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Harm reduction

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ABSTRACT

The "Harm Reduction" session was chaired by Dr Jacques Normand, Director of the AIDS Research Program of the United States National Institute on Drug Abuse. The three presenters (and their presentation topics) were: Dr Don Des Jarlais (High coverage needle/syringe programs for people who inject drugs in low and middle income countries: a systematic review), Dr Nicholas Thomson (Harm reduction history, response, and current trends in Asia), and Dr Jih-Heng Li (Harm reduction strategies in Taiwan).

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1. Introduction

Harm reduction refers to policies, programs, and practices that aim primarily to reduce the adverse health, social, and economic consequences of the use of legal and illegal psychoactive drugs without necessarily reducing drug consumption. Major harm reduction strategies for opioid-dependent users or injection drug users (IDUs) include opiate substitution therapy (OST) and needle/syringe programs (NSPs) [1].

2. Presentations

2.1. *The harm reduction experience in low- and middle-income countries*

Dr Des Jarlais is Director of Research for the Baron Edmond de Rothschild Chemical Dependence Institute at Beth Israel Medical Center, New York City, USA and a professor at Columbia University Medical Center in New York, USA. Dr Jarlais' talk focused on the effectiveness of NSPs and OST in low- and middle-income countries (LMICs) and transitional-economy countries, based on a systemic literature review using PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines [2]. Primary study data included coverage of NSP programs and changes in human immunodeficiency virus (HIV) and hepatitis C virus (HCV) infection over time among persons who inject drugs in LMICs and transitional-economy countries. Additionally, changes in retention of OST participants over time were also collected. A total of 17 countries were represented in the systematic reviews of NSP and OST programs in LMICs, including, Bangladesh, Brazil, China, Estonia, Iran, Lithuania, Taiwan, Thailand, and Vietnam. A majority of these studies showed decreases in HIV/HCV prevalence during and after full implementation of structural level NSPs. OST programs in

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LMICs achieved good levels of retention among their participants, similar to studies in high-income countries. These data generally support the effectiveness of these harm reduction programs in LMICs and transitional-economy countries. Nevertheless, it is important to continue monitoring and evaluating these programs, and when programs are not as effective as they could be, to identify and correct contributing factors.

2.2. The harm reduction experience in the Asian region

Dr Nicholas Thomson is a joint director of the Centre for Law Enforcement and Public Health and has joint appointments at Johns Hopkins School of Public Health in Baltimore, MD, USA, and the School of Population and Global Health at the University of Melbourne, Melbourne, Australia. In his talk, Dr Thomson provided a historical account of the evolution of harm reduction as well as the current trends in Asia. Years of experience and observation suggest that the evolution of harm reduction in Asia is really a recursive journey through four interconnected main themes: (1) harm reduction programs, (2) research, (3) policy, and (4) advocacy. Historically, due to the often-strict enforcement of national antinarcotic laws, harm reduction responses to HIV driven by injecting drug use have been slow. They began in Nepal in 1991 with the first needle exchange project and quickly expanded to Thailand, India, and the Philippines. These initial needle exchange projects were mostly created by dedicated individuals from nongovernmental organizations. The partnership between nongovernmental organizations and researchers produced early results, making it clear that preventing HIV meant embracing harm reduction.

With the initial success in reducing HIV infection came a scaling up of other components of HIV prevention among IDUs, including increased availability of OST programs. Considerable funds to support the programs became available as the research activities and networks developed. There also have been specific shifts from criminal justice to health-oriented approaches in HIV strategies. Currently, many countries in the region have adopted harm reduction as part of their national AIDS strategy and increasingly as part of their national drug strategy. However, there remain many challenges. For example, the overall coverage of services in the region remains poor. The increase of amphetamine-type stimulants represents continuing challenges to both the law enforcement and public health sectors. It is critical to scale-up the various partnerships between law enforcement, criminal justice, public health, and civil society, in the context of the provision of universal access for all key affected populations, so as to achieve improved public health and reduced criminal activities.

2.3. Harm reduction strategies in Taiwan

Dr Jih-Heng Li is Professor of Toxicology and Dean of the College of Pharmacy at Kaohsiung Medical University in Taiwan. He was formerly the Director General of the National Bureau of Controlled Drugs at Taiwan's Department of Health during 1994–2005. In his talk, which was based on his chapter "From gradual prohibition to harm reduction: the experience of drug policy and law reform in Taiwan" in the book *Drug Law Reform in East and Southeast Asia* published by Lexington Books in August 2013 [3], Dr Li described how Taiwan has encountered three major waves of drug epidemics in its short recorded history of some 400 years. Each was tackled with different but harm-reduction-oriented strategies. The first wave was opium smoking during the Japanese Colonial Period (1895–1945). The gradual prohibition policy was adopted by the colonial government from 1897 through 1930. Such a policy, which supplied opium to addicts using an opium licensing system, was similar to present-day methadone maintenance treatment programs and gradually resulted in a controllable situation.

In contrast to the first wave that was caused by a traditional cropped drug, the second wave was due to the deluge of a synthetic drug, methamphetamine, in the early 1990s. Methamphetamine is a Schedule II controlled substance in the 1971 United Nations (UN) Convention on Psychotropic Substances. However, due to Taiwan's deprivation of UN membership since 1971, the 1971 Convention was not implemented. Therefore, law reform became a high priority of the new drug policy in Taiwan. A new "Act for Prevention and Control of Illicit Drug Hazard" was enacted in 1998 to encompass the spirit of all three UN antidrug conventions. Meanwhile, the new act also granted an illicit drug user the status of "diseased offender", which allows addicts to seek treatment in government-designated hospitals without being reported or indicted. Control of precursors such as ephedrine and pseudoephedrine, which are used in the clandestine laboratories to manufacture illicit methamphetamine, was also regarded crucial. In the late 1990s, a leveling-off was observed in the population of methamphetamine users seeking treatment in all psychiatric hospitals.

However, in the early 2000s, the third wave appeared, notably with the abuse of club drugs such as "ecstacy", ketamine, and some benzodiazepines, as well as the escalation of HIV/AIDS infection among heroin IDUs. In August 2005, a national pilot harm reduction program, with measures including NSPs and methadone maintenance treatment programs, was therefore initiated in four of 25 administrative areas. One year after the pilot harm reduction program, a dramatic 10% decrease in all new HIV seropositive cases was reported by the Taiwan Centers for Disease Control (CDC), and subsequently, a nationwide harm reduction program was implemented. In addition to the harm reduction policy, other measures, including HIV education programs and HIV testing of drug users, were also found essential for the effective control of the spread of HIV.

Each of these three waves of drug epidemics in Taiwan was caused by an individual drug that posed a unique problem and required differential policies. Although problems related to illicit drugs will probably linger in the future, the Taiwan experience has clearly shown that the harm reduction policy, with its core humanistic values and public-health-oriented and pragmatic efforts, is the key to cost effectively managing drug problems.

3. Discussion

Major discussion points of the session were as follows.

(1) Was there much variability in program characteristics in the studies included in Dr Jarlais' review, for example,

secondary exchange and dose? There was not much variability in NSP because the study was restricted to include large programs with a structured level of intervention, but secondary exchange was in all of them. There was more variability in OST in terms of program policy, procedures, and/or quality of counseling, but not the mean methadone dose, because these clinics all complied with the World Health Organization guidelines. The variation in OST retention was substantial; however, most research studies did not provide a sufficient description of their programs or eligibility criteria to allow the analyses.

(2) Given that there are many research activities and networks working on harm reduction in Asia, are there efforts to standardize the measures or harmonize across the network? Dr Thomson agreed that there is a lot of networking and activities, but often it requires taking some people in certain sectors out of their comfort zones, for example, a public health researcher may not be able to figure out what is important to the police. He suggested that what is needed is a multidisciplinary action research team that is also practical and relevant for other sectors.

(3) In Taiwan, harm reduction phases appeared to be driven by the nature of the drug at the time, to which different arms of the government responded. Is that an accurate observation? Dr Li felt that each wave of the response reflected the political context and pragmatic purpose at the time (e.g., the third wave of harm reduction was initiated to address the HIV issue, not the drug abuse issue).

(4) The Cochrane Review has indicated that no clinical trial has been conducted on harm reduction. Is such a trial needed? Two responses were given by Dr Jarlais: the results of his study will go into the Cochrane Library. With respect to the clinical trial, because its purpose is to isolate a single variable to test its effects, it would be unethical and/or not feasible to isolate and test this public health approach as a single variable. Dr Normand reminded the audience that the Institute of Medicine has recently reached similar conclusions to what Dr Jarlais provided.

(5) How do we preserve successful programs? Dr Jarlais responded. The answer to this question varies from locale to locale, and looking at HCV is critical because it may lead to high mortality – even worse than HIV. There have been situations in which services have been cut and a disaster follows; such events make policymakers realize the need to maintain these programs.

(6) Law enforcement is critical but how do we engage it? One intervention is to legalize NSPs and OST; then law enforcement will follow the law. The second would be to provide relevant training and education for law enforcement to learn about harm reduction and HIV prevention. Another suggestion is to work with higher-level policymakers. If the country does not have such programs and policies in place, they need to be implemented – and police officers will obey the law. Additionally, we should consider what might be the benefit for the police officer. The partnership needs to make it work to be a win–win situation.

(7) In addition to public health and public safety, we were reminded that there are other stakeholders, such as those in housing, health, education, and religious institutions that need to be considered.

(8) Has the systematic review considered mortality as the outcome of harm reduction strategies? This has not been done yet. Dr Jarlais' next study has shown improvements in results from the Addiction Severity Index and quality of life indicators.

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