

Final Report

**A Study on the Recovery Process of Inmates with History of Drug Abuse:
Challenges and Opportunities**

Beat Drugs Fund Project No. 180060

Dec 2022

Principal Investigator

Prof. Paul S.F. YIP, *PhD*

Chair Professor, Department of Social Work and Social Administration, The University of Hong Kong,

Associate Dean (Research), Faculty of Social Sciences, The University of Hong Kong, and

Director, HKJC Center for Suicide Research and Prevention, The University of Hong Kong.

Co-Investigator

Dr. Chee Hon CHAN¹, *PhD*

Assistant Professor (Research), HKJC Center for Suicide Research and Prevention, Faculty of Social Sciences, The University of Hong Kong.

¹ Effective Oct 1, 2021, Dr. CHAN is the Assistant Professor, Department of Applied Social Sciences, The Hong Kong Polytechnic University

Table of Contents

Chapter 1 Introduction	5
1.1 Background	5
1.2 Study Objectives	7
1.3 Data and methodology	7
1.4 Structure of the report	8
Chapter 2 Landscape of drug treatment and rehabilitation system	9
2.1 A Complex Adaptive System	9
2.2 Historical overview of drug treatment and rehabilitation in Hong Kong	11
2.2.1 Compulsory drug treatments	11
2.2.2 The emergence of voluntary treatment services	12
2.3 The current drug treatment and rehabilitative system in Hong Kong	15
Chapter 3 The treatment and rehabilitation support for younger-age drug users in CSD: effectiveness and determinants	19
3.1 Correctional T&R support for younger-age drug users	19
3.2 Methods	22
3.3 Results	25
Chapter 4 Interview-based exploration of the treatment and rehabilitative process	35
4.1 Methods	35
4.2 Findings	36
4.2.1 Opportunities for early intervention	36
4.2.2 Enhancing information for decision making	39
4.2.3 Improvements to care and rehabilitative services	41
Chapter 5 Potential reduction in social costs related to improvements in the rehabilitation system	48
5.1 Conceptual deliberation	48
5.1.1 Examining the quantity of the potential improvement	48
5.1.2 Valuing the potential reduction in recalls in an economic term	50
5.2 Estimating the potential reduction in social costs	51
5.2.1 Data	51
5.2.2 Methods	51
5.2.3 Calculation	52
5.3 Results	52
Chapter 6 Recommendations	55

6.1 Enhance individual risk and needs assessments	55
6.2 Foster positive social networks	56
6.3 Evaluate rehabilitation programmes	57
6.4 Increase post-discharge support	57
6.5 Strengthen clinical and community partnerships	58
References	59
Appendix 1 Interviews with ex-offenders and stakeholders	71
Appendix 2 Interview question guides	75

Chapter 1 Introduction

The Beat Drugs Fund (BDF) exists to promote anti-drug programmes and address drug abuse problems in Hong Kong. Funded by BDF, this research project aims to explore the characteristics of offenders with drug-abuse behaviour, examine the rehabilitation process for offenders with drug-abuse behaviour, identify potential mechanisms to improve the rehabilitation outcomes and estimate the reduction in social costs relating to potential improvements in the rehabilitation process. This report provides an overview of the complex problems of drug-related crime and relapse, and details our work in the project, concluding with recommendations. In the first chapter, the background of the problem and its complexity is introduced.

1.1 Background

The problem of drug abuse has been recognized as a key global challenge of the next decade and is acknowledged in the United Nations' Sustainable Development Goals. In particular, there is seen as a need for enhanced coverage of treatment interventions, including pharmacological, psychosocial, and rehabilitative². This may be especially important in adolescence and early adulthood, critical transition periods in which cognitive and emotional development take place, and when individuals may be more vulnerable to the initiation of drug use (UNODC,2020). According to statistics provided by the United Nations Office on Drugs and Crime (UNODC,2018), in many countries, drug prevalence rates are highest among those aged 18-25. Furthermore, the drug problem is not only affecting marginal youth but also students and employed young people who may use or abuse drugs as part of social trends and rave culture (Duff, 2003; Narcotics Division & ACAN, 2018).

Evidence suggests that the earlier a young person starts taking drugs, the higher the likelihood that the individual will develop a drugs-related problem (Clark, Kirisci & Tarter, 1998). Besides health risks such as infectious disease through contamination of tools, risky sexual behaviours, and overdoses, the use of certain drugs during adolescence may affect the maturation of the brain and have negative impacts on brain functioning and crucial social developmental transition (NIDA,2020; Grant et al., 2004; de Graaf et al., 2002). For early to mid-adolescents, drug use is also associated with exclusion from school, broken relationships, and less involvement with family, as well as involvement in criminal acts (Hoffmann, 1993; McCrystal, Percy & Higgins, 2007). For older adolescents and adults in their twenties, there are associations between drug use and social exclusion such as unemployment and homelessness (Kipke et al., 1997; MacDonald, 2006). Hence, prevention and early intervention in individuals displaying symptoms of drug abuse are essential.

The relationship between drug use and criminality is complex. Studies have identified the interconnectedness between drug use and criminal activities, and the majority of offenders serving sentences in correctional institutions are susceptible to the complication of illicit drug use (European Monitoring Centre for Drugs and Drug Addiction, 2012). These risks create a vicious cycle since those engaging in both illegal drug use and criminal activities appear to have poorer treatment and rehabilitation outcomes and a higher likelihood of re-entering correctional facilities (May, Sharma & Stewart, 2008). Drug-using individuals may also face greater hurdles when re-entering the community, such as risks of unemployment and homelessness, and exposure to unhealthy social circles, which act as contributors to relapse to drugs and crime (NIDA,2020). Repeated incarceration due to drug relapse

² <https://sdgs.un.org/goals/goal3>

is a concerning social phenomenon that has far-reaching economic and social impacts on the criminal justice system and society (Vander Waal, 2001).

Since 2008, the total number of drug abusers reported in Hong Kong has been reducing steadily, a 54% drop was recorded from 14,241 in 2008 to 6,752 in 2018 (Central Registry of Drug Abuse Sixty-ninth Report). Despite the general declining drug cases reported, a shift to hidden drug abuse is suggested by the rise in age and drug history from the newly reported case in these ten years. According to the figures of the Central Registry of Drug Abuse (CRDA) in 2018, there were 6,752 reported illicit drug users and only 4,240 (60%) of those were detected by the police. This suggests more than 40% were undetected by law enforcement. The median history of drug abuse from newly reported abusers (i.e. the period from first drug abuse to the time abusers report to reporting agencies) was 4.7 years in 2018, which is more than twice of that in 2008 which recorded 1.9 years. Worryingly, the longer the history of drug abuse before treatment, the worse the prognosis due to the brain damage that sustains addiction leading to relapse (Substance Abuse and Mental Health Services Administration, 2016). Notably, the Hong Kong Council of Social Service (HKCSS) has released a position paper addressing the growing hidden drug use and proposing respective interventions to better the drug treatment and rehabilitation service in the future three years (HKCSS, 2019). In reference to international practices, the report advocates more comprehensive aftercare services on employment, emotional management, and social networking to tackle the continuous nature of drug abuse.

Multiple interactive reasons are thought to have contributed to the hidden drug trend. One reason may be that the zero-tolerance drug policy and the punitive approach have scattered large-scale parties (i.e. rave parties) into smaller groups (i.e. private parties, home-based), making it more difficult to be detected (Tam et al. 2018). Another may be the growing trend of psychotropic substances in replacement of heroin with less visible withdrawal symptoms and physical signs. This may reduce their motivation or urgency to seek help until chronic drug use has induced damage to one's health and everyday life (Narcotics Division 2015). The prolonged use of psychotropic drugs causes physiological and psychological complications that force abusers to retreat into social isolation, resulting in hidden drug abuse (Tam et al. 2018). The changing drug preferences and the respective lower awareness of the drug impact hence reduce help-seeking inclination. On top of that, spatial displacement, substance displacement, and marginalization of drug users were some of the unintended adverse consequences that have been reported globally (Ariel, 2017; Weisburd et al., 2006).

Approximately 11,000 persons in Hong Kong are admitted into correctional institutions annually (Correctional Services Department, 2017), and the cost for each criminal case is estimated at HK\$239,054 (Chui, Cheung & Cheung, 2017), highlighting the substantial financial burden incurred by reoffending individuals (Chui et al., 2017). With multiple correctional institutions providing compulsory treatment programmes for convicted drug addicts, it is evident that histories of drug abuse are prevalent among this group of institutionalized population (Correctional Services Department, 2018). Those who are relatively younger in age are particularly vulnerable; statistics from Hong Kong's CRDA showed that approximately 45% of offenders with a history of drug abuse readmitted to Correctional Services Department (CSD) institutions are aged under 41. Furthermore, in a report from the Task Force on Youth Drug Abuse published in 2008, 41.8% of young drug users under 21 had previous convictions. Data from Hong Kong's CRDA suggests that while the overall number of reported drug users in Hong Kong has seen a downward trend, there has been an upsurge in illicit drug use among Hong Kong young people in recent decades (Legislative Council Secretariat, 2019). As drug users may have high risks of reoffending, finding ways to reduce drug abuse behaviour among this lower-aged group is crucial to reduce the overall medical, social, and judicial costs related to drug abuse in Hong Kong. Equally, for those dealing with substance abuse issues, exploring

measures to improve drug rehabilitation outcomes for those admitted to correctional institutions repeatedly due to relapse should be a top priority.

There is considerable evidence for the effectiveness of drug addiction treatment (Moore et al., 2019; Kinlock et al., 2009; Prendergast et al., 2002). However, drug treatment and rehabilitation services tend to be more focused on achieving short-term outcomes for relapse prevention instead of long-term abstinence from drug use (Mckeganey et al., 2006; Werb et al., 2016). According to one study in Malaysia, approximately 70-90% of individuals with addiction problems who underwent compulsory inpatient rehabilitation programmes were likely to return to the habit of drug use within the first year after being discharged (Reid, Kamarulzaman & Sran, 2007), while the US National Institute on Drug Abuse puts the relapse rate of drug addiction at 40-60%, similar to that of asthma (50-70%) and adult-onset diabetes (30-50%). To ensure long-term impact, there is therefore a pressing need for more exploratory and systematic research into the effectiveness of treatment and rehabilitation services to help guide policymaking.

1.2 Study Objectives

The central aims of this study are to explore the drug treatment and rehabilitation process among offenders, particularly the younger age bracket (under 41), and identify potential improvements in drug rehabilitation programmes in Hong Kong. Our aims are to:

1. Examine the profiles and characteristics of offenders with drug abuse behaviour;
2. Explore the rehabilitation process of the offenders with drug abuse behaviour and identify potential mechanisms to improve rehabilitation outcomes;
3. Estimate the potential reduction in social costs relating to the potential improvements in the rehabilitation process.

This report will focus on addressing the objectives sequentially across the chapters.

1.3 Data and methodology

The research study is a mixed-method study. The research team gathered data mainly through three activities, as follows.

- i. We conducted in-depth desk research to review the relevant information. The research team collected data from various sources, including government papers, research reports, past studies, government articles and pamphlets, and websites.
- ii. We obtained data from CSD which was the dataset of drug addiction treatment centre (DATC) offenders aged from 15 to 30 at the time of admission during the year of 2013 to 2019 to analyse the recall rate of offenders.
- iii. To elicit comments from drug users and relevant stakeholders on the existing drug abuse treatment and rehabilitative services, focus group interviews and one-on-one discussions were carried out. In total, the research team interviewed 130 individuals, consisting of 100 drug users and 30 stakeholders. A qualitative study using a thematic analysis approach was adopted to analyse the data and address the objectives mentioned above.

1.4 Structure of the report

The report is organized into six chapters. The first Chapter introduces the background, objectives, study methodology, and structure of the report. In Chapter 2, the evolution and current situation of the treatment and rehabilitation (T&R) system is presented, and the rationale for following a Complex Adaptive Systems approach is laid out based on local and international literature. In Chapter 3, findings on factors affecting the effectiveness of DATC and T&R services are revealed, including the influence of family visitations and participation in rehabilitation programmes, and the high-risk period for recall following discharge. In Chapter 4, key findings from interviews about the current T&R system are detailed, including perceptions of disconnection between stages of T&R, needs assessment, and the role of personalization and tailoring of services. For Chapter 5, the potential cost reductions of improvements are set out, with calculation methodology. In Chapter 6, based on all of these findings, recommendations for improving the T&R system are presented.

The research in this report examines gaps and opportunities in the drug rehabilitation and rehabilitation system of young offenders in order to improve the efficiency in the system, tracing from entering the criminal justice system to sentencing, correctional services, and community re-integration. The ideal scenario of achieving such interconnections has been described as “integrated care” in academic literature (Gröne and García-Barbero, 2001; Kodner and Spreeuwenberg, 2003). In the real world, inefficiency is inevitable given the complex nature of systems. However, with appropriate measures, consensus, and cooperation between agencies and understanding of the system, it is suggested that substantial improvements can be made to reduce the burden of drug use and criminality.

Chapter 2 Landscape of drug treatment and rehabilitation system

This chapter provides a detailed review of the emergent properties that have informed the current T&R system. The historical development of the system is presented, and an overview of the T&R system as it is now. The relative roles of the criminal, punitive and rehabilitative components of the T&R system are presented, and how the various agents and stakeholders inform the complex system, resulting in risks of inefficiencies unless well managed. To optimize the system and to bring effective rehabilitative outcomes, it is apparent that stakeholders need to communicate and coordinate activities in a manner that acknowledges the interdependence of detection, law enforcement, treatment and rehabilitation, consistent with a complex adaptive system approach.

2.1 A Complex Adaptive System

The appropriate policymaking response to illicit drugs has been described as a challenge of high complexity due to interlinking patterns of addiction, criminality, and the transnational drugs trade (Alford & Head, 2017). These factors, coupled with the persistence of drug relapse, recidivism and drug crime, have led the issue of illicit drug use to be described as an example of a highly 'wicked' problem (Alford & Head, 2017), posing difficulties for the treatment and rehabilitation system at a number of levels.

At the individual level, the interacting processes and feedback loops of crime and substance use can lead to conflicts between actors, aggravated by addiction, abuse, and marginalization. At the meso-level, dynamic change is present within the self-organized criminal justice system and public health system with competing methods and goals for penalizing and rehabilitating drug abusers respectively. At the macro-level the economical and societal cost of drug-related crimes and rehabilitation are matters of continuous political debate, informed by an evolving transnational moral and scientific understanding of the nature of the drugs problem and the market forces that fuel the drugs trade itself.

With an understanding of the complexity of the problem, there is an opportunity to engage and consult stakeholders in a conversation about how the T&R system can best manage this complexity. The study team suggests that the Complex Adaptive System (CAS) framework provides a useful tool for framing and responding to the problem. Most studies use the CAS to understand the complexity of health care settings (Nurjono, Yoong, Yap, Wee & Vrijhoef, 2018; Hodiamont, Jünger, Leidl, Maier, Schildmann & Bausewein, 2019). As with drug rehabilitation and treatment, a lack of cross-disciplinary and inter-organizational coordination can present problems, and the tendency for particular healthcare professionals to practice only with reference to their own individual mental models has contributed to, amongst other issues, fragmented mental health services (Xyrichis & Lowton, 2008; Rosenberg & Hickie, 2013). A CAS addresses fragmentation by acknowledging the interaction within and between levels of the nested system that a complex system largely depends on (Pisek & Wilson, 2001).

A complex adaptive system can be defined based on three characteristics. First, the system is the composition of a number of independent agents and each agent is providing services in their own way (Rouse, 2007). Second, the agents within the system interact with each other. The interrelated and non-linear components of a system are what make the system complex (Simon, 1991; Kannampallil, Schauer, Cohen & Patel, 2011). Within such a system, agents have heterogeneous incentives or

perspectives and so their expectations are often poorly aligned with one another. Third, the interaction between agents creates emergence. Emergence occurs when an entity is observed to have behaviours or properties its individual components (i.e., agents) don't have on their own. It is suggested that in a properly functioning Complex Adaptive System, the dynamic whole is greater than the sum of its components (Plsek & Greenhalgh, 2001).

By contrast, a system that is non-adaptive in the face of a wicked problem is likely to suffer from fragmentation and inefficiencies. Traditional administrative-based directives and linear planning in a hierarchical structure such as the health care system are indicative of fragmentation, inefficient resources allocation, and ineffective system performance (Yip & Hsiao, 2020). Fragmentation refers to decisions affecting a system made by multiple independent decision-makers that would be better made through consensus decision-making (Elhauge, 2010). Fragmentation in healthcare delivery means the systemic “misalignment of incentives, or lack of coordination, that spawns inefficient allocation of resources” or harm to patients (Enthoven, 2009), with the effect of adversely impacting quality, cost, and outcomes (Shin, Davis and Gauthier, 2008; Bodenheimer, 2008).

In drug treatment and rehabilitation, fragmentation risks lead to information loss and inefficient allocation of resources due to a failure to coordinate among different agents and communicative effectively (Stange, 2009). Specialist services such as imprisonment in CSD usually use more intensive high-value services that require fixed costs as compared to community residential treatments, while procedural processing through the criminal justice system after every recall includes repetitive court costs and incarceration costs that may overutilize the legal procedures. (Born, Kool & Levinson 2019; Agha, Frandsen & Rebitzer, 2019; Schulman Dolan & Abougergi, 2021). In different systematic settings, there is a tendency for patients to be treated according to their symptoms, neglecting their individual needs (Maculan & Gil, 2020). For example, in application to the drug rehabilitation system for offenders, offenders may be sentenced and confined according to the crimes committed irrespective of personal rehabilitative needs informed by their history of illicit drug abuse. This may negatively influence the offenders' motivation to recover and disincentivize rehabilitation, ultimately resulting in relapse and reoffending (Prangley, Pit & Rees, 2018).

The rationale for evaluating systems using a CAS framework is to identify the impacts of fragmentation so as to better understand and optimize system effectiveness with CAS. Previous studies have illustrated three main areas to optimize system effectiveness. First, the foundation of successful functioning of the system is the coordination and balance of the independent and interdependent nature among different intuitions (Mintzberg, 2011). An integrated approach is critical to facilitate system communication while benefiting from the specialization of the uniqueness of different agents (D'Aunno, 2001; Glouberman & Mintzberg, 2001). Particularly for drug abusers, the high connectivity of positive support between and within the agents is crucial to facilitate system efficiency (Randle, Stroink & Nelson, 2015). High connectivity between agents refers to the collaboration of stakeholders of the system, which includes professional support such as psychologists, social workers, community support groups, and positive relationships with families to support patients (Kodner, & Spreeuwenberg, 2002). In addition, functional support such as informing and connecting patients for financial support, education, and job opportunities are helpful to facilitate better treatment effectiveness. Especially for offenders with illicit drug abuse histories, positive support helps to build a stronger self-identity, which is positively reinforced by external support. Also, improved self-control enhanced one's ability to avoid relapse (Randle, Stroink & Nelson, 2015). Therefore, both internal and external system capital has to be highly interconnected during the transition from brief abstinence under the institution back to the community as the individuals' abstinence is hugely dependent on the stability of the system.

Second, taking advantage of the adaptive nature of the interconnected system helps to maximise system effectiveness by adapting to the changing needs of patients (Karemere, Ribesse & Marchal, 2015; Kuziemy, 2016). A good design of a health care system or systems with CAS characteristics is that the service designs must be congruent with the contextual differences and uncertainties (Penny, Nahid, Leykum & Pugh, 2018). In other words, a strict application of a new command or process may not be successful as local adaptations have to be allowed to fit the different needs of individuals. In application to the drug treatment and rehabilitation system, it is addressing whether the interventions provided are in line with the current drug trend and rehabilitation needs.

Finally, the CAS suggests an effective system has to be person-centric. This means the needs of patients will be catered beyond treatment, but also their overall mental, physical and social health and well-being during and after treatment (Sturmberg, O'Halloran, & Martin, 2012). For example, doctors, social workers work across and outside of the ward to support patients' reintegration needs such as securing housing, substance abuse support even after the inpatient days, visiting and supporting the families of patients. In other words, holistic and continual support should be given to patients to prevent readmission and full recovery.

In Hong Kong, the question of how to optimize the drug rehabilitation system for young offenders has been a subject of much discussion. The Action Committee Against Narcotics (ACAN) hosts annual meetings with multidisciplinary departments such as the CSD, Hospital Authority (HA), Social Welfare Department (SWD), to consult and disseminate information for future drug policies and implementation of the drug rehabilitation system. In the next section, the historical development of drug rehabilitation is explored in more detail, outlining the emergent properties that have made the system complex and adaptive.

2.2 Historical overview of drug treatment and rehabilitation in Hong Kong

There are two main types of drug treatment services in Hong Kong: compulsory and voluntary (Cheung, 1996), wherein the former is in institutional settings, while the latter is in community settings. The contemporary drug treatment and rehabilitation system in Hong Kong adopt a multimodality approach, which can be broadly categorised into three main groups: 1. Compulsory in-patient (e.g. Drug Addiction Treatment Centres), 2. Voluntary in-patient (e.g. Society for the Aid and Rehabilitation of Drug Abusers) and 3. Voluntary out-patient (e.g. Methadone Treatment Programme, Substance Abuse Clinics and drug counselling centres such as PS33) (Cheung et al., 2003). This chapter introduces the historical development of rehabilitation services and outlines the overall judicial and rehabilitative system for offending drug users.

2.2.1 Compulsory drug treatments

Incarcerating drug abusers was the only option to curb the growing problem of narcotics misuse in earlier time, not least during the "The Prohibition Era" (1946-1960) coined by Cheung, & Ch'ien (1996). The very first compulsory treatment programme was introduced and launched in one of the prisons for treating drug-dependent prisoners in 1958 (Cheung & Ch'ien, 1996). Upon the passing of Drug Addiction Treatment Centres Ordinance in 1969, convicted drug offenders can be sentenced to involuntary drug addiction treatment centres which are run by the Correctional Services Department (ibid.). It allowed convicted drug offenders to be detained in a correctional centre specifically for

inmates with drug use behaviours instead of a conventional prison setting. This compulsory placement programme aimed at assisting drug abusers who have been sentenced to imprisonment in a DATC by requiring patients to undergo medication, counselling, and work therapy treatment aiming at total detoxification. The average length of stay is six months. DATCs also require the discharges to participate in a one-year aftercare supervision programme (Legislative Council Secretariat 1996:4). The rationale behind the establishment of DATCs may require one to look at the macro-political environment in Hong Kong at that time. One of the justifications for this transformation may be based on policy and practical consideration, just on par with the rationale of establishing community sentences, which is a diversion from custody. It was acknowledged widely by the government and the public that it is unlikely to put all criminals in prison because of the huge costs involved, and some crimes are simply not serious enough to justify imprisonment (Chui, 2008:203). Consequently, in 1975, Hei Ling Chau Addiction Treatment Centre was the first DATC established. It accommodates adult male drug abusers. In 1982, the "Prisons Department" was renamed as "Correctional Services Department" to reflect the expanding programme of activities and emphasis on offenders' rehabilitation. One can then observe an expansion of DATCs, including Lai Sun Correctional Institution which was established in 1984 to accommodate both adult and young male drug abusers. Thereafter, adult and young female drug abusers are accommodated at Nei Kwu Correctional Institution (Established in 2002) and Lai King Correctional Institution (Established in 2008) respectively. Presently, an offender undergoes the treatment programme for 2 to 12 months, which is based on discipline and open-air physical activities including work programmes and therapy and is supported by one-year post-release statutory supervision.

Offenders with drug use problems generally appear to have a difficult time reintegrating back into society as, according to the Audit Commission, 86% of all recall orders during 2013 to 2014 were issued to persons discharged from DATCs. Similarly, the success rate of DATCs for drug-abusing offenders in 2014 was the lowest among the ten supervision schemes provided by CSD, with only 51.4% of DATC offenders not being recalled due to reconviction or relapse one year after discharge. Among those being recalled, 75% were due to relapse during the supervision period (Audit Commission, 2015). This concerning situation did not improve much throughout the years. Until recently in 2020, the DATC success rate still remained low with only 57.6% of offenders successfully reintegrated back into the community and were free from illicit drugs one year after discharge. The high percentage of recall cases of the DATCs due to relapse into drug abuse is a concerning issue.

2.2.2 The emergence of voluntary treatment services

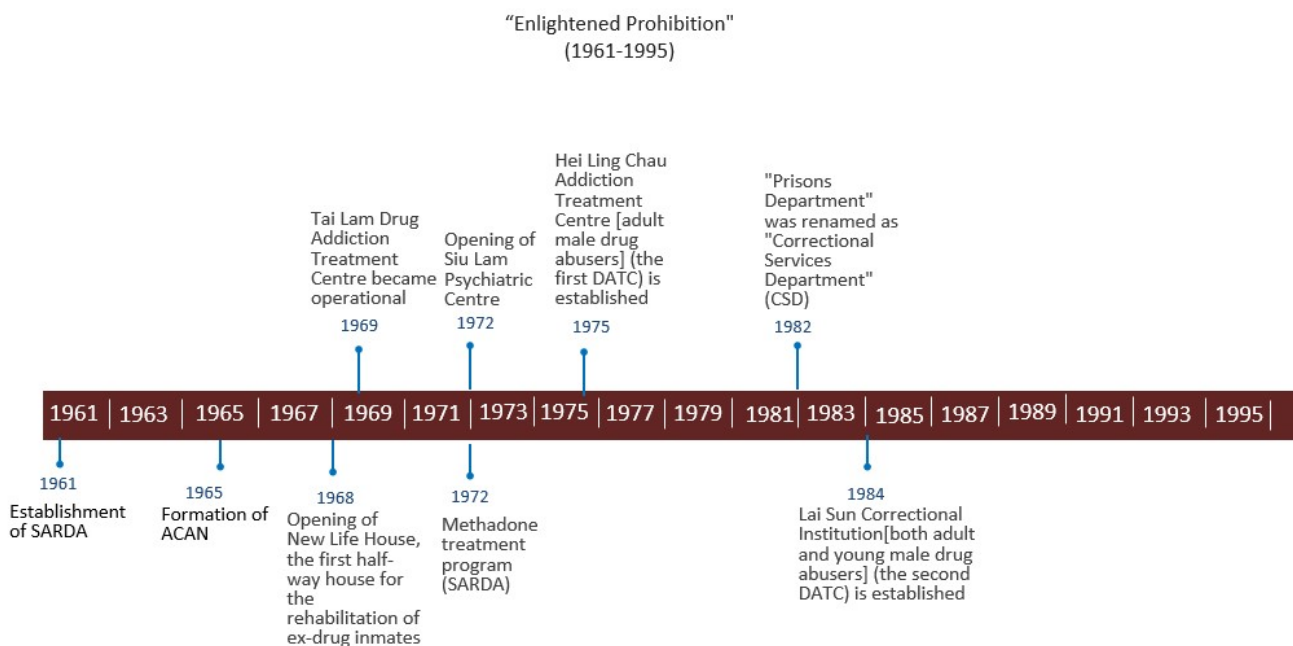
The Citizens' Working Committee, which was made up of community leaders and Hong Kong citizens, had proposed the set-up of treatment centres in the community, expanding beyond prison settings since 1959 (Cheung & Ch'ien, 1996). Voluntary community treatment services have begun to emerge and were first introduced in the Castle Peak Mental Hospital in 1959 followed by the passing of the Drug Addicts Treatment and Rehabilitation Ordinance in 1958 (ibid.). Thereafter, the Committee was granted a lease of Shek Kwu Chau to establish a voluntary treatment centre in 1961. In the same year, one of the largest inpatient treatment and rehabilitation centres in Asia, The Society for the Aid and Rehabilitation of Drug Abusers (SARDA), received financial support from the Hong Kong government to provide a variety of psychosocial intervention strategies to help drug users to rehabilitate voluntarily. In 1965, the Hong Kong government established a non-statutory advisory body, named The Action Committee Against Narcotics (ACAN). The body was chaired by a non-official member comprising experienced community stakeholders from the fields of social work, education, medical and community service to, primarily, advise the Government on the drug policies and to keep these policies under regular review. Thus, in addition to the punitive element, the government set out to investigate the prevailing drug norms and needs of users and incorporate evidence-based policy to

tackle the drug use problem in Hong Kong. Moreover, in response to the identified needs for housing and the risk factor in relation to drug-using peers at the neighbourhood level, New Life House, the first half-way house for the rehabilitation of ex-drug offenders, was opened in 1968. One of the most notable events was the adoption of harm reduction strategy, the Methadone treatment programme provided by SARDA outpatient services in 1972, which was thereafter spread in 22 methadone clinics all over the territory. In the same year, Siu Lam Psychiatric Centre was opened for offenders and detainees who require psychiatric observation, treatment, assessment or special psychological care.

The rise of rehabilitation ideology

In earlier times, most of the treatment programmes were delivered in the forms of residential and involuntary treatment which appear to uphold the element of punitiveness or lack of self-control. Since 1961, however, we can see that Hong Kong is moving from a punitive and coercive manner to a health dominant paradigm. There has been a growing emphasis on rehabilitation with increasing resources to support this; while the court tends to opt for alternative sentencing, such as fines, drug addiction treatment centre orders, bound over and probation orders over imprisonment for drug offences, especially first-time offenders or summary drug offences, such as low-dosage possession of illicit drugs. The probation system was basically an overseas import during colonial times (Chui, 2008:205). Its inception was due to the belief in giving the offender a chance to reform through welfare advice, education, and counselling (ibid.). The offender can return to the community and work which could then be an asset to society by taking an economic point of view (ibid.). Also, the offender is helped to obey the law under the supervision of a probation officer, thus saving the government any expense involved in holding the offender in an institution (ibid.). Furthermore, whether prohibition and incarceration are the best solutions for drug-using problems has been hotly debated in the West for decades (Cheung & Ch'ien, 1996), which likely influences the attitudes of various key stakeholders towards illicit drug users and treatments in Hong Kong.

Figure 2.1 The emergence of voluntary treatment services in Hong Kong

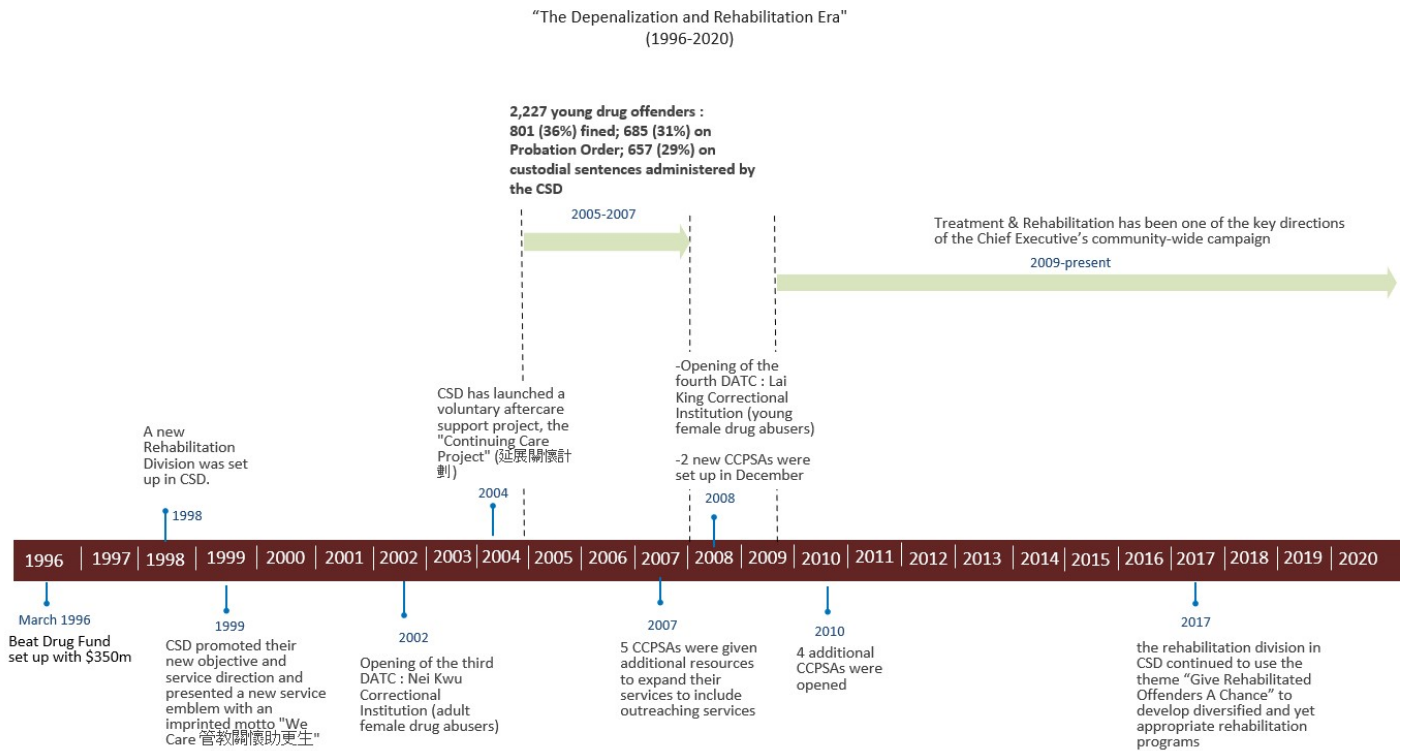


The growing importance of Rehabilitation and the expansion of Voluntary treatment services

The Hong Kong government established the Beat Drugs Fund (BDF) in 1996. The BDF operates the Regular Funding Scheme on an annual basis to provide financial support to different organizations, including but not limited to hospitals, non-governmental organizations (NGOs) and universities, to address the problem of drug abuse in Hong Kong. According to the open data source on the BDF website, 864 projects targeting drug T&R had been funded by BDF from 1997 to 2019. In 1998, a new Rehabilitation Division, headed by Assistant Commissioner (Rehabilitation), was set up to focus on rehabilitation services for prisoners and offenders in CSD. It consists of (1) Rehabilitation Unit 1 (Assessment & Supervision); (2) Rehabilitation Unit 2 (Welfare and Counselling & Supervision); (3) Education Unit; (4) Industries & Vocational Training Section; and (5) Psychological Services Section. A year after, CSD promoted their new objective and service direction and presented a new service emblem with an imprinted motto "We Care 管教關懷助更生" which conveys the message that CSD rehabilitates offenders through the process of custody and care. The reformation of CSD has shown that the direction and attitude towards offenders, in general, have transformed from retributive to rehabilitation-centred. In 2004, CSD has launched a voluntary aftercare support project, the "Continuing Care Project" (延展關懷計劃), wherein supervisees can receive support from designated NGOs after the expiry of statutory supervision.

In April 2007, 5 Counselling Centre for Psychotropic Substance Abusers (CCPSAs) were given additional manpower and resources from the Hong Kong government to expand their services to include outreaching services. In the same year, SWD funded NGOs to support their court outreach services in assisting arrested drug users. Subsequently, in 2008, 2 new CCPSAs were set up in December. In 2010, 4 additional CCPSAs were opened which makes a total of 11 CCPSAs which fall under the 11 administrative districts of the SWD. Since July 2009, T&R has been one of the key directions of the Chief Executive's community-wide campaign. It aimed to provide more rehabilitation facilities for young drug abusers and invited proposals from NGOs to formulate new and effective modes of service and treatment programmes. In 2017, the rehabilitation division in CSD continued to use the theme "Give Rehabilitated Offenders A Chance" to develop diversified and yet appropriate rehabilitation programmes to help offenders rehabilitate and reintegrate into society.

Figure 2.2 The expansion of voluntary treatment and rehabilitation services in Hong Kong



Interactions between institutional and community treatment services

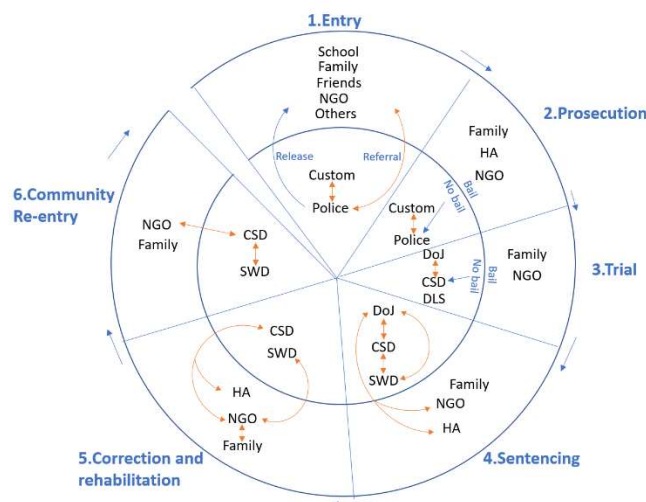
One can see that the scale and role of community treatment services are gradually expanding, while the ideology of rehabilitating drug users has been growing in importance significantly within the institutional setting. It is also observed that courts have become more reluctant to put drug abusers behind bars, especially young, first-time drug offenders or summary drug offenders, who are usually being fined solely. For repeated and serious offenders, the court may consider other more severe sentencing options as appropriate. For reference, the court sentences among 2,227 young drug offenders from 2005 to 2007: 801 (36%) fined; 685 (31%) on Probation Order (PO); 657 (29%) on custodial sentences administered by the CSD, including detention in DATCs, Rehabilitation Centres, Detention Centres and Training Centres and incarceration in young prisons; and 84 (4%) on other sentences such as Community Service Orders, suspended sentence, bound-over, etc. It is noted that there has been a significant plunge in sentencing drug offenders to imprisonment; while probation order is the second significant sentencing option after a fine. A probation order is a significant sentencing option, providing intervention measures for drug offenders in lieu of a custodial sentence. Underpinned by the Probation of Offenders Ordinance (Cap. 298) (the Ordinance), probation supervision has been well-established in Hong Kong for over 50 years. It is administered by officers of SWD under judicial oversight. Furthermore, the total number of drug-related arrests in 2018 decreased by 12% (from 4,798 in 2017 to 4,240 in 2018).

2.3 The current drug treatment and rehabilitative system in Hong Kong

This study examines the drug treatment and rehabilitation system for young offenders in Hong Kong from a CAS perspective. Suspects with illicit drug use will go through a process from arrest, prosecution,

trial, sentencing to different rehabilitation settings and finally under supervision (see Figure 2.3). There is an assumption that incarceration and recovery is a linear process, however as we have shown in the rehabilitation process, it is a series of complex sub-systems with stakeholders interactively impacting one another, that exist within a more cyclical process indicated by the blue arrows. Stakeholders are required to communicate and coordinate activities in a complex manner, as indicated by the orange arrows. The complex cyclical process reveals the dynamic and interdependent nature of the system, each stage featuring very different patterns. To avoid offenders going through the cycle multiple times, it is likely that improvements will require full recognition of these complex dynamics. In the subsequent sections, each of the individual stages with their respective fragmentations and respective recommendations will be explored in more depth to facilitate greater effectiveness of the drug rehabilitation system.

Figure 2.3 The drug treatment and rehabilitation system in Hong Kong



Entry

Briefly, the first stage is the entry system to the drug rehabilitation and treatment system. It is where frontline support and publicly accessible treatment are available for early intervention. In other words, community members i.e. schools, hospitals, outreach teams, community centres etc. are most likely to detect at-risk and occasional drug abusers to provide and direct them to suitable interventions and treatments. Currently, not much collaboration is placed between police and community members due to the legal consequence of drug abuse. However, more severe drug abusers should be referred to more in-depth treatments by other stakeholders such as law enforcers to the criminal justice system if necessary. Suspects may enter the criminal justice system after being detected and arrested by law enforcers through the direct discovery of illicit drug activities by law enforcers such as Police Force and Custom and Excise (C&E) or indirectly (i.e. community members report illicit drug activities to police). C&E is more concerned with cross-border drug trafficking cases whereas police focused more on local level cases and so, this study will focus more on the involvement of police with individuals with illicit drug use activities. As the community members may not be most informed about the appropriate services available and the severity and drug type of drug abusers, appropriate public

education and training can help empower and equip the public to discover and facilitate their knowledge on the drug treatment services available in the community.

Prosecution

Next, the suspect will be brought to the prosecution system to be determined by the police whether to be charged or not depending on the evidence available. Police work with CSD puts people under custody for more severe charges. Police will also consult the Department of Justice (DoJ) for legal advice in some cases. For simple cases, police will decide to press charges within 48 hours or allow bail until further notice, whereas for heavy cases such as possession or trafficking of a large amount of illicit drug, suspects will be prosecuted and sent directly to remand under CSD reception centre after seeking approval of the court. The prosecution may last for months, with no drug-specific treatment for those on bail or remand under CSD. Despite being another entry point to detect possible illicit drug consumption, the police have no ability to conduct drug testing of those that have committed other 'trigger'-type i.e. theft offences or trafficking cases due to a prevailing view that this would be detrimental to human rights. The law has no flexibility for suspects who are arrested on suspicion of drug trafficking who may or may not be carrying drugs. The accused will proceed to trial for conviction by the judge at the court.

Trial

The trial phase mainly concerns the DoJ for conviction. During the pre-trial period, which could last for 1-3 months, those who are on bail will enter the community until the court day while others will be detained at the reception centre of CSD. In some cases, HA in the community coordinates with DoJ when detainees need medical attention. Defendants should be informed and supported equally by the joint effort between DoJ, duty lawyer scheme and social workers to provide legal consultation, emotional and health support during pre-trial. This includes having well-informed channels to access legal support, and counselling services provided by NGOs in the community as an intervention opportunity. At the court, if the defendant pleads not guilty, then the defendant will wait for the next hearing. Those without sufficient evidence to put forward the case will be acquitted out of the criminal justice setting. Those who plead guilty will then proceed to the sentencing stage.

Sentencing

The sentencing stage is when the judge decides the sentencing based on the suitability reports from the CSD officers and probation officers for the respective sentencing institutions. In other words, DoJ work with CSD and SWD to evaluate sentencing options. The suitability reports are gathered within 14-21 days during the pre-sentencing period when offenders are either on bail or detained under the custody of CSD. Solely based on the decision of the judge and defending lawyer, the type of suitability reports about the offenders will be gathered. The common type of reports called for are probation reports and DATC reports, medical reports will only be requested if the judge or defending lawyer raised the concern. There is a standardized sentencing guide for minimum charging period specific to the amount and type of drug involved regardless of the reason for offending.

Correction and rehabilitation

After sentencing, offenders will enter the correctional and rehabilitation stage where they will either receive compulsory in-patient T&R services under the custody of CSD (i.e. imprisonment, DATC etc.), voluntary in-patient T&R services (i.e. Residential Drug Treatment and Rehabilitation Centres under probation order) or voluntary out-patient T&R services (i.e. Substance Abuse Clinics and drug counselling centres under probation order). In the existing system, community stakeholders such as

trainers and NGOs will enter CSD institutions to provide career training or rehabilitative services. The programmes and services during the correctional and rehabilitation stage should be preparing offenders to reenter the community in healthier lifestyles to maintain abstinence. This requires a joint effort between CSD, HA, SWD or NGOs in providing formal biopsychosocial treatments for offenders based on their needs as well as providing clear referral pathways linking informal care such as parents and family support in the community with offenders during incarceration.

Community re-entry

Finally, after serving the sentence, offenders under DATC will be under one-year supervision whereas other offenders may or may not be under supervision, depending on the case. The supervision is coordinated between CSD and SWD following ten to thirteen supervision requirements. Biopsychosocial needs should be addressed during the supervision period. For offenders sentenced to receive voluntary in-patient T&R service, there is also a one-year aftercare service upon release catering for housing, social, and health issues.

Chapter 3 The treatment and rehabilitation support for younger-age drug users in CSD: effectiveness and determinants

This chapter examines the multiple factors that affect treatment and rehabilitation outcomes during a compulsory rehabilitation period. The present study explored the recall and reoffended risk of offenders with drug use behaviour aged 30 or below in Hong Kong. The results indicated that approximately 58% of the DATC offenders were recalled during the 12 months supervision period. Of those recalled, about 78% are recalled due to drug relapse. The regression results suggest that age, marital status, conviction history, attendance of rehabilitation programmes and visitation during incarceration are closely associated with recall and/or reoffending. In addition, having been recalled due to relapse is a predictor of drug-related reoffending. To highlight, we found that indicators of a strong social support network (i.e., greater visitation from family and friends) showed an association with reduced risk of recall. Offenders with more previous convictions were more likely to be recalled, indicative of stubborn patterns of drug offending. We also found a higher risk of recall for those who have attended more rehabilitation programmes. While this seems counter-intuitive, it may be that the participants were at higher risk before attending the programme, and that these programmes could not fully negate this heightened risk. The CSD may consider conducting an analysis of rehabilitation programmes to better understand their effect and how they may be improved. An increased risk of recall during the first few months after discharge was also found.

3.1 Correctional T&R support for younger-age drug users

The combination of drug and crime is a concerning problem as populations engaging in illegal drug use and criminal activities are suggested to have poorer T&R outcomes and a higher likelihood of re-entering correctional facilities repeatedly because of relapse to drugs. In general, this group experiences multiple complications other than drug addiction, including family issues, negative social networks, low education, employment problems, financial matters, and medical issues. Therefore, repeated incarceration due to drug relapse is considered a concerning problem that seeks attention for its economic and social impacts on the criminal justice system and society (Chui, Cheung & Cheung, 2017).

CSD's correctional institutions offer one of the mainstream T&R supports provided to young offenders with drug use problems in Hong Kong. Correctional facilities present an ideal setting and offer valuable opportunities to quit drugs because there is no access to drugs. Emerging evidence indicates that effective and tailored T&R support for offenders with illicit drug use problems is crucial in reducing subsequent and repeated offending (NTORS, 1996). Drug-related correctional institutions in Hong Kong (i.e. DATCs) adopt a multi-modality approach in providing T&R services to assist offenders with drug abuse problems in quitting drugs. According to the 6th Three-year Plan on Drug Treatment and Rehabilitation services in Hong Kong, a series of steps including redeploying resources and reorganizing institutional regimes have been adopted to tackle the problem of drug use among younger offenders. Resources will be distributed according to the re-offending risks and rehabilitation needs assessed through Risks and Need Assessment. For younger offenders being admitted to DATCs, services catering for needs from different aspects will be provided. The major components of the DATC programme cover medical services, counselling services (e.g., Relapse Prevention Group), psychological services (e.g., mindfulness-based psychological treatment programme and PSY GYM), work therapy and vocational training, education (e.g., DSE) and physical education and recreation. A "Pre-release Reintegration Orientation Course" assist offenders in their reintegration back into the community. This course conveys information on social welfare services, legal assistance, employment

services, and the labor market. Offenders after being discharged from DATCs will be put under 12 months of statutory aftercare period. During the supervision period, the supervisees must meet with CSD officers regularly and have urine tests to make sure they are not relapsed into drug use. If supervisees are found in breach of any supervision conditions, they will be recalled for a further period of detention. Those who need accommodations and intensive supervision will be arranged to stay in a halfway house operated by CSD after release from DATCs. Each offender will be arranged for job placement when reintegrating into the community through family and friends, supervising officers, NGOs and potential employers.

Not many studies have been conducted to evaluate the effectiveness of T&R support provided by CSD. The current study examines the efficacy of CSD T&R support and factors associated with T&R effectiveness. The more effective the T&R support is, the fewer people will return back to correctional facilities for relapse to drugs. This study will address two research questions:

1. What is the effectiveness of the T&R support in CSD for younger-age drug abusers?
2. What factors influence the outcome of the T&R support in CSD for younger-age drug abusers?

There are certainly multiple and diverse ways to come up with the evaluation of the outcome effectiveness of drug T&R services, including a reduction in drug use, reduction in criminal acts and improvements in an individual's physical and psychological health (Gossop, Marsden, Stewart, & Rolfe, 2000; Hough, Clancy, McSweeney, & Turnbull, 200; Hubbard, Craddock, & Anderson, 2003). Since reducing re-offending is one of the most critical objectives for correctional institutions, measuring reconviction and re-imprisonment rates is regarded as a crucial performance indicator. In the current study, the recall rate will be used to reflect the performance and effectiveness of the rehabilitation programmes as many persons in custody (PIC) were recalled due to their relapse to drug abuse (Audit Commission, 2015). After the PIC are being discharged from DATC, there will be a 12-month supervision period. During the supervision period, supervisees are required to comply with the Supervision Order which include not breaking any laws of Hong Kong, not taking dangerous drugs and meeting with the supervision officer, etc. If a person break any requirement of the Supervision Order, the Commissioner of Correctional Services may decide to issue a Recall Order to require the person to return to the correctional institution so as to prevent them from committing crimes again and protecting the safety of the general public (Correctional Services Department, n.d.; Drug Addiction Treatment Centres Ordinance, 2019). . Thus, the recall rate can be used to assess the shorter-term effect (i.e., one year) of CSD's T&R support. Recall leading to re-incarceration (i.e., DATCs) reflects additional costs of sentence administration.

Addictive drug use can be considered a multifaceted behaviour impacted by various factors that cannot be explained by a single theoretical framework (Yip et al., 2011; Griffiths, 2005). Problematic drug use often results from the interaction between many factors, including biological and pharmacological properties of the drugs, psychological constitution (e.g., motivation, attitudes, expectations and beliefs), and social environment (e.g., social network). Previous studies have also looked at relapse prevention through a biopsychosocial perspective (Marlatt & Gordon, 1985). This study looks at predicting factors from three main aspects: biological properties of illicit drugs, individuals' internal attributes, and their external social environment.

Biological

Drug use patterns help predict relapse from a biological perspective. Different types of illicit drugs and drug use frequency are crucial key features in predicting relapse. Different types of drugs have different pathways in impacting the brain. Heroin is suggested to be one of the most addictive drugs

to treat because it creates deterioration of the white matter, which might affect decision-making abilities and responses to stressful situations making the individual more vulnerable to retaking drugs (Li et al., 2013). The high frequency of repeated drug use in heroin creates a disorder that goes beyond physical dependence that leads to uncontrollable drug-seeking (Kreek et al., 2012). Multiple studies suggested that higher levels of addiction severity will negatively affect the rehabilitation outcome (Simpson, 2001; Smyth, Keenan & Ducray, 2010; Ternes, Richer & Farrell MacDonald, 2019).

H1: Offenders with a high level of addiction severity (i.e., type of drugs and frequency) before incarceration are more likely to relapse

Psychological

Internal attributes are also mentioned in previous studies as the predicting factors of relapse. Individuals with high efficacy and effective coping strategies are less likely to relapse than counterparts lacking those skills (Greenfield et al., 2000; Larimer, Palmer & Marlatt, 1999). Rehabilitation programmes in the drug abuse domain provided by CSD involve group counselling and activities which improve offenders' efficacy in dealing with drug abuse problems. The interventions aim to increase motivation to change, identify high-risk situations related to relapse, and develop coping skills to deal with risk factors. It is hypothesized that individuals who attend more rehabilitation programmes, especially drug-related ones, during incarceration are less likely to relapse when compared to offenders with no or few rehabilitation programmes (Knight, Dwayne, Chatham & Camacho, 1997; Olson & Lurigio, 2014).

H2: Offenders who received more rehabilitation programmes are less likely to relapse

Social environmental

The external factor of the social environment also acts as a crucial predictor of relapse. Multiple aspects of life such as living environment and social networks link closely to form the social environment. According to social capital theory, interpersonal relationships are valuable as they provide resources to help individuals achieve desired goals (Machalek & Martin, 2015). The density of the support network is critical as it can represent the number of support sources. Visitor history represents the social network and social support the offenders will receive during reintegration back to the community. Hence, it is hypothesized that offenders with less favourable visitations (i.e., reflected by types of visitors and frequency of visits) are more likely to relapse. Individuals with low socioeconomic status (i.e., educational attainment and unstable employment) are more likely to have a negative social network and poor living environment, making them more susceptible to drug use. Conviction history is found to be associated with the lack of positive environmental contingencies such as inadequate parental supervision, a social circle with negative impact and unemployment (Chung et al., 2002; Kinlock, Battjes & Gordon, 2004). Poor environmental contingencies induce negative social pressure, temptation and stressors that enhance the risk of relapsing to drugs (McKay, Rutherford, Alterman, Cacciola & Kaplan, 1995). Those with more conviction records are also suggested to have less motivation to change since they repeatedly failed to learn from past mistakes. Several studies suggest that offenders with a higher number of previous convictions and those who committed more violent crimes have poorer rehabilitation outcomes (Simpson, 2001; Ternes, Richer & Farrell MacDonald, 2019).

H3: Offenders with more visitation (type of visitors and frequency of visit) are less likely to relapse

H4: Offenders with lower socioeconomic status (i.e., less education, unstable employment) are more likely to relapse

H5: Offenders with lengthier/more previous convictions are more likely to relapse

Demographic characteristics

Other than the variables mentioned above, specific demographic characteristics such as age and gender are also suggested to be associated with the tendency to relapse. Some studies found few or no differences between gender in treatment outcomes. However, when gender differences have been found, studies have suggested that females are more likely to relapse, perhaps because the experience greater sensitivity to stress or the cues associated with the drug and experience greater stigma, leading to less social support. Younger age is suggested to be a predictor of relapse in multiple studies (Smyth, Barry, Keenan & Ducray, 2010; Fishman, Wenzel, Scodes, Pavlicova, Lee, Rotrosen & Nunes, 2020). Younger individuals have substantial and unique developmental vulnerabilities. They lack economic and social independence from their families and have low motivation to change, making them more susceptible to relapse.

H6: Female offenders are more likely to relapse

H7: Younger offenders are more likely to relapse

3.2 Methods

Sample

Data were obtained from CSD. The data set includes the data of DATC offenders aged from 15 to 30 at the time of admission from 2013 to 2019. Specifically, CSD collected information on demographics, socioeconomic status, drug use history, conviction history, rehabilitation programmes attendance, and visitation during incarceration. There are in total 2,031 offenders being included in the dataset. Each offender can be admitted to DATC more than once from 2013 to 2019 (i.e., one offender can have multiple cases). Hence, 2,295 cases are included for the purpose of analysis for the current study.

Measures

Effectiveness of DATCs' T&R services

As mentioned earlier in this chapter, previous studies have used Recidivism as one of the indicators to reflect the effectiveness of T&R services. Recidivism in previous studies was measured through various indicators with ranges of follow-up periods (Gossop, Marsden, Stewart, & Rolfe, 2000; Hubbard, Craddock, & Anderson, 2003; Evans, Huang & Hser, 2011; Spohn & Holleran, 2002). Because this study is using DATC data only, we will use recall rate. During the supervision period, supervisees are required to comply with relevant supervision conditions which include not breaking any laws of Hong Kong, not taking dangerous drugs and meeting with the supervision officer, etc. If a supervisee breaches a supervision condition during the supervision period, the Commissioner of Correctional Services (C of CS) may issue a Recall Order to require the young person to return to the correctional institution (CSD, 2019). As mentioned above, relapse to drugs is the major concern for DATC, the recall rate is thus used to measure the short-term effects of T&R services provided to the offenders with drug abuse as the critical factor to rehabilitation. The recall rate, under this consideration, may reflect the incidence of relapse while recidivism reflects the re-offending covering factors not only drug abuse.

Offenders' characteristics

We used data from offenders' sociodemographic profiles (i.e., age, gender, marital status, educational attainment, employment status), drug use history (i.e., number of drugs used, the total cost on drugs, duration of drug use) and conviction history (i.e., number of previous conviction). Our analysis also

included data on offenders' attendance of rehabilitation programmes from five domains (i.e., Employment, Marital/family, Associates/social interaction, Substance abuse and Community functioning) and visitation history during incarceration (i.e., from three groups of visitors: siblings, friends and relatives; parents and grandparents; sons and daughter).

Drug-use profile

Latent class analysis (LCA) was used to classify the drug use profile of offenders based on their reported type of drug use 24 months before their incarceration. Multiple fit statistics with conceptual meaning were used to select the appropriate numbers of latent classes. Lower Bayesian Information Criterion (BIC) indicated better model fit and a model with entropy above 0.8 were considered acceptable (Weller, Bowen, & Faubert, 2020; DOI: 10.1177/0095798420930932). Based on the 19 types of drugs, a four-factor solution was classified, including ketamine-user, cocaine-ketamine-ice user, ice-user, and diverse user. The latent class model and fit statistics are summarized in Table 3.1 and 3.2 respectively.

Table 3.1 Four-class model of drug use profile in the past 24 months before incarceration

	Class 1	Class 2	Class 3	Class 4
	Ketamine-user	Cocaine-ketamine-ice user	Diverse user	Ice-user
Cocaine	0.2633	0.5033	0.4278	0.0864
Dormicum / Midazolam	0.0000	0.0000	0.0210	0.0014
Ecstasy	0.0062	0.1742	0.0027	0.0000
Five Chai/ Nimetazepam	0.0040	0.1745	0.0094	0.0107
Ghb	0.0000	0.0000	0.0118	0.0000
Halcion	0.0000	0.0283	0.0150	0.0014
Heroin	0.0046	0.0666	0.1108	0.0276
Ketamine	0.9922	1.0000	0.0000	0.0000
Mandrax	0.0000	0.0000	0.0000	0.0016
Marihuana / Cannabis	0.0230	0.4351	0.1814	0.0497
Mb Cough Mixture	0.0150	0.0579	0.0932	0.0195
Mdma	0.0000	0.0425	0.0000	0.0000
Methadone	0.0000	0.0142	0.0148	0.0000

Methedrine	0.0000	0.0000	0.0030	0.0000
Methylamphetamin e / Ice / Amphetamines	0.1739	0.8452	0.0408	1.0000
Opium	0.0000	0.0000	0.0030	0.0000
Rohypnol / Flunitrazepam	0.0011	0.0000	0.0000	0.0000
Triazolam	0.0011	0.0000	0.0000	0.0016
Zopiclone (Imovane)	0.0017	0.0620	0.0210	0.0046

Table 3.2 Summary of full latent class model identification and fit statistics

No. of classes	BIC	Smallest class, %	Entropy
2	1042.85	40.13	0.69
3	1084.09	3.33	0.92
4	974.51	3.58	0.93
5	990.00	3.02	0.89
6	1132.71	2.34	0.87

Table 3.3 Variables

Variables	Descriptions
Age (1)	Younger than 18 18 to 25 years 26 to 30 years
Gender	Male Female
Marital status	Married/Cohabiting Separated/divorced/widowed Single
Educational attainment	Primary or lower Secondary Post-secondary
Employment status	Employed Unemployed Economically inactive
Number of drugs	0 1 2 Polydrug (>2)
Cost	Average daily cost
Attendance of rehab services	Attended Not attended
Visitor type frequency	Visited

(1) At time of admission

Statistical analysis

Descriptive

In order to identify the factors relating to relapse status and explore the associations among variables of the dataset, the team conducted the descriptive analysis. Descriptive statistics describe recalled offenders' demographic characteristics, drug-use history, pre-conviction history, attendance of rehabilitation services and visitation history. The data set was divided into three groups: no recall group, relapse group, and non-relapse recall group. By dividing the data set into two groups, the distinctive features of each group are compared. Distinctive features that are statistically related to the no-recall group will be identified as protective factors. In contrast, unique features that are statistically associated with the relapse group will be identified as risk factors. Thus, risk and protective factors associated with offenders' recall status are being explored through descriptive analysis.

Cox proportional hazard models

Cox proportional hazard models were used to predict the risk of recall/relapse within 12 months and reoffending within 24 months after discharge and examine the contributing factors. Since the study period was 12 months and 24 months respectively, offenders who were incarcerated after December 31st, 2019 for the recall/relapse study and after December 31st, 2018 for the reoffending study were excluded because they did not have a full-time follow-up. Offenders whose recall/relapse or reoffending date was earlier than the discharge date were also excluded from the study due to potential data errors.

For the offenders remaining in the study, the main outcomes were recalled/relapsed within 12 months after discharge and reoffending within 24 months after discharge. The follow-up time was calculated as the number of months between the discharge date and the date of recall/relapse within 12 months and/or reoffending within 24 months, or 12/24 months, if the offenders did not have any outcome events or the outcome events, happened after the study period.

Multivariable Cox proportional hazard models were performed separately for recall/relapse within 12 months and reoffending within 24 months including the variables of interest. The adjusted hazard ratios (HRs) and the corresponding 95% Confidence Intervals (95% CIs) for each model were reported.

3.3 Results

Relapse rate within 12 months

As shown in Table 3.4, 57.9% of all the cases (N=1974³) in the current dataset had been recalled whereas the rest (42.1%) had not been recalled. Among those who had been recalled, 77.5% were recalled due to drug relapse.

³ Those with potential data errors (recall/reoffend date before discharge date) were excluded from the analysis.

Table 3.4 Offenders' characteristics based on recall status

	No recall N=831 N (%)	Relapse N=886 N (%)	Non-relapse recall N=257 N (%)	No recall vs relapse p-value	Relapse vs non-relapse recall p-value
Demographics					
Age group				<.0001	<.01
<i>Below 18</i>	40 (4.81)	13 (1.47)	13 (5.06)		
<i>18-24</i>	398 (47.89)	387 (43.68)	117 (45.53)		
<i>25-30</i>	393 (47.29)	486 (54.85)	127 (49.42)		
<i>Mean age (S.D.)</i>	23.86 (3.85)	24.69 (3.40)	23.91 (4.04)	<.0001	<.01
<i>Median age (IQR)</i>	24.00 (21.00- 27.00)	25.00 (22.00- 27.00)	24.00 (20.00- 27.00)	<.0001	<.05
Gender				0.48	0.55
<i>Female</i>	174 (20.94)	198 (22.35)	62 (24.12)		
<i>Male</i>	657 (79.06)	688 (77.65)	195 (75.88)		
Biological					
Number of drugs in two years				0.61	<.05
<i>0</i>	26 (3.13)	27 (3.05)	10 (3.89)		
<i>1</i>	548 (65.94)	601 (67.83)	150 (58.37)		
<i>2</i>	192 (23.10)	203 (22.91)	75 (29.18)		
<i>> 2</i>	65 (7.82)	55 (6.21)	22 (8.56)		
Type of drugs					
<i>Stimulants</i>	509 (61.25)	520 (58.69)	180 (70.04)	0.28	<.01
<i>Depressants</i>	45 (5.42)	50 (5.64)	28 (10.89)	0.84	<.01
<i>Hallucinogens</i>	409 (49.22)	483 (54.51)	107 (41.63)	0.03	<.0001
<i>Marijuana</i>	84 (10.11)	44 (4.97)	17 (6.61)	<.0001	0.30
<i>Narcotics</i>	46 (5.54)	52 (5.87)	28 (10.89)	0.77	<.01
Type of drug users				0.03	<.01
<i>Ketamine-user</i>	386 (46.45)	464 (52.37)	99 (38.52)		
<i>Cocaine-ketamine- ice user</i>	24 (2.89)	19 (2.14)	7 (2.72)		
<i>Diverse user</i>	157 (18.89)	128 (14.45)	47 (18.29)		
<i>Ice-user</i>	264 (31.77)	275 (31.04)	104 (40.47)		
Internal / psychological					
Attendance of rehabilitation programme					
<i>Substance abuse</i>				<.0001	<.01
<i>0</i>	153 (18.41)	77 (8.69)	31 (12.06)		
<i>1-2</i>	478 (57.52)	466 (52.60)	105 (40.86)		
<i>3-5</i>	61 (7.34)	192 (21.67)	58 (22.57)		
<i>6</i>	23 (2.77)	36 (4.06)	12 (4.67)		
<i>> 6</i>	116 (13.96)	115 (12.98)	51 (19.84)		
<i>Marital/family</i>				0.79 (F)	<.01 (F)
<i>0</i>	654 (78.70)	682 (76.98)	179 (69.65)		

1-2	147 (17.69)	162 (18.28)	52 (20.23)		
3-5	4 (0.48)	5 (0.56)	5 (1.95)		
6	25 (3.01)	35 (3.95)	21 (8.17)		
> 6	1 (0.12)	2 (0.23)	0 (0.00)		
<i>Societal</i>				0.26 (F)	<.001 (F)
0	622 (74.85)	681 (76.86)	193 (75.10)		
1-2	173 (20.82)	180 (20.32)	43 (16.73)		
3-5	0 (0.00)	0 (0.00)	2 (0.78)		
6	35 (4.21)	23 (2.60)	19 (7.39)		
> 6	1 (0.12)	2 (0.23)	0 (0.00)		
<i>Employment</i>				0.22 (F)	0.22 (F)
0	670 (80.63)	712 (80.36)	200 (77.82)		
1-2	121 (14.56)	135 (15.24)	39 (15.18)		
3-5	8 (0.96)	2 (0.23)	3 (1.17)		
6	30 (3.61)	31 (3.50)	13 (5.06)		
> 6	2 (0.24)	6 (0.68)	2 (0.78)		
<i>Community functioning</i>				0.90 (F)	0.10 (F)
0	714 (85.92)	769 (86.79)	209 (81.32)		
1-2	77 (9.27)	82 (9.26)	31 (12.06)		
3-5	8 (0.96)	8 (0.90)	2 (0.78)		
6	30 (3.61)	26 (2.93)	15 (5.84)		
> 6	2 (0.24)	1 (0.11)	0 (0.00)		
Social/environmental					
<i>Parents</i>	723 (87.00)	562 (63.43)	151 (58.75)	<.0001	0.17
<i>Children</i>	62 (7.46)	35 (3.95)	11 (4.28)	0.002	0.81
<i>Grandparents</i>	71 (8.54)	29 (3.27)	7 (2.72)	<.0001	0.66
<i>Siblings</i>	446 (53.67)	230 (25.96)	60 (23.35)	<.0001	0.40
<i>Other relatives and friends</i>	720 (86.64)	562 (63.43)	149 (57.98)	<.0001	0.11
<i>Visitation per year</i>					
<i>Mean visitation per year (S.D.)</i>	34.78 (24.95)	10.60 (13.39)	9.58 (13.88)	<.0001	0.29
<i>Median visitation per year (IQR)</i>	31.00 (17.00-47.00)	7.00 (3.00-13.00)	6.00 (2.00-12.00)	<.0001	<.05
<i>Marital status</i>					
<i>Single</i>	709 (85.32)	706 (79.68)	204 (79.38)	<.01	0.14
<i>Married/Co habiting</i>	99 (11.91)	156 (17.61)	40 (15.56)		
<i>Separated/Divorced / Widowed</i>	23 (2.77)	24 (2.71)	13 (5.06)		
<i>Educational attainment</i>					
<i>Primary or below</i>	36 (4.43)	38 (4.31)	9 (3.52)	0.64	0.58
<i>Secondary</i>	768 (94.46)	837 (95.01)	244 (95.31)		
<i>Post-secondary</i>	9 (1.11)	6 (0.68)	3 (1.17)		
<i>Employment status</i>					
<i>Unemployed</i>	380 (47.26)	408 (46.63)	125 (49.02)	0.42	0.83
<i>Employed</i>	402 (50.00)	451 (51.54)	126 (49.41)		

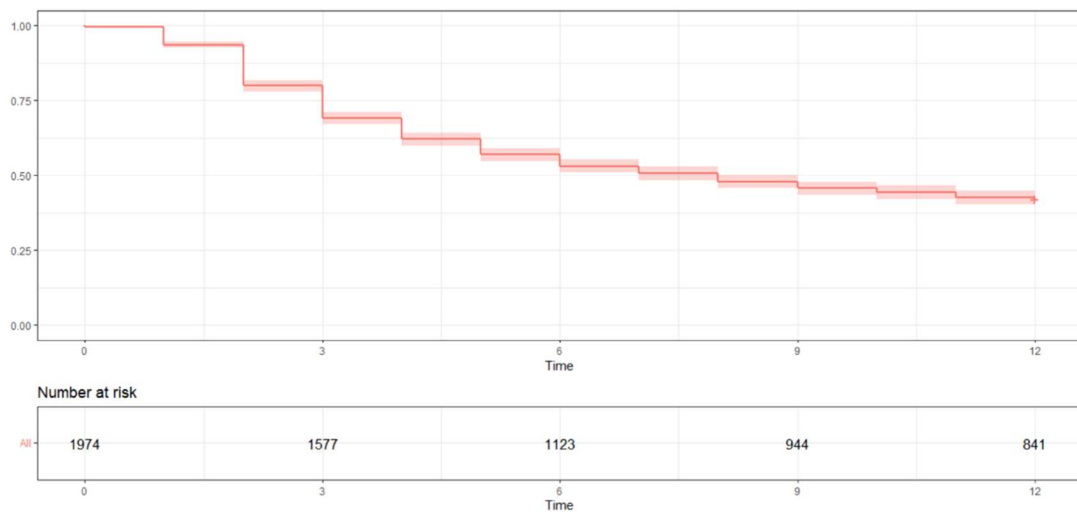
<i>Economically inactive</i>	22 (2.74)	16 (1.83)	4 (1.57)		
Number of convictions				<.0001	<.001
0	530 (63.78)	439 (49.55)	108 (42.02)		
1	189 (22.74)	208 (23.48)	66 (25.68)		
2-4	101 (12.15)	205 (23.14)	56 (21.79)		
5-9	11 (1.32)	33 (3.72)	25 (9.73)		
> 9	0 (0.00)	1 (0.11)	2 (0.78)		

n: The number of respondents for variables “educational attainment” and “employment status” not add up to total because of missing information.

Recall rate (i.e., first recall) within 12 months supervision period

The recall probability is shown in Figure 3.1. Among all offenders included in the dataset, approximately 60% of the offenders had been recalled within the 12 months supervision period. Around 50% of this population had been recalled within 7 months of discharge. Among those who were recalled (i.e., first recall), 53.6% were recalled within three months and approximately 60% were recalled within 4 months post-of discharge. It is worth mentioning that the first 2 months have the largest drop in survival probability, indicative of the first few weeks after discharge being the most challenging.

Figure 3.1 Recall probability within 12 months



Descriptive on recall status

As shown in Table 3.4, the average visitation for the relapse group (M=10.60, SD=13.39) is significantly lower than those with no recall order (M=34.78, SD=24.95), indicating a protective effect provided by visitation. Among those who relapsed, 50% have had previous conviction(s). This is significantly higher than the proportion among the no-recall group as only about 36% of this group have had previous conviction(s).

Factors associated with the likelihood of relapse

We examined the association between offenders' characteristics and relapse status. Estimates from the regression models are reported in Table 3.5. From the results, four risk factors and one protective factor are found to be significantly associated with relapse. Consistent with hypotheses, visitation and conviction history are predictors of relapse. Offenders with five or more previous convictions were more likely to relapse than those with no prior conviction. More visitations during incarceration, on the other hand, decreases the likelihood of relapse. In contrast with our hypothesis, offenders aged 18-24 are more likely to relapse than their younger counterparts. Surprisingly, the number of rehabilitation programmes attended by offenders is positively correlated with the chance of being recalled, indicating that offenders who attended more rehabilitation programmes are more likely to relapse. The results at the face value looked counterintuitive. However, during the post-hoc interview with correctional officers at the CSD, it was found that the apparent results may be related to the existing rehabilitation practices in the institutions. As told by the correctional officers, given resource constraints, rehabilitation support would be prioritized for those who had exhibited a greater risk of reoffending upon entry into the system. In other words, there were 'selection biases' given those who received the rehabilitation service were those who were predicted to have a greater risk. Given the results, we caution the readers to simply interpret the rehabilitation service was "not effective". Instead, a more balanced view takes into account the bias introduced by natural selection. Should rehabilitation support was not prioritized for this group, the recalling and reoffending rates of the DATC might be even higher.

Not mentioned in the hypothesis, offenders who were married/cohabiting have a higher chance of relapse during supervision. This may seem counterintuitive given that higher visitation is associated with reduced relapse. Relationship issues or bad influences from partners might explain the high relapse rate among married/cohabiting offenders.

Table 3.5 Logistic regression and Cox regression on the likelihood of relapse during the supervision period

	Logistic regression OR (95% CI)	Cox regression HR (95% CI)
Demographics		
Age group		
<i>Below 18</i>	Reference	Reference
<i>18-24</i>	3.74 (1.56-9.58) **	2.22 (1.14-4.34) *
<i>25-30</i>	2.70 (1.11-7.02) *	1.94 (0.99-3.82)
Gender (female as reference)	1.00 (0.71-1.41)	0.95 (0.78-1.15)
Biological		
Number of drugs in two years		
<i>0</i>	Reference	Reference
<i>1</i>	0.98 (0.45-2.09)	0.99 (0.64-1.53)
<i>2</i>	1.01 (0.44-2.27)	1.05 (0.66-1.67)
<i>>2</i>	0.78 (0.29-2.05)	0.84 (0.48-1.47)
Type of drug users		
<i>Ketamine-user</i>	Reference	Reference
<i>Cocaine-ketamine-ice user</i>	0.65 (0.24-1.77)	0.92 (0.52-1.64)
<i>Diverse user</i>	0.73 (0.49-1.10)	0.75 (0.60-0.95) *

<i>Ice-user</i>	0.78 (0.58-1.04)	0.87 (0.74-1.02)
Internal / psychological		
Attendance of rehabilitation programme		
<i>Substance abuse</i>	2.33 (1.61-3.37) ***	1.71 (1.34-2.17) ***
<i>Marital/family</i>	1.26 (0.93-1.72)	1.04 (0.88-1.23)
<i>Societal</i>	1.21 (0.90-1.65)	1.10 (0.93-1.30)
<i>Employment</i>	1.47 (1.05-2.06) *	1.31 (1.09-1.57) **
<i>Community functioning</i>	1.51 (1.02-2.24) *	1.25 (1.02-1.54) *
Social/environmental		
Number of visitations per year	0.91 (0.90-0.92) ***	0.94 (0.93-0.94) ***
Marital status		
<i>Single</i>	Reference	Reference
<i>Married/Co habiting</i>	1.65 (1.16-2.36) **	1.35 (1.12-1.61) **
<i>Separated/Divorced / Widowed</i>	1.14 (0.54-2.48)	1.15 (0.75-1.75)
Educational attainment		
<i>Primary or below</i>	Reference	Reference
<i>Secondary</i>	0.98 (0.52-1.81)	0.96 (0.68-1.35)
<i>Post-secondary</i>	0.87 (0.19-4.23)	1.04 (0.44-2.49)
Employment status		
<i>Employed</i>	Reference	Reference
<i>Unemployed</i>	0.98 (0.75-1.28)	0.99 (0.86-1.15)
<i>Economically inactive</i>	0.96 (0.40-2.32)	1.26 (0.76-2.09)
Number of convictions		
<i>0</i>	Reference	Reference
<i>1</i>	0.74 (0.55-1.00) **	0.86 (0.72-1.02)
<i>2-4</i>	1.16 (0.82-1.64)	1.18 (0.98-1.42)
<i>> 4</i>	1.86 (0.85-4.41)	1.69 (1.17-2.43) **

Drug-related re-offend rate within 24 months

Table 3.6 Characteristics of the study sample by drug-related re-offend status

	Drug-related re-offend	Others	p-value
	N=125 N (%)	N=1786 N (%)	
Demographics			
Age group			0.012
<i>Below 18</i>	6 (4.80)	60 (3.36)	
<i>18-24</i>	71 (56.80)	796 (44.57)	
<i>25-30</i>	48 (38.40)	930 (52.07)	
<i>Mean age (S.D.)</i>	23.22 (3.20)	24.32 (3.72)	
<i>Median age (IQR)</i>	23.00 (21.00-26.00)	25.00 (21.00-27.00)	
Gender			0.458

<i>Female</i>	31 (24.80)	392 (21.95)	
<i>Male</i>	94 (75.20)	1394 (78.05)	
<hr/>			
Biological			
Number of drugs in two years			0.550
0	6 (4.80)	54 (3.02)	
1	85 (68.00)	1172 (65.62)	
2	25 (20.00)	431 (24.13)	
>2	9 (7.20)	129 (7.22)	
Type of drugs			
<i>Stimulants</i>	79 (63.20)	1084 (60.69)	0.579
<i>Depressants</i>	9 (7.20)	108 (6.05)	0.603
<i>Hallucinogens</i>	57 (45.60)	932 (52.18)	0.154
<i>Marijuana</i>	2 (1.60)	128 (7.17)	0.017
<i>Narcotics</i>	10 (8.00)	113 (6.33)	0.461
Type of drug users			
<i>Ketamine-user</i>	55 (44.00)	885 (49.55)	0.260
<i>Cocaine-ketamine-ice user</i>	2 (1.60)	46 (2.58)	
<i>Diverse user</i>	18 (14.40)	291 (16.29)	
<i>Ice-user</i>	50 (40.00)	564 (31.58)	
<hr/>			
Internal / psychological			
Attendance of rehabilitation programme			
<i>Substance abuse</i>			0.0005
0	16 (12.80)	242 (13.55)	
1-2	49 (39.20)	965 (54.03)	
3-5	36 (28.80)	269 (15.06)	
6	7 (5.60)	62 (3.47)	
>6	17 (13.60)	248 (13.89)	
<i>Marital/family</i>			0.037 (F)
0	86 (68.80)	1390 (77.83)	
1-2	30 (24.00)	309 (17.30)	
3-5	2 (1.60)	11 (0.62)	
6	6 (4.80)	74 (4.14)	
>6	1 (0.80)	2 (0.11)	
<i>Societal</i>			0.250 (F)
0	90 (72.00)	1370 (76.71)	
1-2	28 (22.40)	342 (19.15)	
3-5	0 (0.00)	2 (0.11)	
6	6 (4.80)	70 (3.92)	
>6	1 (0.80)	2 (0.11)	
<i>Employment</i>			0.016 (F)
0	96 (76.80)	1433 (80.24)	
1-2	19 (15.20)	269 (15.06)	
3-5	0 (0.00)	12 (0.67)	
6	6 (4.80)	66 (3.70)	
>6	4 (3.20)	6 (0.34)	
<i>Community functioning</i>			0.001 (F)
0	92 (73.60)	1539 (86.17)	
1-2	22 (17.60)	168 (9.41)	

3-5	3 (2.40)	15 (0.84)	
6	7 (5.60)	62 (3.47)	
>6	1 (0.80)	2 (0.11)	
Social/environmental			
<i>Parents</i>	86 (68.80)	1305 (73.07)	0.300
<i>Children</i>	2 (1.60)	101 (5.66)	0.052
<i>Grandparents</i>	6 (4.80)	95 (5.32)	0.802
<i>Siblings</i>	40 (32.00)	675 (37.79)	0.196
<i>Other relatives and friends</i>	80 (64.00)	1297 (72.62)	0.038
Visitation per year			
<i>Mean visitation per year (S.D.)</i>	13.92 (14.26)	20.87 (22.94)	<.0001
<i>Median visitation per year (IQR)</i>	10.00 (5.00-16.00)	13.00 (5.00-31.00)	0.007
Marital status			
<i>Single</i>	97 (77.60)	1467 (82.14)	0.019
<i>Married/Co habiting</i>	19 (15.20)	270 (15.12)	
<i>Separated/Divorced / Widowed</i>	9 (7.20)	49 (2.74)	
Educational attainment			
<i>Primary or below</i>	6 (4.80)	65 (3.69)	0.819
<i>Secondary</i>	118 (94.40)	1682 (95.46)	
<i>Post-secondary</i>	1 (0.80)	15 (0.85)	
Employment status			
<i>Unemployed</i>	57 (45.60)	834 (47.71)	0.896
<i>Employed</i>	65 (52.00)	876 (50.11)	
<i>Economically inactive</i>	3 (2.40)	38 (2.17)	
Number of convictions			
<i>0</i>	64 (51.20)	970 (54.31)	0.844
<i>1</i>	32 (25.60)	422 (23.63)	
<i>2-4</i>	23 (18.40)	329 (18.42)	
<i>> 4</i>	6 (4.80)	65 (3.64)	
<i>Relapse within one year</i>	80 (64.0)	775 (43.39)	<.0001

Note: The number of respondents for variables "educational attainment" and "employment status" did not add up to total because of missing information.

Descriptive on re-offending status

Presented in Table 3.6, the average visitation for drug-related re-offenders (M= 13.92, SD=14.26) is significantly lower than those who re-offend with non-drug related crime. (M=20.87, SD=22.94). Among those who re-offend with a drug-related crime, 64% relapsed during the supervision period. This is significantly higher than the proportion among the non-drug-related re-offending group as only about 43% of this group relapsed.

Table 3.7 Logistic regression and Cox regression on the likelihood of drug-related re-offending within 24 months

	Logistic regression	Cox regression
--	---------------------	----------------

	OR (95% CI)	HR (95% CI)
Demographics		
Age group		
<i>Below 18</i>	Reference	Reference
<i>18-24</i>	0.54 (0.22-1.54)	0.53 (0.22-1.26)
<i>25-30</i>	0.27 (0.10-0.81) *	0.27 (0.11-0.70) **
Sex (female as reference)	1.32 (0.75-2.42)	1.32 (0.75-2.30)
Biological		
Number of drugs in two years		
<i>0</i>	Reference	Reference
<i>1</i>	0.51 (0.18-1.60)	0.51 (0.19-1.42)
<i>2</i>	0.37 (0.11-1.25)	0.37 (0.12-1.12)
<i>>2</i>	0.45 (0.11-1.83)	0.45 (0.12-1.64)
Type of drug users		
<i>Ketamine-user</i>	Reference	Reference
<i>Cocaine-ketamine-ice user</i>	0.61 (0.09-2.83)	0.64 (0.13-3.15)
<i>Diverse user</i>	0.80 (0.39-1.56)	0.81 (0.42-1.57)
<i>Ice-user</i>	1.25 (0.81-1.95)	1.23 (0.81-1.85)
Internal / psychological		
Attendance of rehabilitation programme		
<i>Substance abuse</i>	1.15 (0.66-2.13)	1.18 (0.68-2.04)
<i>Marital/family</i>	1.55 (0.99-2.38)	1.50 (0.99-2.26)
<i>Societal</i>	1.22 (0.76-1.94)	1.18 (0.76-1.84)
<i>Employment</i>	1.09 (0.66-1.77)	1.07 (0.67-1.70)
<i>Community functioning</i>	2.07 (1.26-3.33) **	1.97 (1.26-3.10) **
Social/environmental		
Number of visitations per year	0.99 (0.98-1.00)	0.99 (0.98-1.00)
Marital status		
<i>Single</i>	Reference	Reference
<i>Married/Co habiting</i>	1.20 (0.69-2.02)	1.16 (0.70-1.94)
<i>Separated/Divorced / Widowed</i>	3.91 (1.62-8.66) **	3.16 (1.53-6.55) **
Educational attainment		
<i>Primary or below</i>	Reference	Reference
<i>Secondary</i>	0.68 (0.29-1.84)	0.69 (0.30-1.60)
<i>Post-secondary</i>	0.72 (0.03-5.65)	0.70 (0.08-6.06)
Employment status		
<i>Employed</i>	Reference	Reference
<i>Unemployed</i>	0.90 (0.60-1.35)	0.91 (0.63-1.34)
<i>Economically inactive</i>	1.07 (0.25-3.20)	1.03 (0.32-3.32)
Number of convictions		
<i>0</i>	Reference	Reference
<i>1</i>	1.10 (0.68-1.76)	1.10 (0.71-1.72)
<i>2-4</i>	0.99 (0.56-1.71)	0.99 (0.59-1.67)
<i>> 4</i>	1.61 (0.57-3.89)	1.58 (0.65-3.81)
Relapse within one year	3.07 (1.98-4.86) ***	2.92 (1.90-4.49) ***

Factors associated with the likelihood of re-offend drug-related crime

We examined the association between offenders' characteristics and re-offend status. Estimates from the regression models are reported in Table 3.7. From the results, three risk factors and one

protective factor are significantly associated with re-offend of drug-related crime. Consistent with earlier findings on recall status, offenders who attended more rehabilitation programmes are more likely to reoffend. In contrast with results on recall status, separated/divorced/widowed offenders are more likely to re-offend with drug-related crimes than their single counterparts. In addition, those who relapsed during the supervision period have a higher chance to re-offend within 24 months.

Chapter 4 Interview-based exploration of the treatment and rehabilitative process

In view of the complex and interrelated nature of the drug rehabilitation and treatment system for offenders in Hong Kong, interviews represent an important way to elucidate the strengths in the existing system, as well as areas for improvement. After interviewing service operators and ex-offenders, a number of positive attributes, as well as three main areas for improvement were identified at the prosecution to the pre-trial stage, pre-sentencing stage, and correctional to reintegration stage. The positives include the use of pre-existing resources available from community stakeholders such as court outreach and duty lawyer schemes that aim to provide support to service users before trials. Counselling and career mentoring at the correctional stage were also impactful. In line with previous literature, the interviews also pointed to areas where services could be made more efficient through enhanced coordination between different stakeholders in the system. The first opportunity for improvement concerns early intervention at prosecution and pre-trial, which may be involved if referral mechanisms connect arrestees to community resources earlier. The second theme focuses on the availability of information at pre-sentencing that could be addressed by setting up an updated legal protocol with key guidance from different disciplines. Finally, the last theme highlights opportunities for enhancement in care and rehabilitative services for offenders at the correctional and reintegration stage, such as through an expansion of services, service re-organization and strengthened coordination between different parties during the process of community re-integration.

Research questions

As discussed in Chapter 2, a complex adaptive system framework provides a means to understand the dynamics within the T&R system. In the current study, the drug treatment and rehabilitation system for offenders will be evaluated under the framework of CAS to identify strengths, gaps and opportunities in the system. In particular, the team explores the following research questions:

1. How is the drug treatment and rehabilitation system self-organized in Hong Kong?
2. To what extent does the existing drug treatment and rehabilitation system for offenders in Hong Kong exhibit signs of coordination (or fragmentation) and how might this be improved?

4.1 Methods

Study design and participants

This qualitative study collected data via desktop research and semi-structured interviews. The team has conducted systematic desktop research to depict the drug rehabilitation system for offenders at different stages. To validate the information, the team interviewed 100 (ex-)offenders and 30 stakeholders from different NGOs, e.g. the Evangelical Lutheran Church Social Service (ELCSS), Operation Dawn, Christian New Life Association, Caritas Wong Yiu Nam Center and The Society of Rehabilitation and Crime Prevention Hong Kong (see Appendix 1). In addition, the team also engaged with the superintendent and commissioners at the rehabilitative units of CSD to better understand the rehabilitation and recovery system for young offenders in both criminal justice and community settings. The interviews with the related stakeholders were conducted to advise the team to illustrate

the process of the drug rehabilitation system for offenders as well as the functions and interactions between different agencies.

Young-age offenders in this study refer to offenders aged below 41. Statistics from the CRDA showed that approximately 45% of the offenders with a history of illicit drug abuse being readmitted to CSD institutions are aged under 41. Reducing drug abuse behaviour among this group will be crucial to reduce the overall social costs related to drug abuse in Hong Kong, because of their higher likelihood of staying in the correctional service infrastructure in the long run which creates a substantial social and economic burden to the system and the society.

Data collection

Individual and focus group interviews were conducted with stakeholders and (ex-)offenders face-to-face and via Zoom to document their experience going through or operating at the drug rehabilitation system, after obtaining informed consent. The interviews were conducted by the team with guiding questions (Appendix 2).

Data analysis

The interviews were recorded, transcribed and coded. The researchers made notes and reflected on the interviews to develop familiarity with the data. Thematic analysis was applied to identify stages and components of the drug rehabilitation system. Then, researchers map out the rehabilitation system by stages in inference to the Chandler et al. (2008) paper. The complex adaptive system theory (Anaf, Drummond & Sheppard, 2007) was utilized to illustrate the interrelatedness of different agencies within the whole drug rehabilitation system. In addition, the strengths and weaknesses of each stage were identified for further processing to derive recommendations.

4.2 Findings

4.2.1 Opportunities for early intervention

The first theme identified is the importance of early intervention and the opportunity for building on this during the stage from prosecution to pre-trial. Prosecution refers to the point where the police decide whether or not to press charges after a series of investigations, whereas pre-trial is the period waiting for trial, and usually lasts from two weeks to six months. Psychiatrists and service operators interviewed make clear that the prognosis for drug addiction is time-dependent and that earlier intervention is associated with fewer long-term harms and better treatment outcomes. Additionally, the retired judge interviewed noted that participating in drug rehabilitation before the court would leave a good impression, showing remorse and intention for change, hence, would be beneficial for sentencing. In order to respond to the sharp rise of psychoactive drug abuse among offenders, the same retired judge also recalled that the judiciary once had an internal discussion to consider whether a drug court would be set up to tailor the judiciary process and sentencing options in early 2000 (Narcotics Division, 2008). The discussions included the idea of providing training on novel drugs, taking behaviours, treatment and rehabilitation needs. The ideas were not further developed due to the constraints of cost. The service operators interviewed in this study are still holding an open mind to this idea. At the same time, to support the judge to have an in-depth understanding of the

convicted person who is involved in drug abuse, a psychiatrist with expertise in drug abuse and drug T&R is also suggested to be called before the sentence.

*'[Treatment] **the earlier the better**, drugs induce brain changes in which delay changes may complicate the case and take longer to treat (Service Operator)'*

'Early intervention is good, at least it helps to show the young person's intention to make positive changes to their lives, I would say having record of going into services before sentencing will look better in their case (Service Operator)'

'Involvement of psychiatrists who are familiar with drug T&R ensure the Judge can make a possible tailored rehabilitation focus sentence on a drug abuser (Psychiatrist with expertise on drug T&R)'

'The psychoactive drug trend changes all the time. The hidden drug use going longer in time. A timely expert assessment surely can help inform the court to consider the sentence closer to the drug treatment need (Service Operator)'

Community stakeholders such as family, HA, employers, and NGOs are available to help when arrestees are released back to the community either on bail or released. However, the interviews suggested there may still be an opportunity for greater involvement from the community. The point was made that community members are helpful in protecting abusers from negative peer influence, as part of a "support network" and that more is needed.

*'We need more **social workers, teachers and parents** to assist in rebuilding the **social support networks** ...so that we won't go back to the original context...meet back with drug peers (Service User)'*

'We have observed the positive impact of offenders in their case in the court as well their own health and rehabilitative mindset, we do court outreach but with the limited information of the arrestees, we find it quite hard to engage or even spot arrestees (Service User)'

'Provide professional training and supervision to the rehabilitated ex-users brings in effective supports to the rehabilitation of both under rehabilitation and strengthening those rehabilitated in the community...not easy to allow PC to serve inside the ide CSD due to security reason (Service Operator)'

The opportunity for involving social workers at the prosecution for early intervention was identified by multiple users, and it was pointed out that providing clearer expectations and readiness for the suspect "would be better". Specifically, some users reflected that the decision-making process at the later stage in sentencing, and treatment motivation, would be helped along with they were more informed via the presence of a social worker at prosecution.

*'I don't know that I need to call a lawyer. How would I know...well yes, of course having a **social worker** at this stage would be better...At least I know where to go and what to expect (Service User)'*

*'I will probably choose **other institutions** during sentencing with more **motivation** to change **if I have social workers** with me earlier on before trial...picking on that is right for me (Service User)'*

Interviewees have suggested that the conflicting interests of different stakeholders provide an explanation for the relatively limited early intervention. Service operators identified divergent interests between police and NGOs where the police's focus may at times be more on regulating social orders and conducting arrests to reduce crime, whereas NGOs or other community stakeholders may be concerned more with rehabilitating drug abusers across a longer time perspective.

'Drug abusers will be labelled as criminals. They won't be provided with services. Police's interest concerns more on information of drug trafficking rather than rehabilitating drug abusers. It is difficult for NGO to work with police because this will may be difficult to establish trust with clients (Service Operator)'

The contrasting priorities of stakeholders may explain the absence of a formal referral mechanism for police to community stakeholders. Even though service operators were aware and ready to intervene in prosecution, engagements were constrained by the limited information regarding arrests.

'So, currently, there is no mechanism aiming to attach social workers for each case ...We (NGO operators) find it very difficult to target arrestees because PODD cases are not like family abuse cases where police will refer or provide information about social workers and services for them. (Service Operator)'

Potential suggestions

The comments illustrated that the opportunity to involve community stakeholders affects offenders at each stage of the judicial process, from being charged to release. Despite having existing available support i.e., court outreach and duty lawyer schemes, the resources could be more accessible to users, as mentioned by some service operators and users themselves who "wouldn't know who to call". With the challenges of accessing services at prosecution, some users reflected feelings of helplessness and stress that they believed contributed to their relapse.

'No...no social worker approached me...I didn't know I need a lawyer, even if I did, I wouldn't know who to call....I take more drugs while waiting for trial...I was so stressed and I didn't know what to do...so I took drugs...I don't know that I need to call a lawyer...How would I know... (Service User)'

'The gap in the system may be those who have drug taking habits but not being detected by legal enforcements. Alternatively, others who have been released due to insufficient evidence have no support unless they are under the attention of social workers originally. But, those who have gone through the criminal justice system doesn't mean they will be under the wings of social workers for follow up either. (Service Operator)'

Both service operators and users have provided recommendations to enhance early intervention, for greater treatment effectiveness. Service operators suggested that establishing a legal protocol to refer both charged and discharged arrestees to social workers or community members at the prosecution stage would be helpful. As reflected by service operators, referral mechanisms are present in the existing system such as the Police Superintendent's Discretion Scheme (Scheme) and for family abuse cases. Police proactively refer cases aged below 18 under the Scheme or family abuse arrestees to social workers. Similar mechanisms being applied for drug-related cases will be preferable.

'Establish a system of referral after being arrested for the drug abuser upon arrest pretrial on bail and after conviction.... we can take reference from family abuse cases

that they have a legal protocol and referral systems for that...this can be applied to drug-related cases too (Service Operator)'

'Well...it is not a new mechanism...they have a referral system CSSS a for young offenders under 18 (Police Superintendent's Discretion Scheme) ...it is just that those who are over 18 is not served....it can be a referencing for a new referral system for those over 18 ... for drug-related cases (Service Operator)'

4.2.2 Enhancing information for decision making

The second theme pinpoints the importance of good information in decision making at pre-sentencing. Pre-sentencing is the stage where the judge collects information about the offender by requesting suitability reports to make appropriate sentencing decisions. The current policy has a limited sharing mechanism to bring interdisciplinary expertise together for well-informed decision making. Service operators suggested that a needs assessment conducted by experts would be useful for maximizing the effectiveness of treatments.

'Psychiatric reports are important and cost saving because the judge wouldn't know everything about mental problems...offenders go down to the [criminal justice] process without being detected...the guards and officers at DATC or prisons wouldn't know how to deal with their mental problems because it is not their expertise as well...how do you treat them when you don't know their needs .and they are sent to a place without sufficient support...of course they will relapse and develop psychiatric problems that threatens people around... going in and out of the hospital' (Service Operator)'

The findings from the interview with stakeholders have suggested two factors related to the information deficit in decision making; one being the lack of widespread consensus on the need of offenders, and the other being resource constraints that contribute to the incomprehensive information provided during the sentencing decision. Psychiatrists noted that having an awareness of community resources and perspectives while under supervision would be important for rehabilitation, and would complement the legal point of view and guidelines informing the sentencing decisions of judges. Despite the judge in the interview expressing concerns for the rehabilitation of offenders, the sentencing options were constrained by the legal guidelines and the preset law. The suitability of sentencing decisions depends on how up-to-date and rehabilitative the legal framework's views are towards the needs of offenders with drug abuse. The potential for a drug courts model was noted, and it was pointed out that it's not a new topic of consideration but that resource constraints have prevented the adoption of such a model in Hong Kong. Nevertheless, it was made clear that lessons could be learned from such models.

'I think different stakeholders hold different views, we tend to think probation orders will be possessing the least negative impact as compared to CSD custodies...locking them up is really trying to deter them if not placed with effective rehabilitative services. DTRCs however provide more biopsychosocial support and more in touch with the community...at least they can be more accessible to diversified community services under supervision (Service Operator)'

'Sometimes, I will see what I can do to help the youths to turn around...but, the [sentencing] decisions really vary from judge to judge and their experiences... Drug

court is no new concept in HK but we don't have enough resources to allocate particular judges for drug cases, they [cases] are very repetitive (Service Operator)'

A stronger consensus on the merits of a rehabilitation view and the appropriate allocation of resources would facilitate a sharing mechanism to bring interdisciplinary expertise together for optimal decision making. Some service operators put forward the view that the absence of a platform for comprehensive information from doctors and community stakeholders hindered judges in making optimal sentencing decisions. Similarly, even with long-term exposure and insight into treatment plans to inform sentencing decisions, some doctors discussed the difficulty in communicating professional opinions at pre-sentencing as a result of the absence of any existing sharing platform to inform sentencing decisions.

'Lack of current law system and/or policy about providing the judges background information of drug offenders for judgment...lack comprehensive evaluation of the offenders' needs: court proceeding and sentencing is only determined by the judge... but lacking the views of social workers, family, school, doctors, labour department (Service Operator)'

'We (doctors) would suggest indirectly to the judge to see if sentencing options alternative to incarceration would be possible. ...So, we would do it voluntarily but I have never tried having judge asked me to write the letter...the judge will never proactively request for our medical advice (Service Operator)'

Potential suggestions

The interviews suggested that reoffending and readmission to hospitals could be prevented through needs being better detected at pre-sentencing. The interviewed judge shared that the sentencing decision is “based on the law guidelines and accumulated experience from previous cases” with little involvement of other stakeholders who may be able to inform the judge about the most appropriate treatment plan and option. Some service operators questioned whether the sentencing of judges’ experience alone is sufficient to make appropriate decisions catering to the biopsychosocial needs of those with complex drug problems and a higher risk of reoffending.

'Well...we [judges] make sentencing decisions based on the law guidelines and accumulated experience from previous cases...what reports to ask for...but from experience...serious cases traffickers will be sentenced to prison...I see them [reoffend] multiple times... (Service Operator)'

'The penalties of drug offences are not proportionate to the severity of drugs...sentencings are only made based on the toxin level less on the medical social mental and physical needs... the reoffending and relapse rate is so high but there is no specific system addressing the sentencing or support for habitual drug abusers. the judge wouldn't know it all in how to make the [sentencing] decision...they just sentence reoffenders to prison if they have re-offend too many times ...but is it useful? I don't think so (Service Operator)'

In particular, those with social and mental health problems seem to be more vulnerable to the effects of an information deficit in sentencing decisions at the court, hence a higher risk of relapse and reoffending. Some service users shared that psychiatric problems often had not been detected or treated in previous convictions, leading to repeat offences and hospital readmission.

'I reoffended two months out because of wounding my dad's friend under the influence of meth...I felt like he is going to hurt me so I hit him. the court didn't ask for DATC report. or psychiatric report...Siu Lam didn't accept my admission so I was sentenced to prison for two months (Service User)'

'I reoffended three times, no one asked for psychiatric report ...I developed hallucinations...I think my family members were going to hurt me... I shouted at them a lot my mum called 999 and sent me to Castle Peak Hospital...yes...I went "high" for a few times and were sent to the hospital by the ambulance before (Service User)'

Different service operators consistently suggested updating the sentencing guidelines by consulting multidisciplinary expertise to facilitate a well-informed sentencing decision. As mentioned by some service operators, greater involvement of other stakeholders is aligned with the international practice where drug courts involve different helping professionals to make a collective judgment on the sentencing and treatment decision. Also, taking the resource constraints and previous practice into account, an updated sentencing guide considering more of the *"incentive, social, psychological"* needs in consultation with *"NGO, social workers and HA"* may help to make a more tailor-made sentencing decision for prevention of relapse and reoffending.

'Medical report should be asked for in the court considering the mental health impact placed by most illicit drug....and involve various helping professionals like those in the drug court from international practice...involving multidisciplinary advice is what the World Health Organization suggest (Service Operator)'

'Set up updated sentencing guide specifically for drug related cases and offences considering incentive, social, psychological.... multiple factors in discussion with NGO social workers HA etc (Service Operator)'

4.2.3 Improvements to care and rehabilitative services

The final theme identified concerns care and rehabilitative services at the correctional and reintegration stage. The correctional stage is where the offenders have been held in custody under correctional settings in CSD, SWD or under community settings probation orders. The reintegration stage is addressing the period upon release, for example, the supervision period for DATC. This theme focuses on the care and rehabilitative services specifically at CSD including prisons, DATC, Training Centre (TC), Rehabilitation Centre (RC) and Detention Centre (DC).

The experience of having counselling, career training and medical advice seem to bring positive outcomes in internal recovery motivation, adaptation during detention and reintegration into the community. Interviewees suggested a positive impact of peer counseling on treatment motivation. Some service users shared the significant role of peer counsellors as *"role models"* incentivizing them to make *"some positive changes"* to their lives. It was also expressed that the presence of peer counsellors was helpful in stimulating self-reflection and goals to enhance motivation to turn their lives around.

'It will be useful if there are peer counsellors who share similar experience, can click with you right away, or social workers who talk to you like friends like those in DTRCs. They provide opportunities to reflect ourselves and our family relationships and our goals. As I think most drug abusers don't have anyone to talk to and don't know how to....we are always in our own worlds... so it will be helpful if social workers/peer workers can talk to us when we are under detention (in prison)..a lot of us have no direction...we don't know what to do when we are out...they make me want to make some positive changes to my life (Service User)'

'Yes...I think it is useful to meet with social workers...they are very caring...especially the peer counsellors... it's so easy to click with them...they increase my motivation to make a change as they act as a role model that I can have a better life (Service User)'

A stable and protective environment for reintegration has been suggested by service operators as being crucial to maintain drug abstinence. Effective career training and planning have also been credited as support activities for healthy reintegration. Some service users described finding their "passion and interest" has helped them to find a job away from the previous risky environment, facilitating drug abstinence.

'They [offenders with drug abuse problems] need a protective environment to protect them from relapse...going back to their negative peer with easy access of drugs is not helpful...building a new connection and job scene would help (Service Operator)'

'The career planning and training is not helpful because the skills we learnt are very superficial in prison. they will arrange a job for you when you are out but the salary is only \$8000 plus you don't like the job...the trainings in DTRCs are helpful...I found my passion and interest and also got my license...it helps me to stay away from drugs (Service User)'

Apart from peer counselling, career training that establishes positive social networks and goals and treatment addressing biological needs are helpful to maximize treatment effectiveness. This is where doctors and psychiatrists are helpful in treating and supporting offenders with any medical conditions. Psychiatrists expressed the positive impact of medical support particularly for the mental and physiological side effects and symptoms of drug abuse. Some service users posited consistent views that medical advice had helped to relieve physical discomfort and negative experiences during detention.

'Medical support and advice are needed for offenders...a lot of them experience psychiatric symptoms...physical withdrawal symptoms...their behaviours may affect other offenders or they may be isolated and bullied...this will just worsen their conditions...they [CSD] officers wouldn't know what to do...they are not superman...having doctors can help to lay off their burdens (Service Operator)'

'Yes...I am very glad that the nurse treated me and taught me what to do...at least it is much easier for me to overcome days in the prison as compared to my previous conviction where I was being discriminated because I kept experiencing urinary incontinence (Service User)'

Some ex-offenders and service operators suggested that the care and rehabilitative services in the current drug T&R system leave room for improvement. The combined opinions concluded from

interviews with service users and providers indicated three limitations in care and rehabilitative services, one pointing to the problem of resource constraints, the second stemming from the limited awareness of the needs of offenders, and the last being limited coordination between different parties.

One area of concern involves staffing. For welfare officers, the heavy workload and often limited training in counseling offenders can be tiring. At the correctional stage, service users have shared that they received no drug-specific rehabilitation services in DATC, and are concerned that the conflicting role of welfare officers as both authority figures and counselors may be counterproductive. The informants also noted the lack of support at reintegration, possibly due to the heavy workload of officers to take care of the offenders while dealing with administrative issues such as referral forms and connections. Similarly, the problem of under-resourcing is also observed in the lack of health support at community reintegration. Some service operators expressed that “*under manpower*” in HA made it difficult to collaborate with NGOs in the community clinics or knowledge dissemination at reintegration. This helps to explain the limited accessibility of psychiatric services for the discharged.

‘There is not any kind of drug rehabilitation in DATC...there is a welfare officer to do counselling but they are CSD officers...they won’t help you... (Service User)’

‘Doctors don’t have time to come to the meeting and discuss the drug conditions with NGO operators.... there are no stationed psychiatric nurses in DATC as well...there are insufficient resources.... referral forms were only sent out few months later their released...we couldn’t start one single case (Service Operator)’

The awareness of CSD officers about the needs of offenders influences the type and quantity of services provided. Community stakeholders such as NGOs who serve in the community are often more in touch with the current drug scene and the needs of different drug users and drug types. The insights of NGOs and services provided may help to complement those inside DATC. However, as described by CSD officers, although there are over 100 collaborating community partners with CSD in prisons, few of these were approved under DATC. Some service operators explained that the stringent application procedures and limited information about the existing services in CSD hindered the collaboration between CSD and community services. Thus, despite community stakeholders being ready with sufficient resources and skillsets to provide services, they were unable to deliver services to the detention centres at the correctional stage.

‘We didn’t apply for CSD bidding because we have little information to know about what is going on inside (CSD institutions), we don’t know what is expected, what are the existing services provided or the needs of the offenders (Service Operator)’

‘I wrote letters to the CSD superiors to apply to conduct workshops and drug rehabilitation activities (in DATC, prisons) but I got rejected. They tend to only collaborate with existing cooperation partners...SRACP is probably the only collaboration body with CSD, not many other community organizations are approved to collaborate with CSD (Service Operator)’

The potential for more tailored rehabilitative services may be realized through greater coordination between CSD and community providers. Some service operators have described the separation of roles and services for offenders, with CSD responsible for custodial services in the correctional stage and NGOs placing more resources and efforts into reintegration support.

'The mindset of everyone is thinking about what they can do and what can be enhanced. Social services operators believe their role in the CSD centres are very limited and so less discussion is placed on how to collaborate with CSD. The focus will be placed more on how to support those who have just been discharged (Service Operator)'

'I think we are all doing our own thing, CSD doing their own thing, NGO as well...HA is always busy...not much collaboration...we don't know what programmes are hosted in CSD (Service Operator)'

Potential suggestions

Some service operators and users claimed that detaining in correctional settings could worsen rehabilitative outcomes if negative peer influences are reinforced. Negative influences at the correctional and reintegration stage seem to be related to a higher risk of relapse and reoffending. Some service users reported the setting of DATC grouping people with similar convictions and 'drug interest' was ineffective. It was noted that groupings may bring together those that "know more about the drug sources in 18 districts", facilitating greater access to drugs upon release. Efforts ought to be made to reduce such negative influences.

'Thinking back...I think going to Hey ling Chau (DATC) is actually worse than going to prison and ...you actually know more about the drug sources in 18 districts...actually increase the risk of relapse because all we talk about there is drugs and when and how do we gather and take drugs together (Service User)'

'I stopped taking drugs for a while and I wanted to earn some money so I worked at a barbecue place owned by triad members, my colleagues provided drugs for me...I relapsed (Service User)'

The lack of access to personalized services at the correctional stage may also contribute to a greater likelihood of relapse and poor physical and mental states. Interviewees have described that the rehabilitative services were not tailored to the specific needs of different drug types and health needs. Service operators suggested that the existing programmes may be somewhat outdated and non-rehabilitative focused, which may partially explain the high relapse rate amongst programme participants. In addition, the limited access to psychological services may have also hindered treatments.

'CSD DATC treats all types of drug users with the same approach now as back in 2000 even though there is a drug trend changing from cocaine to weed, they are all under the same programme ... well they have two classes of drug education about impact of drugs but I think we all know better than they dono treatment difference for those with mental disorder, ethnic minority, sex minorityI don't think custody is rehabilitative, it does not address their needs...some want money and locking them up will not stop them wanting money ...they will do the same when they are out....this explains how they reoffend ...stealing, robbery...very common (Service Operator)'

'Only serious cases can queue for visiting the clinical psychologist like self-harm and pretend to suicide. but usually you will need to wait for a month to meet with the clinical psychologist while you are self-harming (Service User)'

Tailored rehabilitation support to people who has relationship issues

In the quantitative study, those who were married/cohabitated had a high relapse rate. Service Operators reported the same phenomenon. The major reasons were the vulnerable relationship with partners and/or having a partner who is also a drug abuser. Psy Gym has rendered effective emotional management support by means of Clinical Psychological Service and Expressive Arts Therapy to the female person in custody, but the resources, especially the manpower, were very limited.

“ The relationship might be the source of stresses which induced the drug abuse, or/and, the reinforcing factors due to poor relationship. “ (Service Operator)

“ I couldn't help stop taking drug again when I found my boy friend engaged another one during my imprisonment.” (Service user)

NGO service is suggested to provide relationship and emotional counselling or therapy for those who suffer from relationship issues. Also, continuous support after discharge may be provided to consolidate their skills in the real-life situation.

Parental skills training and childcare support

There is a rise in family and parental care problems among young couples who are drug abusers in Hong Kong since the last decade. Attention should be paid to the high relapse rate among supervisees who were married/cohabitated. In addition, it is shown that more crisis of childcare happened among female drug abusers.

“The female drug abuser prone to suffer from a poor relationship with the partner, low efficacy on emotion management, stresses coping and problem-solving which lead to drug abuse, and, drug abuse leads to more vulnerable, even traumatic experience. This becomes a great hurdle for them to take well care of the children, they love their children very much. Service support, e.g. Relationship counselling, child care support during imprisonment, allowing them to fulfil the role and responsibility as a parent by supporting community treatment may help alleviate the stresses and prevent risk to the children.” (Service Operator)

“I'm too young to be a parent. I don't know how to take care of a child. I found my boyfriend who had affairs when I was imprisoned. But I'm a mother, I will try to quit. So that nobody can take my child away from me. I'm happy the Social Worker sent me the photos of my child to keep us connected. After I was discharged, the Social Worker referred me to this Center. Here I joined the young mother's group so I can learn parental skills. It would be better if I could learn about it while I was staying inside.” (Service user who once relapsed.)

Close collaboration with NGOs to organise childcare training, parental skills training, and family reintegrated supports before and post-discharge may help prevent relapse.

Reintegration is a crucial stage to maintain drug abstinence as rehabilitation is extended to the original community context where temptations and risks are present again for offenders. However, informants mentioned that the reintegration support was limited and that they were left somewhat unprepared and uninformed about the resources available in the community. It was further commented by service operators that drug-induced mental health problems were untreated as a result of limited accessibility of mental health resources in the community.

'There were not many activities in DATC...no one told me anything about what to do or about life after release...no relevant information or services for when I re-integrated back to community.... (Service User)'

'A lot of organizations did not have mental health resources or psychiatric nurses to treat patients. A lot of my cases quitted [drug] but then soon develop mental disorders...they didn't know where to seek help...they were not detected or referred when they were sentenced (Service Operator)'

In order to improve the effectiveness of drug treatment and rehabilitation, three main recommendations were suggested by service users and operators centred on the issue of resource constraints. The first concerned limitations in resources and manpower; the second, more coordination between different parties would help to utilize existing resources fully, and the third focuses on enhancing operations in DATC.

During detention, service operators and users both suggested including stationed social workers at DATC or other correctional centres. Some users expressed a variety of needs such as emotional and family problems that could be addressed and relieved *"before our condition gets more severe"* if there were social workers during custody. Particularly, the welfare officers' role may be streamlined if social workers can be stationed to do counselling while officers can focus more on administrative and regulatory operations. Accordingly, when welfare officers' workloads are shared, the referral forms can be issued with greater efficiency, hence, increasing the success rate of referral services. Additionally, at reintegration, more specialists such as psychiatrists and psychiatric nurses in community treatment centres and hospitals would be helpful in increasing the accessibility and health support for offenders, and for facilitating coordination with NGOs to provide community drug treatments and enhance knowledge dissemination.

'I think their [existing staffs in CSD and HA] hands are tied...adding more workload will just exhaust them...with the increasing drug trend and impact...we need more psychiatric nurse, psychiatrists, welfare officers, counsellors stationed at DATC to do counselling and welfare officers to do more of their role in administration referral etc asking the wrong person [welfare officers to be counsellor and officer] to do the wrong job that are not trained is just not it (Service Operator)'

'I think there should be social workers in CSD institutions...CSD is like a school...so why aren't there social workers...there are a lot of people with different background and needs...it is only those who are assigned to study may learn emotional management skills from teachers...others...we have nothing...at least having social workers can help with our family issues...emotional and stress problems...before our condition gets more severe (Service User)'

More coordination between CSD with other community parties at the correctional and reintegration stage as suggested by informants. Some service users found it useful to be connected with social workers who helped with their family problems and referred them to support services upon release. It was emphasized that being sent to a halfway house was particularly useful to some in maintaining drug abstinence during the transition period. The CSD could look to take a more proactive role in referring offenders with medical needs to CCPSA and SAC *"to increase their healthy social support upon release"*. More importantly, some service operators highlighted the crucial effect of early engagement in securing positive connections and aftercare support for offenders.

'It is important to involve social workers to help with the communication between our family and ourselves ...to help reflect that families actually still do care about us and help reflect our improved behaviours in DATC to my family to show that I really want to be better...this really helped me a lot...to improve my relationship with my family...so this motivates me to change and to quit drugs.... I think what can stop me from relapse is really send me to halfway house away from familiar environment that I can take drugs and need regular spontaneous drug testing ...so that someone can watch over me (Service User)'

'CSD should establish some connection with HA or NGO to refer them if they have medical needs i.e. CCPSA and SAC to increase their healthy social support upon release... Reintegration support will be most effective if CSD allows NGO to go in for early engagement, helping offenders to release their future needs...incentive to change and build connection with social services...this will be more likely for NGOs to engaged the released (Service Operator)'

Finally, negative peer influences during custody have been identified as a potential risk factor for relapse. Therefore, as suggested by some service operators, a greater degree of compartmentation of offenders in drug types, drug history and history of offences may help to separate the more experienced drug abusers from those with less experience.

"To address the adverse impact brought by drug university [DATC] separating them according to drug history, drug type etc. like those in the hospital can be effective....for one...it is easier to manage and provide intervention... secondly...this will prevent the seniors to contaminate the young ones who didn't know the other drugs before getting in DATC...they need different treatments...cocaine requires more physical medical treatment and weed requires more rotational training and learning (Service Operator)'

At the same time, spiritual intervention, such as mindfulness training and regular pastoral care, together with community religious networks have a positive impact on resilience and community reintegration.

'The pastor also took care of my family members. I was introduced to a church and where I felt... the others, they don't look upon me. I made new friends. It helped me to stay away the old friends particularly in the beginning right after discharge.'
(service user)

To facilitate the specialization of services, lessons may be taken from hospital wards where different medical conditions and severities of needs are grouped and treated with specialized expertise and interventions. In doing so, it is of course very important to consider the effects that the users of these services may have upon one another. Yet with more targeted interventions and evidence-based specialized care, treatment effectiveness and efficiency can be maximized.

Chapter 5 Potential reduction in social costs related to improvements in the rehabilitation system

This chapter estimates the potential reduction in social costs relating to the potential improvements in the rehabilitation process. It first highlights the conceptual deliberation of the estimation and also the valuation approach. This follows the data collection and calculation details. The final section presents the maximum potential reduction in social cost for CSD's DATC if inmates can avoid being recalled.

5.1 Conceptual deliberation

In order to estimate the potential reduction in social costs relating to the potential improvements in the rehabilitation process, we first need to make a proposition, i.e., there is room for improvement in the existing rehabilitation system. Based on the above section, we have highlighted a number of deficiencies in the existing rehabilitation process (including more visitation by family members, more coordination between CSD with other community parties, etc). It paints a picture that there is notable room for improvement in the existing system, hence, ascertaining the fundamental proposition.

With the proposition, the next set of considerations for the estimation would be (1) examining the quantity of the potential improvement and (2) valuing it in an economic term. The following explains the underlying logic.

5.1.1 Examining the quantity of the potential improvement

A crucial assumption made in this estimation was that the potential improvement of the rehabilitation process will (or need to) be materialized in the reduction in the recall rate. In other words, we argue that actions that address the service/policy gaps highlighted above, could potentially improve the rehabilitation process and the improvement would be eventually manifested itself in the form of a reduction in the recall rate. This assumption may not be best as we acknowledge that improvement of the rehabilitation process could be multi-faceted and not necessarily quantitative, it nonetheless provides an objective indicator.

With this assumption made, the estimation of the quantity of the improvement rest upon the degree of the reduction of the recall based on the current system. In this light, the most logical deduction of the maximum quantity of the potential improvement would be nil, meaning that there would be absolutely no incidences of recalls. However, this sounds unrealistic as almost no rehabilitation system could be perfect. In other words, there needs to be a realistic benchmark, as depicted in Figure 5.1.

Figure 5.1 Conceptual model of the maximum reduction in recalls



The locally-relevant benchmark - To establish the benchmark, this study first tried to identify the recall rate in the institution settings in the international context. The underlying reason was that these institutions may provide some insights about the recall rate that can make reference to the local situation. However, our attempt to explore this recall estimate turns out to be very difficult, as many of the other settings do not release such statistics. Additionally, even if we obtain the recall estimates from other jurisdictions, there will still be cultural and socioeconomic differences that constrain the validity of cross-referencing. Hence, this study did not go in the direction to identify the benchmark from international settings but solicited locally-relevant benchmarks.

Maximum reduction in recalls -- As mentioned above, in the local settings, there are two major routes of rehabilitation for this group of study target. One is an institutional setting which is the CSD (i.e. DATC) and the other is the community-based setting which involves SWD Corrections Section (i.e. probation order). Resting the discussion purely on the recall rate, it is quite commonly known that the community-based approach would likely have a lower rate of recall. Reasons behind that were partly related to the selection bias (i.e., those who are using the community-based approach typically are motivated “rehabitees”) and also partly related to the rehabilitative approach⁴ (i.e., the principle of

⁴ Through the interview with SWD probation officers, the SWD has an Enhanced Probation Services (EPS) which is human-centred design and their fundamental principle is that the offender can be best rehabilitated within the community with suitable professional intervention and support for the offenders and their families. Probation officers provide statutory supervision with the objectives to assist, advise and befriend the probationers and to prevent them from re-offending by implementing the rehabilitation plan. In the view of SWD, EPS is effective in helping young drug offenders to maintain drug-free and return to the right track given that most probationers could complete the statutory order without reconviction. According to our interview with ex-inmates, it is also suggested that individuals with the motivation to quit drugs were more likely to choose probation order instead of DATC if they were given the option to serve under the supervision of a probation officer. It is assumed that the current EPS is the gold standard of drug rehabilitation services

rehabilitation in the community-based settings varies quite considerably to the institution settings). Despite these pre-conditions, the rate of community-based recalls creates a 'target' for the institution rehabilitation to 'aim at' (i.e., the realistic maximum reduction in recalls). In other words, as shown in Figure 1, the difference between the recall rate of the existing rehabilitation system (CSD; top line) and the 'benchmark' (i.e., a realistic most optimal improvement), i.e., the blue shaded area, is the potential maximum reduction in recalls that could potentially result from the improvement.

The benchmark rate – to obtain this benchmark rate, we have interviewed probation order officers of the SWD Corrections Section and obtained a satisfaction rate of 88%, representing the portion successfully reintegrated back to the community without breaching any supervision conditions, which can also be interpreted to be equivalent to the recall rate in the CSD setting as 12%⁵. In this study, we can use this rate to estimate the maximum reduction CSD could possibly achieve. Combining this with section 5.1.2 below, we can estimate the total potential cost saving.

While this number reflects the 'realistic maximum' of reduction in recalls, we acknowledge and caution readers to tie it directly to the interpretation of what 'could have' happened. Addressing the gaps highlighted above or any other actions to improve the rehabilitation process may likely create complications, nor we could accurately foresee the degree of improvement can achieve. In our discussion of the frontline and management of the rehab process in CSD and other community experts, all reflected on the difficulties or (unrealistic) to predicting the potential improvement. Hence, we caution the reader to reinterpret this estimate as what 'best' should be achieved (targeted), rather than seeing it as 'what should have happened (not simply linear cause-effect relations).

5.1.2 Valuing the potential reduction in recalls in an economic term

This section explains the valuation concept behind the potential reduction in recalls. The valuation is based on a tangible cost approach. In other words, it represents each incidence of recall that would incur additional costs to society that could have been avoided. With this assumption, we estimate that the associated cost of each incidence of the recall is based on two components: (1) averted crime cost and (2) loss of productivity cost, as explained below.

Averted crime cost, according to Yip et al, refers to the expenditure on the criminal justice system and crime victims attributable to the reduction in drug abusers due to the improvement of the rehabilitation system (Yip et al., 2017). From the previous study, Hong Kong drug abusers produce crime costs from various categories including arrests, customs, legal and adjudications, incarceration and medical treatments and property loss of victimizations. Corresponding to previous studies, we found that arrests, legal and adjudications, and incarceration can be utilized in the potential reduction valuation.

targeting offenders based on the statistics and stakeholders' interviews. However, it is not realistic to divert prison-bound offenders to EPS due to the limitation on resources to reduce reoffend and relapse. Improving the DATC drug rehabilitation services to provide a similar standard of services as EPS could be the priority to achieve the cost-saving effect.

⁵ 100% - 88% = 12%, SWD Corrections Section, 2021

Given that if recall can be prevented through the improvement of the drug rehabilitation system, the cost of an individual going through the criminal justice system repeatedly can be potentially avoided correspondingly. The averted crime cost in this study is illustrated as the following equation,

$$\text{Averted crime cost} = \text{cost of law enforcement or arrest} + \text{cost of incarceration}$$

Loss of productivity cost refers to the loss of work/ revenue/ production caused due to unavailability of an individual for any reason. In this case, it is the loss of wages due to drug abuse users being detained in drug abuse treatment centres under recall orders.

5.2 Estimating the potential reduction in social costs

With the concepts clear, next is the estimation. The team highlights the data and methodology first. Then we calculate the averted crime costs (i.e., cost of arrest and incarceration) and loss of productivity cost.

5.2.1 Data

The team adopted data from our earlier study “Assessing the Socioeconomic Costs of Drug Abuse in Hong Kong SAR” (Yip, 2017). We searched publications for relevant data to calculate the social costs and interviewed more stakeholders and service users, including probation officers and ex-inmates.

The average cost per inmate with drug use behaviour for CSD in 2014 was HK\$387,157 per year (Yip et al., 2017). The successful rate of reintegration of DATC among all CSD reintegration programmes is found to be only 51.3%⁶ of DATC inmates complying with all supervision conditions during the supervision period in 2021. This means 48.7%⁷ of cases failed the reintegration programme in 2021 resulting in recall and reincarceration. In other words, the recall rate is 48.7%.

5.2.2 Methods

The team estimates the cost reduction among prison-bound offenders when the drug rehabilitation services can be improved to achieve an effect similar to SWD’s EPS. This means the recall rate at CSD (i.e. DATC) can potentially be improved from 48.7% to 12% or a reduction of 36.7%. However, it should be noted that the profiles of service users of DATC and EPS are different hence the level of motivation to quit drugs would also differ. It is not valid to compare DATC to EPS as their target users, intervention approaches and cost are all different. It is only assumed that, in this study, prison-bound offenders receiving EPS standard services will be the most optimistic scenario in achieving a lower level of recall.

The cost reduction will take into account the crime cost (i.e., arrest, court and incarceration costs) and cost due to loss of productivity when 36.7% of recall cases were to be avoided through the improvement of the current system.

⁶ <https://www.csd.gov.hk/english/statistics/reh/srrp.html>

⁷ <https://www.csd.gov.hk/english/statistics/reh/srrp.html>

5.2.3 Calculation

Cost of arrest - From the previous report “Assessing the Socioeconomic Costs of Drug Abuse in Hong Kong SAR” (Yip, 2017) and the estimates provided by the Narcotics Bureau of the Hong Kong Police Force, it was indicated that in 2014, one arrest of an offender with possession of dangerous drugs upon general patrol requires on average 10 police officers to work for 9 hours. The estimated man-hour of officers for drug-related arrests was 90 hours. The average cost per officer for one hour was estimated at HK\$234. Thus, the estimated cost per drug-related arrest was HK\$21,060⁸.

Incarceration - Similar to judicial system cost, the lack of information made it hard for the team to estimate incarceration cost for each inmate with a drug use problem under the management of CSD. The estimated incarceration cost of each inmate in 2014 was estimated to be HK\$387,157 per year (Yip, 2017), which translates to HK\$32,263.1⁹ per month.

Loss of productivity cost - We assume the drug abuser is to receive the minimum wage. The average working hours per week is 44 hours a week. There are 4.348 weeks in a month. (With effect from 1 May 2019, the Statutory Minimum Wage rate is raised to \$37.5 per hour). On a weekly basis, this is HK\$1,650¹⁰.

Duration of detainment due to recall order - According to the Drug Addiction Treatment Centres Ordinance¹¹, an individual detained in DATC under a recall order shall be detained until the expiry of 12 months from the date of the detention order or 4 months from the date of his being arrested under the recall order, whichever is the later. However, according to the interview with stakeholders (e.g., ex-inmate, CSD officer), it is suggested that most recalled individuals will be detained for three months on average.

Number of persons in custody by DATC - By September 2021, there were 302 inmates under the custody of DATCs.

Number of potentially reduced cases – If the recall rate can be improved by 36.7%, the number of potential reduced cases is 111 per year (= 302× 36.7%).

5.3 Results

Consolidating the above, results are shown in the below table.

⁸ 90 * 234 = 21 060

⁹ 387 157/12 = 32 263.1

¹⁰ 37.5 *44 = 1 650

¹¹ <https://www.elegislation.gov.hk/hk/cap244>

Table 5.1 Cost reduction estimation

Item	Unit costs (HK\$)	Unit cost (HK\$) adjusted to 2021 ¹²	Cost of one recall case per inmate in 2021 (HK\$)	Cost saving if recall rate can be improved by 36.7% or for 111 inmates (HK\$)	Cost saving if recall rate is 0%, i.e. improved for all 302 inmates (HK\$)
Arrest	21,060 per arrest (2014)	25,050 ¹³	25,050	2,780,550	7,565,100
Incarceration	32,263.1 per inmate per month (2014)	38,376 ¹⁴	115,128	12,779,208	34,768,656
Averted crime cost			140,178	15,559,758	42,333,756
Loss of productivity due to incarceration	1,650 per week (2021)		21,450 ¹⁵	2,380,950	6,477,900
Total			161,628	17,940,708	48,811,656

Source: Yip. (2017). Assessing the Socio-economic Costs of Drug Abuse in Hong Kong SAR; reference year: 2014

¹² To have consistent cost basis, the unit cost in 2014 was adjusted to 2021 using the below the inflation rates,

Year	2014	2015	2016	2017	2018	2019	2020	2021
Inflation rate	4.44	3.00	2.41	1.50	2.41	2.90	0.33	0.70

Source: The World Bank, <https://data.worldbank.org/indicator/FP.CPI.TOTL.ZG?end=2020&locations=HK-LT-B8&start=2014&view=chart>

¹³ $21\,060 \times 1.044 \times 1.030 \times 1.024 \times 1.015 \times 1.024 \times 1.029 \times 1.003 \times 1.007 = 25\,050$

¹⁴ $32\,263.1 \times 1.044 \times 1.030 \times 1.024 \times 1.015 \times 1.024 \times 1.029 \times 1.003 \times 1.007 = 38\,376$, since the duration on detain is 3 months on average, the cost one recall case per inmate is $38\,376 \times 3 = 115\,128$.

¹⁵ As the duration of detain is 3 months or $3 \times 4.348 = 13$ weeks, the cost of loss productivity is $1\,650 \times 13 = 21\,450$.

Avoiding one recall case for each inmate will potentially save HK\$161,628 in 2021, consisting of a crime cost of HK\$140,178 and a loss of productivity of HK\$21,450. If the recall rate can improve by 36.7% (from 48.7% to 12%) among the 302 inmates or 111 inmates, the saving would be HK\$17,940,708, including HK\$15,559,758 of crime cost and HK\$2,380,950 for a loss of productivity assuming recall period is three months. Certainly, if all of the 302 inmates would stay out of the system (i.e. the recall rate is 0%), it would save HK\$48,811,656, consisting of HK\$42,333,756 of crime cost and HK\$6,477,900 for loss of productivity assuming recall period is three months.

Chapter 6 Recommendations

Several key themes and directions are set out in chapters 3 and 4, based on statistical analyses and interviews with service operators and ex-offenders. These cover the higher systems level and the more focused individual inmate level. At a higher level, the importance of good information exchange and coordination between CSD, medical specialists, and community partners is highlighted, in keeping with the CAS framework. Additionally, the role of early intervention is made clear. At an individual level, the influence of social support networks, positive peer influences and mentoring on individual outcomes are apparent. Based on these themes and a synthesis of the evidence, a series of five key recommendations have been formulated.

It is said in healthcare that ‘prevention is better than cure’, and within correctional services there is a substantial opportunity to improve cost-effectiveness and outcomes by intervening earlier, supporting those with milder and more short-term and first-time drug issues, rather than waiting until repeat offences and more serious crimes. The recommendations set out in this concluding chapter concern improvements to the treatment and rehabilitation system with a view to preventing drug problems from deteriorating, from starting altogether, or from degrading into a long-term problem that leads to recurring reoffending, and significant social, medical and economic costs. While some of the recommendations are more targeted and individualized (6.1; 6.2), other recommendations (in particular, 6.5) reflect system-wide challenges consistent with a complex adaptive system, which can only be addressed through collaborative efforts, enhanced communication, and ongoing research into rehabilitation methods and the patterns of drug abuse.

6.1 Enhance individual risk and needs assessments

Illicit drug use is associated with a cascade of interlinking issues, medical, psychological, social, and criminal. Service operators and users highlight the critical role of early intervention in recovery. To support this, Hong Kong should take note of other jurisdictions, such as the US, where the assessment of medical and treatment needs takes place soon after the arrest, by strengthening the framework for early risk and needs assessment, in support of personalized and targeted treatment plans. Individual assessments provide an opportunity to explore the circumstances of individuals and categorize them according to certain levels of need, including identifying those that may be at higher risk of a stubborn drug issue due to social or environmental factors. In recognition of the clinical and social features of drug abuse, assessments ought to be conducted by a social worker or member of the medical and/or psychological professions that can consider factors that may put the individual at risk of relapse based on the available evidence.

At present, interviewees have highlighted that there is no routine involvement of a social worker in each case. The early involvement of helping professionals in risk and needs assessment will help to address any drug use that may be ongoing during the judicial case and will strengthen the formulation of individual treatment plans or establishing community support, including in cases where suspected offenders are released due to insufficient evidence. Assessments will also help inform suitability reports used by the court, to ensure a person-centred plan for treatment and rehabilitation, and to make clear the relative roles of stakeholders in facilitating this plan. Where charged or discharged arrestees may benefit from immediate support, referrals to social workers or community members

may be initiated using assessment reports to immediately begin the process of individual recovery based on connected care.

While it is noted that Hong Kong is cautious and prudent in conducting drug tests, an early intervention approach to tackling the drug problem will be able to use risk assessments to help identify patterns of criminal activity and behaviours indirectly associated with drug addiction. As such, this enhanced risk and needs assessment framework must set out to stakeholders and agencies, and to suspected offenders themselves, the conditions with which individuals qualify for different rehabilitation pathways such as DATC, and how individual screening, assessment and outcome evaluation will be conducted, and at what stage in the judicial system service providers such as social workers and medical practitioners will be engaged for assessment. Hong Kong does not have the drug courts or “problem solving courts” like some other jurisdictions such as the United States, Canada, and Australia (Office of Justice Programs, n.d.; Government of Canada, n.d.; Australasian Institute of Judicial Administration, n.d.), robust and early risk and needs assessment is critical to help ensure judges are given sufficient information on suspected drug abusers to exercise informed judgments about clinical and rehabilitative features of individual cases. Substance abuse specialists will have an important role to play in producing risk and needs assessment reports, working closely with law enforcement and correctional officers.

6.2 Foster positive social networks

Chapters 3 and 4 highlight the influence of social dynamics prior to, during and after an individual’s time spent in correctional facilities. Specifically, it was suggested that unless care is taken, the environment of correctional services can lead to negative peer influences and a poor social environment post-discharge. As such, visitations, peer mentoring/counselling, spiritual care and grouping of offenders should each be given greater consideration. The analysis featured in chapter 3 found that those with more family visits had better treatment outcomes, perhaps due to the visits providing offenders with a sense of emotional support and personal responsibility, and the motivation to rehabilitate. This is a clear indication that the influence of family visits should be viewed as an important feature of treatment and rehabilitation. To facilitate this, greater visitation rights and flexibility of times should be considered. In those with fewer visits or signs of problematic family situations, particular attention and social work support may be offered. Caseworkers may also look to engage with family members to consider inmate support networks for the offenders while in custody and upon release, and provide family counselling where needed.

Besides visitations, a positive relationship was found between peer counselling and treatment motivation. Peer counsellors can help put drug users on the path to successful rehabilitation. As such, this should be viewed as a low-cost method for enhancing outcomes and for mitigating the risk that the correctional setting may expose some to negative influence, an issue that was raised during interviews. Additionally, those recently discharged may be encouraged to pursue the path of becoming a mentor or counsellor to others, so that their own experiences and challenges may be used to help others. In turn, this opportunity can be expected to enhance the long-term stability and abstinence of the offender, fostering a virtuous cycle.

As for socialization between inmates, there is a need to consider how to mitigate the risk of DATC settings serving as knowledge hubs for information about illicit drugs and normalizing maladaptive behaviours. Besides for areas already mentioned above, this may include grouping offenders with

milder cases or shorter histories of drug abuse together rather than facilitating open interaction with those that have severe and chronic issues that may pose a negative influence. A stationed social worker within the DATC setting would help to ensure due consideration for the psychosocial dynamics of the environment and its impact on individual cases.

6.3 Evaluate rehabilitation programmes

Chapter 4 highlighted that rehabilitation programmes were often unavailable or even produced counterintuitive outcomes. To establish what works and what does not work, periodic collection of data and rigorous evaluation pertaining to rehabilitation programmes are essential. A system of periodic review will allow for regular updating of procedures and facilitate stronger partnership work, enhancement of rehabilitation programmes, and referrals to appropriate services. It is not entirely clear why those that participated in more programmes appeared to have worse outcomes. It may be that they were required to participate in more programmes because they had greater needs, and therefore they were more at risk (i.e., reverse causation). A research study exploring the impact of these programmes would be useful, and may also help to predict which are the most effective programmes and how they should be tailored to the needs of offenders.

The importance of programmes being tailored to specific individuals is highlighted in Chapter 4. However, without research and evaluation, it is difficult to know which programmes are suited to which individuals. Findings of the evaluation of programmes, coupled with suitable needs assessment, will allow for better tailoring and personalization of programmes for optimal outcomes. This will require more participation from specialists and potentially from the offenders themselves, for whom successful outcomes will entail a degree of personal motivation to recover and be released as a responsible individual capable of contributing to society.

6.4 Increase post-discharge support

The findings pertaining to recall risk in Chapter 3, the analysis in chapter 4 and the interviews highlight that the immediate period following release from correctional facilities back into the community is a critical time. The experience and support available will often determine the long-term outcomes of the individual. Interviews point to inadequate support for reintegration into the community, and a lack of integration or handover between agencies. While community groups have resources available, they often lack an understanding of the needs and circumstances of the offender. More is needed to facilitate partnership work and connectivity between the CSD, Hospital Authority and community partners with regard to the period immediately following release. Specifically, the first 3-month period should involve a higher intensity process of monitoring and support to ensure that those discharged do not fall back into bad habits and social situations. While monitoring should not interfere excessively with the offenders' social and professional opportunities, it may be based on the individual treatment plan and community participation that was agreed upon with caseworkers such as social workers and peer counsellors.

Career training and planning have been highlighted as being important for helping offenders to reintegrate into the community and find a stable income, therefore these should be offered prior to release and in the period immediately following discharge. Training and good planning can help to keep

offenders away from negative influences that lead them to repeat drug abuse. Help with identifying goals, interests and training opportunities may contribute to long-term career options and community involvement. Such opportunities may be provided with support from the business community, and incentives for businesses and community organisations to provide training, mentoring or job opportunities can go a long way towards helping offenders to reintegrate. Counselling and advisory support for family members for how to help ex-offenders to better integrate back into family life would also be useful.

6.5 Strengthen clinical and community partnerships

An effective and efficient system of treatment and rehabilitation depends upon the appropriate allocation of resources and good coordination between stakeholder agencies. Interviews repeatedly allude to apparent resource constraints and inefficiencies that limit manpower and service provision at certain stages of the T&R process, such as at entry points and reintegration. While the expansion of overall manpower and increase in healthcare practitioners such as psychiatric nurses would be desirable to address the burden of mental disorders, stronger partnership work between agencies can enhance procedures, inmate care, and sentencing protocols.

As discussed in Chapter 4, the current policy approach has relatively few mechanisms in place to bring interdisciplinary expertise together for systematic decision-making, which can hamper effective partnership work and weaken referral pathways of services for drug users. Stronger cooperation can help to enhance needs assessment, optimize treatment and rehabilitation, and reduce recall. For instance, a drug court may be a way to involve psychiatrists in the process of making a tailored rehabilitation focus sentence on the drug abuser. The contrasting priorities of different agencies, such as law enforcement, clinicians, social workers, and community organizations can lead to tensions, however, effective partnership work is based on mutual understanding and a shared set of values. More may be done to strengthen these partnerships and find common ground with those at different levels of agencies to ensure appropriate co-working. Improved working relationships equate to more efficient use of resources given budget constraints.

More frequent stakeholder consultations and sharing ought to be considered to ensure a set of common targets and priorities that incorporate the perspectives and expertise of different parties. Training/educational initiatives for staff may be necessary to ensure that different agencies have a clear understanding of the functions and concerns of one another. If necessary, stakeholder consultations and conferences may be chaired by an independent body or a committee or task force with representation from the different stakeholder parties. Such efforts can contribute to shared targets and priorities that incorporate the perspectives and expertise of different parties. Training/educational initiatives for staff and a stakeholder sharing platform may be necessary to ensure that different agencies have a clear understanding of the functions and concerns of one another, and of legal protocols. Such efforts will also ensure that expertise from different service providers and community groups can be brought to the attention of policymakers to allow for well-informed decisions about appropriate treatments and sentencing.

References

- Abuse, S., et al. (2016). The neurobiology of substance use, misuse, and addiction. Facing Addiction in America: The Surgeon General's Report on Alcohol, Drugs, and Health [Internet], US Department of Health and Human Services.
- Agha, L., et al. (2019). "Fragmented division of labor and healthcare costs: Evidence from moves across regions." *Journal of Public Economics* 169: 144-159.
- Amanda B. Cissner, M. R. (2005). *The State of Drug Court Research*.
- Amen, D.G., Yantis, S., Trudeau, J., Stubblefield, M.S., & Halverstadt, J.S. (1997). Visualising the firestorms of the brain: an inside look at the clinical and physiological connections between drugs and violence using brain SPECT imaging. *Journal of Psychoactive Drugs*, 29(4), 307-319.
- Anderson, D. B., Schumacker, R. E., & Anderson, S. L. (1991). Releasee characteristics and parole success. *Journal of Offender Rehabilitation*, 17(1-2), 133-145.
- Anderson, J. F., et al. (2017). "Paradigm shift in responding to drug users and addicts: from a criminal justice to a public health approach." *Int'l J. Soc. Sci. Stud.* 5: 1.
- Andrews, D., & Bonta, J. (2010). *The psychology of criminal conduct* (5th Edition). Cincinnati, OH: Anderson Publishing.
- Ariel, B. and H. Partridge (2017). "Predictable policing: Measuring the crime control benefits of hotspots policing at bus stops." *Journal of Quantitative Criminology* 33(4): 809-833.
- Audit Commission. (2015, April 1). Rehabilitation services provided by the Correctional Services Department . Retrieved from https://www.aud.gov.hk/pdf_e/e64ch08.pdf
- Australia, M. C. o. W. (2020). "Drug Court." from https://www.magistratescourt.wa.gov.au/D/drug_court.aspx#:~:text=The%20Drug%20Court%20aims%20to,substance%20misuse%20and%20associated%20lifestyle.
- Australasian Institute of Judicial Administration. (n.d.). Drug courts. Retrieved from <https://aija.org.au/research/australasian-therapeutic-jurisprudence-clearinghouse/problem-solving-courts/drug-courts/>
- Baer, D., et al. (2006). "Understanding the challenges of prisoner reentry: Research findings from the Urban Institute's Prisoner Reentry Portfolio." Washington, DC: The Urban Institute.
- Baumeister, R. F. and A. E. Monroe (2014). "Recent research on free will: Conceptualizations, beliefs, and processes." *Advances in experimental social psychology* 50: 1-52.
- Belenko, S. and J. Peugh (2005). "Estimating drug treatment needs among state prison offenders." *Drug and alcohol dependence* 77(3): 269-281.
- Best, D., et al. (2009). "What treatment means in practice: an analysis of the delivery of evidence-based interventions in criminal justice drug treatment services in Birmingham, England." *Addiction Research & Theory* 17(6): 678-687.
- Blatch, C., et al. (2016). "Getting SMART, SMART recovery© programs and reoffending." *Journal of*

Forensic Practice.

Bodenheimer, T. (2008). Coordinating care—a perilous journey through the health care system, *Mass Medical Soc.*

Bonta, J. and D. A. Andrews (2007). "Risk-need-responsivity model for offender assessment and rehabilitation." *Rehabilitation* 6(1): 1-22.

Born, K., et al. (2019). "Reducing overuse in healthcare: advancing Choosing Wisely." *BMJ* 367: l6317.

Bowes, N., et al. (2014). "Treating alcohol-related violence: a feasibility study of a randomized controlled trial in prisons." *The Journal of Forensic Psychiatry & Psychology* 25(2): 152-163.

Carey, M. (2014). "The fragmentation of social work and social care: Some ramifications and a critique." *The British Journal of Social Work* 45(8): 2406-2422.

Chandler, R. K., et al. (2009). "Treating drug abuse and addiction in the criminal justice system: improving public health and safety." *Jama* 301(2): 183-190.

Cheung, Y. W., & Ch'ien, J. M. (1996). Drug use and drug policy in Hong Kong: Changing patterns and new challenges. *Substance use & misuse*, 31(11-12), 1573-1597.

Cheung, Y.W., W.L. Francis Lee and S.K. Catherine Tang. *Northbound Pleasures: Pattern of Cross-border Deviance of Hong Kong Marginal youths and Its implications for Adolescent Deviance in Hong Kong*. Research Grants Council.

CHUI, W. H., CHEUNG, C. K. J., & CHEUNG, W. L. R. (2017). *A Report on the Effectiveness of Rehabilitation and Community Education Work of Correctional Services Department*. City University of Hong Kong.

CHUI, W. H., CHEUNG, C. K. J., & CHEUNG, W. L. R. (2017). *A Report on the Effectiveness of Rehabilitation and Community Education Work of Correctional Services Department*. Hong Kong: 84.

Conklin, T. J., et al. (1998). "A public health model to connect correctional health care with communities." *American Journal of Public Health* 88(8): 1249.

Clark, D. B., Kirisci, L., & Tarter, R. E. (1998). Adolescent versus adult onset and the development of substance use disorders in males. *Drug and alcohol dependence*, 49(2), 115-121.

Cornelius, J. R., Maisto, S. A., Pollock, N. K., Martin, C. S., Salloum, I. M., Lynch, K. G., & Clark, D. B. (2003). Rapid relapse generally follows treatment for substance use disorders among adolescents. *Addictive behaviors*, 28(2), 381-386.

Correctional Services Department. (2018). About Us. About us.
<https://www.csd.gov.hk/english/about/abt.html>.

Correctional Services Department. (n.d.). CSD Q&A Corner.
<https://www.csd.gov.hk/english/info/qa/qa.html>

CSD. (2019). Examination of Estimates of Expenditure 2018-19. CSD. Available from:

https://www.csd.gov.hk/images/doc/news/news_st/eee1819/SB440e.pdf

CSD. (2022). Recidivism rate of local rehabilitated offenders. CSD. Available from: https://www.csd.gov.hk/english/statistics/reh/recidivism_rate.html

Curtis, S. and M. Riva (2010). "Health geographies II: complexity and health care systems and policy." *Progress in Human Geography* 34(4): 513-520.

D'Aunno, T. (2001). "Managing the care of health and the cure of disease: arguments for the importance of integration." *Health Care Manage Rev* 26(1): 85-87; discussion 89-90.

De Andrade, D., et al. (2018). "Substance use and recidivism outcomes for prison-based drug and alcohol interventions." *Epidemiologic reviews* 40(1): 121-133.

De Graaf, R., Bijl, R. V., Smit, F., Vollebergh, W. A., & Spijker, J. (2002). Risk factors for 12-month comorbidity of mood, anxiety, and substance use disorders: findings from the Netherlands Mental Health Survey and Incidence Study. *American Journal of Psychiatry*, 159(4), 620-629.

Deitch, D., et al. (2000). "The relationship between crime and drugs: What we have learned in recent decades." *Journal of psychoactive drugs* 32(4): 391-397.

Dept, H. K. C. S. (2003). "Hong Kong Correctional Services Annual Review 2004." Disorders — Draft for Field Testing.

Dowden, C. and S. L. Brown (2002). "The role of substance abuse factors in predicting recidivism: A meta-analysis." *Psychology, Crime and Law* 8(3): 243-264.

Drug Addiction Treatment Centres Ordinance, No.244 (2019).

Duff, C. (2003). Drugs and youth cultures: Is Australia experiencing the 'normalization' of adolescent drug use? *Journal of youth studies*, 6(4), 433-447.

Elhauge, E. (2010). "Why we should care about health care fragmentation and how to fix it."

Ellis, B., Bernichon, T., Yu, P., Roberts, T., & Herrell, J. M. (2004). Effect of social support on substance abuse relapse in a residential treatment setting for women. *Evaluation and Program Planning*, 27(2), 213-221.

Emerson, B., et al. (2005). "A Public Health Approach to Drug Control in Canada." British Columbia: Health Officers Council of British Columbia.

Ent, M. R. and R. F. Baumeister (2014). "Embodied free will beliefs: Some effects of physical states on metaphysical opinions." *Consciousness and cognition* 27: 147-154.

Enthoven, A. (2009). Integrated Delivery Systems: The Cure for Fragmentation. *The American Journal of Managed Care*. Volume 15, Issue 10. S284

Evans, E., Huang, D., & Hser, Y. I. (2011). High-risk offender participating in court-supervised substance abuse treatment: Characteristics, treatment received, and factors associated with recidivism. *The journal of behavioral health services & research*, 38(4), 510-525.

Fishman, M., Wenzel, K., Scodes, J., Pavlicova, M., Lee, J. D., Rotrosen, J., & Nunes, E. (2020). Young

adults have worse outcomes than older adults: Secondary analysis of a medication trial for opioid use disorder. *Journal of Adolescent Health*, 67(6), 778-785.

Fletcher, B. W. and R. K. Chandler (2006). Principles of drug abuse treatment for criminal justice populations: A research-based guide, National Institute on Drug Abuse.

Gaes, G. G., Camp, S. D., Camp, S. D., Saylor, W. G., & Nelson, J. B. (2004). *Measuring prison performance: Government privatization and accountability* (Vol. 2). Rowman Altamira.

Gayathiri Ganeshan, A. M., Michael Slyuzberg, Sarah Talboys. (2016). DRUG COURTS: EVIDENCE BRIEF FOR 2ND REVIEW. D. o. Justice.

Glouberman, S. and H. Mintzberg (2001). "Managing the care of health and the cure of disease--Part II: Integration." *Health Care Manage Rev* 26(1): 70-84; discussion 87-79.

Gossop, M., Marsden, J., Stewart, D., & Rolfe, A. (2000). Reductions in acquisitive crime and drug use after treatment of addiction problems: 1-year follow-up outcomes. *Drug and Alcohol Dependence*, 58(1-2), 165-172.

Government of Canada. (n.d.). Drug Treatment Court Program. Retrieved from <https://www.justice.gc.ca/eng/fund-fina/gov-gouv/dtc-ttt.html>

Grant, B. F., Stinson, F. S., Dawson, D. A., Chou, S. P., Dufour, M. C., Compton, W., ... & Kaplan, K. (2004). Prevalence and co-occurrence of substance use disorders and independent mood and anxiety disorders: Results from the national epidemiologic survey on alcohol and related conditions. *Archives of general psychiatry*, 61(8), 807-816.

Grella, C. E., Scott, C. K., Foss, M. A., & Dennis, M. L. (2008). Gender similarities and differences in the treatment, relapse, and recovery cycle. *Evaluation review*, 32(1), 113-137.

Griffiths, M. (2005). A 'components' model of addiction within a biopsychosocial framework. *Journal of Substance use*, 10(4), 191-197.

Hammett, T. M., et al. (2001). "Health-related issues in prisoner reentry." *Crime & delinquency* 47(3): 390-409.

Havassy, B. E., Hall, S. M., & Wasserman, D. A. (1991). Social support and relapse: Commonalities among alcoholics, opiate users, and cigarette smokers. *Addictive behaviors*, 16(5), 235-246.

Hester, R. and H. Garavan (2004). "Executive dysfunction in cocaine addiction: evidence for discordant frontal, cingulate, and cerebellar activity." *Journal of Neuroscience* 24(49): 11017-11022.

Hodiamont, F., et al. (2019). "Understanding complexity—the palliative care situation as a complex adaptive system." *BMC health services research* 19(1): 1-14.

Hoffer, L. D., et al. (2009). "Researching a local heroin market as a complex adaptive system." *American journal of community psychology* 44(3): 273-286.

Hoffmann, J. P. (1993). Exploring the direct and indirect family effects on adolescent drug use. *Journal of Drug Issues*, 23(3), 535-557.

Hong Kong Police Force (2021). Guidance to an arrested person on arrest and detention. Hong Kong Police Force.

Hough, M., Clancy, A., McSweeney, T., & Turnbull, P. J. (2003). *The impact of Drug Treatment and Testing Orders on offending: two-year reconviction results*. Home Office. Research, Development and Statistics Directorate.

Hubbard, R. L., Craddock, S. G., & Anderson, J. (2003). Overview of 5-year followup outcomes in the drug abuse treatment outcome studies (DATOS). *Journal of substance abuse treatment, 25*(3), 125-134.

Hung-En Sung PhD (2003) Differential Impact of Deterrence vs. Rehabilitation as Drug Interventions on Recidivism After 36 Months, *Journal of Offender Rehabilitation, 37*:3-4, 95-108.

Ibrahim, F., & Kumar, N. (2009). Factors effecting drug relapse in Malaysia: An empirical evidence. *Asian Social Science, 5*(12), 37-44.

Jane Kerr, C. T., Wojtek Tomaszewski, Sarah Dickens, Roger Grimshaw, Nat Wright and Matt Barnard (2011). The Dedicated Drug Courts Pilot Evaluation Process Study. M. o. Justice.

Jiang, D., et al. (2013). "Drug-abusing offenders with co-morbid mental disorders: gender differences in problem severity, treatment participation, and recidivism." *Biomedical and Environmental Sciences 26*(1): 32-39.

Jones, M., & Sims, B. (1997). Recidivism of offenders released from prison in North Carolina: A gender comparison. *The Prison Journal, 77*(3), 335-348.

Justice, D. o. (2017). "Drug Treatment Court Funding Program Evaluation ". from <https://www.justice.gc.ca/eng/rp-pr/cp-pm/eval/rep-rap/2015/dtcfp-pfttt/p3.html>.

Karemere, H., et al. (2015). "Analyzing Katana referral hospital as a complex adaptive system: agents, interactions and adaptation to a changing environment." *Conflict and Health 9*(1): 17.

Kincaid, H. and J. A. Sullivan (2010). "13 Medical Models of Addiction." *What is addiction: 353*.

Kinlock, T. W., Gordon, M. S., Schwartz, R. P., Fitzgerald, T. T., & O'Grady, K. E. (2009). A randomized clinical trial of methadone maintenance for prisoners: results at 12 months postrelease. *Journal of substance abuse treatment, 37*(3), 277-285.

Kipke, M. D., Montgomery, S. B., Simon, T. R., & Iverson, E. F. (1997). "Substance abuse" disorders among runaway and homeless youth. *Substance use & misuse, 32*(7-8), 969-986.

Knight, K. and D. Farabee (2007). "TREATING ADDICTED OFFENDERS."

Knight, K., Dwayne, S. D., Chatham, L. R., & Camacho, L. M. (1997). An assessment of prison-based drug treatment: Texas' in-prison therapeutic community program. *Journal of Offender Rehabilitation, 24*(3-4), 75-100.

Kodner, D. L. and C. Spreeuwenberg (2002). "Integrated care: meaning, logic, applications, and implications—a discussion paper." *International journal of integrated care 2*.

Kreek, M.J.; Levran, O.; Reed, B.; Schlussman, S.D.; Zhou, Y.; and Butelman, E.R. Opiate addiction and cocaine addiction: underlying molecular neurobiology and genetics. *J Clin Invest* 122(10):3387–3393, 2012.

Kuussaari, K., et al. (2020). "Mental health problems among clients with substance use problems: a nationwide time-trend study." *Social Psychiatry and Psychiatric Epidemiology* 55(4): 507-516.

Langan, P. A. and D. J. Levin (2002). *Recidivism of prisoners released in 1994*, US Department of Justice, Office of Justice Programs, Bureau of Justice.

Larimer, M. E., Palmer, R. S., & Marlatt, G. A. (1999). Relapse Prevention. An Overview of Marlatt's Cognitive-Behavioral Model. *Alcohol research & health: the journal of the National Institute on Alcohol Abuse and Alcoholism*, 23(2), 151-160.

Laurene, K. R., et al. (2011). "Perception of free will: the perspective of incarcerated adolescent and adult offenders." *Review of Philosophy and Psychology* 2(4): 723-740.

Lavine, R. (1997). The psychopharmacological treatment of aggression and violence in the substance using population. *Journal of Psychoactive Drugs*, 29(4), 321-329.

Li, W.; Li, Q.; Zhu, J.; Qin, Y.; Zheng, Y.; Chang, H.; Zhang, D.; Wang, H.; Wang, L.; Wang, Y.; Wang, W. White matter impairment in chronic heroin dependence: a quantitative DTI study. *Brain Res* 1531:58-64, 2013.

Lopes-Rosa, R., Kessler, F. P., Pianca, T. G., Guimarães, L., Ferronato, P., Pagnussat, E., ... & von Diemen, L. (2017). Predictors of early relapse among adolescent crack users. *Journal of addictive diseases*, 36(2), 136-143.

Lovato, E., et al. (2013). "Humanisation in the emergency department of an Italian hospital: new features and patient satisfaction." *Emergency Medicine Journal* 30(6): 487-491.

Machalek, R., & Martin, M. (2015). Sociobiology and Sociology: A New Synthesis. *International Encyclopedia of the Social & Behavioral Sciences*, 892-898. <https://doi.org/10.1016/b978-0-08-097086-8.32010-4>

MacKenzie, M. J., et al. (2015). "Disbelief in free will decreases feelings of gratitude." *Personality and Social Psychology Bulletin* 40: 1423-1434.

Maculan, E. and A. Gil Gil (2020). "The Rationale and Purposes of Criminal Law and Punishment in Transitional Contexts." *Oxford Journal of Legal Studies* 40(1): 132-157.

MacDonald, R. (2006). Social exclusion, youth transitions and criminal careers: Five critical reflections on 'risk'. *Australian & New Zealand Journal of Criminology*, 39(3), 371-383.

Marlatt, G. A., & Donovan, D. M. (Eds.). (2005). *Relapse prevention: Maintenance strategies in the treatment of addictive behaviors*. Guilford press.

Marteau, D., et al. (2010). "Introduction of the integrated drug treatment system (IDTS) in English prisons." *International Journal of Prisoner Health* 6(3): 117-124.

May, C., Sharma, N., & Stewart, D. (2008). Factors linked to reoffending: a one-year follow-up of

prisoners who took part in the Resettlement Surveys 2001, 2003 and 2004. Research Summary, 5.

McCrystal, P., Percy, A., & Higgins, K. (2007). Exclusion and marginalisation in adolescence: the experience of school exclusion on drug use and antisocial behaviour. *Journal of youth studies*, 10(1), 35-54.

McKay, J. R., Rutherford, M. J., Alterman, A. I., Cacciola, J. S., & Kaplan, M. R. (1995). An examination of the cocaine relapse process. *Drug and alcohol dependence*, 38(1), 35-43.

McKeganey, N., Bloor, M., Robertson, M., Neale, J., & MacDougall, J. (2006). Abstinence and drug abuse treatment: Results from the Drug Outcome Research in Scotland study. *Drugs: education, prevention and policy*, 13(6), 537-550.

Mintzberg, H. (2011). "To Fix Health Care, Ask the Right Questions; Harvard Business Review, (October, 2011)."

Mitchell, O., et al. (2017). "The effectiveness of prison for reducing drug offender recidivism: A regression discontinuity analysis." *Journal of Experimental Criminology* 13(1): 1-27.

Moore, K. E., Roberts, W., Reid, H. H., Smith, K. M., Oberleitner, L. M., & McKee, S. A. (2019). Effectiveness of medication assisted treatment for opioid use in prison and jail settings: A meta-analysis and systematic review. *Journal of substance abuse treatment*, 99, 32-43.

Nadesu, A. (2008). Reconviction patterns of offenders managed in the community: A 48-months follow-up analysis. Department of Corrections.

Nahmias, E., et al. (2014). "It's OK if 'my brain made me do it': People's intuitions about free will and neuroscientific prediction." *Cognition* 133(2): 502-516.

Narcotics Division and Action Committee Against Narcotics. (2018). Understanding Drug Abuse Problem. Security Bureau. https://www.nd.gov.hk/pdf/udap_e.pdf

Narcotics Division, S. B. (2008). Report of the Task Force on Youth Drug Abuse. Security Bureau. https://www.nd.gov.hk/en/report_youth_drug_abuse.html

Narcotics Division, S. B. (2020). Central Registry of Drug Abuse Sixty-ninth Report. S. B. Narcotics Division.

National Academies of Sciences, E. and Medicine (2016). Ending discrimination against people with mental and substance use disorders: The evidence for stigma change, National Academies Press.

National Academies of Sciences, E. and Medicine (2019). "Medications for opioid use disorder save lives."

Newton, A., et al. (2019). "Economic and social costs of reoffending: analytical report." London: Ministry of Justice.

Ngai, N. P., & Cheung, C. K. (2005). Predictors of the likelihood of delinquency: A study of marginal youth in Hong Kong, China. *Youth & Society*, 36(4), 445-470.

NIDA. 2020, June 2. Principles of Adolescent Substance Use Disorder Treatment. Retrieved from <https://www.drugabuse.gov/publications/principles-adolescent-substance-use-disorder-treatment-research-based-guide/principles-adolescent-substance-use-disorder-treatment> on 2021, July 1

NIDA. 2020, June 16. Principles. Retrieved from <https://www.drugabuse.gov/publications/principles-drug-abuse-treatment-criminal-justice-populations-research-based-guide/principles> on 2021, May 24

Nurjono, M., et al. (2018). "Implementation of integrated Care in Singapore: a complex adaptive system perspective." *International journal of integrated care* 18(4).

Nyabadza, F. and L. Coetzee (2017). "A systems dynamic model for drug abuse and drug-related crime in the Western Cape province of South Africa." *Computational and mathematical methods in medicine* 2017.

Office of Justice Programs. (n.d.). Drug courts: Overview. Retrieved from <https://www.ojp.gov/feature/drug-courts/overview>

Olson, D. E., & Lurigio, A. J. (2014). The long-term effects of prison-based drug treatment and aftercare services on recidivism. *Journal of Offender Rehabilitation*, 53(8), 600-619.

Osher, F. C. (2006). "Integrating mental health and substance abuse services for justice-involved persons with co-occurring disorders." Delmar, NY: National GAINS Center.

Penney, L. S., et al. (2018). "Interventions to reduce readmissions: can complex adaptive system theory explain the heterogeneity in effectiveness? A systematic review." *BMC health services research* 18(1): 1-10.

Plsek, P. E. and T. Greenhalgh (2001). "The challenge of complexity in health care." *BMJ* 323(7313): 625-628.

Prangley, T., et al. (2018). "Factors influencing early withdrawal from a drug and alcohol treatment program and client perceptions of successful recovery and employment: a qualitative study." *BMC Psychiatry* 18(1): 301.

Prendergast, M. L., Podus, D., Chang, E., & Urada, D. (2002). The effectiveness of drug abuse treatment: A meta-analysis of comparison group studies. *Drug and alcohol dependence*, 67(1), 53-72.

Prendergast, M. L., et al. (2004). "Amity prison-based therapeutic community: 5-year outcomes." *The Prison Journal* 84(1): 36-60.

Probation, H. M. s. I. o. "The Risk-Need-Responsivity Model." from <https://www.justiceinspectorates.gov.uk/hmiprobation/research/the-evidence-base-probation/models-and-principles/the-rnr-model/>.

Ramo, D. E., Anderson, K. G., Tate, S. R., & Brown, S. A. (2005). Characteristics of relapse to substance use in comorbid adolescents. *Addictive Behaviors*, 30(9), 1811-1823.

Randle, J. M., et al. (2015). "Addiction and the adaptive cycle: A new focus." *Addiction Research & Theory* 23(1): 81-88.

Ransom, D. C. (1985). "The evolution from an individual to a family approach." In: *Principles of Family Systems in Family Medicine*. New York, NY: Brunner-Mazel: 5-23.

Ratliff, E. A., et al. (2016). "Harm reduction as a complex adaptive system: a dynamic framework for analyzing Tanzanian policies concerning heroin use." *International Journal of Drug Policy* 30: 7-16.

Rauma, D., & Berk, R. A. (1987). Remuneration and recidivism: The long-term impact of unemployment compensation on ex-offenders. *Journal of Quantitative Criminology*, 3(1), 3-27.

Reid, G., Kamarulzaman, A., & Sran, S. K. (2007). Malaysia and harm reduction: the challenges and responses. *International Journal of Drug Policy*, 18(2), 136-140.

Richert, T., et al. (2020). "Mental health problems among young people in substance abuse treatment in Sweden." *Substance Abuse Treatment, Prevention, and Policy* 15(1): 43.

Rollins, A. L., O'Neill, S. J., Davis, K. E., & Devitt, T. S. (2005). Special section on relapse prevention: Substance abuse relapse and factors associated with relapse in an inner-city sample of patients with dual diagnoses. *Psychiatric Services*, 56(10), 1274-1281.

Rosenberg, S. and I. Hickie (2013). "Managing madness: mental health and complexity in public policy." *Evidence Base: A Journal of Evidence Reviews in Key Policy Areas*(3): 1-19.

Rouse, W. B. (2008). "Health care as a complex adaptive system: implications for design and management." *Bridge-Washington-National Academy of Engineering-* 38(1): 17.

Rush, B. (2003). "The evaluation of treatment services and systems for substance use disorders." *Revista de Psiquiatria do Rio Grande do Sul* 25(3): 393-411.

Scalia, J. (2001). *Federal drug offenders, 1999 with trends 1984-99*, US Department of Justice, Office of Justice Programs.

Schmitt, J., et al. (2010). "The high budgetary cost of incarceration."

Schulman, A. R., et al. (2021). "Impact of fragmentation on rehospitalization after bariatric surgery." *Surgical Endoscopy* 35(1): 291-297.

Schwamer, S. L. (1998). Patterns of violent specialization: Predictors of recidivism for a cohort of parolees. *American Journal of Criminal Justice*, 23(1), 1-17.

Seiter, R. P. and K. R. Kadela (2003). "Prisoner reentry: What works, what does not, and what is promising." *Crime & delinquency* 49(3): 360-388.

Services, C. f. M. M. (2020). "The Mental Health Parity and Addiction Equity Act (MHPAEA)." from https://www.cms.gov/CCIIO/Programs-and-Initiatives/Other-Insurance-Protections/mhpaea_factsheet.

Shih, A., et al. (2008). *Organizing the US health care delivery system for high performance*, New York: The Commonwealth Fund.

Shivy, V. A., et al. (2007). "Ex-offenders reentering the workforce." *Journal of Counseling Psychology* 54(4): 466.

Shorten, T., et al. (2012). "The International Health Partnership Plus: rhetoric or real change? Results

of a self-reported survey in the context of the 4th high level forum on aid effectiveness in Busan." *Globalization and Health* 8(1): 1-13.

Sinha, R., & Easton, C. (1999). Substance abuse and criminality. *Journal of the American Academy of Psychiatry and the Law*, 27(4), 513-526

Smyth, B. P., Barry, J., Keenan, E., & Ducray, K. (2010). Lapse and relapse following inpatient treatment of opiate dependence. *Ir Med J*, 103(6), 176-9.

Spicer, N., et al. (2020). "It's far too complicated': why fragmentation persists in global health." *Globalization and Health* 16(1): 60.

Spohn, C., & Holleran, D. (2002). The effect of imprisonment on recidivism rates of felony offenders: A focus on drug offenders. *Criminology*, 40(2), 329-358.

Stange, K. C. (2002). *The paradox of the parts and the whole in understanding and improving general practice*, Oxford University Press.

Stevens, A., Trace, M., & Bewley-Taylor, D. (2005). *Reducing drug related crime: an overview of the global evidence*. The Beckley Foundation Drug Policy Programme.

Strang, J., Groshkova, T., & Metrebian, N. (2014). *European Monitoring Center for Drugs and Drug Addiction, 2012. New Heroin-Assisted Treatment: Recent Evidence and Current Practices of Supervised Injectable Heroin Treatment in Europe and Beyond*. Publications Office of the European Union, Luxembourg.

Streisel, S. (2018). *Barriers to recovery: a qualitative query into the punitive approach to substance use*, University of Delaware.

Stuart, A. and J. D. J. Rich (2018). *Drug use in prisoners: Epidemiology, implications, and policy responses*, Oxford University Press.

Sturmberg, J., et al. (2012). "Understanding health system reform - A complex adaptive systems perspective." *Journal of evaluation in clinical practice* 18: 202-208.

Swain, M. (1999). *The illicit drug problem: drug courts and other alternative approaches*. N. P. L. R. SERVICE.

Sweeney, K. (2017). *Complexity in primary care: understanding its value*, CRC Press.

Taxman, F. S., et al. (2006). "Risk, need, and responsivity (RNR): It all depends." *Crime & delinquency* 52(1): 28-51.

Taxman, F. S., et al. (2007). "Drug treatment services for adult offenders: The state of the state." *Journal of substance abuse treatment* 32(3): 239-254.

Teesson, M., et al. (2012). "Prevalence, correlates and comorbidity of DSM-IV cannabis use and cannabis use disorders in Australia." *Australian & New Zealand Journal of Psychiatry* 46(12): 1182-1192.

Ternes, M., Richer, I., & Farrell MacDonald, S. (2019). *Distinguishing the features of offenders who*

do and do not complete substance use treatment in corrections: Extending the reach of psychological services. Psychological services.

The Hong Kong Council of Social Service (2019). 香港戒毒治療和康復服務三年計劃 (2021 至 2023 年) 意見書.

Uhl, G. R. (2004). "Molecular genetic underpinnings of human substance abuse vulnerability: likely contributions to understanding addiction as a mnemonic process." *Neuropharmacology* 47: 140-147.

VanderWaal, C. J. (2001). *Breaking the juvenile drug-crime cycle: A guide for practitioners and policymakers*. US Department of Justice, Office of Justice Programs, National Institute of Justice.

Varey, W. (2011). "Viability of psychological panarchy: Thought as an ecology." *Systems Research and Behavioral Science* 28(5): 509-525.

Volkow, N. D., et al. (2006). "Cocaine cues and dopamine in dorsal striatum: mechanism of craving in cocaine addiction." *Journal of Neuroscience* 26(24): 6583-6588.

Volkow, N. D., et al. (2016). "Neurobiologic advances from the brain disease model of addiction." *New England Journal of Medicine* 374(4): 363-371.

Volkow, N. D., et al. (2017). "Drug use disorders: impact of a public health rather than a criminal justice approach." *World Psychiatry* 16(2): 213.

Volkow, N. D., et al. (2019). "The neuroscience of drug reward and addiction." *Physiological reviews* 99(4): 2115-2140.

Walitzer, K. S., & Dearing, R. L. (2006). Gender differences in alcohol and substance use relapse. *Clinical Psychology Review*, 26(2), 128-148

Weisburd, D., et al. (2006). "Does crime just move around the corner? A controlled study of spatial displacement and diffusion of crime control benefits." *Criminology* 44(3): 549-592.

Weisburd, D., et al. (2017). "What works in crime prevention and rehabilitation: An assessment of systematic reviews." *Criminology & Public Policy* 16(2): 415-449.

Werb, D., Kamarulzaman, A., Meacham, M. C., Rafful, C., Fischer, B., Strathdee, S. A., & Wood, E. (2016). The effectiveness of compulsory drug treatment: a systematic review. *International Journal of Drug Policy*, 28, 1-9.

Wickramasekera, N., et al. (2015). "Cost of crime: A systematic review." *Journal of Criminal Justice* 43(3): 218-228.

World Drug Report 2018: Drugs and Age – Drugs and Associated Issues among Young People and Older People (United Nations publication, Sales No. E.18.XI.9 (Booklet 4).

World Health Organization, UNODC (2016). *International Standards for the Treatment of Drug Use*.

World Health Organization (2006). *Constitution of the World Health Organization*.

Xiong, H., & Jia, J. (2019). *Situational Social Support and Relapse: An Exploration of Compulsory Drug*

Abuse Treatment Effect in China. *International journal of offender therapy and comparative criminology*, 63(8), 1202-1219.

Xyrichis, A. and K. Lowton (2008). "What fosters or prevents interprofessional teamworking in primary and community care? A literature review." *International journal of nursing studies* 45(1): 140-153.

Yip, Paul, Karen, C. S. L., Tsang, S., Tse, S., Ling, W. O., Laider, K., Wong, W. (2011). *A Study On Drug Abuse Among Youths and Family Relationship*. Hong Kong: University of Hong Kong.

Yip, W. C.-M. and W. C. Hsiao (2020). "Harnessing the Privatization of China's Fragmented Health Care Delivery." *Health Care Policy in East Asia: A World Scientific Reference: Volume 1: Health Care System Reform and Policy Research in China*: 335-375.

Appendix 1 Interviews with ex-offenders and stakeholders

List of interviewed ex-offenders

Ex-offender	Number of convictions (Non-drug relative)	Number of drug-related convictions (drug relative)	Number of times in DATC	Number of times in Prison	Training Center (TC)/ Rehabilitation Center (RC) / Detention Center (DC)	Drug Dependent Persons Treatment and Rehabilitation Center (DTRC)/ probation
1	6	1	2	4	RC	ELCHK
2	0	3	1	1	0	Probation, ELCHK
3	2	3	1	1	TC	PO
4	1	2	1	1	0	PO
5	0	2	2	0	0	ELCHK
6	1	4	1	1	RC	ELCHK
7	1	2	1	1	TC	WYN
8	3	1	1	1	0	WYN
9	0	3	1	0	0	WYN
10	2	1	1	0	RC	WYN
11	1	1	1	0	0	WYN
12	0	1	1	0	0	Operation Dawn
13	1	1	1	1	RC	Operation Dawn
14	1	1	1	1	0	Operation Dawn
15	1	1	1	1	0	Operation Dawn
16	0	1	2	1	0	Operation Dawn
17	1	1	1	0	TC	Operation Dawn
18	1	1	1	0	0	Operation Dawn
19	0	1	1	0	0	Operation Dawn
20	0	1	1	0	0	Operation Dawn
21	1	1	1	0	0	Operation Dawn
22	1	1	1	0	0	Operation Dawn
23	0	1	1	0	0	Operation Dawn
24	0	1	1	0	0	PO, operation dawn
25	1	2	1	0	0	Operation Dawn
26	1	3	1	1	0	Operation Dawn
27	0	2	1	1	RC	PO, operation dawn
28	1	2	1	1	0	PO, operation dawn
29	0	2	1	1	0	PO, operation dawn
30	2	2	0	1	0	Operation Dawn
31	1	1	0	0	0	Operation Dawn
32	2	2	0	1	0	Operation Dawn
33	0	3	1	2	0	Operation Dawn
34	1	3	2	1	0	Operation Dawn
35	0	2	1	1	DC	Operation Dawn

36	0	1	1	2	0	Operation Dawn WTS HWH
37	2	3	2	2	TC	Operation Dawn WTS HWH
38	2	4	1	3	TC	PO, Christian youth service
39	1	0	0	0	DC	Christian youth service
40	3	2	2	3	0	Christian youth service
41	1	1	1	0	RC	Christian youth service
42	3	2	1	2	0	operation dawn
43	0	1	0	0	0	PO, operation dawn
44	1	3	1	3	0	operation dawn
45	2	2	2	2	0	CYS
46	2	2	0	1	0	CYS
47	1	3	2	1	0	CYS
48	2	2	0	1	0	WYN Caritas
49	2	1	0	1	0	WYN Caritas
50	1	3	2	1	TC	WYN Caritas
51	2	2	0	1	0	WYN Caritas
52	2	2	0	1	0	WYN Caritas
53	1	3	2	1	0	WYN Caritas
54	1	3	2	1	0	WYN Caritas
55	2	2	0	1	0	WYN Caritas
56	2	1	0	1	0	WYN Caritas
57	0	2	1	1	RC	WYN Caritas
58	2	2	0	1	0	WYN Caritas
59	0	2	1	1	DC	WYN Caritas
60	0	2	1	1	DC	WYN Caritas
61	2	1	0	1	0	WYN Caritas
62	2	2	0	1	0	WYN Caritas
63	0	2	1	1	DC	WYN Caritas
64	2	1	0	1	0	WYN Caritas
65	1	1	2	1	0	WYN Caritas
66	0	2	1	1	DC	WYN Caritas
67	1	1	2	1	0	WYN Caritas
68	2	2	0	1	0	WYN Caritas
69	0	2	1	1	DC	WYN Caritas
70	2	1	0	1	0	WYN Caritas
71	2	1	0	1	0	WYN Caritas
72	1	3	2	1	0	WYN Caritas
73	0	7	7	0	0	PO, New Life
74	0	1	0	0	0	PO, Operation Dawn
75	0	4	4	0	0	PO, Operation Dawn

76	1	1	0	0	1	PO, Operation Dawn
77	3	1	0	1	1	PO), Operation Dawn
78	2	3	1	2	1	PO, Operation Dawn
79	0	2	0	0	0	PO, Operation Dawn
80	2	1	0	0	0	PO, Operation Dawn
81	0	1	1	0	0	Operation Dawn
82	0	3	3	0	0	New life
83	1	3	1	0	0	PO,New life
84	2	3	1	3	1	New life
85	1	0	0	1	0	New life
86	0	1	0	0	0	PO,New life
87	0	2	1	0	1	New life
88	0	1	0	0	1	New life
89	0	0	0	0	0	New life
90	0	1	0	0	1	New life
91	0	0	0	0	0	New life
92	0	0	0	0	0	New life
93	0	0	0	0	0	New life
94	0	0	0	0	0	New life
95	0	1	1	0	0	New life
96	0	1	1	0	0	New life
97	0	1	0	0	1	New life
98	0	0	0	0	0	New life
99	0	1	0	0	0	PO,New life
100	1	0	0	0	1	New life

List of interviewed service operators/providers/stakeholders

Stakeholders	Profession	Organization/Authority/Department
1	Social worker	SARDA
2	Social worker	CDAC
3	Social worker	ELCHK (Drug Rehabilitation)
4	Social worker	HKCS (PS33)
5	Social worker	HKLSS
6	Social worker	SRACP
7	Social worker	SRACP
8	Social worker	HKCS Drug Treatment & Social Rehabilitation Service
9	Social worker	Caritas

10	Psychiatrist	Hospital Authority
11	Social worker	HKCSS
12	Correctional officer	CSD RU1
13	Correctional officer	CSD RU1
14	Correctional officer	CSD RU1
15	Correctional officer	CSD RU1
16	Superintendent	CSD RU1
17	Social worker	ELCHK (CSSS)
18	Judge	DoJ
19	Social worker	Caritas touchpoint (outreach)
20	Social worker	Caritas Lok Heep Club
21	Social worker	Caritas Lok Heep Club
22	Social worker	Caritas Lok Heep Club
23	Social worker	Caritas Lok Heep Club
24	Police	Hong Kong Police
25	Police	Hong Kong Police
26	Police	Hong Kong Police
27	Police	Hong Kong Police
28	Police	Hong Kong Police
29	Police	Hong Kong Police
30	Social worker	SRACP Health Education Service on Ethnic Minorities

Appendix 2 Interview question guides

Interviewees were asked to sign the consent form or give out verbal consent before the start of each interview.

Interview question guide for ex-offenders

1. 什麼時候開始吸毒？什麼原因？
2. 有多少次犯罪記錄（幾歲）？每一次是什麼判刑？
3. 被捕過程？
4. 你是如何被人發現吸毒的？上庭之前有沒有被人驗尿？
5. 從被捕到上庭的過程中，有沒有人提供任何協助？（例如：社工，當值律師）你覺得在這期間你需要任何協助嗎？
6. (每階段) 你覺得有什麼現有的服務最有效的幫助你戒毒？有什麼建議？

DATC

1. DATC 有什麼服務提供給你？你覺得對於你戒毒有幫助嗎？如果沒有你覺得如何改善？
2. DATC 有什麼好的地方？有什麼值得改善的地方？
3. 有沒有人探訪你？你覺得探訪對你的康復有幫助嗎？
4. 你覺得在被囚期間所接收到的服務，能幫助你重返社會后遠離毒品？
5. 在守監管令時，有什麼服務？有沒有驗尿？你覺得驗尿對於你戒毒的作用大不大？

TC/RC/DC

1. TC/RC/DC 有什麼服務提供給你？你覺得對於你戒毒有幫助嗎？如果沒有你覺得如何改善？
2. TC/RC/DC 有什麼好的地方？有什麼值得改善的地方？
3. 有沒有人探訪你？你覺得探訪對你的康復有幫助嗎？
4. 你覺得在被囚期間所接收到的服務，能幫助你重返社會后遠離毒品？
5. 在守監管令時，有什麼服務？你覺得對於你戒毒有幫助嗎？
6. 在守監管令時，懲教有沒有轉介 NGO 服務給你？/ NGO 有沒有主動接觸你？

DTRC

1. DTRC 有什麼服務提供給你？你覺得對於你戒毒有幫助嗎？如果沒有你覺得如何改善？
2. DTRC 有什麼好的地方？有什麼值得改善的地方？

3. 有沒有人探訪你？你覺得探訪對你的康復有幫助嗎？
4. 你覺得在被囚期間所接收到的服務，能幫助你重返社會后遠離毒品？
5. 在守監管令時，有什麼服務？你覺得對於你戒毒有幫助嗎？
6. 在守監管令時，有沒有轉介 NGO 服務給你？

Community

1. 在被監管的期間有什麼服務提供給你？你覺得對於你戒毒有幫助嗎？如果沒有你覺得如何改善？
2. 在被監管的期間有什麼好的地方？有什麼值得改善的地方？
3. 有沒有人探訪你？你覺得探訪對你的康復有幫助嗎？
4. 你覺得在被監管的期間所接收到的服務，能幫助你重返社會后遠離毒品？

Interview question guide for service operators

你好！我係香港大學嘅調查員，多謝你願意協助進行今次研究。透過數據我們瞭解到接受過戒毒服務的人中，有成功戒毒的例子但同時亦有不少個案存在復發的可能性。我們這次 interview 的目的就是希望通過你的見解和經驗，能夠深入瞭解香港戒毒服務的流程及現況。研究的目的希望能夠通過提出改善服務的建議從而幫助更多人成功戒毒（或解決高復發率這個社會問題）。Interview 過程大概 90 分鐘，談話的內容將會被錄音。所有資料只會用作研究用途並將會保密。謝謝！

第 1 部分

我們想要瞭解一下你的背景和經驗以及 rehabilitation 的流程

1. 你在這一行做了多久？
2. 你在這個行業做過什麼類型的機構？
3. 你主要服務的對象是什麼類型的人？（例如：毒品種類，初次吸毒年齡和刑事罪行？）
 - a. 服務群組有改變嗎？（年輕化？哪種毒品種類最常見？）
 - b. 被判入院的服務使用者跟其他（親自申請入院的）服務使用者有麼不同？（動機有否不同？）
 - c. 他們的需要有什麼不同？
4. 有什麼辦法可以成為服務使用者（entry point: 轉介或自己申請？）
5. 你們一開始會有 screening 嗎？目的是什麼？
6. 這一行最常見的 rehabilitation program 是什麼？
7. 你的機構用什麼 program（方法）去幫助你們的服務對象？（例如：醫療服務，工作治療和小組輔導？）
8. 用這些 program 的想法是？
9. 是否會根據不同服務對象提供不同療程？（if no: 為什麼沒有？好處和壞處？）
10. 現有的戒毒服務對受惠者有什麼幫助？

第 2 部分

我們想知道你對 rehabilitation system 的看法

1. 戒毒者個人層面
 - a. 有什麼 critical factors 會影響治療過程及結果？
 - b. 怎麼樣才算是成功康復？（有什麼指標來衡量？）
 - c. 以你的經驗，生命重組上應該專注於哪幾方面才會減低再犯率？（家庭？工作？生活環境？）
 - d. 以你的經驗，哪些服務對象更容易成功康復？哪些服務對象更容易毒癮復發？
2. 機構運作層面

- a. 你認為香港現有針對戒毒犯的戒毒康復機構提供的服務足夠嗎？
- b. Sector 服務到位嗎？(現有的 program 有效嗎？)
- c. 怎麼樣才算幫到更新人士？(目標？)
- d. 現在有沒有達到目標？
- e. 在運作上遇到什麼困難和挑戰？(例如：能力，人手？)是如何解決的？

3. 制度層面

- a. 戒毒治療和康復服務在社會方面的作用是什麼？(例如：減少再犯率？)
 - b. 你認為現有制度下，戒毒治療和康復服務能否達到預期目標？
 - c. 你認為服務制度是否有漏洞？(例如：政策，法規？)
 - d. 如果有漏洞可以如何改善？
4. 你對香港現有針對吸毒犯的戒毒康復服務體系的看法？
 5. 有什麼方面的知識和資訊你認為如果你有更多瞭解，是能夠幫助這個行業發展得更好？
 6. 你認為最理想的 rehabilitation program 是什麼樣的？
 7. 你認為有什麼 actionable plans 可以進一步減少 relapse rate？