

# Recreational Drug Use in the Asia Pacific Region: Improvement in Our Understanding of the Problem Through the UNODC Programmes

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Published online: 9 May 2012  
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**Abstract** Until recently, there were limited data available on the epidemiology of recreational drug use in the Asia Pacific region. However, in the last few years, a number of United Nations Office on Drugs and Crime (UNODC) programmes have improved data collection networks, particularly in East and Southeast Asia. There are still significant data gaps from some countries, including India and China, and data reported from some countries in the region are based on expert estimates on recreational drug use rather than formally collected data. However, the availability of improved epidemiological data has enabled many countries in the region, both individually and through regional UNODC programmes, to start to understand the issues that need to be addressed. We will summarise in this mini-review the data available within the UNODC World Drug Report and from the other UNODC programmes in the region on the production and use of recreational drugs in the Asia Pacific region.

**Keywords** Recreational drugs · Prevalence · Use · Asia · Asia Pacific

## Introduction

Recreational drug use is common worldwide, with up to 6.1 % of the world's population aged 15–64 years using one or more illicit substance(s) each year [1]. Data on the prevalence of recreational drug use are collected in many countries around the world; this is reported to and collated by the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) in Europe and, globally, by the United Nations Office of Drugs and Crime (UNODC) [1, 2].

Until recently, other than from Hong Kong, Australia and New Zealand (the latter two considered by UNODC as Oceania rather than the Asia Pacific region), there was a paucity of data on the prevalence of recreational drug use in Asia. However, in the last 5 to 10 years, a number of UNODC programmes, including the Asia and Pacific Amphetamine-Type Stimulants Information Centre (APAIC), the Drug Abuse Information Network for Asia and the Pacific (DAINAP) and Global Synthetics Monitoring: Analyses, Reporting and Trends (SMART), have coordinated activities in this area [3–5]. This has improved data collection in many countries, particularly in Southeast and East Asia where use of the DAINAP electronic data collection tool is widespread; however, there are still significant data gaps from some countries including some of the more populous countries in the region (e.g. India, Bangladesh and China). It is difficult to undertake population level surveys of drug use in countries where the penalties for use and/or possession of illicit drugs can be severe, including the use of the death penalty; there may be other reasons for the difficulties in sampling appropriate populations in these countries including the sheer size of the countries, poor literacy and poor communications infrastructure. Often the information included in national reports from these areas is based on expert estimates on recreational drug use rather

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than formally collected data. Despite these limitations, the data available has enabled UNODC and their associated programmes to build a more reliable picture on the prevalence of recreational drug use in the region. This has enabled countries in the region, both individually and through the above UNODC programmes, to start to understand the issues that need to be addressed in relation to the use of illicit drugs. In this mini-review, we will summarise the available data on drug production and prevalence of drug use from non-Oceania Asia Pacific countries; we will use the UNODC regional areas when describing regional differences in drug use.

### UNODC Asia Pacific Illicit Drug Programmes

The Global SMART Programme is a UNODC programme being implemented in a phased manner in priority regions around the world [5]. In view of anecdotal data suggesting that the use of amphetamine-type stimulants (ATS) was a growing problem in the region, East and Southeast Asia were the first priority regions to implement the programme. The Global SMART programme aims to enhance the capacity to generate, manage, analyse and report recreational drug information and to use this information to design both policy and programme interventions. SMART is currently active in 11 countries in the region: Brunei Darussalam, Cambodia, China, Indonesia, Lao People's Democratic Republic (PDR), Malaysia, Myanmar, the Philippines, Singapore, Thailand and Vietnam.

The APAIC, based in Thailand, is a UNODC information and knowledge exchange mechanism. It focuses particularly on improving ATS data collection and information systems [3]. The ultimate aim of APAIC is to provide long-term sustainable knowledge support to countries in the region. DAINAP is a data collection system under the umbrella of APAIC and Global SMART. It is a web-based tool through which member states report to these UNODC programmes [4].

These programmes provide regular web-based reports and summaries on the APAIC website on regional/national trends in ATS use, production, trafficking and the impact of this in participating countries across the region [3]. They produce a bi-annual Global SMART update and an annual report on the patterns and trends of ATS in the region [6, 7].

### Drug Production in the Asia Region

#### Opioids

The majority of global illicit opium production is in Asia, with Afghanistan and Myanmar alone, responsible for 86 % of

global production in 2010 [1]. There has recently been a decrease in global opium production (8,990 metric tonnes in 2007 to 4,860 metric tonnes in 2010); this has largely been due to a decrease in opium production in Afghanistan due to diseases affecting Afghan poppy plants. Nevertheless, Afghanistan remains world's largest illicit opium producer with 74 % of global production in 2010 (a decrease from 92 % in 2007). However, there has been an increase in opium production in Myanmar from 5 % of global production in 2007 to 12 % in 2010.

#### Cannabis

Cannabis production is widespread throughout Asia, with cannabis herb production across all regions and cannabis resin production in Afghanistan and neighbouring South-west and Central Asian countries [1]. Afghanistan is the second largest global producer of cannabis resin and seizures of cannabis plants were higher in Asia in 2009 than in North America, Europe and Oceania.

#### Amphetamine-Type Stimulants

There is significant clandestine ATS manufacture in many countries in Asia, particularly of methamphetamine [1, 8]. Methamphetamine manufacturing is mainly concentrated in East and Southeast Asia (e.g. China, the Philippines, Indonesia, Malaysia, Myanmar and Thailand); in addition, since 2009, there has been increasing methamphetamine manufacture in Iran. There is also production of 'ecstasy' in Asia—particularly in Malaysia, China and Indonesia. Unlike opium production, which is associated with significant trafficking outside Asia, the majority of Asian ATS manufacture is for use within the region.

#### Ketamine

As discussed later in this mini-review, there has been increasing use of ketamine in East and Southeast Asia, particularly Hong Kong. Most of this ketamine is produced in Asia, particularly India and China [1]. Some of this ketamine is diverted from pharmaceutical supplies, but there has been increasing evidence in recent years of clandestine ketamine production, particularly in China and India [1].

#### Novel Psychoactive Substances

Finally, in the last 3–5 years, there has been increasing production of novel psychoactive substances ('legal highs') in Asia, particularly in China and some other countries in Southeast (e.g. Malaysia and the Philippines) and South (e.g. India and Pakistan) Asia [1, 2, 6]. These novel psychoactive substances are largely manufactured for use outside

Asia—in Europe, North America and Oceania—although there has been emerging evidence of use of some of these drugs in some Asian countries including Hong Kong and Japan [1, 2].

### Prevalence of Recreational Drug Use in Asia

Although the UNODC programmes in Asia, particularly East and Southeast Asia, have improved the data available on the prevalence of recreational drug use from many Asian countries, there are still significant data gaps from some countries including some of the more populous countries in the region (e.g. India and China). Because of this, the information reported to UNODC and included in the world drug report is often based on expert estimates on recreational drug use rather than formally collected data. This can result in very broad ranges in the reported prevalence of use. The estimated number of users and annual percentage use prevalence across the Asia regions for different recreational drug classes are shown in Table 1.

#### Opioids

Illicit opioid use is common in the Asia Pacific region—over half of the world's opioid using population live in Asia. The highest annual opioid use prevalence in the world is in Afghanistan (2.7 % of the population aged 15–64) and Iran (2.3 %). Raw opium consumption is largely restricted to Asia and, within Asia, is limited to

countries in Southwest and South Asia (in particular Iran, Pakistan, Afghanistan and India) and some areas of Southeast Asia (Myanmar and Lao PDR) [1]. Within opium-growing countries, the prevalence of opium use is much greater in opium-growing villages than other areas of the country (in Myanmar, 1.7 % of the population of opium-growing villages smokes opium compared to 0.6 % of those in other areas of the country). The majority of heroin consumption in Asia occurs in China, Pakistan, Iran and India [9]. Heroin use is also a significant problem in Malaysia, Myanmar, Singapore and Vietnam, where it is the main drug used at a population level [8]. There is emerging data of injection buprenorphine use in South India (Bangladesh, Nepal and India) [1].

#### Cocaine

Cocaine use is uncommon across the Asia Pacific region with reported annual use prevalence of 0.01–0.3 % of the population aged 15–64 years; this may be because of its distance from the cocaine-producing countries in South America and the ready availability of ATS [1, 7].

#### Cannabis

Cannabis use in Asia is below the global average, with annual use prevalence of 1.2–2.5 % of the Asian population aged 15–64 years (globally, 2.8–4.5 %). Cannabis resin is more commonly used in Iran and Afghanistan, whereas cannabis herb is more commonly used in South and Southeast Asia [1].

**Table 1** Estimated number of users and annual use prevalence and across Asia regions for different recreational drug classes

	Central Asia	East and Southeast Asia	Near and Middle East	South Asia	Asia overall
<b>Opiates</b>					
Number of users (million)	0.32	2.8–5.0	1.9–3.5	1.4–3.1	6.4–12.0
Population aged 15–64 years (%)	0.6	0.2–0.3	0.8–1.4	0.2–0.4	0.2–0.4
<b>Cocaine</b>					
Number of users (million)	–	0.4–1.1	0.04–0.7	–	0.4–2.3
Population aged 15–64 years (%)	–	0.03–0.2	0.01–0.3	–	0.02–2.0
<b>Amphetamine-type stimulants</b>					
Number of users (million)	–	3.5–20.9	0.5–4.3	–	4.3–38.2
Population aged 15–64 years (%)	–	0.2–1.4	0.2–1.7	–	0.2–1.4
<b>Ecstasy</b>					
Number of users (million)	–	1.4–6.9	–	–	2.4–17.3
Population aged 15–64 years (%)	–	0.1–0.5	–	–	0.1–0.6
<b>Cannabis</b>					
Number of users (million)	2.0–2.3	5.4–24.2	6.1–12.4	16.8–28.1	31.3–68.0
Population aged 15–64 years (%)	3.8–4.4	0.4–1.6	2.4–4.8	1.9–3.1	1.2–2.5

Data obtained from the UNODC's *World Drug Report* [1]

## Amphetamine-Type Stimulants

ATS are commonly used across the Asia Pacific region with annual use prevalence in the last year of 0.2–1.4 % of the population of Asia aged 15–64 years [1]. Higher use prevalence countries in the region include the Philippines (2.1 %), Thailand (1.4 %) and Lao PDR (1.4 %). The type of ATS used in different regions varies considerably. In West Asia, the use of ATS tablets sold as Captagon appears to be more common, whereas in East and Southeast Asia, methamphetamine is the primary ATS used. Methamphetamine is primarily used in pill form in Lao PDR and Thailand; whilst crystal methamphetamine is dominant in Indonesia, Malaysia, Brunei, Cambodia, Japan, Korea and the Philippines.

Injection of both crystal and crushed pill methamphetamine is reported to be increasing in a number of countries including Thailand, Indonesia and Malaysia [1, 8]. HIV and Hepatitis C (HCV) are common amongst injecting drug users with HIV prevalence of over 30 % amongst injecting drug users in Indonesia, Malaysia and Vietnam and HCV prevalence of over 80 % amongst injecting drug users in Indonesia, Myanmar and Hong Kong. In a recent study of 1,327 ATS users in six provinces in China, the prevalence of HIV and HCV were 4.5 and 43.5 %, respectively, with large geographic variations (0–20.3 and 8.6–67.1 %, respectively). HIV infection was most common in Yunnan Province and was associated with poly-drug use, increased frequency of sexual behaviour and HCV infection. HCV was associated with marital status, unemployment, a longer duration of ATS use and history of injection ATS use [10]. Other sexually transmitted infections are also common in drug users; in a study of 519 methamphetamine users in Chang Mai, Thailand, 12.7 % acquired at least one sexually transmitted infection over a 12-month period, and chlamydia was the most common (10.6 %), followed by herpes simplex virus (4.0 %) and gonorrhoea (2.9 %) [11].

The annual prevalence of ecstasy use in Asia is estimated to be 0.1–0.6 % of the population aged 15–64 years [1]. There appears to be increasing use in China and Taiwan. There is variable content of ecstasy tablets by region, and although there are limited forensic data available, it is estimated that less than half of ecstasy tablets contain 3,4-methylenedioxymethamphetamine; other drugs commonly found in ecstasy tablets include methamphetamine, amphetamine and ketamine [7, 8].

## Ketamine

An emerging trend in Asia, particularly in Hong Kong and some other countries including China, Indonesia, Brunei Darussalam and Malaysia, is an increase in the use of ketamine [1, 3]. Data from the Central Registry of Drug Abuse show that the number of ketamine users in Hong Kong

increased from 1,605 (9.8 % of total drug users) in 2000 to 5,212 (37.6 %) in 2009 [12]. These increases are more marked amongst drug users under the age of 21 years with an increase in ketamine use from 36.9 % of young drug users in 2000 to 84.3 % in 2009.

## Novel Psychoactive Substances

There are no reliable data available, currently, on the use of novel psychoactive substances within Asia region, and it appears at the moment that the use of these substances is largely a European/North American/Oceania phenomenon. However, there is emerging evidence of use of some novel psychoactive substances in some of the more developed countries in the region, particularly Hong Kong and Japan [13, 14].

## Conclusion

Previously, there has been a paucity of data on the availability and prevalence of use of illicit drugs in the Asia region. Significant data gaps remain, particularly in some of the most populous countries such as India and China. However, the development and implementation of a number of United Nations Office of Drugs and Crime programmes in this region has improved the quality and quantity of data available from many countries in the region. As this continues to increase, this will provide healthcare professionals and law enforcement agencies with better information on which to base decisions of resource utilisation.

**Conflict of Interest** DMW and PID have acted as expert advisors to the UK Advisory Council on the Misuse of Drugs (ACMD) and the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) on issues related to established recreational drugs and novel psychoactive substances.

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