

**Socioeconomic and Health Impacts of  
Psychoactive Drug Abuse in Hong Kong  
- A Longitudinal Study**

Overall Report Submitted to  
Beat Drugs Fund Association, c/o Narcotics Division,  
Security Bureau  
The Government of the Hong Kong SAR

By

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## **BACKGROUND**

The present study was funded by the Beat Drugs Fund in 2007 with the following objectives:

1. To study the long-term harmful effects of abusing psychotropic substances in a group of identified drug abusers;
2. To study the acute toxicity of in a group of drug abusers admitted or referred to a public hospital;
3. To review and analyze the existing treatment/rehabilitation, and
4. To assess the economic impact of drug abuse to the society.

The composition of the research team included experts from at least 4 different academic disciplines, namely, Pharmacy, Social Science, Psychiatry and Chemical Pathology from the Chinese University of HK. Their names and affiliations are as follows:

### **Kenneth Lee JP BSc(Pharmacy), MPhil, PhD**

Professor and Associate Director (External Affairs) of the School of Pharmacy, CUHK until August 2010 when his title was changed to Adjunct Professor of the School due to a relocation to Malaysia for a new academic position. He served as the principal investigator and coordinator of the project.

### **Y.W. Cheung Ph.D**

Professor and Chairman from the Department of Sociology of CUHK who was responsible for objectives (1) and (4) of the project to study the long-term harmful effects of abusing psychotropic substances in a group of identified drug abusers and to assess the economic impact of drug abuse to the society.

### **Lam Wai Kei, Christopher PhD, FRSC, FACB, FHKCPath(Hon), FRCPath(Hon)**

Chairman, Professor and Chief of Service of the Department of Chemical Pathology, Director of the Clinical Immunology Unit at the Prince of Wales Hospital (PWH), and Assistant Dean of Medicine (Research) of CUHK until he retired in 2009. He was responsible for objective (2) in the screening and

subsequently studying the acute toxicities of psychotropic substances in a group of abusers with the support from Dr Chan Ho Ming, Michael.

**Chan Ho Ming, Michael MBChB, FRCPA, FHKAM(Pathology)**

Consultant at Department of Chemical Pathology, PWH and his major responsibility was to provide support for the screening and subsequent studying the acute toxicities of psychotropic substances in a group of abusers (objective (2)).

**Tang Wai Kwong MBChB, MD, FHKAM(Psych)**

Professor in the Department of Psychiatry, CUHK and his major responsibilities were to study the acute toxicities of psychotropic substances in a group of abusers review and analyze the existing treatment and rehabilitation methods for substance abusers in HK i.e objectives (2) (partial) and (3) .

**Alan Tang MBBS, MRCPsych**

Associate Consultant at PWH and his major responsibility was to provide support in the review and analysis of the existing treatment/rehabilitation methods for substance abusers who attended substance abuse clinics in public hospitals in Hong Kong (objective (3)).

**Chung Wai Sau MBChB, MSocSc, MRCPsych, FHKAM (Psychiatry)**

Medical Superintendent of New Territories East Psychiatric Observation Unit of Tai Po Hospital; Consultant Psychiatrist and Chief of Services, General Adult Psychiatric Services in Tai Po Hospital, Alice Ho Nethersole Hospital, & North District Hospital; and Adjunct Associate Professor, Department of Psychiatry, CUHK. His responsibilities were mainly to provide support to review and analyze existing treatment and rehabilitation methods.

**Vivian WY Lee BSc, PharmD**

Associate Professor at the School of Pharmacy and Assistant Dean (Student Affairs) of School of Medicine, CUHK and her main responsibilities were to provide support to the socioeconomic part of the study and to assist the liaison work of the principal investigator.

The original proposed study period was from Feb 2008 till Jan 2011. Nevertheless, the period had to be extended after the study was half-way through due to the difficulty in subjects recruitment and manpower deployment. The application for extension was subsequently approved by the Research Advisory Group of the Narcotics Division, Security Bureau.

The original research grant was HK2,995,590. As of March 2012, the total spending was HK2,624,244, thus with a remaining amount of HK371,346 unspent. The expenditures were all duly reported and approved by the Beat Drugs Fund Association. Detailed accounting records are kept by the Narcotics Division and the Chinese University of HK and are available for inspection upon request.

## **METHODOLOGIES AND MAJOR FINDINGS**

The detailed methodology adopted by Prof YW Cheung in achieving objectives (1) and (4) has been described in depth in his report as attached. Throughout his part of the study, he has been able to solicit support from a group of extremely dedicated non-government organizations by providing subjects and the necessary manpower. Their contribution was essential in the completion of the project. It is recommended that proper acknowledgement should be extended to this group of enthusiastic social workers.

Overall, Prof Cheung's findings suggest that the most significant socio-demographic variables affecting drug use were "student status" (whether the subject was a student actively attending school) and employment (whether subject had a job if he/she was not a student). The most significant psycho-social variables were "permissiveness to drug use" and "life satisfaction". In terms of long term harmful effects, a majority of the subjects admitted that their health conditions had become worse since starting to use psychoactive drugs. Apart from suffering from a variety of cognitive and psychological impairments such as poor memory, insomnia, low-spiritedness, lack of concentration, shaking hands, and increased suspicion, some of them have also developed medical conditions such as stomach-ache, urethritis, and bladder problems. The economic impact of drug abuse was estimated based on expenditure information provided by the relevant government departments and NGOs. The total social cost on treatment and rehabilitation, counseling, preventive education, and research was estimated to be HK\$301.42 million for the year 2010. The cost per capita was HK\$42.70.

The methodology adopted by Prof WK Tang and Dr HM Chan has also been described in depth in their report. In general, substance abusers were recruited into the research project from Substance Abuse Clinics (SACs) and Counselling Centres for Psychotropic Substance Abusers (CCPSAs). Information on the treatment modality of each participant was obtained from their case notes at one-year and two-year follow-up.

This part of the study revealed that ketamine was the most common lifetime abused drug among participants, followed by amphetamine/ice and Midazolam/Nimetazepam/Zopiclone/Imovane. The most common psychiatric disorder was psychosis. More than 90% of SAC patients were offered medication during the treatment period and 25% were referred to an occupational therapist, a medical social worker or a clinical psychologist. Retention rate of these patients was low after the first year. The possible factors influencing treatment dropout included they are not suffering from psychosis and not receiving a prescription from the treating psychiatrists. However, as many of the participants dropped out of the study, case note review was not sufficient for measuring treatment outcome. Thus, for future studies, SACs and other service providers should consider using other standardized outcome measures.

A number of recommendations have been made by the 2 research teams based on these findings. I believe these will provide significant contributions in the future policy development by the Government in fighting against drug abuse.

## **CONCLUSION AND OVERALL REMARKS**

In general, I believe that our research team has successfully completed the study with all the original objectives achieved. The findings should be of considerable value for the Government in formulating future anti-drug abuse policies. Our findings have shed new lights on the present trend of drug abuse in Hong Kong as well as substantiated the results from earlier studies carried out by other colleagues.

Just like any other scientific studies, while every effort has been made to attain the utmost and to ascertain the reliability of data, there are unavoidably limitations and shortcomings in our work. These have been discussed in detail in the relevant section of the research teams' reports and I hope they can serve as important references for future studies.

Last but not least, on behalf of our research team, I would like to extend our deepest gratitude for the continued support, and the trust and patience extended to us by the BDF and Narcotics Division. We would also like to take this opportunity to express our heartfelt thanks for the unfailing support provided to our team by the various NGOs, and relevant departments of the Prince of Wales Hospital and Hospital Authority.

## **LIST OF REPORTS**

1. A Longitudinal Survey of Psychoactive Drug Abusers in Hong Kong
2. A Longitudinal Study of Treatment Outcomes for Psychotropic Substance Abusers
3. Literature Review on the Treatment of Psychotropic Substance Use Disorder
4. Acute Toxicity of Commonly Abused Psychotropic Drugs in Hong Kong