive to service user needs. Its policies, programmes, procedures and coordination mechanisms should be defined in advance and clarified to all therapeutic team members, administration, and target population.

Components

- Service policy and protocols clarify and facilitate a common understanding of the treatment programme's philosophy, aims and objectives, strategic management, therapeutic approach, target population and programmes and procedures. They critically provide details such as the staffing plan, human resource management and development, access and referral information and policies, physical environment, accommodation and food, and operational policies
- Treatment protocols are written documents including details concerning procedures for assessment, care planning and provision of treatment. These include information on patient admission criteria, assessment, care planning and review, and treatment completion, as well as a clear statement of who will be involved in the different phases of treatment
- Qualified staff: clear definition of staff members' roles and responsibilities and appropriate continuing education are needed for the delivery of high quality services. Mechanisms for staff appraisal and career development, including orientation, education, training and time release to pursue further education are necessary to keep standards high.
- Supervision and other forms of support are needed for the prevention of burnout among staff members. Each professional group will require specific training to work successfully with people with drug dependence disorder, and national policies can set the standards of ongoing education required in order to standardize and certify the qualifications of drug dependence treatment professionals. The integration of drug dependence services into primary health care requires the introduction of adequate training on drug use disorders in general medicine curricula. In addition to undergraduate, graduate and postgraduate programs, teaching courses with e-learning modules can enhance further training for treatment professionals.
- Financial resources. Sustainable sources of funding at adequate levels are needed to ensure an appropriate service delivery, and proper financial management and accountability mechanisms should be in place. Whenever possible, costs for staff education and for evaluation should be included in the relevant budget.
- Communication structures and networking between drug dependence treatment services offering different programmes and with other relevant institutions such as general practitioners, specialists (e.g. psychiatrists, infection specialists, etc.) and social services need to be established and keep operations for effective referral and continuum of care
- Monitoring systems are a core element of a treatment service that wishes to understand how well it is serving the needs of its clients and provide evaluation and feedback on service and system performance for quality assessment. Record systems include information about patients, services

delivered, human resources management, and payroll and should guarantee client confidentiality

- Updating services. The nature of drug use and related problems in a community will change over time, and in consequence services will need to adapt and reorient their programmes in order to respond to their clients' evolving needs. Services will also need to build on feed-back from patients, their relatives and the community, as well on as monitoring and evaluation results with a view to improving their quality and performance

Actions to promote this principle

Ensure that:

1. services meet quality standards required for accreditation with respect to organization, management and delivery of treatment
2. written service policy and protocols are available, known to all staff and guide service delivery
3. there are sufficient staff working at addiction treatment centres and that they are adequately qualified, and receive ongoing evidence-based training, certification, support and supervision
4. policies for staff selection, recruitment, employment and performance monitoring are clearly specified and known to all
5. a sustainable source of funding is available at adequate levels and proper financial management and accountability mechanisms are in place
6. drug dependence treatment services network and link with relevant generalist and specialized health and social services in order to provide a continuum of care to their patients
7. monitoring systems provide evaluation and feedback on service and system performance for quality assurance.
8. adequate record systems in place and that client confidentiality is maintained
9. services are aware of drug use trends in the community and adapt their programmes to ensure that they continue to be responsive
10. service programmes, rules and procedures are periodically revised on the basis of continuous feed-back, monitoring and evaluation processes

PRINCIPLE 9: TREATMENT SYSTEMS: POLICY DEVELOPMENT, STRATEGIC PLANNING AND COORDINATION OF SERVICES

Description and Justification

A systematic approach to drug use disorders and patients in need of treatment, as well as to planning and implementation of services require a logical, step-by-step sequence that links policy to needs assessment and treatment planning and implementation, to monitoring and evaluation.

Components

- As a fundamental step, formulation of a treatment policy for drug use disorders by relevant authorities in governments is needed for the development of treatment systems and implementation of effective interventions. A good treatment policy will be based on evidence of effectiveness and cost-effectiveness. Government policies set the tone for the development of drug addiction treatment and, in combination with political will, can produce significant improvements in treatment and care of people with drug use disorders. Effective policies are multisectoral, and define the role and responsibilities of all relevant partners, including health, welfare, labour, criminal justice, and civil society
- Link to prevention. Treatment services and systems broaden their reach when developed alongside and connected to prevention interventions aiming at providing youth, adults and communities with the knowledge, skills and opportunities to avoid risky behaviors and choose healthy lifestyles. All these prevention interventions, including targeted interventions for populations that are at high-risk of drug use, are complementary to services for individuals that have started to use drugs. Linkages between prevention interventions and treatment services facilitate referrals of individuals who have started to use substances to appropriate counselling and treatment services.
- Situation assessment. Understanding the types of people who may seek help, patterns of drug use and how they change over time in any one population, and the preferences for different types of treatment are important in effective drug dependence treatment planning.
- Coordination between different sectors (health, social welfare, criminal justice) and appropriate balance between specialised services and primary care can produce best results. Further, in a comprehensive treatment system, a variety of levels of service provision will be available.
- Continuum of care. A good drug dependence treatment policy will outline the mechanisms for service coordination. Given the multiple physical, psychological and social needs of people with drug dependence, coordinated care across different health and welfare services is essential for smooth transition between modalities and services, achieving a continuum of care, and ultimately attaining positive clinical outcomes.
- Multidisciplinary approach. Such comprehensive treatment system involves diverse professional groups including medical doctors/psychiatrists, nurses, psychologists, social workers, occupational therapists, and criminal justice workers (parole and probation officers, prison staff). NGOs play a very important role in many countries and it is important that their services are integrated within the overall treatment system.
- Capacity building. Government and training institutions need to plan to ensure the availability of trained staff in the future. This may include integration of drug treatment into the curriculum in medical and nursing schools.

- Quality assurance, monitoring and evaluation. To ensure quality in the drug treatment network, a system of clinical governance should be developed with clear lines of clinical accountability, continuous monitoring of patient well being, adverse events and intermittent external evaluation.

Actions to promote this principle

Ensure that:

1. policy documents describing the treatment system philosophy, objectives, approaches and funding, as well as the role and responsibilities of different partners are available and known to all relevant partners. Information on the number, type, and distribution of services available and envisaged within the treatment system will be useful for planning and development purposes.
2. links between drug use prevention, drug dependence treatment, and prevention of health and social consequences of drug use are established and operational
3. treatment planning is based on estimates and descriptions of the nature and extent of the drug problem, as well as of the characteristics of the population in need
4. the roles of the national, regional and local agencies in different sectors responsible for the delivery of drug dependence treatment and rehabilitation are defined and mechanisms for effective coordination established
5. a combination of primary care and specialized services for drug dependence people is available, as relevant to the needs of the affected population and local resources
6. as far as possible, services are staffed by multidisciplinary teams including physicians/psychiatrist, nurses, psychologists, social workers, and other professionals
7. mechanisms to delivery adequate initial training and ongoing development for professionals involved in treatment and rehabilitation are available
8. quality standards for drug dependence treatment services are established and compliance is required for accreditation, and mechanisms for clinical governance, monitoring and evaluation are identified

REFERENCES

Introduction

WHO (2004). Neuroscience of psychoactive substance use and dependence. WHO, 2004.

WHO Expert Committee on Drug Dependence: thirtieth report. WHO technical report series; 873. WHO, 1998.

WHO (2006) Disease control priorities related to mental, neurological, developmental and substance abuse disorders.

Volkow N (2005), *Pharmacol Ther.* 108:3-17

UN Reference Group on the Prevention and Care of HIV/AIDS among Injecting Drug Users (2003).

UK Dept of Health. NTORS at two year: changes in substance use, health and criminal behavior two years after intake. UK Dept of Health

WHO, UNODC, UNAIDS (2004). Evidence for action on HIV/AIDS and injecting drug use. Policy Brief: Reduction of HIV Transmission through Drug-Dependence Treatment, Geneva

Engs R (ed.) In *Controversies in the Addiction Field*. Chapter 7, "The Biopsychosocial Model: Application to the Addictions Field."

Hallfors D., Watson K (July 1998). Literature Review Organization of Drug Prevention Services in the Health Care Delivery System

Crocq MA (2008) Historical and cultural aspects of man's relationship with addictive drugs. *Dialogues in Clinical Neuroscience*, 9, 4: 355-361

Hejazi NS (2008). Pharmacogenetic aspects of addictive behaviors. *Dialogues in Clinical Neuroscience*, 9, 4: 447-454

Kalivas PW (2008). Cocaine and amphetamine – like psycho stimulants: neurocircuitry and glutamate neuroplasticity. *Dialogues in Clinical Neuroscience*, 9, 4: 389-397

Kreek MJ (2008). Opioids, dopamine, stress, and the addictions. *Dialogues in Clinical Neuroscience*, 9,4: 363-378

Lewy AJ, Rough JN, Songer JB, Kogan NM, Mechoulam R (2008). Cannabinoids in health and disease. *Dialogues in Clinical Neuroscience*, 9, 4:413-30.

Paulus MP (2008). Neural basis of reward and craving – a homeostatic point of view. *Dialogues in Clinical Neuroscience*, 9, 4: 379-387

PRINCIPLE 1: AVAILABILITY AND ACCESSIBILITY OF DRUG DEPENDENCE TREATMENT

Gardner TJ, Kosten TR (2008) . Therapeutic options and challenges for substances of abuse . *Dialogues in Clinical Neuroscience*

PRINCIPLE 2: SCREENING, ASSESSMENT, DIAGNOSIS AND TREATMENT PLANNING

WHO (1992) The ICD 10 classification of mental and behavioural disorders: clinical descriptions and diagnostic guidelines.

American Psychiatric Association (APA) (1994). Diagnostic and Statistical Manual of Mental Disorders, fourth ed., American Psychiatric Association, Washington, DC.

Henry-Edwards S, Humeniuk R, Ali R, Poznyak V and Monteiro M (2003). The Alcohol, Smoking and Substance Involvement Screening Test (ASSIST): Guidelines for Use in Primary Care (Draft Version 1.1 for Field Testing). Geneva, World Health Organization. (Available at: http://www.who.int/substance_abuse/activities/en/Draft_The_ASSIST_Guidelines.pdf)

Henry-Edwards S, Humeniuk R, Ali R, Monteiro M, Poznyak V (2003). Brief Intervention for Substance Use: A Manual for Use in Primary Care. (Draft Version 1.1 for Field Testing). Geneva, World Health Organization. (Available at: http://www.who.int/substance_abuse/activities/en/Draft_Brief_Intervention_for_Substance_Use.pdf)

Finnegan LP, Kron RE, Connaughton JF, et al. (1975). Assessment and treatment of abstinence in the infant of the drug-dependent mother. *International Journal of Clinical Pharmacology and Biopharmacology* 12:19–32.

First MB, Spitzer RL, Gibbon M, et al. (1996). *Structured clinical interview for DSM-IV Axis I disorders*. New York: Biometrics Research, New York State Psychiatric Institute.

Lipsitz PJ (1975). A proposed narcotic withdrawal score for use with newborn infants: a pragmatic evaluation of its efficacy. *Clinical Pediatrics Substance Abuse and Mental Health Services Administration* 2004.

McLellan AT, Kushner H, Metzger D, et al. (1992). The Fifth Edition of the Addiction Severity Index. *Journal of Substance Abuse Treatment* 9:199–213.

Sobell LC, Sobell MB (1992). Timeline followback: A technique for assessing self-reported alcohol consumption. In *Measuring alcohol consumption: Psychosocial and biochemical methods*. ed. RZ Litten and JP Allen, 41-72. Totowa: Humana Press.

PRINCIPLE 3: EVIDENCE-INFORMED DRUG DEPENDENCE TREATMENT

WHO, UNODC, UNAIDS (2004) Substitution maintenance therapy in the management of opioid dependence and HIV/AIDS prevention: position paper.

Dole VP, Nyswander M (1965). A medical treatment for diacetylmorphine (heroin) addiction. *JAMA* 193:80-4.

Dole VP, Robinson JW, Orraca J, Towns E, Searcy P, Caine E (1969). Methadone treatment of randomly selected criminal addicts. *N Engl J Med* 280(25):1372-5.

Drucker E (1999). Drug prohibition and public health: 25 years of evidence. *Public Health Rep* 114(1):14-29.

Eder H, Jagsch R, Kraigher D, Primorac A, Ebner N, Fischer G (2005). Comparative study of the effectiveness of slow-release morphine and methadone for opioid maintenance therapy. *Addiction* 100(8):1101-9.

Gaughwin M, Kliwer E, Ali R, Faulkner C, Wodak A, Anderson G (1993). The prescription of methadone for opiate dependence in Australia, 1985-1991. *Med J Aust* 159(2):107-8.

Gruber VA, Delucchi KL, Kielstein A, Batki SL (2008). A randomized trial of 6-month methadone maintenance with standard or minimal counseling versus 21-day methadone detoxification. *Drug Alcohol Depend* (in press).

Hartel DM, Schoenbaum EE, Selwyn PA, Kline J, Davenny K, Klein RS, Friedland GH (1995). Heroin use during methadone maintenance treatment: the importance of methadone dose and cocaine use. *Am J Public Health* 85(1):83-8.

Johnson RE, Jaffe JH, Fudala PJ (1992). A controlled trial of buprenorphine treatment for opioid dependence. *Journal of the American Medical Association* 267:2750-55.

H D. Kleber (2008). Pharmacologic treatments for opioid dependence: detoxification and maintenance options. *Dialogues in Clinical Neuroscience*, 9, 4:455-470

Fudala PJ, Bridge TP, Herbert S, et al. (2003). Office-based treatment of opiate addiction with a sublingual-tablet formulation of buprenorphine and naloxone. *New England Journal of Medicine* 349:949-58.

J. Lewy, Jennifer N. Rough, Jeannine B. Songer, Henning Krampe, Sabina Stawicki, Margret R. Hoehe, Hannelore Ehrenreich (2008). Outpatient Long-term Intensive Therapy for Alcoholics (OLITA): a successful biopsychosocial approach to the treatment of alcoholism. *Dialogues in Clinical Neuroscience*, 9, 4: 399-412

Ling W, Wesson DR, Charuvastra C, et al. (1996). A controlled trial comparing buprenorphine and methadone maintenance in opioid dependence. *Archives of General Psychiatry* 53:401-07.

Sees KL, Delucchi KL, Masson C, Rosen A, Clark HW, Robillard H, Banys P, Hall SM (2000) Methadone maintenance vs 180-day psychosocially enriched

detoxification for treatment of opioid dependence: a randomized controlled trial. *JAMA* 283(10):1303-10.

Substance Abuse and Mental Health Services Administration (2004). *National Survey on Drug Use and Health Report: Nonmedical Use of Prescription Pain Relievers*. Office of Applied Studies. Rockville: Substance Abuse and Mental Health Services Administration.

Substance Abuse and Mental Health Services Administration. National Survey on Drug Use and Health from 2004 and 2005 [data files SAMHSA website]. September 8, 2005 and September 7, 2006. Available at: <http://www.oas.samhsa.gov/nsduhLatest.htm> (Accessed July 25, 2007).

Strain EC, Moody DE, Stoller KB, et al. (2002). Bioavailability of buprenorphine solution versus tablets during chronic dosing in opioid-dependent subjects. *Drug and Alcohol Dependence* 66:176.

Strain EC, Stitzer ML, Liebson IA, et al. (1994). Comparison of buprenorphine and methadone in the treatment of opioid dependence. *American Journal of Psychiatry* 151:1025–30.

Strain EC, Moody DE, Stoller KB, et al. 2002. Bioavailability of buprenorphine solution versus tablets during chronic dosing in opioid-dependent subjects. *Drug and Alcohol Dependence* 66:176.

PRINCIPLE 4: DRUG DEPENDENCE TREATMENT, HUMAN RIGHTS, AND PATIENT DIGNITY

Gostin (1993). Compulsory Treatment for Drug-dependent Persons. In *Confronting Drug Policy*. Bayer R and Oppenheimer G, eds. Place Publisher

Bruce RD, Schleifer RA (2008). “Ethical and human rights imperatives to ensure medication-assisted treatment for opioid dependence in prisons and pre-trial detention” *Int J Drug Policy*. Jan [Epub ahead of print]

Canadian HIV/AIDS Legal Network *Dependent on Rights (2007): Assessing Treatment of Drug Dependence from a Human Rights Perspective*. <http://www.aidslaw.ca/publications/publicationsdocEN.php?ref=734>

Wodak, Alex (1998). “Health, HIV Infection, Human Rights, and Injecting Drug Use” *Health and Human Rights*. 2 (4):24-41.

Wolfe D (2007). Paradoxes in antiretroviral treatment for injecting drug users: access, adherence and structural barriers in Asia and the former Soviet Union. *Int J Drug Policy*. Aug;18(4):246-54. Epub 2007 Mar 23.

Elliott R, Csete J, Palepu A, Kerr T. Reason and rights in global drug control policy [editorial] (2005). *CMAJ*;172(5):655-6 and editorial at: - <http://www.cmaj.ca/cgi/content/full/172/5/605>

Report from Human Rights Watch (2007): <http://hrw.org/pub/2007/hivaids/nowmorethanever1107.pd>

Hard Time: HIV and Hepatitis C Prevention Programming for Prisoners in Canada"
Canadian HIV Legal Network
<http://www.aidslaw.ca/publications/interfaces/downloadFile.php?ref=1217>

Additional Human Rights Watch's reports are listed at:
<http://hrw.org/campaigns/hiv aids/testimony0205.htm> .

WHO, UNAIDS, UNODC (2006): HIV/AIDS Prevention, Care, Treatment and Support in Prison Settings. A Framework for an Effective National Response.

General Assembly Resolution 45/111, annex 45 U.N. GOAR Supp. (No. 49A) at 200, U.N. Doc. A/45/49 (1990)

United Nations Principles of Medical Ethics relevant to the Role of Health Personnel, particularly Physicians, in the Protection of Prisoners and Detainees against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment. Adopted by General Assembly resolution 37/194 of 18 (December 1982).

World Health Organization Guidelines on HIV Infection and AIDS in prisons (1993). Geneva

UNAIDS's Statement on HIV/AIDS in Prisons to the United Nations Commission on Human Rights at its Fift-second session (April 1996).

PRINCIPLE 5: TARGETING SPECIAL SUBGROUPS AND CONDITIONS

WHO (2006) Basic Principles for Treatment and Psychosocial Support of Drug dependent People Living with HIV/AIDS.

Centers for Disease Control and Prevention (1998). Recommendations for prevention and control of hepatitis C virus (HCV) infection and HCV-related chronic disease. MMWR. 47(RR-19): 1-39.

Center for Substance Abuse Treatment (2004). Clinical guidelines for the use of buprenorphine in the treatment of opioid addiction. TIP series 40. DHHS Pub 04-3939. Rockville MD: SAMHSA.

Ebner N, Rohrmeister K, Winklbaaur B, Baewert A, Jagsch R, Peternell A, Thau K, Fischer G (2007). Management of neonatal abstinence syndrome in neonates born to opioid maintained women. *Drug and Alcohol Dependence* 87:131-138.

Edlin BR, Seal KH, Lorvick J, Kral AH, Ciccarone DH, Moore LD, Lo B, (2001). Is it justified to withhold treatment for hepatitis C from illicit-drug users? *N Engl J Med* 345: 221-214.

Fischer G, Ortner R, Rohrmeister K, Jagsch R, Baewert A, Langer M, Aschauer H (2006). Methadone versus buprenorphine in pregnant addicts: a double-blind, double-dummy comparison study. *Addiction* 101(2): 275-281.

Fried MW, Shiffman ML, Reddy KR, Smith C, Goncales FLJr, Haussinger D, Diago M, Carosi G, Dhumeaux D, Craxi A, Lin A, Hoffman J, Yu J (2002). Peginterferon alpha-2a plus ribavirin for chronic hepatitis C virus infection. *N Engl J Med* 26;347(13): 975-82.

Gombas W, Fischer G, Jagsch R, Eder H, Okamoto I, Schindler S, Müller C, Ferenci P, Kasper S (2000). Prevalence and distribution of hepatitis C subtypes in patients with opioid dependence. *European Addiction Research* 6: 198-204.

Guadagnino, V., Trotta, M.P., Montesano, F., Babudieri, S., Caroleo, B., Armignacco, O., Carioti M, Monarca R, Antinori A for the Nocchiero Study Group (2007). Effectiveness of a multi-disciplinary standardized management model in the treatment of chronic hepatitis C in drug addicts engaged in detoxification programmes. *Addiction* 102, 423-431.

Hallinan R, Byrne A, Amin J, Dore GJ (2005). Hepatitis C virus prevalence and outcomes among injecting drug users on opioid replacement therapy. *J Gastroenterol Hepatol* 20: 1082-1086.

Hallinan R, Byrne A, Agho K, Dore GJ, (2007). Referral for chronic hepatitis C treatment from a drug dependency treatment setting. *Drug and Alcohol Dependence* 88: 49-53.

Loftis JM, Matthews AM, Hauser P (2006). Psychiatric and substance use disorders in individuals with hepatitis C. *Drugs* 66(2): 155-174.

Lorvick J, Kral AH, Seal KH, Gee L, Edlin BR (2001). Prevalence and duration of hepatitis C among injection drug users in San Francisco, California. *Am J Public Health* 91:46-47.

Mauss S, Berger F, Goelz J, Jacob B, Schmutz G (2004). A prospective controlled study of interferon-based therapy of chronic hepatitis. *Hepatology* 40: 120-124.

National Institutes of Health (NIH) (2002). Consensus Development Conference Statement. Management of hepatitis C. *Hepatology* 36: 3-20.

Roy K, Hay G, Andragetti R, Taylor A, Goldberg D, Wiessing L (2002). Monitoring hepatitis C virus infection among injecting drug users in the European Union: a review of the literature. *Epidemiol Infect* 129 (3): 577-585.

Schaefer M, Heinz A, Backmund M, (2004). Treatment of chronic hepatitis C in patients with drug dependence: time to change the rules? *Addiction* 99, 1167-1175.

Shehab TM, Orrego M, Chunduri R, Lok ASF (2003). Identification and management of hepatitis C patients in primary care clinics. *Am J Gastroenterol* 98: 639-644.

Sylvestre DL(2002). Treating hepatitis C in methadone maintenance patients: an interim analysis. *Drug and Alcohol Dependence* 67, 117-123.

Sylvestre DL, (2005). Treating hepatitis C virus infection in active substance users. *Clinical Infectious Diseases* 40, 321-324.

Sylvestre DL, Clements BJ (2007). Adherence to hepatitis C treatment in recovering heroin users maintained on methadone. *Eur J Gastroenterology and Hepatology* 19: 741-747.

Stoove MA, Gifford SM, Dore GJ (2005). The impact of injecting drug use status on hepatitis C related referral and treatment. *Drug and Alcohol Dependence* 77, 81-86.

- Strauss SM, Astone J, Vassilev ZP, Des Jarlais DC, Hagan H (2003). Gaps in the drug-free and methadone treatment program response to Hepatitis C. *Journal of Substance Abuse Treatment* 24, 291-297.
- Sulkowski M, Wright T, Rossi S, Arora S, Lamb M, Wang K, Gries JM, Yalamanchili S (2005). Peginterferon alfa-2a does not alter the pharmacokinetics of methadone in patients with chronic hepatitis C undergoing methadone maintenance therapy. *Clin Pharmacol Ther* 77: 214-224.
- Pompidou Group (2000). Pregnancy and drug misuse update. Strasbourg. *Council of Europe*, December 2000
- Committee on Adolescence, American Academy of Pediatrics (1999). Adolescent pregnancy – current trends and issues: 1998. *Pediatrics* 103:516–20.
- Finnegan LP. (1991). Treatment issues for opioid-dependent women during the perinatal period. *Journal of Psychoactive Drugs* 23:191–201.
- Fischer G, Johnson RE, Eder H et al. (2000). Treatment of opioid-dependent pregnant women with buprenorphine. *Addiction* 95:239-44.
- Fischer G, Ortner R, Rohrmeister K, et al. (2006). Methadone versus buprenorphine in pregnant addicts: a double-blind, double-dummy comparison study. *Addiction* 101:275–81.
- Hans SL. (1989). Developmental consequences of prenatal exposure to methadone. *Annals of New York Academy of Sciences* 562:195–207.
- Hulse GK, Milne E, English DR, et al. (1997). The relationship between maternal use of heroin and methadone and infant birth weight. *Addiction* 92:1571–79.
- Hulse G, O'Neil G. (2002). Using naltrexone implants in the management of the pregnant heroin user. *Australian and New Zealand Journal of Obstetrics and Gynaecology* 42:569-73.
- Johnson RE, Jones HE, Fischer G. (2003). Use of buprenorphine in pregnancy: patient management and effects on the neonate. *Drug and Alcohol Dependence* 70:S87–S101.
- Jones HE, Haug N, Silverman K, et al. (2001). The effectiveness of incentives in enhancing treatment attendance and drug abstinence in methadone-maintained pregnant women. *Drug and Alcohol Dependence* 61:297–306.
- Jones HE, Johnson RE, Jasinski DR, et al. (2005b). Buprenorphine versus methadone in the treatment of pregnant opioid-dependent patients: effects on the neonatal abstinence syndrome. *Drug and Alcohol Dependence* 79:1–10.
- Kaltenbach K, Finnegan LP (1986). Developmental outcome of infants exposed to methadone in utero: a longitudinal study. *Pediatric Research* 20:57.
- Lacroix I, Berrebi A, Schmitt L, et al. (2002). High buprenorphine dosage in pregnancy: First data of a prospective study. *Drug and Alcohol Dependence* 66:S97.
- Laken MP, Ager JW. 1996. Effects of case management on retention in prenatal substance abuse treatment. *American Journal of Drug Alcohol Abuse* 22:439–48.

Lester BM, Andreozzi L, Appiah L. (2004). Substance use during pregnancy: time for policy to catch up with research. *Harm Reduction Journal* 1:5–49.

Leamon MH, Parr MS, et al. (2005). High-dose methadone maintenance in pregnancy: maternal and neonatal outcomes. *American Journal of Obstetrics and Gynecology* 193:606–10.

McCullough LB, Coverdale JH, Chervenak FA (2005). A comprehensive ethical framework for responsibly designing and conducting pharmacologic research that involves pregnant women. *American Journal of Obstetrics and Gynecology* 193:901–907.

National Institute on Drug Abuse (1996). *National Pregnancy & Health Survey: Drug Use Among Women Delivering Livebirths: 1992*. US Department of Health and Human Services. Washington DC: U.S. Government Printing Office.

Grabe HJ, Wolf T, Gratz S, Laux G (1998). The influence of polypharmacological antidepressive treatment on central nervous information processing of depressed patients: implications for fitness to drive. *Neuropsychobiology*;37:200–204.

Hamilton SP, Nunes EV, Janal M, Weber L (2000). The effect of sertraline on methadone plasma levels in methadone-maintenance patients. *Am J Addict*. Winter;9(1):63-9.

Principle 6: ADDICTION TREATMENT AND THE CRIMINAL JUSTICE SYSTEM

WHO Regional Office for Europe (2007). Health in prisons. A WHO guide to the essentials in prison health.

Bureau of Justice Statistics (2007). Criminal Offenders Statistics. Available at <http://www.ojp.usdoj.gov/bjs/crimoff.htm>, last revised August 8, 2007. Accessed January 21st, 2008.

Bureau of Justice Statistics (2007a). Federal Justics Statistics. Available at <http://www.ojp.usdoj.gov/bjs/fed.htm>, last revised December 20, 2007. Accessed January 21st, 2008.

Canadian HIV/AIDS Legal Network (2004). Prison needle exchange: lessons from a comprehensive review of international evidence and experience.

CDC (2001). Drug Use, HIV, and the Criminal Justice System. Available at <http://www.cdc.gov/idu/facts/druguse.htm>, last modified December 26th, 2007. Accessed January 21st, 2008.

Dolan K, Wodak A (1996). An international review of methadone provision in prisons. *Addiction Res* 4(1):85-97.

Dolan K, Rutter S, Wodak AD (2003). Prison-based syringe exchange programmes: a review of international research and development. *Addiction* 98(2):153-8.

EMCDDA (2001). Annual report on the state of the drugs problem in the European Union. Luxembourg: Office for Official Publications of the European Communities.

EMCDDA (2002). Annual report on the state of the drugs problem in the European Union and Norway. Luxembourg: Office for Official Publications of the European Communities.

Kinlock TW, Battjes RJ, Schwartz RP; MTC Project Team (2005). A novel opioid maintenance program for prisoners: report of post-release outcomes. *Am J Drug Alcohol Abuse* 31(3):433-54.

Stallwitz A, Stöver H (2007). The impact of substitution treatment in prisons – a literature review. *Int J Drug Policy* 18(6):464-74.

Stark K, Herrmann U, Ehrhardt S, Bienzle U (2006). A syringe exchange programme in prison as prevention strategy against HIV infection and hepatitis B and C in Berlin, Germany. *Epidemiol Infect* 134(4):814-9.

PRINCIPLE 7: COMMUNITY INVOLVEMENT, PARTICIPATION AND PATIENT ORIENTATION

Oliver J (1991). The social care directive: development of a quality of life profile for use in community services for the mentally ill. *Soc Work Soc Sci Rev* 3:5-45.

Priebe S, Oliver J, Kaiser W (eds.) (1999). Quality of life and mental health care. Petersfield U. K.: Wrightson Biomedical Publishing.

PRINCIPLE 8: MANAGEMENT OF DRUG DEPENDENCE TREATMENT SERVICES

UNODC (2008). Treatnet Training Package. Volume D: Administrative Toolkit. Vienna
http://www.unodc.org/treatment/en/UNODC_documents.html

UNODC (2003). Drug abuse treatment and rehabilitation . A practical planning and implementation guide. Vienna
http://www.unodc.org/treatment/en/UNODC_documents.html

UNODC(2003). Investing in drug abuse treatment . A discussion paper for policy makers. Vienna. http://www.unodc.org/treatment/en/UNODC_documents.html

PRINCIPLE 9: TREATMENT SYSTEMS: POLICY DEVELOPMENT, STRATEGIC PLANNING AND COORDINATION OF SERVICES

WHO (2001) The World health report: 2001: Mental health: new understanding, new hope.

WHO Expert Committee on Drug Dependence: twenty-eighth report. WHO technical report series; 836. WHO, 1993.

Magura S, Rosenblum A (2001). Leaving methadone treatment: lessons learned, lessons forgotten, lessons ignored. *Mt Sinai J Med* 68(1):62-74.

Masson CL, Barnett PG, Sees KL, Delucchi KL, Rosen A, Wong W, Hall SM (2004). Cost and cost-effectiveness of standard methadone maintenance treatment compared to enriched 180-day methadone detoxification. *Addiction* 99(6):718-26.

UNODC (2003). Drug abuse treatment and rehabilitation . A practical planning and implementation guide.