

**Improving Harm Reduction Program in Thailand:
An Assessment of the STOP TB and AIDS Through RRTTR (STAR) Program**

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Executive Summary

Thailand continues to experience significant health and social challenges associated with illicit drug use, including injection drug use. Rates of infectious diseases among people who inject drugs (PWID) in Thailand remain high, and access to evidence-based addiction treatments remain low. This is due in part to Thailand's continued emphasis on drug law enforcement, and the adverse impacts such emphasis has on the delivery of essential healthcare to people who use drugs. At this time, Thailand is also experiencing a growth in non-injection amphetamine-type substance (ATS) use, which has created new challenges.

In response, the Raks Thai Foundation (RTF), with support from the Global Fund to Fight AIDS, Tuberculosis, and Malaria, launched the STOP TB and AIDS Through RRTR (STAR) Program in 2015 under the New Funding Model, which reaches approximately 7,000-9,000 PWID through drop-in centres (DICs) and outreach efforts in 12 provinces. The program includes Reach, Recruit, Test, Treatment and Retain efforts, and includes the distribution of information, condoms, sterile syringes, referral for sexually transmitted infections (STI) and HIV testing, and methadone treatment. The objectives of the current project were to:

1. To assess the current harm reduction program under the STAR program and provide specific recommendations on the strengths and areas of improvements in terms of DICs, outreach activities, and ability to provide services;
2. To identify areas that the various key stakeholders may want to consider in improving community based harm reduction program including social and health related benefits for PWID;
3. To recommend improvement models and processes for the implementing agencies in Thailand regarding DICs and, outreach management, human resources training, and capacity building, management practices, data utilization and performance management; and
4. To recommend approaches to long-term sustainability of the Thai harm reduction program at all levels.

A mixed-method *program implementation case study methodology* was conducted in order to assess the programming of RTF and its implementing partners. This included an examination of collaborations with government, hospitals, methadone clinics as well as assessments of factors operating in the broader social and structural context (i.e., laws and policies) that shape program success access to treatment and care provided through external agencies/programs. Also considered was context, and how external factors (e.g., key stakeholders, institutional practices and policies) shape program implementation and effectiveness. For this we conducted document reviews, site visits/observational work, and qualitative interviews with various key stakeholders.

The DICs varied considerably in their design, function and operation, and while some see very few clients (e.g., 4-10 per day), one that provided methadone in Chiang Rai sees over 300 clients per day. A number of program successes, challenges (contextual, healthcare, programmatic, individual) were documented, as well as various future opportunities. The DICs were for the most part successful in reaching clients at high risk for drug-related harm and providing them with education, harm reduction equipment, and referrals to healthcare programs (e.g., infectious disease testing). Further, in many instances the DIC staff have formed effective

working relationships with healthcare providers in external programs, including hospitals, and through such relationships have been able to ensure more timely and culturally appropriate care for their clients. The DICs also act as a safe space for many clients, including after they have used drugs and are vulnerable to arrest.

A number of challenges were also identified. The most pressing challenge was ongoing aggressive law enforcement, including policing activities in close proximity to the DICs. Reductions in donor funding, in particular funding from international donors has meant program cuts and few agencies providing harm reduction services. This problem is exacerbated by the fact that there is virtually no funding support for harm reduction programming from national or local governments. Significant challenges accessing healthcare services were also noted, including problems with transportation, long wait times, limited hours of operation, and poor treatment by healthcare providers. A further problem pertains to a lack of high quality epidemiological data specific to infectious diseases and addiction among PWID and other people who use drugs. Challenges at the programmatic level included increases in ATS use and a lack of ongoing training to support efforts to respond to emerging drug use patterns. Also cited were outdated data collection systems and challenges providing coverage of harm reduction programming over large geographic areas. At the individual level, stigma and discrimination in healthcare settings remains a challenge for some, although some improvements in this area were noted. Still, an unacceptably large number of PWID continue to avoid healthcare services, such as infectious disease testing. Lastly, problems with securing documentation needed to access services were also noted. A number of future opportunities were also identified, including the enhancement and scale-up of existing services, provision of new services, extending reach, management issues, epidemiological data collection, harm reduction advocacy and training, and expanding healthcare options.

In light of the various data collected, a series of recommendations are offered, and these span the topics of expanding program delivery; improving external health system partnerships, training, and service delivery; improving monitoring and evaluation; improving internal program and staff capacity and function; strengthening drug policy advocacy; changing policing practices; and ensuring sustainability of DICs. More specifically, the recommendations are as follows:

Expanding Program Delivery

1. It is recommended that existing DICs be re-purposed to become low-threshold integrated community clinics;
2. It is recommended that a broad range of legal services be provided to clients and staff of the STAR program;
3. It is recommended that the STAR program prioritize issues related to HCV, addiction treatment, and overdose over HIV/AIDS;
4. It is recommended that naloxone be procured and stored at all DICs;
5. It is recommended that the STAR program work to conduct a formal needs and risk assessment for potentially establishing a supervised drug consumption facility in this setting;

Improving External Health System Partnerships, Training, and Service Delivery

6. It is recommended that the STAR program work to establish more formalized partnership agreements with external services;
7. It is recommended that the STAR program establish more formal working partnerships with the Thai Red Cross (TRC);
8. It is recommended that the STAR program pursue more formal partnerships with opioid substitution therapy (OST) providers;
9. It is recommended that continuous advocacy for new and improved treatments be undertaken alongside the implementation and evaluation of novel addiction treatment pilot programs;
10. It is recommended that efforts be undertaken to advocate for revised methadone clinical guidelines;
11. It is recommended that efforts be undertaken to create addiction treatment strategies for ATS users;
12. It is recommended that efforts be made to increase access to addiction medicine training and in-services in Thailand;
13. It is recommended that efforts to implement anti-stigma campaigns within healthcare settings be undertaken;

Improving Monitoring and Evaluation

14. It is recommended that data management systems for the DICs be augmented to collect annual or bi-annual serial cross-sectional epidemiological data to determine the burden of infectious diseases and substance use disorders in the country;
15. It is recommended that additional data on socio-demographic characteristics, drug use patterns, health service use, and client experiences with law enforcement and healthcare services be collected routinely (e.g., annually or biannually) through serial cross-sectional research studies;

Improving Internal Program and Staff Capacity and Function

16. It is recommended that once a year, workshops and trainings should be held to update DIC staff and volunteers on the latest information on issues related to illicit drug use, and to discuss and share challenges and opportunities with other staff members across the country;

Strengthening Drug Policy Advocacy

17. It is recommended that the STAR program maintain the momentum and enhance these drug policy advocacy efforts by bringing input from affected communities and frontline staff into the policy discussion tables;

Changing Policing Practices

18. It is recommended that the STAR program continue and expand harm reduction sensitization training for police officers;

Ensuring Sustainability of DICs

19. It is recommended that additional partnerships be formed between the STAR program and key strategically placed individuals in government, including the Office for the Narcotics Control Board, Thanyarak Institute, and Ministry of Public Health.

In summary, a mixed-method program implementation case study was used to evaluate the STAR program across seven DICs and found a number of program successes, challenges, and future opportunities. Specific evidence-based recommendations were provided and included suggestions focused on: expanding program delivery; improving external health system partnerships, training, and service delivery; improving monitoring and evaluation; improving internal program and staff capacity and function; strengthening drug policy advocacy; changing policing practices; and ensuring sustainability of DICs. Our findings indicate that with increased investments in these areas, there will be greater opportunities to maximize the impact of the STAR Program and improve the health and well-being of PWID in Thailand.

Background

People who inject drugs (PWID) in Thailand continue to experience various health challenges, including those associated with untreated addiction and infectious diseases. In particular, HIV and hepatitis C virus (HCV) remains serious health problems among this population.^{1,2} In Thailand, there are approximately 40,300 PWID,³ with the prevalence of HIV and HCV infection among this population estimated to be 25% and 90%, respectively.^{4,5} This is despite the country's effort to provide a universal healthcare system,⁶ which includes the provision of methadone as well as HIV testing and antiretroviral therapy (ART) for HIV disease.^{6,7}

Still, there remain persistent concerns regarding low levels of ART access and adherence, and elevated levels of preventable HIV/AIDS-related morbidity and mortality among PWID.⁸ While there have been some advances in the scale up of HCV testing and treatment in Thailand (e.g., a National Working Committee is currently developing national HCV treatment guidelines), negotiating drug prices for direct-acting antiviral (DAA) therapy remains a contentious issue in the country. Further, the quality and coverage of methadone provision remains inadequate in most settings, delivered in a high threshold manner, and there is a lack of other evidence-based substitutions treatments for opioid use.^{9,10} Increases in amphetamine-type substance (ATS) use in many settings in Thailand have also presented new challenges.³

It is well known that PWID in Thailand remain among those most vulnerable to social and structural forces that condition access to prevention and treatment programs. This is due in large part to the fact that the Thai government has for many years implemented aggressive drug law enforcement approaches to address the country's illicit drug use epidemic, including with the 'War on Drugs' strategy that was implemented in 2003.^{11,12} Since then, there has been a growing body of evidence that has highlighted the potent role that aggressive policing tactics (e.g., police crackdowns) play in driving HIV- and HCV-related risks among PWID, as well as in undermining their access to prevention, treatment, and harm reduction programs.¹²⁻¹⁵ Previous

studies conducted in Thailand have described a range of harms associated with drug law enforcement policies and practices, including police beatings, interference with access to methadone treatment, and harmful exposures in compulsory drug detention.^{8,10,15-19} Despite the commitment made by Thailand's 2002 *Narcotic Addict Rehabilitation Act B.E. 2545* to reclassify people who use illicit drugs as 'patients' and not 'criminals',²⁰ the continued reliance on repressive law enforcement to control drug trafficking and use has continued to displace many PWID from lifesaving healthcare services.^{19,21} As in other settings, such policies and practices has also likely fuelled stigma and discrimination against PWID, and in turn shaped public attitudes and constrained access to essential healthcare.

In response to these challenges, Raks Thai Foundation (RTF), with support from the Global Fund to Fight AIDS, Tuberculosis, and Malaria, launched the STOP TB and AIDS Through RRTTR (STAR) Program in 2015 under the New Funding Model, which reaches approximately 7,000-9,000 PWID through drop-in centres (DICs) and outreach efforts in 12 provinces. The program includes Reach, Recruit, Test, Treatment and Retain (RRTTR) efforts, and includes the distribution of information, condoms, sterile syringes, referral for sexually transmitted infections (STI) and HIV testing, and methadone treatment. The objectives of the current evaluation project were to:

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3. To recommend improvement models and processes for the implementing agencies in Thailand regarding DICs and, outreach management, human resources training, and

capacity building, management practices, data utilization and performance management;
and

4. To recommend approaches to long-term sustainability of the Thai harm reduction program at all levels.

Methods

We conducted a mixed-method *program implementation case study methodology* in order to assess the programming of RTF and its implementing partners in the area of harm reduction. This included an examination of collaborations with government, hospitals, methadone clinics as well as assessments of factors operating in the broader social and structural context (i.e., laws and policies) that shape program success access to treatment and care provided through external agencies/programs. Also considered was context, and how external factors (e.g., key stakeholders, institutional practices and policies) shape program implementation and effectiveness. For this we conducted document reviews, site visits/observational work, and qualitative interviews with various key stakeholders. A range of conventional quantitative and qualitative approaches were used to analyze the data acquired.

Document reviews

We reviewed a range of documents, including background epidemiological evidence on the current drug situation in Thailand and similar settings, STAR project materials and program documents, and other relevant national policies. Through this review we sought to identify strengths and weaknesses of existing practices and approaches within the STAR program, characterized some program outputs, and identify missed opportunities, underserved subpopulations of PWID, as well as strengths and limitations of existing collaborative agreements. Through this document review we also sought to identify external constraints (e.g., policies and laws) on program effectiveness.

Site visits/observational work

We conducted study site visits at five STAR program sites in Bangkok, Samut Prakarn, Trang, and Chiang Mai, to document their structure, function, processes, data capture and management practices, as well as interactions with PWID and other stakeholders. We visited both the DICs as well as outreach sites. Interview and field notes were taken throughout to document various characteristics of the individual sites.

Qualitative interviews

We also conducted semi-structured interviews with STAR program staff, volunteers and program recipients at each of the five aforementioned sites (n = 6-10 per site). In addition to the sites above, we also interviewed individuals from the Songkhla and Chiang Rai sites. These interviews focused on describing processes associated with program delivery, barriers and facilitators to program access and success, challenges accessing treatment and care from external service points (e.g., hospitals, methadone clinics), perceived outcomes of programs, and issues specific to the broader social and structural (e.g., laws and policies) environments that shape program success and access to external services. We focused largely on issues as they relate to the provision of HIV and HCV testing and treatment, as well as addiction treatment.

Moreover, we conducted interviews with key external stakeholders to discuss the STAR project and challenges associated with ensuring access to harm reduction and treatment programs (including addiction and infectious disease treatments) among PWID in Thailand. Individuals included: a consultant from the International Drug Policy Consortium, a liver specialist from the Thai Red Cross, the Portfolio Manager of the Global Fund, the Director and other representatives of Thanyarak Hospital, and a family physician with extensive experience conducting research among PWID.

Results

All DICs interviewed (Mitrphab, Samut Prakarn, Prachacheun, Trang, Songkhla, Chiang Mai, and Chiang Rai) operated between Monday to Friday from around 8am to 3-4.30pm. On average, attendance across the seven DICs varied and ranged between four to 20 clients per day, although one site that provides methadone in Chiang Rai sees over 300 visits per day. Depending on location, some clients attended the DICs daily, while others attended at most once a month. A number of services were provided across the sites, including: harm reduction, HIV, and HCV education; needle syringe distribution; outreach efforts; referral and transport to hospitals/clinics; primary healthcare services (two DICs); and methadone treatment provision (one DIC). Below, we document a number of program successes, challenges (contextual, healthcare, programmatic, individual), as well as future opportunities.

Program Successes

Collectively, data from a range of sources revealed many successes of the programs and services evaluated. Although the reach, coverage and effectiveness of programs varied considerably across the seven sites, many were successful in reaching PWID and others at risk for drug-related harms and providing them with evidence-based interventions and other supports.

Education programs and outreach

Many clients described the value of the education programs provided by the DICs; specifically, increasing their knowledge on harm reduction, HIV, and HCV testing and treatment. In the Southern provinces in Trang and Songkhla, given the large geographic region over which PWID live, many clients appreciated the commitment of outreach workers who volunteered their time to provide clients with educational information and drug injection equipment. Some volunteers

also reported that over time, they were able to build relationships with police that allowed them to operate and reach clients more effectively; however, this was not consistently observed across the seven sites, and as is indicated below, policing remains a major barrier to program delivery in most sites.

Relationships with hospitals and healthcare services

Relationships between clients, staff, and healthcare professionals have been improving over time. In particular, in the Samut Prakarn DIC, where the site is physically located within the Samut Prakarn Hospital, clients and staff felt that they developed positive relationships with the nurses and physicians who provide methadone treatment within the hospital facility. Clients discussed the importance of building relationships with healthcare professionals to minimize the stigma and discrimination in these settings. Being in close proximity to healthcare services also benefited the clients. For example, in Songkhla and Prachachuen, nursing staff would attend the DICs to provide primary care services as well as HIV and HCV testing weekly and monthly, respectively. The DIC staff in Songkhla mentioned that these strong relationships provided opportunities for retention, as well as to link clients to further treatment and care. Staff and volunteers in Chiang Mai and Songkhla reported that DIC members were treated better by hospital staff when they were accompanied by DIC staff, and some volunteers reported that they served an important role by communicating members concerns clearly to hospital staff.

Safe space

The majority of clients reported that the DICs provided a safe space to rest and gather with friends. Often, clients would visit the DIC after taking their methadone, and spend a few hours to half a day at the centre. The clients who visited the Samut Prakarn site mentioned that the DIC allowed them to interact with their friends and delayed their drug use for a while. Moreover, many clients would visit the DICs after they have used drugs to have a safe space and stay well

away from the police. However, some of those interviewed noted that due to funding cuts, programming that attracted members to the DIC have been discontinued. Further, staff's inability to provide stipends for transportation also limited members ability to visit the DICs.

Contextual, Healthcare, Programmatic, Individual Challenges

While the DICs operating under the STAR program have been successful in many respects, a number of dominant themes emerged during our interviews which pointed to challenges occurring at various levels, including: the social-structural environment, the healthcare environment, the programmatic environment, and the individual level.

The social-structural environment

An overwhelming theme of problematic policing was reported by staff and clients at the DICs. Specifically, at the Mittraphab DIC, heavy police presence in the immediate proximity was observed, and this was said to discourage members from attending the DIC. Additionally, in the Northern and Southern sites where clients are more dispersed, they reported that the reason there was poor willingness to attend DICs was largely due to the high risk of police encounters. Some clients reported that depending on the proximity, they often encounter police checkpoints three to four times before they reach the DIC. Similar reports were given in the north at the Chiang Mai site. Additionally, urine drug screens were reported as a common occurrence during police encounters in these settings. As a result, many of those interviewed reported that attendance at the DICs have declined.

Declines in funding from international donors/funders was discussed as an important challenge that restricted innovative program development and implementation. Further, as a result of such declines in funding, it was reported that fewer groups were engaged in harm reduction work, which in turn put more pressure on the STAR Program. Prior to significant funding cuts, there were a number of novel programs through the CHAMPION-IDU project,

including: harm reduction training for law enforcement, prison work, naloxone distribution and training, women support groups, and HCV support groups. However, since international donor contributions have been declining, only the core education and outreach programs could be supported.

As has been consistently documented, there continues to be virtually no local or national support for harm reduction and addressing PWID-related issues in Thailand. Many external stakeholders discussed the need to build on and strengthen relationships between civil society and government stakeholders in order to prioritize harm reduction and addiction treatment in this setting. Furthermore, a number of key stakeholders reported the lack of population estimates and epidemiological population-wide evidence on infectious diseases and drug use patterns among PWID, making it difficult to characterize the extent of the issues facing PWID in the country. While previous research studies have documented prevalence of HIV and HCV in Thailand, most have been restricted in terms of setting and sample size and to our knowledge, there are no studies that have focused on incidence of these diseases or on characterizing the burden of drug use and access to harm reduction and addiction treatment.

The healthcare environment

The majority of volunteers and clients reported a number of barriers to accessing healthcare, including: distance and funds required to travel (particularly in the Northern and Southern provinces), police interference at some methadone clinics, limited operating hours at methadone clinics, and long wait times. We observed that the majority of clients who accessed healthcare at hospitals were higher functioning individuals, and that the aforementioned barriers associated with access are likely to miss those most at-risk.

Many who were interviewed reported limited options for addiction treatment, particularly given the changing drug use patterns that have resulted in increases in ATS use. As well, a lack of innovation and training in providing addiction treatment and care were observed and

discussed. In particular, Thailand does not currently incorporate addiction treatment into any medical school curriculum. As a result, many healthcare professionals are not adequately able to address the multitude of complex health issues that PWID may face, and coercion and discrimination in healthcare settings is common. Low quality methadone treatment was also discussed among many clients interviewed, though there were some inconsistencies observed across the sites. As an exception, the Samut Prakarn site reported positive relationships with healthcare professionals and adequate methadone dosing for clients, with staff being open to discuss dose increases.

The programmatic environment

Several of those interviewed pointed to the growing use of ATS as a new challenge for programs and staff. This increase in ATS is supported by some recent epidemiological data on drug use patterns in Thailand. Although the STAR program was designed primarily for PWID, a consequence of rising ATS use is that a growing number of clients are not injecting drugs. As a result, staff and volunteers felt a lack of diverse and meaningful service and program provision opportunities for ATS users given that they are not adequately equipped to provide education on harm reduction and treatment options for non-opioid non-injection drug users. Staff and volunteers at many of the sites also reported that they do not receive ongoing and updated information and materials on harm reduction and other related issues that enable them to perform their jobs effectively, especially when responding to emerging drug use trends.

Another common challenge observed across the sites was a lack of high quality data collection and management. During a preliminary evaluation of the database that we conducted shortly following the CHAMPION-IDU project, we found that data extraction and cleaning was extremely challenging, and the data was not consistently captured across the different sites. The DICs largely collected data on service provision outputs (e.g., how many needles/syringes were distributed) and few information on socio-demographics and basic drug use patterns,

which was intermittently captured when clients attended the DICs. This limited the opportunity to assess ongoing need, coverage of external services, and outcomes, and rendered the data useful for only characterizing program outputs. Some sites (e.g., Mittraphab) continue to rely on paper-based data capture to track their clients. Staff at many of the DICs proposed the need for more efficient data capture systems in order to spend more time on developing and implementing novel services and less time on administrative efforts.

A number of DICs reported geographic challenges, resulting in poor reach and coverage of PWID clients. Many of the sites reported low attendance at the DICs and that the majority of clients were being reached through outreach. As mentioned previously, various social-structural barriers, in particular policing, prevented many clients from accessing the DICs. Lack of travel support was also a common reason reported for not accessing the DICs, which was consistently discussed among the clients at all the sites.

In previous years, through the Thai AIDS Treatment Action Group efforts, naloxone was available at the DICs. However, with the exception of the DICs operated by Ozone House, none of the DICs currently had any naloxone available at their site. Even the staff at the Ozone House DICs mentioned that their naloxone would soon expire within the next few months and there was no plan to acquire additional medication. Given that many PWID clients often access drop-in centres after they use drugs, many DIC staff felt that it was important to procure naloxone and have it stored on-site in the event of an overdose.

Individual challenges

Consistent with a large body of research, many clients continue to report challenges regarding persistent stigma and discrimination in healthcare settings that prevent them from accessing primary care services, as well as HIV and HCV testing and treatment. Reasons for HIV and HCV testing avoidance have also been documented in the literature and through interviews, and include, stigma and discrimination by the community as well as a fear of a positive test result.

Other barriers to accessing methadone treatment and testing services were also documented. In the Northern provinces, staff and clients reported that a lack of legal documentation was a major barrier towards accessing healthcare services. Inability to access transportation was also a barrier towards accessing healthcare needs. For example, one client in Bangkok described having to walk 10 kilometers to a methadone clinic to take their treatment because he did not have money to take public transit.

Future Opportunities

Those interviewed also identified a range of opportunities for improving programming for PWID, and there was a high level of agreement across sites and stakeholder groups regarding what should be prioritized. These are summarized according to some broad themes, including the enhancement and scale-up of existing services, provision of new services, extending reach, management issues, epidemiological data collection, harm reduction advocacy and training, and expanding healthcare options.

Enhancement of existing programming

Many peer outreach workers and staff at DICs suggested that more regular and systematic updates and more peer input were required to enhance health education activities. For example, having experts regularly visit each site to update their knowledge on a variety of topics such as safer use of drugs, HIV/HCV testing and treatment, ATS use, addiction treatment, and legal issues would greatly enhance the quality of educational services. Peer outreach workers also suggested that more peer input was required to produce health educational tools (e.g., brochures) because they felt that some of the existing tools were not user-friendly or relevant to their clients.

Increasing the availability of health services at DICs was another strong and consistent suggestion made by the majority of interviewees. These would include having nurses provide

basic primary care and consultation at all DICs more regularly, and expanding peer methadone delivery service (which is currently provided in Chiang Rai only) to all other sites where opioid injection is common. Lastly, clients and peer outreach workers also mentioned that travel support would increase the attendance rates at DICs.

Provision of new services

In terms of new services, three high priority areas emerged through the interviews. These included providing harm reduction services for non-injection drug users and non-opioid injectors (e.g., yaba smokers, midazolam injectors, etc.), and vocational training. The third, although it may not be readily feasible, was setting up a drug consumption space within or near a drop-in centre. One staff person mentioned:

“Many of our clients inject drugs across the street from our drop-in centre. They often rush to inject there to return and rest at our centre. Letting them do so is equivalent to turning a blind eye. I’d rather let them inject in a safe environment such as our drop-in centre. I think it is unethical to keep turning a blind eye on this issue.”

In addition, one manager of a drop-in centre suggested that setting up an in-patient addiction clinic facility nearby the drop-in centre would better cater to client demand for addiction treatment.

Extending reach to sub-populations of PWID

Two staff persons at the Mittraphab and Prachacheun sites pointed out that the ongoing client recruitment that relies on existing peer networks may have resulted in missing some sub-populations of PWID, including men who have sex with men and transgender persons who

inject drugs. Therefore, more communications and collaborations with community-based organizations that focus on other populations would be required to extend reach.

Improving staff management and retention

Managers of DICs suggested that more staff support would be required to retain staff, increase their morale, and ensure the safety of staff. Support would take a variety of forms including: providing mental health support, arranging staff retreats creating more regular opportunities for the managers of all DICs to meet and share their experiences, and providing ID cards to peer outreach workers (to protect them from police harassment).

Epidemiological data collection

Some staff persons and stakeholders suggested that the STAR program should routinely collect epidemiological data on changing drug use patterns, HIV and HCV incidence in order to identify areas for service improvement. In particular, a key external stakeholder pointed out that there was a significant lack of nation-wide HCV data among PWID, which made it difficult to estimate the need for HCV treatment.

Harm reduction advocacy and training

Many interviewees reported that support for harm reduction at a policy level was not translated into meso- or micro-levels, such as police officers and healthcare professionals who PWID would interact with. Therefore, there needs to be more education and support for harm reduction at all levels. A concrete intervention suggested by some interviewees was to re-collaborate with a senior police officer who conducted advocacy for harm reduction within the law enforcement sector, sensitization training for police officers, and training for the staff at DICs on law enforcement issues related to harm reduction.

Expanding healthcare options

The majority of interviewees mentioned a need to expand healthcare options that are relevant to PWID. These included providing more options for opioid agonist therapies beyond methadone, identifying more evidence-based treatment options for methamphetamine users, and ensuring access to affordable HCV treatment among PWID. Several also stated that incorporating nursing and physician care within the DICs were help attract and retain clients.

Recommendations

Below are a number of recommendations arising from document reviews, data analysis and subsequent discussions with various key stakeholders. These recommendations have been broken down into the following categories: expanding program delivery; improving the healthcare system; and reducing the negative impacts of drug law enforcement practices and policies.

Expanding Program Delivery

Low-threshold integrated community clinics

As indicated above, significant gaps in service access persist for PWID in Thailand, which are driven by a range of factors, including aggressive policing, issues with transportation, and unwillingness to attend more conventional services due to poor relations with healthcare staff (e.g., in hospitals). Although one stakeholder felt that the best strategy was to strengthen the existing healthcare system (e.g., local hospitals, Bangkok Metropolitan Administration clinics), most of those interviewed felt that there was an pressing need to increase the number of services within the existing DICs to create more “one-stop” shops for PWID, where many services (e.g., MMT, infectious disease testing) could be accessed in one setting. In light of this, and existing scientific evidence, ***it is recommended that existing DICs be re-purposed to become low-threshold integrated community clinics.*** These clinics should be in settings

where PWID can access harm reduction programming, opioid substitution therapy (OST) and addiction treatments, infectious disease testing, and referrals to external services, and where peer-involved/led program delivery and peer-navigation is available. The United Nations Office on Drugs has developed documentation detailing standard operating procedures on how to implement an integrated model of service provision at DICs, which includes the provision of psychosocial support, primary healthcare services, and OST.²² These clinics could also continue to be sites from which peer-led outreach teams can conduct their work. Successful examples of peer-led interventions include the ECHO model of peer outreach in Vietnam, which has shown to be effective in reaching a larger and more diverse network of PWID.²³

The recommendation to create low-threshold integrated clinics is supported by a large body of scientific evidence indicating that many of the highest risk PWID avoid conventional health programs, and our observations suggest this is the case in Thailand as well.^{12,19} This dynamic is greatly exacerbated in settings where PWID are criminalized, subjected to aggressive policing, and where PWID experience stigma and discrimination in healthcare environments.^{19,24-26} Low-threshold program environments, particularly those that are peer-led or involve peers, typically succeed in reaching high risk PWID, especially in environments where healthcare access is constrained by social and structural forces.^{25,27-29} Further, a large body of evidence indicates that integrated models of care can help promote access to care among populations who have challenges navigating the healthcare system for various reasons, and typically foster improved uptake of needed programs and services.³⁰ Further, by creating low-threshold integrated clinics, there will be opportunity to reach more PWID, including those who avoid healthcare services, a problem well-documented in this setting. Such clinics are not meant to replace more conventional programs, but rather are meant to be first point of contacts for many PWID, and settings from which to refer clients to external programs.

It is further recommended that novel staffing models be explored in the context of repurposed low-threshold integrated clinics. In particular, in order to ensure access to MMT and

infectious disease testing, it is recommended that models that involve nurses, pharmacists, and potentially occasional physician visits (e.g., one afternoon per week) be considered. While there is a strong evidence-based rationale for continuing to offer peer-led services at these clinics, past research has also shown that many PWID prefer to receive infectious disease testing from healthcare professionals rather than peers, and healthcare provider presence will help ensure access to MMT, attract more PWID to the centers, and will help improve relations between the centers and other services (e.g., hospitals).^{25,29}

Provision of legal services to clients and staff

Together with the high-level drug policy advocacy and police training for harm reduction, ***it is recommended that a broad range of legal services be provided to clients and staff of the STAR program.*** For example, some of the problematic police practices, such as arbitrary arrest and police misconduct that clients and peer outreach workers routinely experience,^{15,18,19} can be addressed via legal remedies. In addition, legal services have the potential to empower people who use drugs in many ways. Csete and Cohen (2010) have reviewed ongoing (pilot) programs in this area and listed various kinds of legal services that could empower people who use drugs to address barriers to health, which included facilitating access to health and social services; training paralegals and “accompaniers”; training people who use drugs to know and assert their rights; documenting human rights abuses to facilitate related advocacy; and convening workshops for the police and prosecutors about the legality of health services for people who use drugs.³¹ These types of legal interventions may also be promising in terms of facilitating reforms within police departments.

Development and implementation of supervised drug consumption sites

While there was huge interest among DIC staff, volunteers, clients and some external stakeholders to develop and implement supervised drug consumption sites in Thailand, there

are a number of social-structural barriers prohibiting such a site from operating in the country. This is despite the large and growing body of evidence highlighting the benefits of supervised drug consumption sites worldwide, including significant reductions in public drug use, overdose, syringe sharing, and increased uptake of detoxification services and linkage to HIV and HCV testing and treatment.³²⁻³⁶ Many DIC staff reported that clients often secretly inject in the DIC, including in locked washrooms. Of concern, studies have shown that injecting in these types of spaces may increase the risk of overdose associated with injecting alone as well as high-risk injecting, including use of shared needles and syringes and rushed injection.^{37,38}

There are a number of different models of drug consumption sites worldwide, including in Canada, Australia, the Netherlands, Switzerland, and Germany, with some countries adopting low-threshold community-based models.³⁶ Within these drug consumption sites, a range of services are offered, from syringe distribution and healthcare provision to health education, recreational activities, social support, and meals.³⁹ A number of different models of drug consumption sites have been proposed and implemented, with integrated models (i.e., network of service provision, including counselling, infectious diseases testing, needle syringe programs, and medical and psychosocial services) being the most common, and arguably the most effective, model.⁴⁰ Specialized and mobile drug consumption sites such as those in Germany and other parts of Europe have also been successful in meeting the different needs of PWID.⁴⁰

It is recommended that DIC/RTF staff work to conduct a formal needs and risk assessment for potentially establishing a supervised drug consumption facility in this setting.

Prioritizing HCV, addiction treatment, and overdose

In addition to our ***recommendation to prioritize issues related to HCV, addiction treatment, and overdose over HIV/AIDS*** given the lack of knowledge among staff, volunteers, and clients in these areas, **it is also recommended that naloxone be procured and stored at**

all DICs. A large body of research has documented the benefits of naloxone in reversing opioid-related overdoses. In fact, due in large part to the availability of naloxone, there have been huge reductions in overdose events in many countries worldwide.⁴¹ Given that there are still a large proportion of people who inject opioids in Thailand, it is important that naloxone is available in DICs in the community.

Improving External Health System Partnership, Training and Service Delivery

More formal connections to DICs

While many DICs have established effective relations with various clinics and hospitals, and while some of those interviewed reported that PWID are treated better when presenting to hospital with DIC staff, most relationships with external services have not been formalized, and many potential opportunities have been missed. Given evidence indicating that DIC staff have in some instances developed effective partnerships with hospitals, etc., ***it is recommended that the STAR program work to establish more formalized partnership agreements with external services.*** This should involve the creation of an actual written agreements or memorandums of understanding (MOUs), as well as educational materials or in-services regarding the DIC activities that help ensure that external healthcare staff understand the purpose and value of DIC staff and related activities.

Given the challenges currently confronting PWID, including issues with access to low-threshold infectious disease testing,²¹ ***it is recommended that the STAR program establish more formal working partnerships with the Thai Red Cross (TRC).*** The TRC is the only organization in Thailand that is positioned to create and operate novel low-threshold clinics for infectious disease testing, treatment and care, and has succeeded in implementing such models in the context of testing and treatment among MSM, sex workers, and transgender populations.^{42,43} However, these models have not been extended to PWID. Given the TRC's

past success and leadership, particularly around the pressing issue of HCV, creating novel programs in partnership with TRC may serve to improve program delivery for PWID in Thailand.

Given the ongoing challenges with OST delivery in Thailand, ***it is recommended that the STAR program pursue more formal partnerships with OST providers.*** Some innovation in methadone delivery already is occurring in Chiang Rai, where one DIC (Huay Phueng) has collaborated with a local hospital to provide methadone to members onsite. This is facilitated through work with a pharmacist on site, and given the success of this model (i.e., high rate of participant attendance at the DIC for methadone), the potential benefits of expanding DICs to include more involvement of healthcare professionals and the delivery of more services within DICs should be explored.

Advocacy for and implementation of novel and improved addiction treatment strategies

There are currently very limited options for addiction treatment in Thailand, and what is available (e.g., methadone) is not delivered in a manner consistent with internationally established best practices.^{44,45} Further, in some cases newer, safer and more effective treatments are non-existent.^{46,47} Therefore, ***it is recommended that continuous advocacy for new and improved treatments be undertaken alongside the implementation and evaluation of novel addiction treatment pilot programs.***

Thailand has long provided methadone to PWID; however, successive reviews have pointed the many limitations of methadone provision in Thailand. Issues with low dosing, limits on “carries” or “take home” doses, punitive programs, and policing around clinics have persisted for years.¹⁰ While there has been some innovation and improvements with respect to methadone provision (e.g., more take-home carries), lacking are low-threshold sites where PWID can easily access methadone, especially when they do not have an active prescription. Therefore, ***it is recommended that efforts be undertaken to advocate for revised***

methadone clinical guidelines so that methadone can be delivered in a range of settings in a manner more consistent with international best practices.

The delivery of treatment for opioid use could also be strengthened by implementing and evaluating newer, safer OST approaches. In particular, a growing number of settings are moving toward making Suboxone a first line OST approach.^{46,48} Suboxone, is an opioid agonist/antagonist which includes buprenorphine and naloxone. A large body of evidence indicating that while Suboxone is as effective in treating opioid use disorder as methadone, it has a more favorable safety profile can be safely administered by non-physician healthcare staff, and patients can receive weeks of take-home dosing at any time, thus reducing the need for daily witnessed ingestion – a well-described and significant barrier to retention in methadone treatment. Further, compared to methadone, Suboxone carries a lower risk of diversion and overdose. Table 1 (from the *BC Centre on Substance Use: A Guideline for the Clinical Management of Opioid use Disorder*) compares the relative advantages and disadvantages of methadone versus Suboxone.⁴⁸ Although one pilot study of Suboxone was undertaken in Chiang Mai some time ago,^{49,50} further efforts are now needed to promote access to a greater range of OST approaches.

A further area of work needed is addiction treatment for ATS users. At this time, there are no evidence-based substitution treatments for ATS, although some strategies have been tested.⁵¹ Although psychosocial approaches, including cognitive-behavioural therapy and contingency management-based treatments have shown some promise, impacts tend to be short-lived and drop-out rates from such treatments is high.⁵²⁻⁵⁴ Still, given the ongoing problem of ATS use in Thailand, ***it is recommended that efforts be undertaken to create addiction treatment strategies for ATS users.***

Table 1 Advantages and disadvantages of methadone vs. buprenorphine/naloxone

METHADONE	BUPRENORPHINE
ADVANTAGES	
<ul style="list-style-type: none"> • Potentially better treatment retention • May be easier to initiate treatment • No maximum dose • Potentially better alternative if buprenorphine was unsuccessful in relieving withdrawal symptoms, or was associated with severe side effects • Approved in Canada for the primary purpose of pain control (as split dose BID or TID dosing; Health Canada exemption to prescribe methadone for analgesia also required) 	<ul style="list-style-type: none"> • Less risk of overdose due to partial agonist effect and ceiling effect for respiratory depression (in the absence of benzodiazepines or alcohol) • Reduced risk of injection, diversion, and overdose due to naloxone component, allowing for safer take-home dosing schedules • Milder side effect profile • Easier to rotate from buprenorphine/naloxone to methadone • More flexible take-home dosing schedules may contribute to increased cost savings and patient autonomy • Shorter time to achieve therapeutic dose (1–3 days) • Potentially more effective analgesic for treatment of concurrent pain (however, see disadvantages) • Fewer drug interactions • Milder withdrawal symptoms and easier to discontinue, thus may be a better option for individuals with lower intensity opioid dependence (e.g., oral opioid dependence, infrequent or non-injectors, short history of opioid dependence, currently abstinent but risk of relapse), and individuals anticipated to be successfully tapered off maintenance treatment in a relatively short period of time • Alternate day dosing schedules (as daily witnessed or take-home doses) are possible • Optimal for rural and remote locations where daily witnessed ingestion at a pharmacy is not possible
DISADVANTAGES	
<ul style="list-style-type: none"> • Higher risk of overdose, particularly during treatment initiation • Generally requires daily witnessed ingestion • More severe side effect profile (e.g., sedation, weight gain, erectile dysfunction, cognitive blunting) • More expensive if daily witnessed ingestion required • Longer time to achieve therapeutic dose (see Appendix 1) • More difficult to transition to buprenorphine once on methadone • Higher potential for adverse drug-drug interactions (e.g., antibiotics, antidepressants, antiretrovirals) • Higher risk of non-medical or other problematic use • Increased risk of cardiac arrhythmias as a result of QTc prolongation • At high doses, may block some of the analgesic effect of concurrent opioid medications administered for pain 	<ul style="list-style-type: none"> • Potentially higher risk of drop-out • If appropriate dose induction schedules are not used (see Appendix 2), may cause precipitated withdrawal • Doses may be suboptimal for individuals with high opioid tolerance • At high doses, may block the analgesic effect of concurrent opioid medications administered for pain • Not approved in Canada for the primary purpose of pain control, though moderate evidence of efficacy • Reversing effects of overdose can be challenging due to pharmacology of buprenorphine

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Increase access to addiction medicine training and in-services

The review of data and interviews undertaken reveal substantial gaps in addiction medicine knowledge, practice and training. Some addiction treatment providers pointed to a near total lack of addiction medicine training in Thailand. This results in a range of problems, including low quality addiction care, problems with access to qualified providers, and mistreatment of addicted individuals. There are, however, various successful models of addiction medicine training internationally, including programs in the US and Canada.^{55,56} These typically involve creating time-limited (1, 3, 6 or 12 month) fellowship training programs, where general practitioners and specialists working in a range of areas that commonly interact with PWID (e.g., psychiatry, internal medicine, infectious diseases) can receive training in addiction medicine. In Vancouver, Canada, this model has been extended to nurses and social workers, and is complemented by shorter in-service trainings (e.g., 1-4 hours) to healthcare professionals.⁵⁶ Therefore, in order to improve access to evidence-based addiction treatment and care, ***it is recommended that efforts be made to increase access to addiction medicine training and in-services in Thailand.***

Implement anti-stigma campaigns in healthcare settings

Although many of those interviewed expressed that relations between PWID and healthcare providers has improved in recent years, there are still many reports of stigma and discrimination in hospitals and clinics.^{57,58} While much of this may reflect a lack of understanding of the natural history of addiction and may be addressed through further training, such as those described above, ***it is recommended that efforts to implement anti-stigma campaigns within healthcare settings be undertaken.*** Examples of such campaigns exist in various areas of public health, and a combination of educational and information approaches are needed, and should be supported by interactive components (e.g., workshops, online forums).^{59,60} Healthcare provider attitudes can be improved with appropriate education, and therefore, in order to improve

access and retention in treatment and care among PWID, efforts to address stigma in healthcare settings are urgently needed.

Improving Monitoring and Evaluation

In Thailand, there is a dearth of epidemiological data on rates and prevalence of HIV and HCV infection, among other related infectious diseases. While the Ministry of Public Health reports HIV prevalence annually, these data may be missing most at-risk PWID who are not accessing conventional healthcare services and therefore underestimating the burden of disease in the country.^{1,5} Moreover, little is known about HCV prevalence or incidence in Thailand, or the extent of untreated addiction, particularly among PWID. Given the wide national reach of the STAR program, ***it is recommended that data management systems for the DICs be augmented to collect annual or bi-annual serial cross-sectional epidemiological data to determine the burden of infectious diseases and substance use disorders in the country.*** Indeed, this will require more formal partnerships with external healthcare services, as recommended further below, given that the majority of testing services are provided in that setting,

Relatedly, we also documented the need for more efficient and consistent data management practices across the DICs, as currently, the data collected is largely focused on service provision (e.g., number of syringes distributed), with little data on demographic characteristics, health service use, and drug use patterns. Capturing this information is important in order to more effectively provide programs and services to meet the needs of clients. Therefore, ***it is further recommended that additional data on socio-demographic characteristics, drug use patterns, health service use, and client experiences with law enforcement and healthcare services be collected routinely (e.g., annually or biannually) through serial cross-sectional research studies.*** These could be done through the DICs,

with each contributing research participants. Similar efforts have been undertaken in Australia and Canada.

Improving Internal Program and Staff Capacity and Function

As indicated previously, we documented the lack of ongoing training for DIC staff and volunteers with regard to harm reduction, HIV and HCV testing and treatment. Given the changing landscape in drug policy, drug use patterns, and healthcare provision for PWID, and high turnover between staff and volunteers, it is necessary to deliver additional orientation and ongoing training in an effort to provide better services for PWID clients. Additionally, many of the DIC staff reported that there was a lack of communication between staff across sites. Prior to the STAR program, retreats were routinely held for staff to gather together, hold workshops and training to improve their understanding of issues related to illicit drug use, and share lessons learned from their experiences at their DIC. Therefore, ***it is recommended that once a year, workshops and trainings should be held to update DIC staff and volunteers on the latest information on issues related to illicit drug use, and to discuss and share challenges and opportunities with other staff members across the country.*** Specifically, given the change in drug use patterns toward increasing ATS use, incorporating programming and harm reduction education materials related to non-opioid injection drug use to staff members should be a priority.

Strengthening Drug Policy Advocacy

In recent years, there has been some progress regarding the high-level support for harm reduction and drug policy reform efforts in Thailand. For example, in 2012, the first-of-its-kind national harm reduction policy was adopted, which endorsed needle and syringe distribution. Since last year, the Minister of Justice, Paiboon Khumchaya, has led efforts to consider alternative legislative models for illicit drug use, including decriminalizing the personal use of

methamphetamine.⁶¹ ***It is recommended that the STAR program maintain the momentum and enhance these drug policy advocacy efforts by bringing input from affected communities and frontline staff into the policy discussion tables.*** Specifically, while the 2012 national harm reduction policy (and more recently the 2017 national harm reduction policy) primarily focused on supporting some harm reduction programs for PWID for the purpose of HIV prevention (e.g., needle and syringe distribution, OST), new advocacy efforts should aim to expand the scope of harm reduction beyond those narrowly defined specific services for opioid-injecting populations. They should also seek to raise the status of harm reduction to the same degree as the other two pillars of drug policy, namely supply and demand reduction, as has been done in other settings.⁶²

The idea of decriminalizing methamphetamine use has great potential to change the policy environment and reduce adverse encounters with law enforcement among clients. However, as previous reports from other settings have suggested, decriminalization could take a variety of forms, ranging from those that completely changed drug law enforcement activities at all levels and significantly reduced drug-related harms, to others where decriminalization has remained as empty rhetoric in policy documents, and no significant change in drug-related harms has been observed.⁶³ Advocacy efforts are needed to make sure that decriminalization be designed and implemented in a way to reduce drug-related harm to both individuals who use drugs and the public at large. As well, efforts should be continued to close down the compulsory drug detention centres as recommended by twelve United Nations agencies.⁶⁴

Further, an area of particular significance for drug policy advocacy also includes eliminating police crackdowns on people who use drugs and arrest quotas for drug-related offences, as these have been shown to encourage corruption and misconduct of street-level police officers and resulted in increasing drug-related harm among PWID in Bangkok.^{10,17,65-67}

Importantly, such police crackdowns have not served to reduce street-level availability of illicit drugs in this setting either.¹⁵

The STAR program could strengthen their drug policy advocacy efforts by identifying a few key individuals in the government, police departments, healthcare authorities, and media, who are respected in their respective fields, educating them about the importance of harm reduction and other challenges that clients are facing, updating them about the development of the STAR program (where the improved monitoring and evaluation data will be useful), and obtaining information from them about key policy and programming cycles/timing for which more targeted advocacy efforts could be made. While the key stakeholders interviewed through our work will surely be among those individuals that the STAR program might consider keeping in touch for advocacy efforts, they could expand the reach through the network of RTF/TDN/Ozone and other advocacy organizations (e.g., TTAG) that they closely work with. In particular, establishing close and regular contact with some key journalists and media executives and providing education about harm reduction have the potential to change the information conveyed through mass media, increase the understanding and support of harm reduction, and reduce stigma against PWID. Offering site visits as part of the media education will also be useful. Therefore, it is also recommended to provide media training to some staff at DICs so that they would be prepared to speak to media.

Changing Policing Practices

Together with high-level policy advocacy, it is essential to change the attitudes and practices of street-level police officers who clients of the STAR program would frequently encounter. As an interviewee mentioned, during the CHAMPION-IDU project era, a senior police officer was hired as a consultant to advocate for harm reduction in the law enforcement sector and provide harm reduction training for police officers. ***It is recommended that the STAR program continue***

and expand harm reduction sensitization training for police officers. Such training has been shown to reduce problematic policing practices against PWID in many settings. Previous experiences from other settings indicate that successful training requires obtaining support from high-level officers in the law enforcement sector, addressing concerns from both PWID and police officers, deconstructing myths about PWID to reduce stigma against this population, ensuring systematic training for all police officers, and most importantly a strong police-public health partnership so that police officers refrain from conducting intense surveillance near drop-in centres and other health service points that PWID may frequently access (e.g., methadone clinics).⁶⁸⁻⁷¹

Ensuring Sustainability of DICs

There have been ongoing discussions between various stakeholders regarding the transitioning of harm reduction services in Thailand from international donor mechanisms to national government funding. In order to ensure the success and sustainability of DICs and the provision of harm reduction services and educational programs in the country, there is a need to establish formal partnerships with external key stakeholders, such as those described above. To do this, evidence-based evaluations of the current issues related to illicit drug use through the systematic collection of data within DICs might serve as an important starting point. This recommendation has been described previously. Taken together with establishing formal working partnerships with external services, such as TRC and OST providers, ***it is recommended that additional partnerships be formed between the STAR program and key strategically placed individuals in government, such as the Office of the Narcotics Control Board, Thanarak Institute, and Ministry of Public Health.***

Limitations

There are several limitations to consider. First, there was difficulty assessing program outputs given that the data provided was largely anecdotal in nature. However, we felt that we captured this data consistently and reliably across the different sites. Second, the clients interviewed may not be representative of all PWID in Thailand. In particular, the PWID clients we interviewed were largely frequent users of the DIC; as such, we may have missed clients who attended the DIC less often who may have provided additional information regarding access and barriers. Lastly, we interviewed few female clients (n = 2) so these findings may be biased in terms of gender.

Conclusions

In summary, a mixed-method program implementation case study was used to evaluate the STAR program across seven DICs and found a number of program successes, challenges (contextual, healthcare, programmatic, individual), and future opportunities. Specific evidence-based recommendations were provided and included suggestions focused on expanding program delivery; improving external health system partnerships, training, and service delivery; improving monitoring and evaluation; improving internal program and staff capacity and function; strengthening drug policy advocacy; changing policing practices; and ensuring sustainability of DICs. Our findings indicate that with increased investments in these areas, there will be greater opportunities to maximize the impact of the STAR Program and improve the health and well-being of PWID in Thailand.

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