

# **The Success of Methadone Treatment Programme in Protecting Hong Kong from an HIV Epidemic among Drug Users** (adopted from **Public Health & Epidemiology Bulletin**. Apr 2010, pp 10-14.)

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## **HIV in drug users**

It is well-known that injecting drug user (IDU) is one most-at-risk population to contract HIV. There were numerous examples of rapid HIV explosion among the drug-using communities worldwide. Many Asian countries have experienced severe HIV epidemics in drug users, such as Indonesia, Thailand, Malaysia, Vietnam and Pakistan. In Mainland China, it was assessed that just under half of the infections in 2006 were due to IDU.

Locally, since the report of the first case of HIV in drug user in 1985, HIV infection has remained uncommon in this risk population. As at the end of 2008, drug use contributed to 6% of the cumulative reported infections. The prevailing low level of HIV in drug users in Hong Kong is in distinct contrast to the aforementioned situation in many countries in the Region. There have been many postulations to explain this phenomenon, such as early education and awareness programmes, targeted outreach preventive interventions and easy availability of sterile needles and syringes. Yet, the most plausible factor is the existence of a network of methadone clinics, which was already in place well before the local emergence of HIV. This article sets to review the various programmes implemented in methadone clinics over the last two decades or so which could have contributed to the prevention and control of HIV in Hong Kong.

## **Methadone treatment in Hong Kong**

After a pilot scheme in 1972, Hong Kong expanded to its extensive network of methadone treatment programme (MTP) in 1976, as part of its multi-pronged strategy on drug abuse treatment.<sup>[1]</sup> Enshrined with the concept and approach of harm reduction, the key objective of MTP is *"to provide a readily accessible, legal, medically safe and effective alternative to continued illicit opiate drug use"*. Despite a general decreasing trend in heroin abuse in recent years locally, MTP still has an effective registration of over 8000 clients at present, representing a drug treatment and rehabilitation service for the largest number of drug abusers. Staffed by doctors, social workers and Auxiliary Medical Service (AMS) members, its 20 methadone clinics over the territory provide treatment to some 6000-7000 attendees every day.

Unlike some other methadone services, Hong Kong MTP is characterised by its open-door policy with low threshold of admission, retention and readmission, no waiting time, no need for referral or appointment, easy accessibility, high coverage, low cost, high efficiency, cost-effectiveness and protection of client confidentiality. These features were considered pertinent to its success and effectiveness.<sup>[2,3]</sup> Due to the chronic relapsing nature of drug abuse, benefits of methadone as a substitution treatment is much better than as used for detoxification. The Hong Kong MTP enshrines this principle and a vast majority (97%) of the clients are on maintenance treatment. A review by the Action Committee Against Narcotics (ACAN) in 2000 and on-going evaluation had shown the positive impact on MTP on raising employment, reducing crime, fostering better family relationship and not the least improving individual and protecting public health.

## **HIV prevention and control programmes**

With the local emergence of HIV in the mid-1980s, it quickly became clear that MTP can serve as a critical contact point to reach and deliver interventions to the at-risk drug-using population. MTP has since taken on the role of HIV prevention and become an integral component of a harm reduction strategy subsequently recommended by international authorities for effective control of HIV and drug use. <sup>[4]</sup> As such, the objectives of MTP were extended to "*prevent the spread and acquisition of HIV, viral hepatitis and other blood-borne diseases*". Prevention activities started with a focus to raising awareness of methadone attendees on the connection between drug use and HIV, through health education supplemented by individual counseling.

Since 1990s, efforts in the dissemination of preventive messages and information were escalated and a variety of designated resource material was produced for use in methadone clinic settings. Moreover, free condom distribution was regularized to better address the sexual risk of HIV infection in drug users, with an average of 8000 distributed per month at present. Attempts were even made to pilot run distribution of portable sharp box and bleach solution to attendees to cover drug injection. These activities were implemented in close collaboration with Red Ribbon Centre, a UNAIDS Collaborating Centre on Technical Support. Started as a pilot project in 2001, the Phoenix outreach education now regularly undertaken by peer volunteers further strengthened HIV prevention work. Supervised by social workers of the Society for the Aid and Rehabilitation of Drug Abusers (SARDA), ex-drug users provide HIV education and information delivery to drug users around vicinity of methadone clinics. In 2002, the Department of Health, the Narcotics Division of the Security Bureau and the Information Services Department jointly organised a harm reduction media campaign to increase awareness and understanding of the general public as well as drug users on drug, methadone and HIV-related issues. Evaluation showed that the impact of the campaign was moderately positive in the public and highly positive in drug users. <sup>[5]</sup>

Unlinked anonymous screening (UAS) was introduced in early 1990s for HIV surveillance of this large group of drug users attending methadone clinics. It has been replaced by universal urine HIV testing since 2004. The per se assessment of drug-taking behaviours for newly admitted or readmitted clients contributes to HIV-related risk behavioural surveillance of drug users in a wider context. Also, ad-hoc surveys and studies had been conducted at methadone clinics to meet contemporary and arising needs, e.g. HCV prevalence study of IDU in 2005 and survey on HIV knowledge, drug use behaviour and infection status of ethnic minorities drug users in 2006.

## **Universal HIV antibody urine testing programme (MUT)**

In 2004, the methadone clinic universal HIV antibody urine testing programme (MUT) was rolled out, with the objectives to promote early HIV testing and diagnosis, enhance HIV surveillance, augment information dissemination and link infected drug users to treatment and care. <sup>[6]</sup> Each of the 20 clinics conducted MUT for 3 months per yearly cycle. All attendees of the rostered clinics during the period were invited to provide a urine specimen for HIV testing after explanation by clinic staff. Indeed, with the impetus of MUT, newly admitted and readmitted drug users who fall outside the MUT period are also encouraged to have HIV testing that access to voluntary testing is now much enhanced. HIV positive clients were counselled by doctors and social workers and referred to the Integrated Treatment Centre (ITC) for HIV care and follow up.

There was good acceptance of the programme, with an annual testing coverage of 80-90%. (Table) The HIV prevalence was found to be low and stable at < 0.5%, which is consistent with the past figures obtained from UAS. After exclusion of known positive clients, some 6 to 14 clients were newly diagnosed positive under MUT each year. With funding support by the Council for the AIDS Trust Fund, the SARDA runs a "Spark Action" project to support drug and HIV treatment of the

infected drug users, which greatly strengthens the success of MUT programme. [7] Furthermore, drug and HIV workers meet regularly to monitor the implementation of the programme, evaluate the situation, identify gaps and needs and recommend measures to improve. The Methadone Treatment Information System (MTIS) rolled out in 2007 has facilitated not only monitoring and evaluation of MTP but also MUT and infected drug users. Further enhancement in data collection and analysis is of immense value for both drug treatment and HIV programmes.

<b>Table. Outcome of MUT programme (2004 to June 2010)</b>							
	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010 (Jan-Jun)</b>
Total attendees	9899	9619	8793	9000	9259	9285	4168
Tests done	8905	8749	7911	7232	7723	7511	3170
Testing coverage	90%	91%	90%	80%	83%	81%	76%
HIV prevalence (95% C.I.)	0.20% (0.12-0.32)	0.32% (0.21-0.47)	0.36% (0.24-0.52)	0.36% (0.23-0.52)	0.47% (0.33-0.64)	0.49% (0.35-0.67)	0.37% (0.19-0.64)
No. of newly diagnosed positive patients	14	9	6	8	9	3	4
No. of new patients who attended HIV care	8	6	3	6	6	1	2

## **International sharing and exchange**

The role of harm reduction strategy in effectively control the twin HIV/drug epidemics has been increasingly recognized and advocated in the last decade by international authorities, including the United Nations Office on Drugs and Crime. Substitution treatment, notably methadone maintenance, is one mainstay which significantly contributed to keeping HIV at bay or even reversing an epidemic. However, it was not until recent 5 years or so that more and more countries in Asia embarked on or significantly scaled up their methadone maintenance programmes, largely under the will to effectively tackle HIV infection in drug-using populations. Albeit faced with many obstacles and challenges to overcome, these programmes have largely produced promising results. Sustaining and scaling up the various national programmes would be key to future success in prevention of HIV and drug in the Region.

Being one of the few places in the world with a long-standing well-established methadone clinic network, Hong Kong is a popular place for study visit on methadone and HIV. Under the intent of national or international agencies, Hong Kong had received a variety of such study tours from the Mainland China, and other countries, such as Malaysia, Vietnam and Russia. The delegations comprise not only frontline health care providers, public health officials, non-governmental workers but also include central government officials up to the Ministerial levels. Local experience on methadone treatment programme, HIV prevention activities targeting drug users and their inter-linkages were shared with the visiting delegates, with fruitful exchanges.

## **Conclusion**

In contrast with the experience in other countries, it is undoubtedly exceptional that HIV has not succeeded in taking root in the drug-using community in Hong Kong. The methadone treatment

programme not only remains the major treatment response and safety-net to drug problems in Hong Kong but its presence before HIV emerged has conceivably protected Hong Kong from an HIV epidemic among drug users, contributed by the biologic effect of methadone maintenance in reducing injection risk behaviours as well as subsequent escalation of methadone clinic-based prevention activities since mid-1990s. As a consequence of reduction in drug injection and needle-sharing, many new infections were averted and HIV prevalence was maintained low in drug users in Hong Kong. The model has been reaffirmed by the documentation of Hong Kong MTP as a Best Practice by the Joint United Nations Programme on HIV/AIDS, and being taken reference of in developing national methadone maintenance programmes in many parts of the World.<sup>[8]</sup> The MTP is something that we should take pride in and cherish. Nevertheless, drug users remain a vulnerable population most at risk of HIV infection and even outbreak or explosive transmission. It is of critical importance that Hong Kong should not become complacent but remain vigilant and keep up with the drug treatment and HIV prevention efforts. With its serving a huge number of more than 8000 active clients, the pivotal role of MTP is expected to continue in the foreseeable future.

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**Test paper - The Success of Methadone Treatment Programme in Protecting Hong Kong from an HIV Epidemic among Drug Users**

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1. Which of the following is not true regarding global HIV-drug dual epidemic?
  - (a) rapid upsurge in HIV infection among injecting drug users has happened around the world
  - (b) drug using community is a specific risk population for contracting HIV
  - (c) Asia is spared of HIV epidemics among in drug users
  - (d) None of the above
  - (e) All of the above
  
2. What is incorrect of the HIV and drug situation in Hong Kong?
  - (a) Drug related infections contributes to less than 10% of the cumulative reported HIV cases
  - (b) The first case of HIV infected drug user was reported after 1980s
  - (c) Early implementation of HIV prevention programme for drug users could have contributed to the low HIV prevalence in the community
  - (d) AIDS education, needle syringe exchange and outreach were amidst the various local activities widely conducted for drug users
  - (e) The local uncommon HIV situation among drug users is commonly seen in the Region
  
3. Which of the following is not a feature of the methadone treatment programme (MTP) in Hong Kong?
  - (a) MTP is in place in Hong Kong well before the emergence of AIDS epidemic
  - (b) Currently MTP has some 8000 clients effectively registered with the programme, and 6000-7000 daily attendance
  - (c) The key objective of MTP is to provide a safe, effective and accessible substitution treatment to illicit opiate drug use
  - (d) Hong Kong MTP is well recognized for its open-door policy, no waiting time, and low threshold of admission, retention and readmission
  - (e) None of the above
  
4. Which of the following is true about the positive impacts of Methadone treatment programme review by the Action Committee Against Narcotics in 2000?
  - (a) raise employment
  - (b) reduce crime
  - (c) improve client's health
  - (d) foster better family relationship
  - (e) all of the above
  
5. Which of the following is not true regarding HIV prevention and Methadone treatment programme?
  - (a) Single party effort accounted for the success of HIV and drug activities
  - (b) Established for security reason in the 1970s, MTP has contributed significantly to keeping a low HIV prevalence in drug users in Hong Kong
  - (c) Condom distribution by methadone clinics is introduced as an HIV prevention measure in 1990s
  - (d) Harm reduction is the theme enshrined in HIV prevention for drug users

- (e) A harm reduction media campaign was jointly organized by the Department of Health and Security Bureau in 2002
6. Which of the following is incorrect on HIV surveillance carried out in methadone clinics?
- (a) unlinked anonymous screening has bettered understanding of HIV prevalence among drug users
  - (b) tracking drug and sex behaviours among methadone attendees is useless to inform HIV risk
  - (c) voluntary testing may have participation bias but allow individuals to know of the HIV status
  - (d) ad-hoc surveys had been conducted to shed light on HIV related subjects
  - (e) all of the above
7. What is not true of the universal HIV antibody testing programme in methadone clinics (MUT)?
- (a) MUT was introduced in 2004, after a pilot trial
  - (b) All methadone attendees are encouraged to have annual HIV testing
  - (c) Urine specimen is used for HIV antibody testing under MUT
  - (d) A good coverage of about 80% was achieved
  - (e) None of the above
8. Which of the following is incorrect regarding HIV positive drug users and MUT?
- (a) the number of newly diagnosed positive drug users is greater in the initial years after MUT implementation
  - (b) non-governmental organization provides designated social support services to HIV positive users under the MUT
  - (c) A <1% HIV prevalence is found at methadone clinics till now
  - (d) Drug users diagnosed HIV positive will not be referred to HIV clinic for follow up and care
  - (e) None of the above
9. Which of the following is not true regarding Hong Kong drug and HIV programmes?
- (a) The methadone treatment programme is promulgated as a best practice by United Nations
  - (b) Multiple high-level study delegations has come to Hong Kong for the methadone treatment and HIV prevention
  - (c) Hong Kong experience could have contributed to the rolling out of harm reduction programmes in Asian countries in recent years
  - (d) International exchange and sharing is desirable for improving HIV and drug response globally
  - (e) None of the above
10. What is not true on looking forward for the Hong Kong methadone treatment programme and HIV prevention?
- (a) the 20-clinic network providing readily accessible services to as many drug users as possible is pivotal to continuing the success
  - (b) maintaining a low prevalence among drug users is most effective to prevent sudden HIV upsurge in drug users
  - (c) there will be no concern on rise in HIV among drug users in Hong Kong in the foreseeable future
  - (d) HIV not having taken root in the local community is advantageous for sustaining prevention and control
  - (e) All of the above