Briefing to BDF

The Demography of Drug Abuse in Hong Kong

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Who are drug abusers?

Which groups are growing? Declining?

Where are they? What drugs are they abusing?

CRDA as a core dataset

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Table 1. Number of Drug Abusers in Hong Kong (Continued)

	1991	1996	2001	2006	2011	2016
Age(%)						
10-20	7.4	15.2	17.6	16.7	14.5	4.8
20-30	26.9	29.7	32.7	26.1	25.5	23.3
30-40	31.4	23.5	19.8	23.3	25.3	26.4
40-50	18.1	20.6	17.8	17.2	16.0	23.5
50-60	8.5	6.2	8.7	13.0	13.4	13.4
60-70	5.7	3.6	2.4	2.7	4.6	7.3
70+	1.9	1.2	0.9	0.9	0.7	1.3
Gender(%)						
Male	91.6	87.6	84.5	80.8	81.5	81.9
Female	8.4	12.4	15.5	19.2	18.5	18.1
Ethnicity(%)						
Chinese		95.5	95.3	91.4	91.7	88.9
Nepalese		0.6	1.1	1.3	2.6	3.4
Indian/Pakistani/Bangladeshi/Sri Lankan		0.2	0.2	0.5	1.0	3.2
Vietnamese		1.9	1.5	1.9	1.8	2.5
Other		1.8	1.9	4.9	2.9	2.0

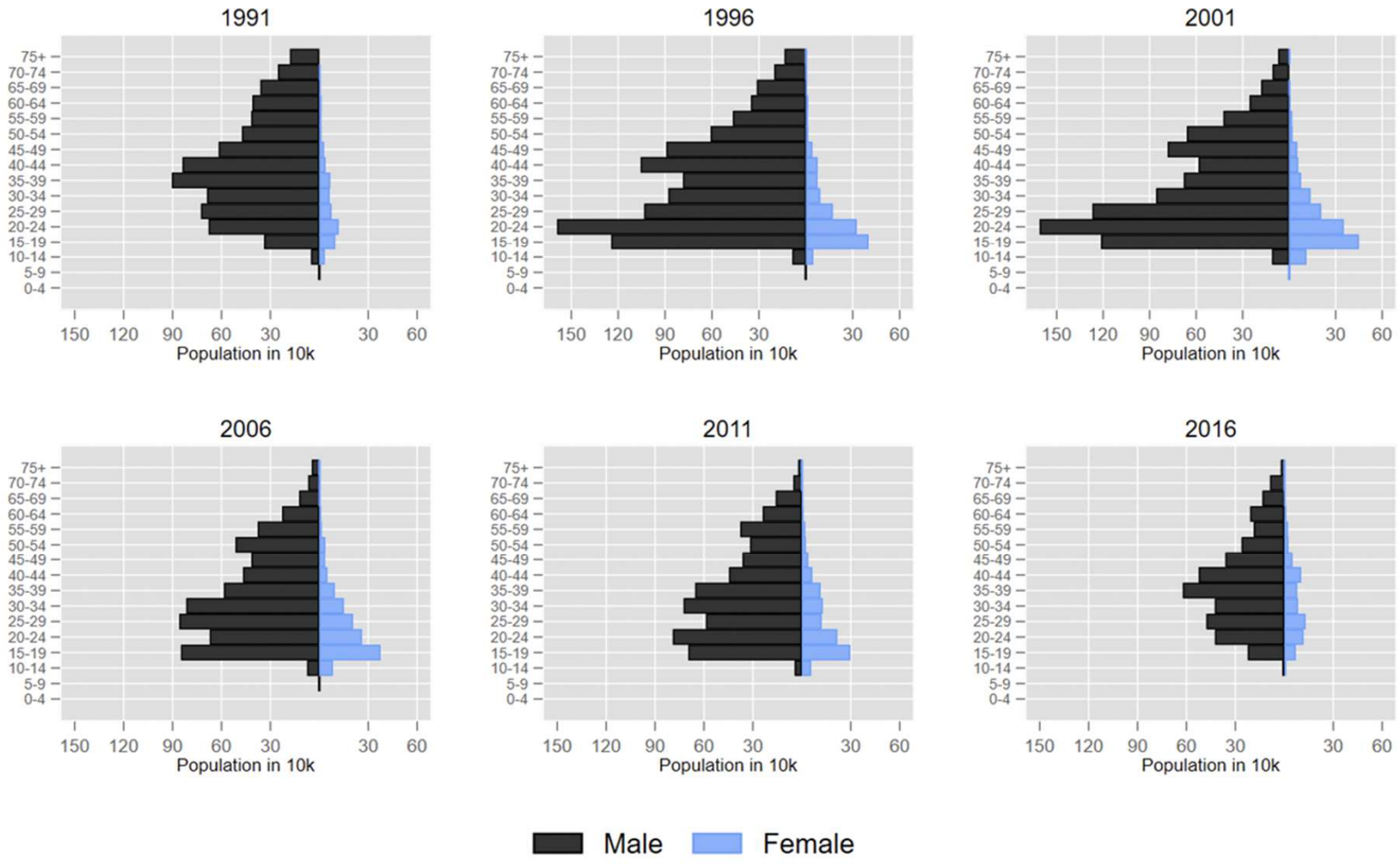
Note: Number and percentage of drug abusers by different categories are listed.

Table 1. Number of Drug Abusers in Hong Kong (Continued)

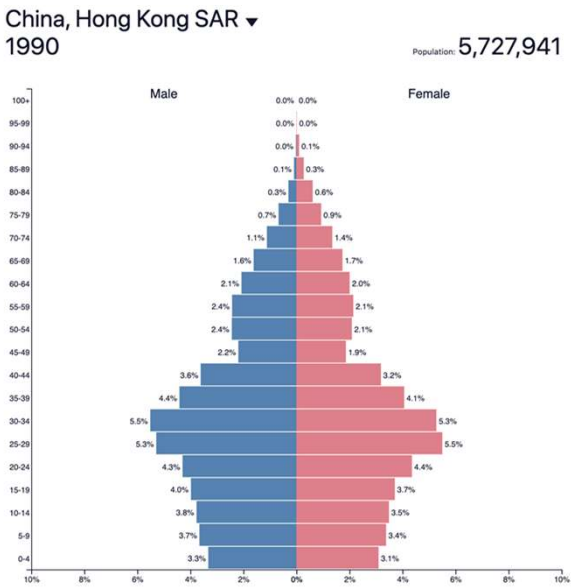
	1991	1996	2001	2006	2011	2016
Education(%)						
No schooling/kindergarten	5.7	4.3	1.9	1.7	1.1	1.4
Primary	45.2	34.6	26.0	26.3	20.9	17.0
Lower secondary(S1-S3)	32.6	47.6	50.3	50.1	51.8	44.4
Upper secondary(S4-S7)	9.6	11.3	18.0	18.1	20.8	21.6
Tertiary	0.5	0.7	0.8	1.0	1.7	2.8
Economic Activity(%)						
Unemployed	31.7	43.2	45.6	50.1	44.6	41.0
Full-time workers	62.5	42.8	34.7	29.8	31.8	27.7
Casual/part-time worker		7.9	6.8	7.3	11.3	10.6
Workers in illicit trade		0.3	0.5	1.0	0.9	0.9
Home-makers		0.7	1.3	1.4	1.7	2.2
Students		1.9	4.9	4.6	3.9	1.1
Retired persons		1.0	1.4	1.4	1.9	2.6
Others		0.4	0.3	0.3	0.1	0
Unknown	5.9	1.7	4.7	4.1	3.8	13.9

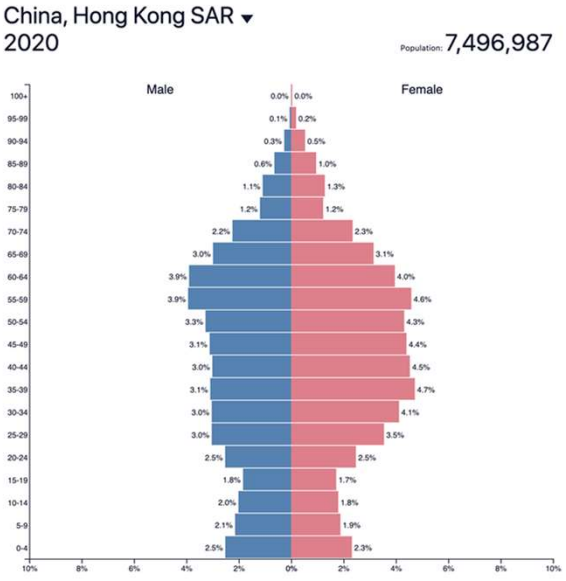
Note: Number and percentage of drug abusers by different categories are listed.

Drug Population by Age and Gender



From numbers to rates





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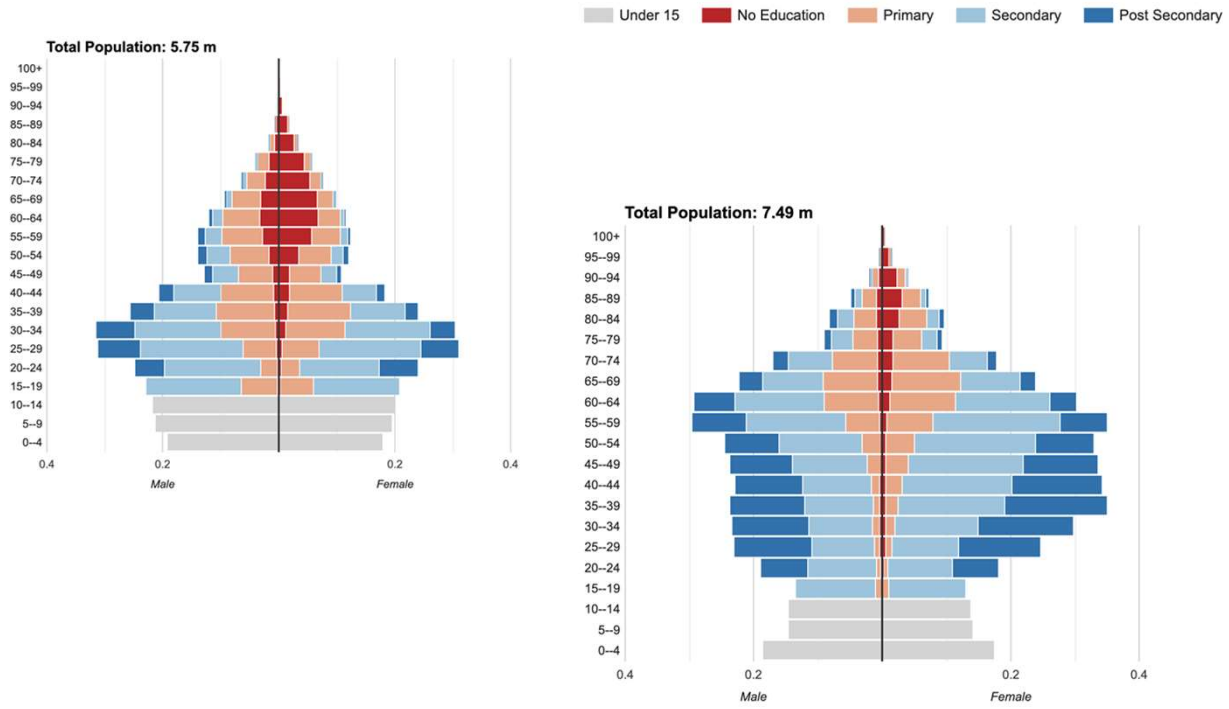
Other dimensions

Differential growth across Hong Kong



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Data and methods

Link CRDA across to Census and By-Census (Requires extrapolation)

CRDA: robust data source

But

Patterns of change can be linked to other activities (e.g. cost, police)

Not measure of abuse; but of engagement with organisations

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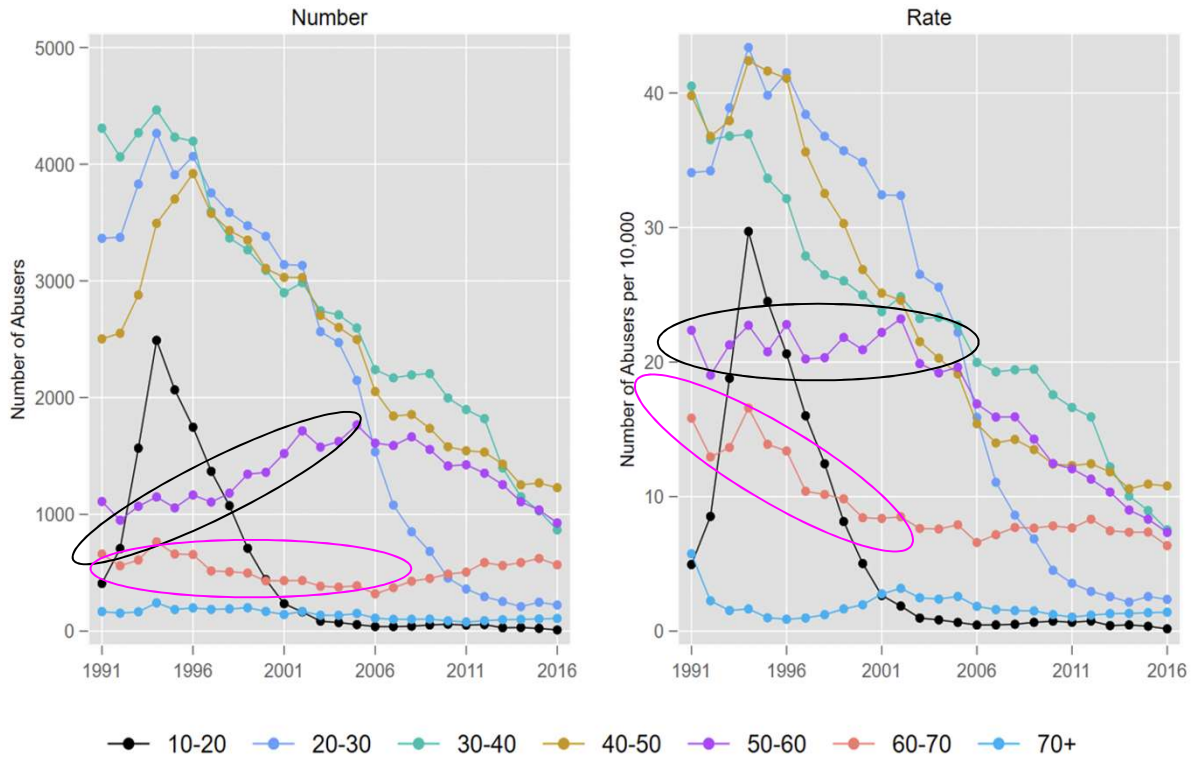
Narcotics Analgesics Opium, Heroin, Fentanyl, Pentazocine, Tilidate or Tilidine



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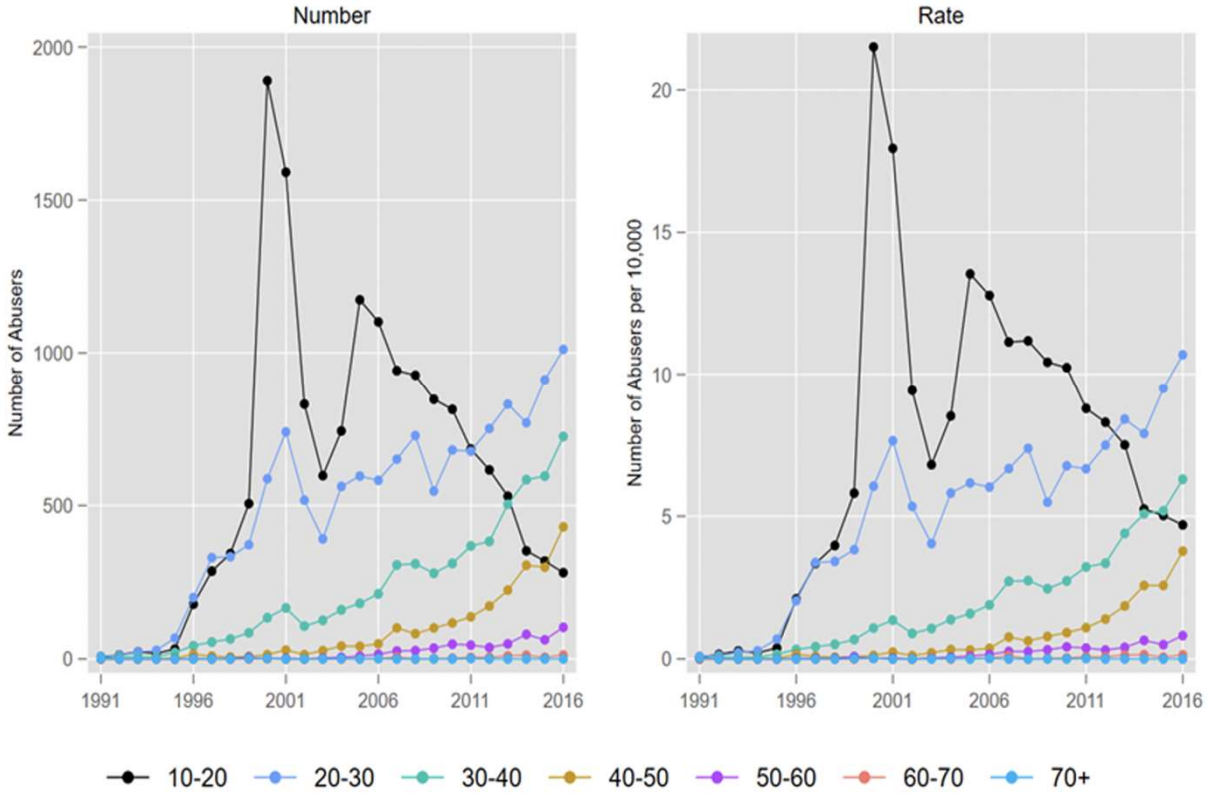
Stimulants Amphetamines, Cocaine, Methamphetamine and anti-depressants



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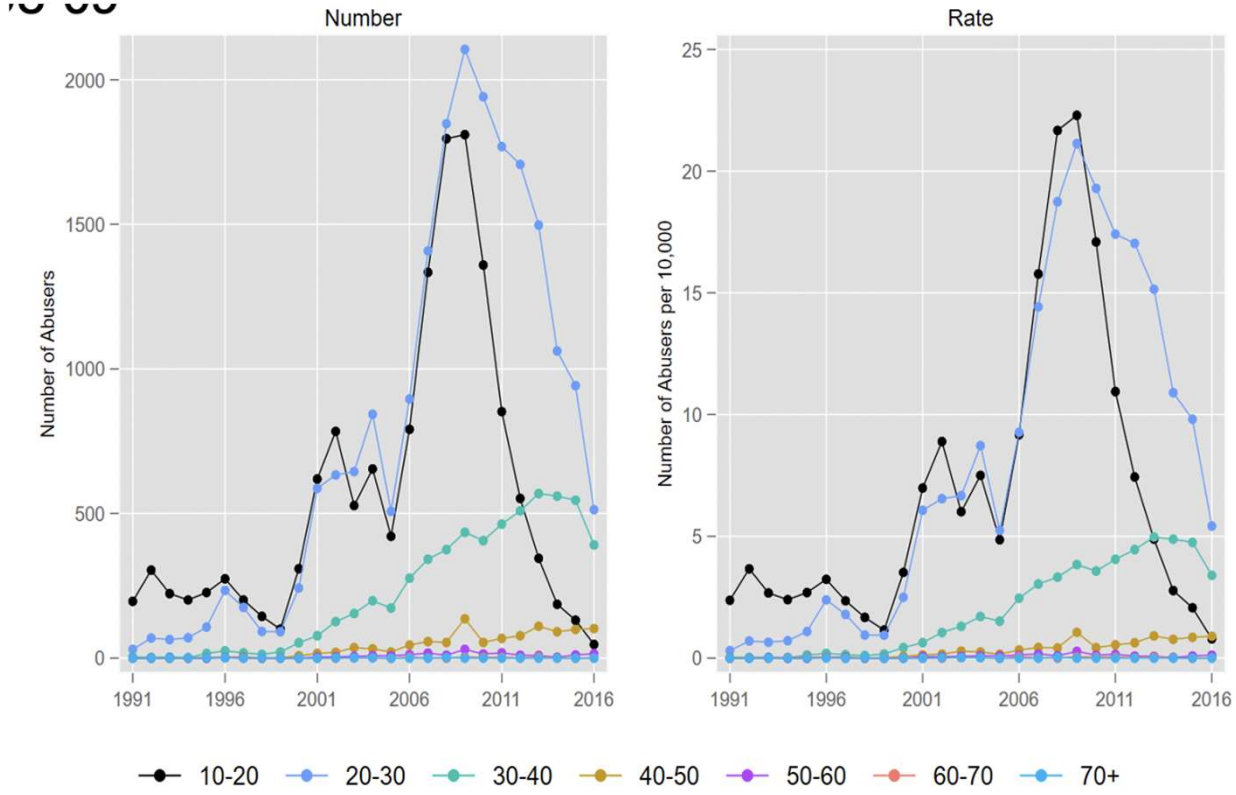
Ketamine



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Beyond rates...

Statistical analysis

Multiple factors at play

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3. Determinants of Drug Abuse: Gender, Age, Education

Table 2. Difference in Drug Use Rate by Gender, Age and Education

VARIABLES	(1) All	(2) New	(3) Previous
Gender			
Female	-60.44***	-14.87***	-45.57***
	(3.18)	(1.55)	(2.17)
Age			
10-20	66.72***	35.82***	30.90***
	(7.08)	(4.69)	(4.39)
20-30	137.23***	48.87***	88.35***
	(8.83)	(3.53)	(6.15)
30-40	95.72***	21.86***	73.86***
	(7.97)	(3.96)	(5.30)
40-50	64.21***	9.85***	54.36***
	(4.66)	(1.64)	(3.98)
50-60	44.78***	7.46***	37.32***
	(4.19)	(1.60)	(3.30)
60-70	33.32***	7.08***	26.23***
	(4.29)	(1.60)	(3.26)
>=70	26.93***	6.94***	19.99***
	(4.52)	(1.60)	(3.45)
Education			
Primary	17.21***	-7.01**	24.22***
	(6.13)	(3.41)	(3.99)
Lower secondary	8.83	-4.15	12.98***
	(5.92)	(3.52)	(3.63)
Upper secondary	-44.92***	-17.54***	-27.39***
	(5.02)	(3.38)	(2.78)
Tertiary	-56.88***	-22.35***	-34.53***
	(5.26)	(3.44)	(2.97)
Observations	1,919	1,919	1,919
R-squared	0.39	0.23	0.42

Note: The differences in drug use rate by gender, age, and education are listed in each panel. Results on all drug users, newly reported users, and previously reported users are listed in each column. The males, age group at 0-10, and people with no schooling/kindergarten are the reference groups, respectively. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

3. Determinants of Drug Abuse: Age by Drug Type

- Concave over age
  - Narcotics Analgesics, Sedatives/Hypnotics
- Monotonically decreasing over age
  - Stimulants/depressants/tranquillizers/hallucinogens/ketamine

Table 3. Drug Use Rate by Drug Type and Age

VARIABLES	(1) Narcotics Analgesics	(2) Stimulants	(3) Depressants	(4) Tranquillizers	(5) Sedatives/ Hypnotics	(6) Hallucinogens	(7) Other (Ketamine)
10-20	7.33***	9.73***	0.12***	0.92***	0.02***	3.16***	8.92***
	(1.97)	(1.44)	(0.03)	(0.13)	(0.01)	(0.37)	(1.67)
20-30	27.34***	6.82***	0.03***	0.98***	0.12***	3.19***	10.61***
	(3.58)	(0.82)	(0.01)	(0.12)	(0.02)	(0.41)	(1.86)
30-40	29.05***	2.59***	0.01***	0.89***	0.19***	0.79***	2.62***
	(1.72)	(0.48)	(0.00)	(0.13)	(0.03)	(0.07)	(0.50)
40-50	29.32***	0.96***	0.00***	0.48***	0.09***	0.15***	0.44***
	(2.41)	(0.26)	(0.00)	(0.05)	(0.01)	(0.02)	(0.09)
50-60	21.88***	0.25***	0.00	0.27***	0.05***	0.02***	0.09***
	(1.15)	(0.06)	(0.00)	(0.05)	(0.01)	(0.00)	(0.02)
60-70	11.86***	0.04***	0.00	0.10***	0.01***	0.00	0.02***
	(0.50)	(0.01)	(0.00)	(0.02)	(0.00)	(0.00)	(0.01)
>=70	2.31***	0.00	0.00	0.01***	0.00	0.00	0.00**
	(0.20)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Observations	208	208	208	208	208	208	208
R-squared	0.61	0.56	0.38	0.48	0.41	0.65	0.45

3. Drug Abuse: Income

- If monthly income increases by HKD 10,000 in a district, the drug use rate will decrease by 22 people per 10,000
  – 9 new / 13 previous
- A 10% (58%) increase in monthly income is associated with a 14% (82%) drop in drug use rate
- The highest new addiction rates are in Wan Chai and Central/Western

Table 4. Rate of Drug Use by Income and District (per 10,000)

	(1)	(2)	(3)	(4)	(5)
VARIABLES	All	All	All	New	Previous
Income (HKD)	-0.0015***	-0.0027***	-0.0022***	-0.0009***	-0.0013***
	(0.0001)	(0.0001)	(0.0004)	(0.0001)	(0.0003)
Wan Chai		8.01***	7.74***	0.89**	6.84***
		(1.56)	(1.34)	(0.43)	(1.12)
Eastern		-16.90***	-12.80***	-6.05***	-6.75***
		(1.54)	(2.98)	(0.94)	(2.40)
Southern		-4.53***	-1.22	-1.52*	0.31
		(1.43)	(2.50)	(0.79)	(2.02)
Yau Tsim Mong		18.83***	24.00***	0.88	23.12***
		(2.15)	(4.08)	(1.07)	(3.44)
Sham Shui Po		5.37***	11.74***	-5.40***	17.15***
		(2.07)	(4.46)	(1.41)	(3.62)
Kowloon City		-14.00***	-9.73***	-5.84***	-3.89
		(1.54)	(3.08)	(0.99)	(2.49)
Wong Tai Sin		-19.11***	-11.37**	-9.73***	-1.64
		(2.33)	(5.46)	(1.67)	(4.47)
Kwun Tong		-17.98***	-10.72**	-8.31***	-2.41
		(2.34)	(5.17)	(1.58)	(4.21)
Kwai Tsing		-27.27***	-19.57***	-8.84***	-10.73**
		(2.04)	(5.28)	(1.67)	(4.25)
Tsuen Wan		-12.59***	-7.15*	-6.07***	-1.08
		(1.94)	(3.89)	(1.25)	(3.14)
Tuen Mun		-19.80***	-12.32**	-7.95***	-4.37
		(2.03)	(5.14)	(1.64)	(4.13)
Yuen Long		-17.92***	-10.86**	-5.29***	-5.56
		(1.95)	(4.85)	(1.52)	(3.92)
North		-16.25***	-9.06*	-4.39***	-4.68
		(1.90)	(4.96)	(1.62)	(3.99)
Tai Po		-16.84***	-10.62**	-4.98***	-5.65
		(1.82)	(4.33)	(1.38)	(3.49)
Sha Tin		-23.25***	-17.80***	-7.19***	-10.61***
		(1.78)	(3.88)	(1.20)	(3.14)
Sai Kung		-25.58***	-20.19***	-7.43***	-12.76***
		(1.98)	(3.96)	(1.21)	(3.20)
Islands		-8.04***	-3.78	-0.83	-2.96
		(1.72)	(3.39)	(1.18)	(2.72)
Observations	378	378	378	378	378
R-squared	0.27	0.88	0.92	0.83	0.92
District FE		Y	Y	Y	Y
Year FE			Y	Y	Y

Note: Central/Western is the reference group.

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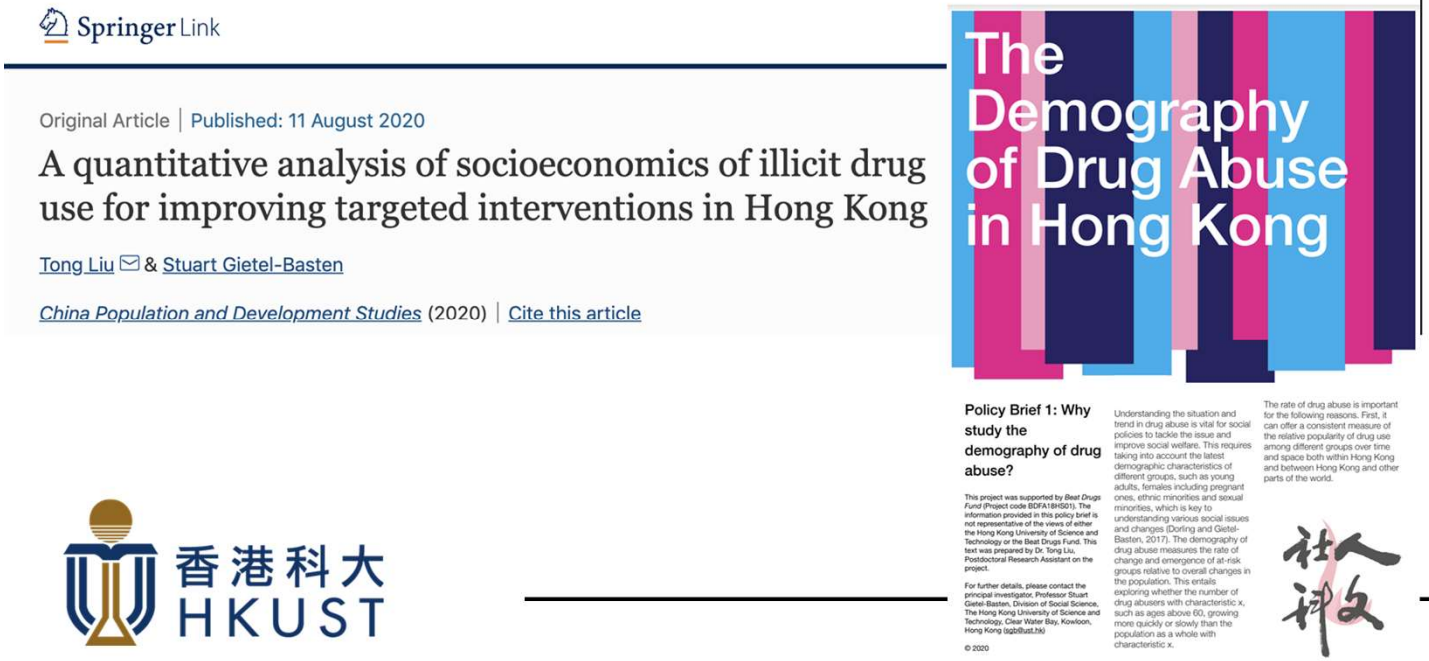

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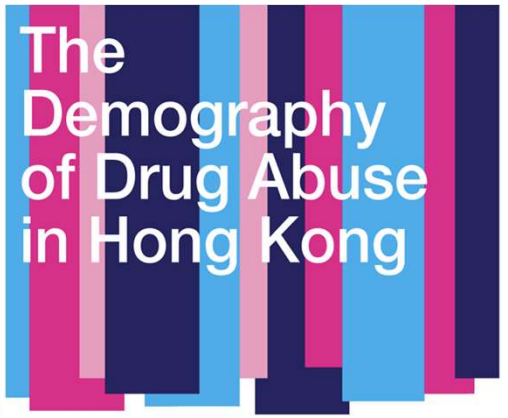

The Demography of Drug Abuse in Hong Kong

Policy Brief 2: Research findings

This project was supported by *Beat Drugs Fund* (Project code BDFA18HS01). The information provided in this policy brief is not representative of the views of either the Hong Kong University of Science and Technology or the Beat Drugs Fund. This text was prepared by Dr. Tong Liu, Postdoctoral Research Assistant on the project.

For further details, please contact the principal investigator, Professor Stuart Gietel-Basten, Division of Social Science, The Hong Kong University of Science and Technology, Clear Water Bay, Kowloon, Hong Kong (sgb@ust.hk)

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Introduction

Policy Brief 1 explained the rationale of studying the 'demography of drug abuse'. In this policy we present some of the higher level findings of the project. For further details of the methods and materials, please see Liu, Tong & Gietel-Basten, Stuart (2019) 'The demography of drug abuse in Hong Kong' *China Journal of Social Work* 12(3): 254-272

Overal trends

The patterns in Figure 1 are likely related with changes in drug demand in Hong Kong, given the consistent efforts by the police department in tackling drug supply. First, the sharp increase in drug abuse in 1990s can be explained by fewer job opportunities and lower upward mobility of young people, and the weakened protection from the family and school (Cheung and Cheung, 2018). Second, ecstasy abuse increased with the prevalence of rave parties in 2000 (Narcotics Division, 2011). Third, the peak in 2008 is related with a sudden popularity of ketamine among the young people, which is a party drug widely believed to have low purchasing and addiction costs (Smith et al., 2002). The continuous decline in the number of reported drug abusers after 2008 was likely related with the drop in drug demand due to more efforts from the government and NGOs.

The Demography of Drug Abuse in Hong Kong

Policy Brief 1: Why study the demography of drug abuse?

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Understanding the situation and trend in drug abuse is vital for social policies to tackle the issue and improve social welfare. This requires taking into account the latest demographic characteristics of different groups, such as young adults, females including pregnant ones, ethnic minorities and sexual minorities, which is key to understanding various social issues and changes (Dorling and Gietel-Basten, 2017). The demography of drug abuse measures the rate of change and emergence of at-risk groups relative to overall changes in the population. This entails exploring whether the number of drug abusers with characteristic x, such as ages above 60, growing more quickly or slowly than the population as a whole with characteristic x.

The rate of drug abuse is important for the following reasons. First, it can offer a consistent measure of the relative popularity of drug use among different groups over time and space both within Hong Kong and between Hong Kong and other parts of the world.

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Policy review

Learning from other settings

But often difficult to apply direct lessons

Needs a more comprehensive assessment and deeper understandings

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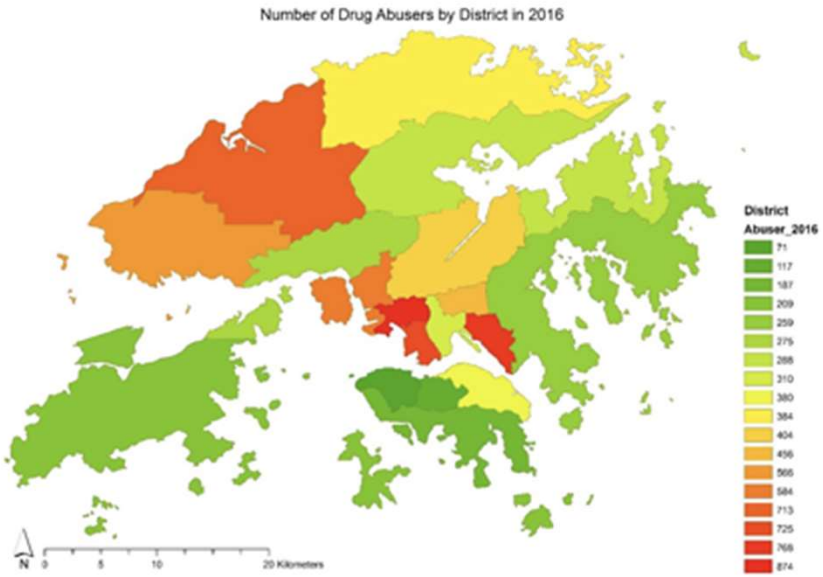
Beyond our project

What is CRDA capturing?

Location of registration? Abuser? Abuse?

Correlation - *but what about **cause***

Qualitative reassessment



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