EVIDENCE-BASED HIV/AIDS PREVENTION

In the recent past, HIV/AIDS has been recognised as a special social issue due to its global impact and due to the fact that concrete measures are available now to reduce its impact. HIV/AIDS in Asia is currently being transmitted mainly through injecting drug use as well as through sexual relationships. Effective measures have been documented for the prevention of the transmission of HIV/AIDS. Some of the evidence supporting the implementation and scale-up of these preventive measures are reviewed herein. The Asian Harm Reduction Network (AHRN) is committed to advocating for and supporting such measures. Yet, although access to proper information is a necessary facet of prevention, it remains insufficient. Accessing preventive services is critical to reducing the transmission of HIV/AIDS.

As such, AHRN is among a myriad of local, regional and international organisations which have committed themselves to preventing the spread of HIV/AIDS. Declarations, statements, and papers have been published which endorse evidence-based preventive measures.

(1) ACC-approved United Nations System Position Paper [1]  
"[This position paper] draws on research findings to recommend evidence-based practice, to provide general guidance, and to indicate some programming principles for the prevention of drug abuse and HIV/AIDS. [...] A comprehensive package of interventions for HIV prevention [...] could include: AIDS education, life skills training, condom distribution, voluntary and confidential counseling and HIV testing, access to clean needles and syringes, bleach materials, and referral to a variety of treatment options."

(2) Commission on Narcotic Drugs Resolution E/CN.7/2002/L.3/Rev.1 [2] "calls upon UNODC to continue to cooperate with the Joint United Nations Programme (UNAIDS) and other relevant United Nations entities in introducing and strengthening programmes to address HIV/AIDS."

(3) UNAIDS Fact Sheet – HIV Prevention [3]  
"Comprehensive prevention involves all the strategies required to prevent transmission of HIV. These include AIDS education; behaviour change programmes for young people and other populations at higher risk of HIV exposure; promotion of male and female condoms, along with abstinence, being safer through fidelity and reducing the number of partners; voluntary counseling and testing; prevention of mother-to-child HIV transmission; preventing and treating sexually transmitted infections; blood safety, prevention of transmission in health care settings; community education and changes in laws and policies to counter stigma; vulnerability reduction through social, legal and economic change; and harm reduction programmes for injecting drug users."

"Condoms are universally recognised as one of the most effective ways to prevent HIV and other sexually transmitted infections. Condom programming is an integral component of a range of HIV prevention strategies that includes informed, responsible and safer sexual behaviour through voluntary abstinence, delayed age of onset of sexual activity, fidelity, and condom use."

"Recognising that effective prevention, care and treatment strategies will require behavioural changes and increased availability of and nondiscriminatory access to, inter alia, vaccines, condoms, microbicides, lubricants, sterile injecting equipment, drugs including anti-retroviral therapy, diagnostics and related technologies as well as increased research and development."

(6) UNODC/UNAIDS Mission Statement [6]  
To prevent the spread of HIV: To provide care and support for those infected and affected by the disease; To reduce the vulnerability of individuals and communities to HIV/AIDS; To alleviate the socioeconomic and human impact of the epidemic.

Provision of substitution maintenance therapy of opioid dependence is an effective HIV/AIDS prevention strategy that should be considered for implementation – as soon as possible – for IDUs with opioid dependence in communities at risk of HIV/AIDS epidemics.

The Hippocratic Oath ensures that certified medical practitioners will abide by a code of conduct which forces them to place human life above political, economic or even moral imperatives. More specifically, doctors must "respect the hard-won scientific gains" and "apply, for the benefit of the sick, all measures which are required" with a focus on prevention since "prevention is preferable to a cure" [8]. Other declarations, such as the Declaration of Human Rights guarantees the right to health to all human beings irrespective of ethnicity, religion, gender or sexual orientation. The Alma Ata was also designed to ensure this fundamental human right. Each of these commitments is echoed in various documents published by the United Nations. The sheer volume of scientific evidence supporting condom distribution, needle and syringe exchange programmes (NSEPs), outreach, pharmacotherapy and other evidence-based prevention services
demonstrates that quality standards are implemented in the vast majority of programmes.

COMPREHENSIVE INTERVENTIONS:
In recent years, the international response to HIV/AIDS has made considerable progress. More services have been made available to various risk groups to minimise its transmission while maximising the breadth and the comprehensiveness of services under the general label of a ‘comprehensive HIV/AIDS prevention and care model’. Dr. Piot himself has recognised the complimentary nature of drug policy approaches which include harm reduction: “we have succeeded in overcoming some of the past disagreements, such as drug demand reduction and harm reduction being conflicting approaches. We now agree that they are complementary and mutually supportive approaches, providing a continuum of options”[19].

As such, prevention services should always be part of a “comprehensive HIV prevention model to prevent the further spread of HIV among injecting drug users (IDUs)”[18] and other drug users as well as high-risk marginalised groups, wherein “other components include […] community-based outreach, […] a range of drug dependence treatment options, condom promotion and access to HIV testing and counseling, all within the context of a rights-based approach, in accordance with the United Nations General Assembly Special Session (UNGASS) on HIV/AIDS held on 25–27 June 2001”[18]. Other components of a comprehensive harm reduction approach should include drop in centres, peer education, provision of information, education and communications (IEC) materials, anti-retroviral treatment (ART), social reintegration schemes, follow-up and after care.

In the words of Dr. Piot, “we have to reach out […] and engage [vulnerable groups] in a comprehensive package of prevention interventions, to ensure that they know how to protect themselves from HIV infection and have access to safe equipment”[12]. At the XV IAC held in Bangkok in 2004, UNAIDS helped to produce an important document which clearly states that “the main barriers to effective control of HIV/AIDS in this population [injecting drug users] are marginalisation, criminalisation and repressive policies that may inadvertently increase HIV [transmission]”[19].

HARM REDUCTION:
One mechanism to overcome some of the barriers and prevent the spread of HIV/AIDS is through harm reduction. This strategy entails a hierarchy of goals which mentions that the “means to achieve specific [harm reduction] goals [are] an encouragement for the drug user to stop using illicit drugs; an encouragement for the drug users to stop injecting illicit drugs; ensuring that the drug user does not share any of their injecting equipment, especially needles and syringes, with any other person; lastly, if sharing does occur the injecting equipment must be disinfected between each use”[24]. This hierarchy does not include any reference and/or inference to decriminalisation or legalisation. On the contrary, the ultimate reduction in drug related harms, as shown above, would come from the cessation of drug use.

It is crucial to understand that HIV/AIDS is spreading from identified vulnerable high risk groups to the general population: “HIV transmission through sharing of non-sterile injection equipment is augmented by sexual transmission both among IDUs and between IDUs and their sex partners. Hence, harm reduction carries significant HIV preventive potential for both IDUs and the general population”[21]. “in many countries of the [Asian] region, HIV transmission first began among populations with high-risk behaviours and, in several countries, this was followed by transmission in the general population”[20].

This is especially relevant in correctional settings where: “the high degree of mobility between prison and community means that communicable diseases and related illnesses transmitted or exacerbated in prison do not remain there. When people living with HIV and hepatitis C virus (HCV) are released from incarceration, prison health issues necessarily become community health issues”[20]. In UNAIDS’ words, “the assumption that the epidemic would remain contained to marginalised groups, such as injecting drug users, is turning out to be the worst sort of wishful thinking. An explosive rate of growth is having its inevitable consequence of population-wide spread”[20].

The scientific literature indicates an overwhelming amount of evidence, while the need for harm reduction is acute. UNODC’s own report states that “harm reduction approaches have not been implemented to any significant degree in the [South East Asian] region. However, those few cases in which they have been tried, such as in small-scale pilot projects, have found them to be effective in slowing, stabilising and reversing the spread of HIV among IDUs and their sexual partners”[20]. As such, AHRN feels that harm reduction within the Asian context should be a combined emergency and development response which address both the immediate health and social risks as well as the underlying aspects of risk behaviours.

NEEDLE AND SYRINGE EXCHANGE PROGRAMMES:
“Throughout the industrialised world and in many developing countries, the evidence shows that promoting easy, safe and consistent access to sterile injecting equipment for a high proportion of all injectors cuts the transmission of blood-borne viruses such as HIV”[21]; “this evidence base reveals that there are interventions that definitely work – such as needle and syringe programmes”[21]; “needle exchange programmes have proven to be an effective harm-reduction measure that reduces needle sharing, and therefore the risk of HIV and HCV transmission”[22]; “several reviews of the effectiveness of syringe and needle exchange programmes have shown reductions in needle risk behaviours and HIV transmission and no evidence of increase into injecting drug use or other public health dangers in the communities served”[21].

“A global review of needle and syringe exchange programmes implemented between 1993 and 1998 in 29 cities has shown that the HIV prevalence rate among IDUs decreased by an average of 58 per cent per year while the number of users did not increase. By contrast, in 52 cities, where similar harm reduction programmes did not exist, the HIV prevalence rate increased by almost 6 per cent annually”[21].

Even in terms of cost-effectiveness, this service has been demonstrated to be viable: “a recent report from Australia has found that between 1990 and 2000 nearly (Aus) $150 million had been invested in NSEPs. This level of investment and return over 10 years has resulted in: an estimated 25,000 cases of HIV being avoided; an estimated 21,000 cases of hepatitis C being avoided; an estimated saving of over 5,000 lives by 2010; an investment of $150
The efficacy of pharmacotherapy has also been scientifically demonstrated and time and time again. “Substitution maintenance therapy is one of the most effective treatment options for opioid dependence. [...] Provision of substitution maintenance therapy – guided by research evidence and supported by adequate evaluation, training and accreditation – should be considered as an important treatment option in communities with a high prevalence of opioid dependence, particularly those in which opioid injection places IDUs at risk of transmission of HIV and other blood-borne viruses” [9]; “many large-magnitude studies have shown that patients participating in drug substitution treatment such as methadone maintenance, [...] decrease their drug consumption significantly” [9]; “pharmacotherapy is associated with reduced HIV and viral hepatitis transmission rates. Worldwide, an increasing number of correctional systems are offering methadone maintenance therapy (MMT) to prisoners. Evaluations of MMT programmes in prisons have indicated positive results” [9].

Also, “a series of large cohort studies have been conducted each decade for the past three decades [...] Overall, these large cohort studies consistently report a significant impact of treatment on behaviour related to injecting drug use. It is clear that for some individuals injecting is eliminated, but for many the impact of the treatment is to reduce the frequency of the behaviour and to reduce the rate of sharing behaviour and thereby reduce the risk of transmission of HIV” [9].

Furthermore, “there is scientific evidence that substitution maintenance therapy is a cost-effective treatment modality with cost-effectiveness measures comparing favourably with other health care interventions, such as medical therapy for severe hypertension or for HIV/AIDS” [9]; “investment in drug-dependence treatment, particularly substitution maintenance treatment, was cost-effective in comparison with the costs of later treatment of HIV/AIDS and related diseases” [9]. Furthermore, based on the review of public (crime) and, health (transmission of HIV/AIDS) expenditures, and compared to different treatment options [9], Hunt concludes that “methadone and other replacement therapies work and are cost-effective for retaining dependent heroin users in treatment, reducing illicit drug use and crime” [9].

CONDOMS:

Condoms have long been known to be a safe and, effective measure to prevent the transmission of HIV/AIDS and other STIs. “Condom use needs to be promoted as part of a comprehensive prevention agenda. An inter-related STI/HIV prevention package includes advocacy, educating the public on STIs/HIV, promoting responsible and safer sexual behaviours, empowerment of women, improving attitudes toward and utilising behaviour change communication to increase condom use among men and women, providing voluntary counseling and testing services and appropriate referral for treatment and care” [9].

“Where condoms are made available in prisons, [...] the evaluation of such programmes indicated that inmates use [automatic distribution] machines. Studies have revealed [...] the reported level of safer sex was high among those who had sex and there was no evidence of any unintended consequences as a result of condoms being available” [9].

Furthermore, “the NIH condom report shows that male latex condoms are effective interventions that help to prevent the spread of STIs and unintended pregnancy. They must be the mainstay of our dual protection strategies both in the United States and globally. Any attempt to undermine their use will have a negative and long lasting public health impact” [9].

More specifically, “the published data documenting effectiveness of the male condom were strongest for HIV. [...] Based on a meta-analysis of published studies ‘always’ users of the male condom significantly reduced the risk of HIV infection in men and women. These data provided strong evidence for the effectiveness of condoms in preventing HIV transmission in both men and women who engage in vaginal intercourse” [9].

In regards to the female condom, this device has been found, through "the largest and most comprehensive study of effectiveness," to be “impermeable to various sexually transmitted infections (STIs), including HIV. In theory, the female condom should protect against STIs in human contact as well, but more research is needed to confirm its effectiveness” [9]. In this case, AHRN supports more research to measure the effectiveness of the female condom in reducing transmission of HIV/AIDS.

OUTREACH:

A recent WHO literature review concludes that “outreach is an effective strategy for reaching hard-to-reach, hidden populations of IDUs and provides the means for enabling IDUs to reduce their risk behaviours; a significant proportion of IDUs receiving outreach-based interventions reduce their risk behaviours – drug using, needle and sexual practices and increase their protective behaviours; changes in behaviours have been found to be associated with lower rates of HIV infection” [9].
Furthermore, the WHO's initiative to provide evidence for outreach services is endorsed by UNODC and UNAIDS as well: “both peer-driven interventions and traditional outreach models […] produced significant reductions in HIV risk behaviours. IDUs who were approached by their peers reported that they shared syringes and other injection paraphernalia less often and injected drugs substantially less often than did IDUs recruited through traditional outreach” [4].

CONCLUSION:

The Asian Harm Reduction Network’s review provides but a glimpse of the available evidence in support of HIV/AIDS prevention services. Some have been implemented on a large scale while others face greater obstacles. Yet the majority of these services remain controversial even when ample scientific evidence is provided to support their design, implementation and scale-up. As such, it is AHRN’s position that health care policies should be driven by evidence, scientific studies and facts. Services must be available and accessible for those who need them.

References: