WHO Initiative on HIV/AIDS and Sexually Transmitted Infections (HSI)

DRUG USE AND HIV/AIDS

Summary of Papers Given in Track D of the XIIth International AIDS Conference

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Introduction

This summary provides a brief description of selected issues and papers on the subject of drug use and HIV/AIDS covered during the conference and relevant satellite meetings. The summary focuses on presentations made in Track D (Social Science) of the main conference, although reference is made to certain papers appearing in other tracks.

Overview

Past International AIDS Conferences have been criticised for paying scant attention to the issue of HIV/AIDS associated with injecting and other drug use. This conference has done little to redress the imbalance and to "break the silence" on a critical component of the HIV/AIDS pandemic. Whereas it may be argued that the African epidemic should be at the heart of the Durban meeting, with a focus on heterosexual and mother-to-child transmission as the overwhelmingly predominant modes of HIV spread, ignoring injecting drug use (IDU) as an issue will do little to help in the development of a comprehensive and effective global response.

Most papers on IDU were relegated to posters, poster presentations and a few oral abstract sessions. None addressed the issue of IDU in Africa. However, a meeting of the Global Research Network on HIV Prevention in Drug-Using Populations, the week preceding the conference, enabled a group of 80 international experts to present and discuss recent research findings on this issue, including a special session dedicated to drug use and HIV/AIDS in sub-Saharan Africa. Some of the data presented during this meeting were then presented during a number of Ahang-Fundani Workshop sessions at the main conference.

Whereas some new, important and interesting findings were reported during the conference, much of the most important and innovative research, and many of the critical research and programming questions, were not covered in the conference. The over-representation of USA domestic research at the conference reflects the imbalance of available research resources existing between developed (particularly the USA) and developing countries. This continuing imbalance is happening at a time when explosive HIV epidemics among injecting drug users are occurring in countries with almost no research capacity or reliable data. This observation raises the question of how developed countries may invest in developing countries to strengthen local research capacity.

IDU was only mentioned briefly in two of the plenary sessions. Most disturbing was the failure of Professor Roy Anderson to include an example on IDU interventions in his description of HIV control success stories during the opening plenary session on Monday. There is compelling evidence that a range of interventions targeting IDUs are highly effective and that HIV epidemics among IDUs can be prevented and controlled. Not a word was said about what may well be some of the most cost-effective approaches to HIV prevention across any populations.

Epidemiology of Drug Injecting and HIV

Since the first HIV epidemic among injecting drug users (IDUs) occurred in New York at the end of the 1970s,

there has been rapid diffusion of both IDU and associated HIV infection across all continents. By the end of 1999 114 countries and territories had reported HIV associated with IDU, compared with only 52 in 1992. The most affected regions to date have been Southern and Eastern Europe, Central Asia, North America, East Asia and Latin America. Explosive epidemics of HIV have occurred among injecting drug users in each of these regions. A number of posters provided new data on the diffusion of HIV epidemics among injecting drug users, confirming the emergence and importance of this mode of HIV transmission in such regions as the Newly Independent States (MoPeC2431), Latin America (MoPeC2387) and East Asia (MoPeC2400). There was a noticeable absence of papers from the Eastern Mediterranean region, where IDU is considered to be a major mode of HIV transmission. A presentation by M. Sweat described the wide range of HIV risk behaviours practised by IDUs in New Delhi, India, contributing to high HIV rates (WeOrD573).

Until recently it was thought that Africa had been spared from drug injecting. However, Africa is increasingly being used for the trafficking of heroin and cocaine from producer countries to drug markets in Europe and North America. Where heroin and cocaine trafficking occurs it is expected drug injecting will follow. The first well documented study describing drug injecting in sub-Saharan Africa was presented during the 3rd Annual Global Research Network on HIV Prevention in Drug-Using Populations, a satellite meting to the main conference. This World Health Organization-supported study in Nigeria was completed in June 2000 by Professor Moruf Adelekan, from the University of Ilorin. He reported that 20% of 400 drug users interviewed in Lagos had a history of drug injecting. Another study, just three years earlier, had failed to identify any drug injectors. Of the drug injectors, 63% reported injecting heroin and 19% cocaine. A small number of IDUs reported injecting alcohol. Injecting was often initiated by a friend (39%) or a partner (10%), and 35% of the IDUs had initiated at least one other person into drug injecting in the previous 6 months. Equipment sharing rates were relatively low, with 12% of injectors reporting receptive sharing and 15% distributive sharing. Most female drug users (both IDUs and non-IDUs) admitted to being commercial sex workers. Of the 175 blood samples tested at the time of reporting, 9% of ever-injectors were HIV positive, as compared with a national average of 5.4%. The highest HIV rates were among female non-IDUs, with 35.5% being infected. This is likely to reflect high HIV prevalence among female sex workers in Lagos. It also alerts to the interrelationship between sex work and illicit drug use and potential overlap between these two HIV epidemics. The relatively low HIV prevalence among male injectors in Lagos provides a window of opportunity to prevent further spread among injectors.

Nigeria is not alone on the continent. IDU has already been described as a major problem in Mauritius and there are anecdotal reports of increasing drug injecting in Kenya and South Africa, to name just a few countries. The lack of data from the rest of Africa, and the potential for rapidly emergent HIV epidemics among IDUs, highlights the urgent need to investigate IDU elsewhere on the continent.

Fabio Mesquita reported on trends in HIV risk practices and prevalence in Santos, Brazil (WeOrC499), based on three cross-sectional studies undertaken in 1991/92, 1994/96 and 1999. He reported that 21% of AIDS cases in Brazil are among IDUs. HIV prevalence among IDUs fell from 63% in 1992 to 42% in 1999. At the same time, crack cocaine use increased from 11% in 1992 to 67% in 1999, and frequent drug injection decreased from 42% in 1992 to 15% in 1999. Sexual risk behaviour remained stable during this period. Whereas harm reduction programmes were established in the latter half of the 1990s, only 10% had been in contact with the existing needle-syringe or outreach services. He concluded that the transition from cocaine injecting to crack smoking had been the main factor in reversing the HIV epidemic. Furthermore, he reported that the promotion of crack by drug dealers had a greater impact on effecting this change than any of the public health interventions provided. Noting the association of crack smoking with increased sexual transmission of HIV in the USA it will be important to monitor these changes closely.

High levels of cocaine injecting pose particular challenges for HIV prevention for a number of reasons. Cocaine injectors inject more frequently than heroin injectors, and therefore require greater supplies of sterile injecting equipment. When sterile equipment is not available (such as when needle-syringe programmes implement quotas on supplies for clients) the risk of sharing is high. Furthermore, methadone and other opioid agonist pharmacotherapy are not effective in reducing cocaine use for those individuals who do not have an opioid dependence. This is illustrated in Catherine Hankins' paper in which she reported the continuing high HIV incidence and needle sharing practices of long-term cocaine injectors in Ottawa and Quebec province, Canada (WeOrC503). However, there is evidence that heroin use is becoming more popular than cocaine among young

and new injectors.

Needle and Syringe Programming

One of the most effective strategies for preventing HIV infection among IDUs is to minimise sharing of injecting equipment by ensuring ready access and utilization of such equipment. Many models of needle-syringe programmes exist, including dedicated needle and syringe exchanges, needle and syringe medical prescription, pharmacy provision, secondary needle and syringe exchange, distribution through drug injecting peers, prison exchange programmes, and vending machine dispensing. The largest number of papers presented at the conference on IDU interventions focused on needle and syringe programmes, addressing such issues as models of service delivery, characteristics of clients, effectiveness of interventions and meeting the needs of specific populations. Papers also reported on the feasibility of implementing such programmes in developing and transitional countries.

The vast majority of papers on needle-syringe programmes came from the USA. This reflects a reality in that country whereby the establishment and funding of such programmes are often only possible if they are presented as pilot or research initiatives, or if research and evaluation are closely tied into funding agreements. During a number of presentations members of the audience, particularly those representing drug user groups and participants from developing countries, expressed their concern and frustration over the large amount of resources being invested in researching needle-syringe programmes in the USA when the evidence was overwhelming concerning their effectiveness.

A number of papers emphasised the need to develop dedicated needle-syringe programmes targeted at specific populations. Nina Grossman, speaking in a Community Mamelang Session (CM11), described the establishment of a women-only needle-syringe exchange programme in San Francisco. It was noted in 1995 that women IDUs had very high incidence rates of HIV, they were poor attenders at existing needle-syringe exchange programmes and they often relied on male partners to obtain their injecting equipment. IDUs attending the women-only needle-syringe exchange programme reported that the service provided them with an opportunity to access a less aggressive service with greater anonymity, enabling them to become less reliant on their male partners and to adopt less risky injecting practices.

Carol Fuller presented a paper on the acquisition of syringes by young and recent initiates (aged 15-30) to injection drug use in Baltimore, USA (WeOrD575). Of the 226 IDUs participating in the study, 70% used needle/drug dealers as their source of obtaining needles and syringes, followed by needle-syringe exchange programmes or pharmacies (35%) and then friends, relatives or sex partners (21%). The paper raised the question of whether sources other than needle-syringe exchange or pharmacies were safe with regard to ensuring sterile equipment. Despite the presence of readily accessible needle-syringe exchange programmes in Baltimore, 65% of the sample used potentially unsafe sources. It was recommended that specific needle-syringe programmes be established for young and new initiate injectors to try to increase utilization of safer needle and syringe sources. The presentation did not address the potentially important role of secondary needle-syringe exchange to access particularly hard-to-reach injectors, which might include young injectors.

The role of secondary needle-syringe exchanges in San Francisco was discussed in a poster exhibited by Brian Edlin (MoPpD1125). Secondary needle-syringe exchange is the distribution of injecting equipment by IDUs attending needle-syringe exchanges to other IDUs who do not attend exchanges. He reports that such exchanges are naturally occurring, using existing IDU networks, increasing reach to the highest risk IDUs and providing opportunities for other peer interventions. This supports earlier findings from Australia and Europe demonstrating that IDUs are highly motivated to limit HIV spread within their drug using networks, and to protect both themselves and their peers, by providing injecting equipment and HIV risk-reduction information to their hardest-to-reach and most vulnerable IDU peers.

A poster presentation by J. Rich (TuPpD1271) described a physician syringe prescription programme in Rhode Island, USA, as a strategy for increasing needle and syringe access for IDUs, complementing the existing needle-syringe exchange programme.

The expansion of needle-syringe programmes globally has resulted in an increasing number of papers being presented from developing and transitional countries. Waleska Caiaffa reported on a study of 287 IDUs in

Brazil, investigating differences between attenders and non-attenders of needle-syringe programmes. She concluded that such programmes were an important source of sterile injecting equipment for IDUs.

Substitution Pharmacotherapy

Methadone is one of the most researched of all treatment approaches for opioid dependence. It has been demonstrated to be effective for reducing HIV risk practices (such as injecting frequency), HIV incidence and prevalence, and increasing treatment retention. Methadone programmes have been expanded in many countries as an HIV prevention strategy. Recently research has focussed on cost-effectiveness of programmes, expanding reach and access of such services (including to specific populations), comparing different models of service delivery, examining the needs of specific populations, evaluating the effectiveness and role of different opioid agonist pharmacotherapies (such as buprenorphine, LAAM and morphine sulphate) and examining the feasibility and effectiveness of such programmes in developing and transitional countries. Some of these research themes were present in the conference.

Raoul Coutinho presented a poster on the impact of harm reduction-based methadone programmes on HIV risk behaviours and incidence in Amsterdam (TuPpC1249). Such programmes are low-threshold and tolerate continued use of illicit drugs and irregular dosing attendance. He reported that lower methadone doses were associated with higher rates of needle borrowing and inconsistent condom use. Those increasing their methadone dose demonstrated a reduction in injecting frequency and lower HIV incidence. However, those with irregular treatment attendance had higher HIV incidence rates.

A poster by I. Kuo compared needle exchange attenders who were referred to a mobile LAAM treatment programme versus those referred to a hospital-based methadone maintenance programme in Baltimore, USA. Both programmes demonstrated comparable outcomes with regard to both programme entry and treatment retention, thus broadening the range of treatments available for opioid-dependent clients.

Results from the highly controversial Swiss medical trials on the prescription of heroin were presented in a poster by N. Stutzmann (TuPeD3563). The programme was established to treat severely dependent heroin users who had failed in other drug treatment and had significant health or social problems. It was reported that the programme has been effective in reducing illicit heroin and cocaine use and needle sharing and that it was associated with a significant reduction in HIV incidence and drug related deaths.

The establishment of substitution programmes in various developing and transitional countries was described in a range of papers. Suresh Kumar (MoPpD1052) in his poster presentation reported on the implementation of a community-based buprenorphine treatment programme for heroin injectors in Chennai (Madras), India, as part of an Indian five-city project. Whereas the project demonstrates the feasibility of such HIV prevention interventions in such developing countries as India, we are reminded that small-scale and pilot projects will do little to prevent the progression of the epidemic. Particular attention needs to be given to scaling up projects to ensure that a minimum number of IDUs are reached to impact on the epidemic.

Counselling and Outreach

Whereas many of the programmes targeting IDUs described during the conference incorporated counselling as an intervention component, few reported specifically on the effectiveness of counselling interventions. R.R. Robles described a brief intervention model being used with IDUs in Puerto Rico to reduce HIV risk practices (WeOrD574). The model is based on the Prochaska and Di Clemente Stages of Change model and motivational interviewing strategies. She reported that IDUs receiving the intervention were more likely to enter drug treatment, reduce their injecting frequency and reduce their needle sharing.

Outreach, particularly incorporating peer and community-based approaches, is also a common component of many programmes targeting IDUs. T. Vongchak reported on the role of peer and community-based outreach to increase help-seeking behaviour and entry into drug treatment of IDUs in Northern Thailand (WeOrE645). Diana Rossi reported on the recruitment of drug users as outreach workers for accessing hidden and vulnerable IDUs in Buenos Aires, Argentina (WeOrE646).

Sexual Behaviour of Injecting Drug Users

In the past little attention has been given to the sexual risk behaviours of IDUs. Interventions have largely focused on reducing injecting risks. As these interventions have become increasingly successful in reducing HIV risk behaviour and transmission associated with injecting, sexual transmission of HIV in drug injecting populations has emerged as a critical issue.

Salaam Semann *et al* (MoPpD1126) poster presentation reported on a meta-analysis of 33 US-based behavioural and social HIV risk reduction interventions targeting IDUs. The study reported that these interventions had a significant but modest effect on reducing HIV sexual risk practices among IDUs. However, little new has been learnt since 1995 and greater sexual risk reduction is required in order to stop the epidemic. It is apparent that new interventions and approaches targeting sexual behaviour need to be developed.

Don Des Jarlais reported on the sexual behaviour of IDUs in two poster presentations, one that examined the role of syringe exchange and HIV counselling and testing in the declining HIV epidemic among IDUs in New York City between 1990-1997 (MoPpD1124) and another comparing IDU epidemics in Bangkok, New York and Santos (Brazil) (MoPpD1053). Whereas HIV negative IDUs were reluctant to change their sexual behaviours, HIV positive IDUs showed very significant reductions in sexual risk practices, which were protective for their sexual partners. These findings suggest that interventions should be targeted at HIV positive injecting drug users and that they should be mobilized to promote sexual risk reduction among their HIV negative injecting peers.

Alex Kral reported on a study investigating the role of sexual transmission of HIV among IDUs in San Francisco during the period 1986 to 1998 (WeOrC501). Despite limitations in the study methodology he concluded that HIV seroconversion was primarily associated with sexual risk behaviours, and that IDU interventions should focus on sexual risk reduction.

In a study presented by Danielle Ompad (WeOrC502) on HIV risk behaviours of female bisexual IDUs in Baltimore, USA, it was reported they had multiple risk factors for both HIV and other sexually transmitted infections, which require further investigation.

The issue of oral sexual transmission of HIV associated with unsafe crack smoking was raised during the conference in a paper presented by J. Wallace on HIV prevention outreach for street-walking sex workers in New York City (TuOrD41). It was recommended that risk reduction education be provided on safer crack smoking to reduce oral lesions that might facilitate oral transmission of HIV associated with fellatio.

Sexual Risk Behaviour Among Non-Injecting Drug Users

The interrelationship between sexual behaviour and non-injecting drug use is complex, poorly understood and little studied. Increasing interest in this area was reflected in a number of papers presented at the conference.

Neaigus, in a poster presentation (TuPpC1247), reported on the sexual behaviour of non-injecting heroin users in New York City. With an increasing transition from injecting to non-injecting routes of heroin administration in New York (and in a range of other cities in North America and Western Europe), the role of heterosexual transmission of HIV and other STIs is becoming more important. The New York study reported that 54% of women and 49% of male non-injecting heroin users had unprotected vaginal or anal sex, with 19.7% of women and 8.4% of men having unprotected sex with high-risk partners. Those having unprotected sex with high-risk partners in the past 30 days were more likely to be HBVcAb seropositive (43%) than those who did not (22%).

Despite considerable concern about the role of alcohol in influencing sexual behaviour and associated HIV risk practices, particularly in the African context, there was a dearth of papers on this issue. Whereas abstracts were accepted for poster presentations on the use of the WHO Rapid Assessment and Response on Substance Use and Sexual Risk Behaviour Methodology in Slovakia and Zimbabwe, the authors did not present the posters at the meeting. Nevertheless, the the study in Slovakia examined the relationship between alcohol use and sexual behaviour among young male military recruits (WePeD4653). The study in Zimbabwe focused on the influence of alcohol on sexual behaviours of female sex workers and men attending drinking venues (WePeD4661).

Comprehensive Responses

Various studies reported at the conference concluded that very effective programmes can be implemented in

both developed and developing countries to prevent or control HIV infection among drug injectors. Effective programmes include the provision of community-based outreach to drug users, offering HIV prevention education, ensuring access to sterile injecting equipment, expanding drug dependence treatment (including methadone and buprenorphine treatment) and providing voluntary counselling and HIV testing. Various cities that have invested in such programmes, including Sydney and London, have been successful in preventing the epidemic among their drug injectors. In a study by Dr Don Des Jarlais (MoPpD1053) from New York, it was reported that such measures have also been effective in reversing the HIV epidemic among drug injectors in New York (where HIV prevalence fell from 51% in 1990 to 29% in 1997). Over the same period of time HIV prevalence among injecting drug users stabilised at around 30-40% in Bangkok, Thailand. However, Peter Lamptey in his plenary presentation on "Prevention does work!" (WeOr59) stated that we cannot be complacent. Programmes need to have political support, be comprehensive, and implemented on a large scale to reach as many drug injectors as possible. Failure to provide such adequate coverage will do little to contain the epidemic among injecting drug users. In a number of countries where HIV prevalence among drug injectors had been stable for a number of years and where interventions were not implemented early enough or on an adequate scale we are seeing increasing HIV prevalence rates, such as in Thailand, Nepal and Canada.

The studies by Don Des Jarlais clearly demonstrate that IDUs often act responsibly to try to reduce HIV transmission and to protect their drug-using peers and sexual partners. The greatest behaviour changes occurred among HIV positive injecting drug users, with positive injectors in both New York and Santos reporting significant decreases in distributive sharing of injecting equipment (passing on equipment to another IDU after using it).

During the Community Mamelang Session on " Shooting it up – IDUs and needle exchange, keeping it safe!" a presentation was made on SHARAN, a comprehensive community-based programme for IDUs in New Delhi, India, with a highly developed HIV prevention component. The reality of IDUs in New Delhi was described. SHARAN implements a programme based on the principles of harm reduction and "rehabilitation before detoxification". This NGO demonstrates how an impressive comprehensive programme can be established in a very difficult developing country environment with limited resources. Services provided include: buprenorphine maintenance, needle-syringe exchange and disposal programme, condom programming, peer education (including current and ex-drug users, abscess management and other primary health care, support groups for people living with HIV, referral to detoxification and long-term rehabilitation services, detoxification camps, family support groups, and crisis support shelter.