# Structural Intervention, a Strategy to Tackle the Global Challenge of the Dual Epidemics of HIV and Injecting Drug Use

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**ABSTRACT**

*The dual epidemics of human immune deficiency virus (HIV) and injecting drug use are threatening many countries and causing social sufferings worldwide, particularly among poor and marginalized people in developing countries in Eastern Europe, Central, South and Southeast Asia. In many countries in these regions most HIV infections are transmitted through unsafe or risky drugs injecting practices such as the sharing of needles and other injecting equipment. By critically reviewing the existing literatures, this article describes that the dual epidemics of HIV and injecting drug use (IDU) is a global challenge and should be best tackled through structural intervention. HIV structural intervention focuses not merely on biomedical determinant of HIV but also addresses its social determinants i.e. the underlying factors that increase people's vulnerability for HIV infections such as economic inequality, poverty, social exclusion, stigma and discrimination. The existing HIV prevention programs in developing countries, including Indonesia, should be more cognizant to the structural and cultural context hindering people's capabilities to apply safer practices. Additionally, HIV and AIDS prevention programs should be complemented with broader community development to create enabling environment for vulnerable people to protect themselves and others from HIV infection.*

***Keywords:*** *HIV, IDU, dual epidemics, vulnerabilities, harm reduction, HIV structural intervention*

Human immune deficiency virus (HIV) is transmitted not just through unsafe sexual practices (having multiple sexual partners, low levels of condom use) but also through unsafe drugs injecting practices i.e. the sharing of unsterile needles or other injecting paraphernalia. Numerous countries across the world, especially poor and developing countries, are now suffering from severe impacts of the increased HIV epidemics from both unsafe sexual and unsafe drugs injecting practices.

In contrast to Sub-Saharan Africa in which the major driver of HIV epidemics is unsafe sexual practices, the current surveillance and epidemiological data indicate that most HIV and AIDS new cases in developing countries in Eastern Europe, Central, South and Southeast Asia are caused by risky drugs injecting practices (UNAIDS 2008). In numerous countries in these regions HIV and injecting drug use (IDU) are considered as dual or twin epidemics. The large and intensive intra-national and trans-national drug trafficking, the increased number of people injecting drugs and are employing risky injecting practices in many countries in these regions since mid 1990s are major drivers of HIV epidemics (UNODC 2007). Moreover, rapid political and economic transition in abundant countries in these regions that caused political turbulence, escalated violence, economic deprivation and social exclusion should be considered as the underlying factors that produce vulnerabilities and susceptibilities for risky drug use and HIV infections, particularly among marginalized or poor people (Friedman et al. 2009, UNAIDS 2008, UNODC 2007, Rhodes et al. 2005). Following Tim Rhodes's framework of HIV risk environment 'as the space, social or physical, in which a variety of factors exogenous to the individual interact to increase vulnerability to HIV-related harms' (Rhodes 2002, 1026) the above distal or up-stream factors should be taken into account if we are to prevent the spread of HIV.

## Global Challenge

The Joint United Nation Program on AIDS (UNAIDS) stated that that HIV epidemic should be considered as a global challenge (UNAIDS 2008) since the spread of HIV transcends the geographic and nation-state borders. In 2008 there were more than 35 million people living with HIV and AIDS worldwide (UNAIDS 2008). In fact, no countries are immune from HIV epidemic. UNAIDS also maintained that poor and marginalized people in both developed and developing world are the most vulnerable for HIV infections. Poor and marginalized people generally have lower access to HIV prevention and care programs and many of them are forced to be engaged in HIV-risk practices such as risky sexual and risky drugs injecting practices (Rhodes 2009)

In addition, the United Nations Office on Drugs and Crime (UNODC) estimated that the annual global prevalence of illicit drug consumption is about five percent of the world population (between the ages of 15 and 64) or about 200 million people (UNODC 2007). Though most people who use drugs do not end up as dependent or problematic drug users, UNODC reported that there were approximately 13.2 million problematic injecting drug users all over the world and over three-quarters of these live in developing and transitional countries (UNODC 2007).

Asia is home to 14 to 16 million regular drug users. At least six million are problematic injecting drug users and, of these, more than two-thirds are in three countries i.e. China, India and Indonesia (Devaney et al. 2005, Reid & Costigan 2002, UNAIDS 2007). Studies have indicated that if no sufficient preventive responses are taken, transitional and developing countries in Eastern Europe, Central, South and Southeast Asian, including Indonesia, are likely to suffer more from severe health and socio-economic consequences of the multiple epidemics of risky drug use, HIV and other blood-borne viral infections (Deany 2000, Devaney et al. 2006, Grund 2005, Lorete 2005, Reid & Costigan 2002, UNAIDS 2007).

It is noteworthy that abundant studies maintained that people from low socio-economic background and living in urban poor areas are generally more vulnerable to involvement in drug use, drug related risk practices and HIV-risk practices than people from higher socio-economic background (Fishbein et al. 2006, Hunt 2006, Rivers et al. 2006, Spooner et al. 2001). Poor and marginalized people are also more likely to suffer from drug-related health, social and legal problems (Bourgois 2003, Hunt 2006, Sanders 2006, Rivers et al. 2006).

Additionally, drug use among poor people is closely related to multiple risk behaviors such as engagement in violence, crime and anti social behaviors as well as early and risky sexual and injecting practices that render them vulnerable for HIV infections (Hunt 2006, Mayock 2004, Nasir 2006, Paglia & Room 1999, Rhodes 2009, Seddon 2006). These phenomena can be found among poor and marginalized people even in developed countries such as among working class people and among poor African-American and Latinos/Latinas in many cities in the US (Anderson 1999, Ciccarone 2009, Barker 2005, Bourgois 2003) or among indigenous and immigrants in U.K (Sanders 2006) and Australia (Maher 2002, Moore 2004). However, rather than causal and mechanistic, the relationship between poor neighborhood (defined by overlapping deprivation i.e. poverty, stark economic inequality, social exclusion, over-crowdedness, high levels of unemployment and underemployment as well as low levels of educational attainment) with drug and HIV-related risk practices is complex (Barker 2005, Sanders 2006). It is important to address that there are varying levels of

engagement in HIV-risk practices among young people within these kinds of environments (Hunt 2006, Sanders 2006).

It is noteworthy that unsafe injecting practices are rampant particularly among poor drug injectors. It is also worth mentioning that most injecting drug users are sexually active and many of them may engage in unsafe sexual practices and therefore enhance the possibility to spread HIV and other sexually transmitted infections (Deany 2000, Hunt 2006, Grund 2005, Pisani et al. 2004, Reid and Costigan 2002, Rhodes et al. 2005, UNAIDS 2007).

Studies maintained that though there are in increased number of countries that initiate harm reduction programs (a public health approach to minimize risk of HIV and other infections by providing clean needles, injecting equipments and condoms for drug injectors), the coverage of these programs are still too limited (UNAIDS 2008, UNODC 2007). The individualized nature of these harm reductions programs that tend to overlook the underlying factors of vulnerabilities for HIV infection also limited the efficacy of the programs (Rhodes 2009, Rhodes et al. 2005, Rhodes et al. 2007).

## HIV and Drug Use Epidemics In Indonesia

The Indonesian Ministry of Health (2009) states that as of March 2009 there were 16,964 people living with HIV in the country; more than half (57 percent) aged between 20 and 29 years old. Transmission related to risky injecting practices accounted for 55 percent; heterosexual transmission accounted for 40 percent; and mother to child transmission for three percent. Risky drug injection and unsafe sexual practices are the main routes of HIV infection in Indonesia (MOH 2008). The reported number of people living with HIV and AIDS in Indonesia are likely to be an underestimate due to the poor quality of surveillance and because of the many high-risk situations for HIV infections in the country. UNAIDS (2008) therefore estimated that there were 150,000 to 200,000 people living with HIV and AIDS in Indonesia. Furthermore, UNAIDS (2005) identified a shift of HIV epidemics in Indonesia from 'low prevalence' to 'concentrated prevalence' implying the HIV prevalence is less than one percent in the general population but more than five percent among vulnerable groups such as injecting drug users, sex workers and their clients as well as men who have sex with men (MSM).

With regard to drug use, a national survey conducted by the Indonesian National Narcotics Board (INNB) in 2004 found that approximately 13 million people (six percent of the total population) had consumed illicit drugs at least once in their life time, and 2.2 million (one percent) used drugs on a regular basis (INNB 2005). The vast majority of those who use drugs in Indonesia are young people, aged

between 15 to 24 years old (INNB 2005). Furthermore, it was recently estimated there are between 145.000 and 170,000 drug injectors in Indonesia (Pisani 2006). Other estimates have put the number of drug injectors in Indonesia at between 600,000 and one million (Reid and Costigan 2002). Street grade heroin *(putaw)*, crystal methamphetamine *(sabu-sabu)* and benzodiazepines *(koplo)* are the most common substances injected by drug users in Indonesia (Nasir and Rosenthal 2009a, Padmohoedojo 2005, Reid and Costigan 2002). However, some studies indicated that *putaw* is the most popular and the most frequently injected in many cities in the country (Nasir 2005, Padmohoedojo 2005, Pickless 2006, Pisani 2006).

As the trends in other countries, risky injecting practices are also more common among injecting drug users from low socio-economic background in Indonesia (Devaney et al. 2005, Lorete 2005, Nasir 2006, Nasir and Rosenthal 2009a, Pickless 2006, Pisani 2006). It is not surprising there is a rapidly increasing number of injecting drug users from deprived backgrounds who are infected with HIV and the hepatitis C virus (HCV). In 2006, it was estimated that more than half of new HIV cases in Indonesia were linked to risky injecting practices (Mesquita et al. 2007, MOH 2007, UNAIDS 2007). Report from numerous hospitals, clinics and non-government organization from several cities in Indonesian indicated that more and more injecting drug users from poor urban neighborhoods were diagnosed with HIV and hepatitis C infections.

## Brief Overview of Indonesia's Harm Reduction Programs

Recognizing the increasing contribution of risky drug injection to HIV epidemics, in 2003 the Indonesian Government initiated a process that allows the provision of harm reduction programs. The Government has also released the National Strategy for HIV/AIDS Prevention and Care Programs (2003-2008) and the Memorandum of Understanding (MoU) between the National Commission on HIV/AIDS and the National Narcotics Board establishing the political and institutional settings for harm reduction programs in Indonesia. Several of these harm reduction programs, designed to increase drug users' access to clean injecting equipment and condoms, have been implemented in several cities in Indonesia since early 2000.

Harm reduction programs are defined as broad strategies designed to assist at-risk population who are current users of illicit drugs to anticipate and/or avoid high-risk situations for themselves or others (Wodak and Cooney 2005). These interventions are intended particularly to minimize the risk of illicit drug use and prevent HIV and other blood-borne vira infections (Paterson and Panessa 2008). There is significant evidence that harm reduction approaches such as needle and

syringe exchange and methadone maintenance programs are crucial in reducing risks associated with drug use (Bravo et al. 2007, Loxley et al. 2004, Pauly 2008).

Though there were resistances from some politicians and religious leaders, up to 2006, there were 41 non-government organizations (NGOs) providing harm reduction programs in Indonesia. Among these, 16 were organizing needle and syringe exchange programs (Mesquita et al. 2007, MOH 2007). Moreover, beside these NGOs there were 65 public health centres (*Puskesmas*) in the country also conducting harm reduction programs. Mesquita et al. (2007) maintained that although the Indonesian Government and NGOs have provided several basic harm reduction programs, there is urgent need to scale up these programs. Numerous researchers argued that the limited scale of harm reduction in Indonesia and their overemphasis on individualistic behavior change frequently ignore the social context of HIV-risk behaviors in the city which weakens their impact (the Indonesia National AIDS Commission 2008, Nasir 2006a, Nasir 2009, Nasir and Rosenthal 2009a, Nasir and Rosenthal 2009b).

Additionally, the individualized harm reduction programs in many countries including in Indonesia fail to take into account the underlying factors of risky injecting practices among poor drug injectors such as socio-economic deprivation that interact with masculine risk-taking practices as well as legal constraints such as highly punitive narcotic laws (Nasir and Rosenthal 2009a). In Nasir and Rosenthal's study several structural and cultural constraints were eloquently expressed by a poor male injecting drug user in Makassar-Indonesia. He said:

> I may say that the boring life in the *lorong* pushes many of us to end up injecting *putaw* (street grade heroin). It's just like a natural process. You know, most of us are unemployed and of course we're depressed because of nothing meaningful to do. You know, involving in a gang and injecting *putaw* makes us busy and help us to forget our frustration, at least for short period of time during the high.

## The Limitation of Traditional Approach and The Need for HIV Structural Intervention

Though the individualistic paradigm has dominated harm reduction programs related to drug use/injection (Grund 2005, Rhodes et al. 2005), there are growing critiques of 'risk individualization' in public health (Blankenship et al. 2006, Bourgois 2003, Lupton 1999, Lupton and Tulloch 2002, Moore 2004, Nasir 2006, Nasir and Rosenthal 2009b, Petersen 1996). Most argue that individual actions, including an individual's response toward risks, are influenced by the cultural, socio-economic and political contexts. Thus, there is an urgent need to consider structural and cultural constraints such as socio-economic

marginalization and discrimination that limit individual capacity to calculate and manage risk (Moore 2004). Risk behaviors should be understood as being significantly shaped and situated within particular settings and contexts (Rhodes 2002).

Rhodes (2002) argues that certain behaviors communicate certain meanings and occur in a certain socio-economic, political and legal context. This can be applied to better understanding the reasons and the underlying factors that push many drug injectors to undertake risky drug use/injecting practices (such as poly-drug use as well as the sharing of needle and other injecting equipments). Parallel to Rhodes's argument, Moore (2004) emphasized the weaknesses of HIV and drug prevention and care programs that merely focus on individual behavioral changes . Moore said that 'the individualization of risk reduction frequently fails to capture the complex and nuanced nature of drug risk-related behavior. It also neglect the situational pressure and constraints on safe drug use and fails to take into account the social, cultural and economic context that structure much of risky drug use.

Numerous studies maintained that risky drug use, risky injecting practices and HIV-risk practices do not occur in a social vacuum (Blankenship et al. 2006, Burris et al 2004) but are closely related to the social and economic contexts of deprivation and exclusion (Bourgois 2003, Hunt 2006, Keys et al. 2006, Grund 2005, Maher 2002, Moore 2004, Mallett et al. 2005, Nasir and Rosenthal 2009a, Rivers et al. 2006). Rivers et al. (2006) thus advocated for the urgent need to better understand the intersection of political transition, economic marginalization, social exclusion and HIV-risk practices among people, particularly risky drug injection and risky sexual activities, and the risk environment where these risk taking practices take place.

Sumartojo (2000) eloquently advocated the importance of HIV structural intervention that 'at the macro level, the vulnerability of persons to HIV is influenced by broad social structural characteristics. These 'core' or distal causes may be far removed from individuals' control, but impact their lives through economic in equalities, racism, sexism, discrimination and stigmatization directed towards groups at high risk'**.**

Instead of merely addressing biomedical determinants of HIV and injecting drug use epidemics, HIV structural intervention takes into consideration social determinants of the epidemics such as economic deprivation, exclusion and discrimination that provide risk environment for poor and marginalized people to be engaged in HIV-risk practices such as risky drugs injecting practices. Moreover, structural intervention also focuses in empowering and producing enabling environment for vulnerable people to be able to protect themselves and

others from drug-related harms including HIV and other blood-borne viral infections (Duff 2009).

## Conclusion

Increasingly the concept of risk has been used as a means of defining, organizing and analyzing contemporary life (Beck 1992, Douglas 1986, Giddens 1991). Giddens maintains that modernization has produced an increasing trend toward individualization addressing the responsibility of every individual to assess and manage risks in his or her daily life. In the field of public health, individualization of risk can be seen through health promotion programs that exhort 'healthy lifestyles', such as those that encourage less fat consumption, more exercise, smoking cessation, condom use, controlled alcohol intake, cessation or control of drug use or avoidance of shared injecting equipment (Moore 2004). Focusing on risky drug use and HIV-risk practices, Moore (2004) argues that people's embeddedness within particular social, cultural and economic contexts shapes the pattern of their drug use.

A growing body of research advocates the urgent need to reduce these structural and cultural barriers to safer behaviors by intensifying the reduction of poverty and unemployment/underemployment among young people and facilitating the emergence of new norms that discourage risky drug use as well as other HIV-related risk practices (Bourgois 2003, Des Jarlais 2000, Hunt 2006, Nasir and Rosenthal 2009a, Rhodes et al. 2005, Sumartojo 2006). These studies address the need for the creation of public policies that address more effectively socio-economic deprivation in poor neighborhoods in inner cities to minimize the risk environment for risky injecting practices and HIV-risk behaviors.

In the recent International Conference on Harm Reduction in Bangkok-Thailand (20-23 April 2009), a major session on 'Poverty, Marginalization and Drug Use' was organized in which several prominent researchers on HIV and drug use prevention and care advocated the urgent need for structural HIV intervention. Furthermore, in the last one decade there were a growing publications and advocacies to integrate HIV and drug use prevention into development and human rights issues (Rhodes 2009). In the context of Indonesia and other developing countries affected by the dual epidemics of HIV and injecting drug use this trend is positive and potentially contribute in the improvement of coverage and the quality of services for vulnerable people. This new approach to HIV and injecting drug use epidemics will also potentially reduce human suffering due to the dual epidemics.

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