



# Adverse Mental Health Effects of Cannabis Use

**Professor TANG Wai-kwong**  
**Department of Psychiatry**  
**The Chinese University of Hong Kong**

香港中文大學醫學院

**Faculty of Medicine**

The Chinese University of Hong Kong

# Cannabis Use Disorder (Addiction)

## 大麻成癮

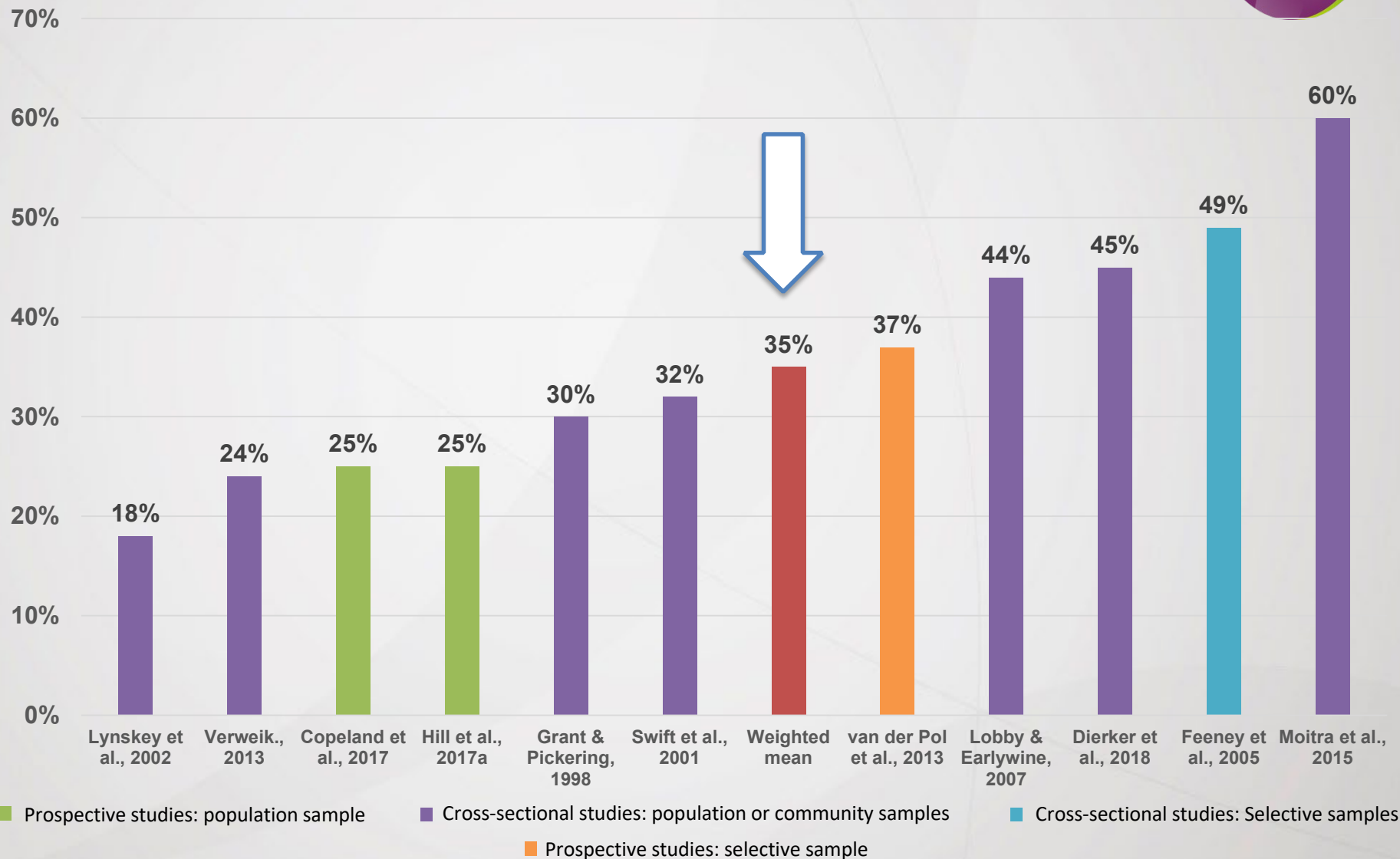


**Prevalence (普遍程度)**

# Prevalence of Cannabis Use Disorder (Addiction) (大麻成癮)



## Cannabis Use Disorder - All studies



## Results 2 – Risk factors (危險因素)

## Demographics (人口資料)

- **Male** sex related to higher risk of cannabis dependence follow-up (Odds ratio (OR)=3)
- **Younger** age (OR=5)

機會比 (OR) 數值愈高，機會愈大

## Cannabis use pattern (濫用大麻模式)

- **Early** onset (OR=4-7)
- Regular, persistent or solitary **use**, use of high-**potency** cannabis

## Other risk factors (其他危險因素)

- **Legalization of cannabis use**

# Clinical course (臨床病程)

## Clinical course

- Mean time from first use to the onset of Cannabis Use Disorder is **3 yrs**
- Mean duration of Cannabis Use Disorder episodes is **33 months**
- Recurrence rate was **28%**

# Treatment (治療)



- **Psychosocial interventions are the first-line treatment**
- **No effective medication**

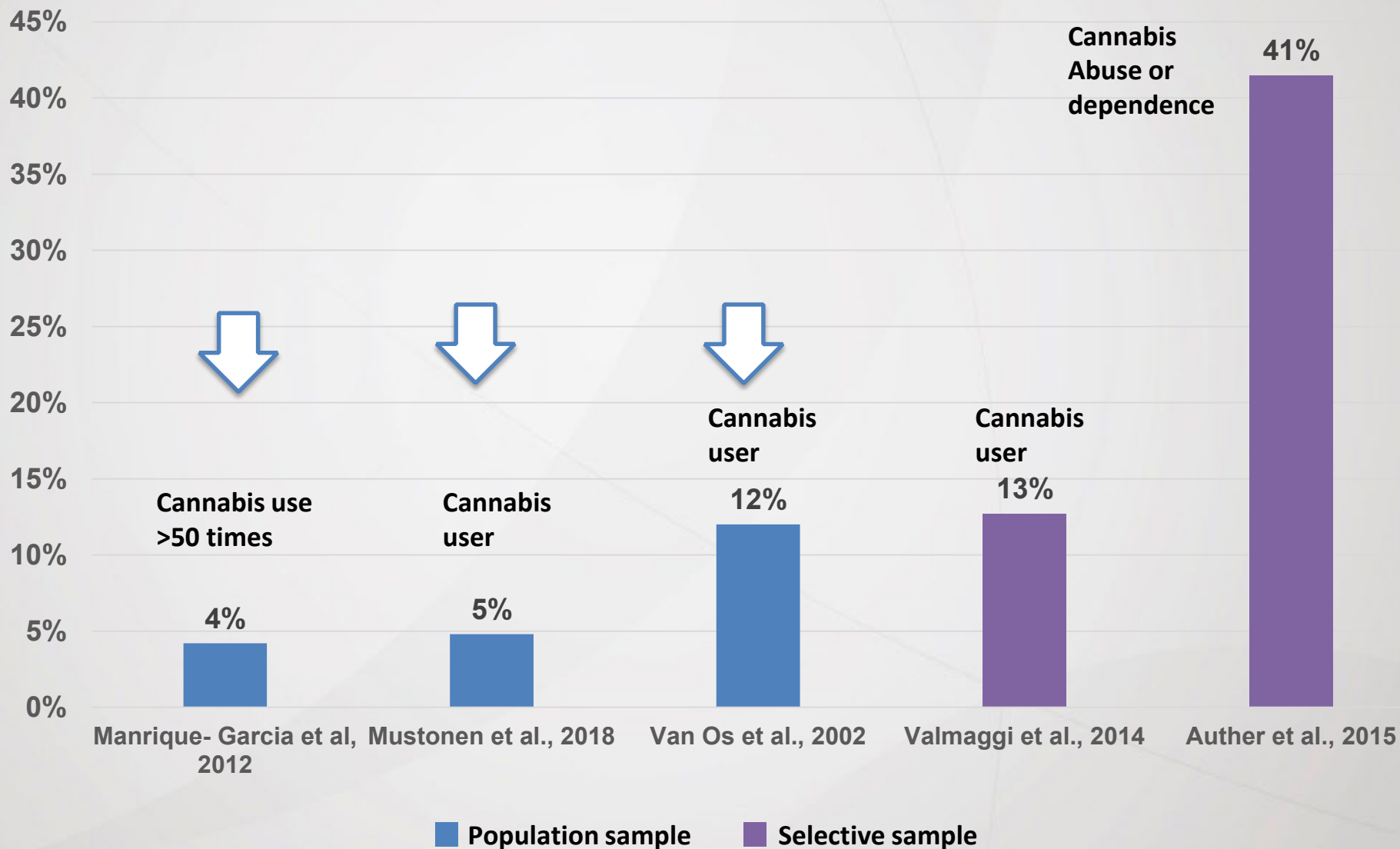
## **Cannabis use and psychosis**

**(使用大麻與思覺失調)**

# Cannabis use and psychosis



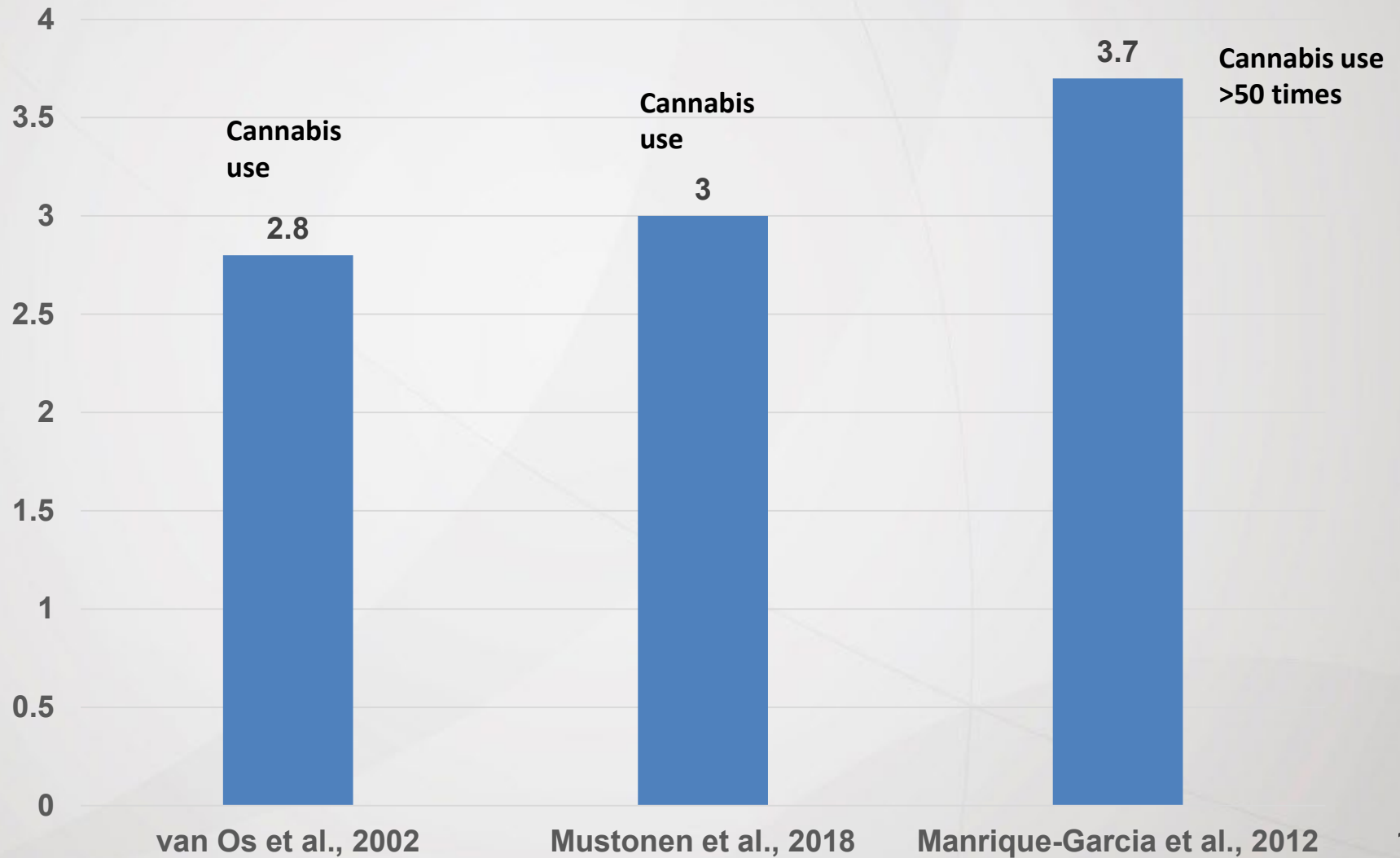
## Psychosis (prospective studies)



# Cannabis use and psychosis



OR: Psychosis: Population sample (prospective studies)



# A case of Cannabis induced psychosis



- M/21, worked as sales / construction site worker
- Parents divorced, father has psychosis/mood disorder
- Bullied in primary school
- Good sport but poor academic performance in school
- Early/mid 2019: Failed in the fireman recruitment test, broke up with his girlfriend, developed depressive symptoms, **started cannabis use**
- **Spent \$3,000 per month on cannabis**
- **Addicted to cannabis**
- Late Sep 2019: unemployed, personality change (more quiet)
- Early Oct 2019: depressive symptoms and **auditory hallucination, thought broadcasting**

# A case of Cannabis induced psychosis (Con't)



- Oct 2019: missing, found pacing aimlessly on a bridge in Tai Po, attempted to jump, saved by passers-by, brought to hospital
- Mental condition upon admission: staring into the air, very slow in thinking and motion, speech in single phrase, no spontaneous speech, mood flat
- **Urine test: positive for cannabis**
- **Diagnosis: First episode psychosis, induced by cannabis use**

# Cannabis use and psychosis



## Clinical course

- cannabis-associated psychosis has -
  - a **poor prognosis**; and
  - a high proportion of patients develop non-substance-induced psychotic disorders

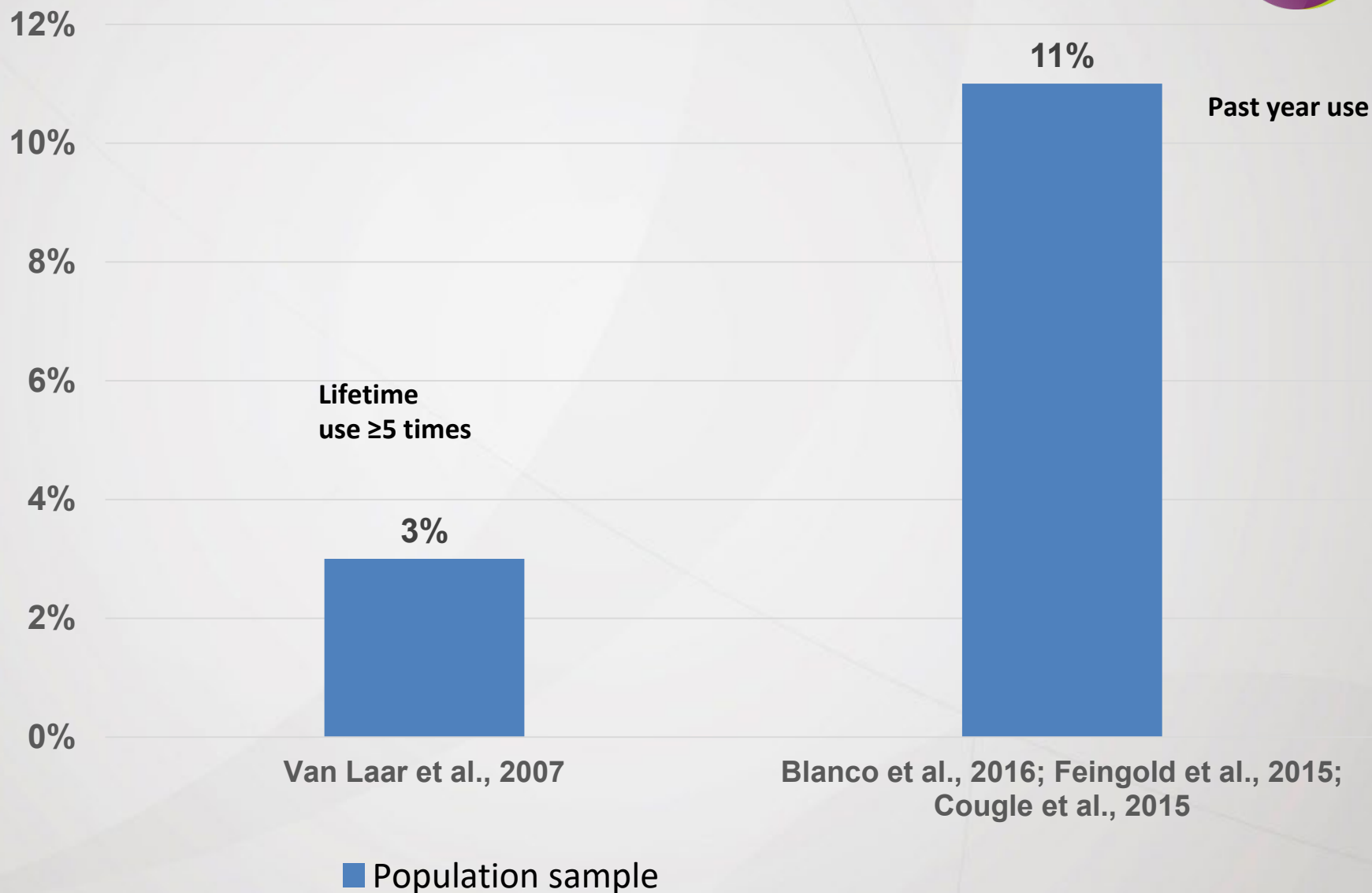
## **Cannabis use and bipolar disorders**

**(使用大麻與躁鬱症)**

# Cannabis use and bipolar disorders



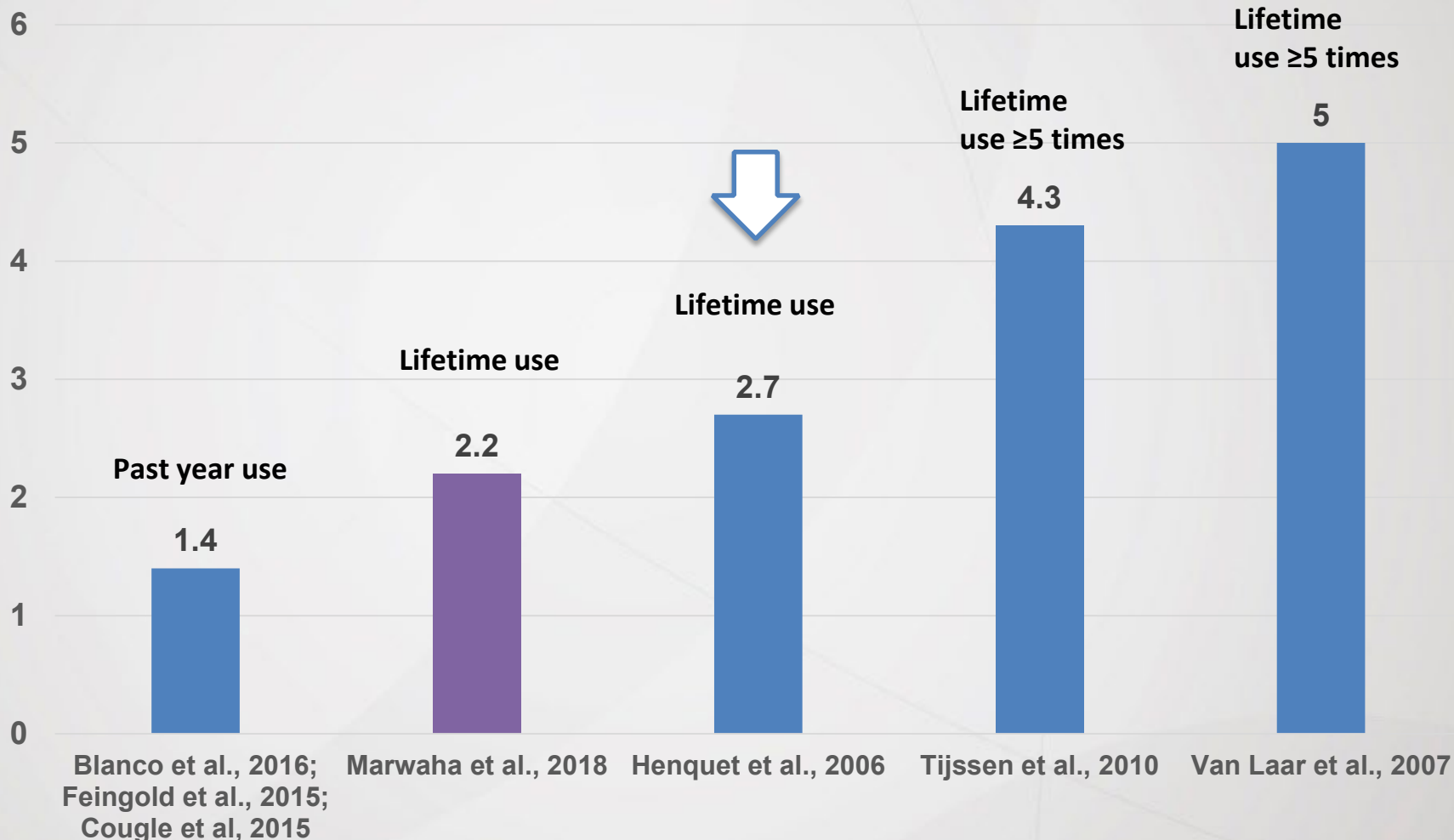
## Bipolar disorders (prospective studies)



# Cannabis use and bipolar disorders



OR: Bipolar disorders / symptoms  
(prospective studies)



■ Population and community sample

■ Selective sample

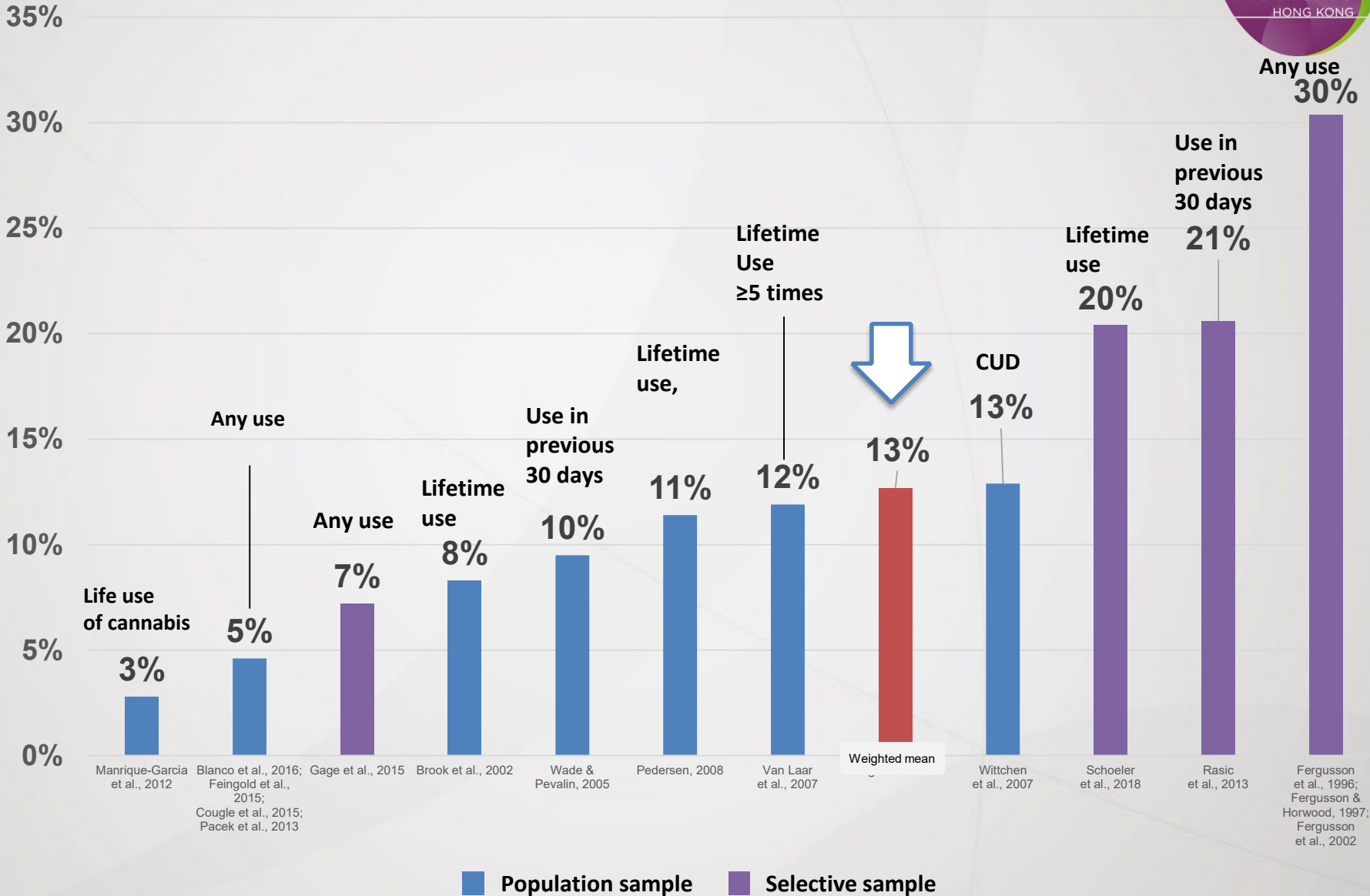
# Cannabis use and depression

(使用大麻與抑鬱症)

# Cannabis use and depression



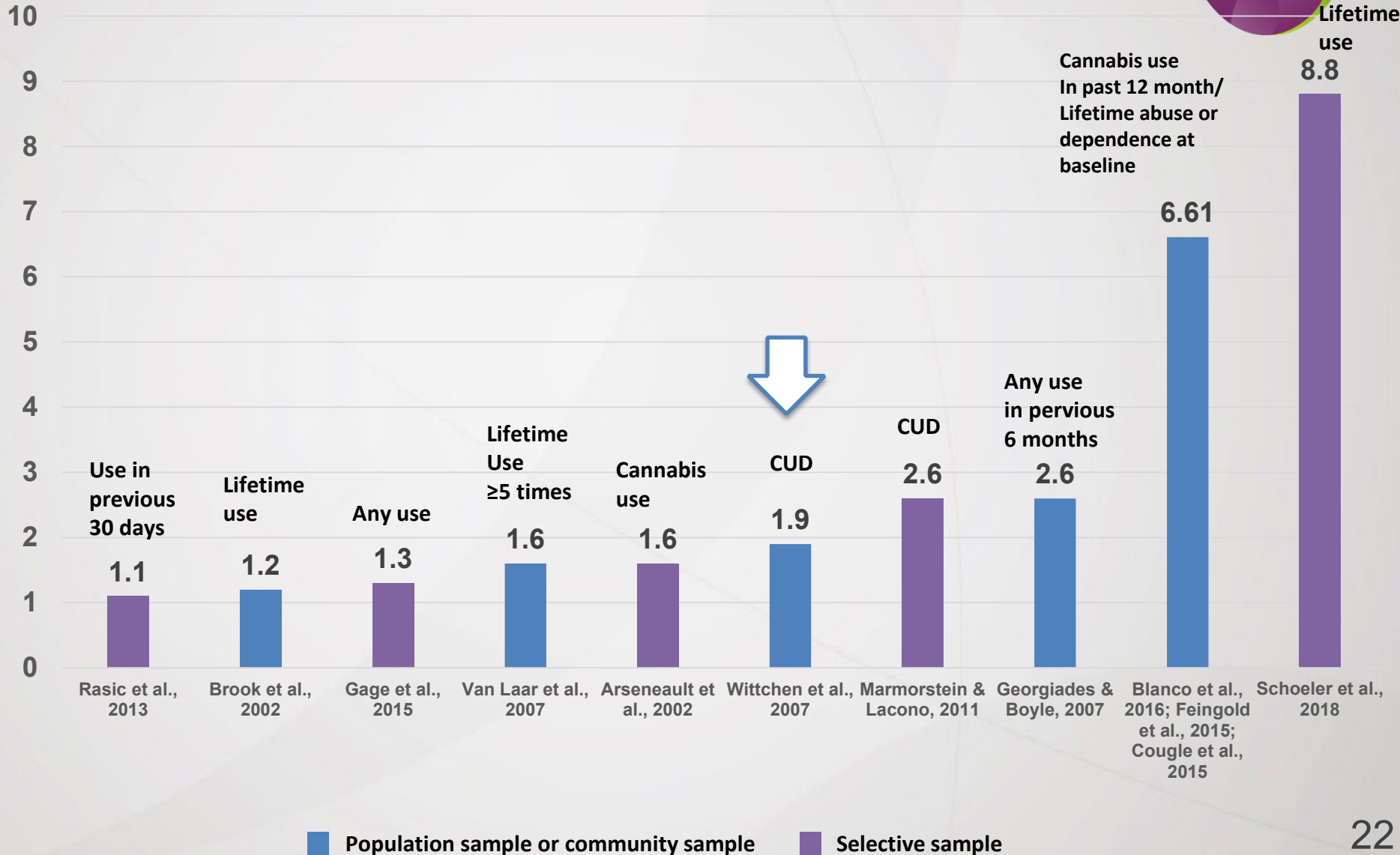
## Depressive disorder (prospective studies)



# Cannabis use and depression



OR: Depressive disorder (prospective studies)



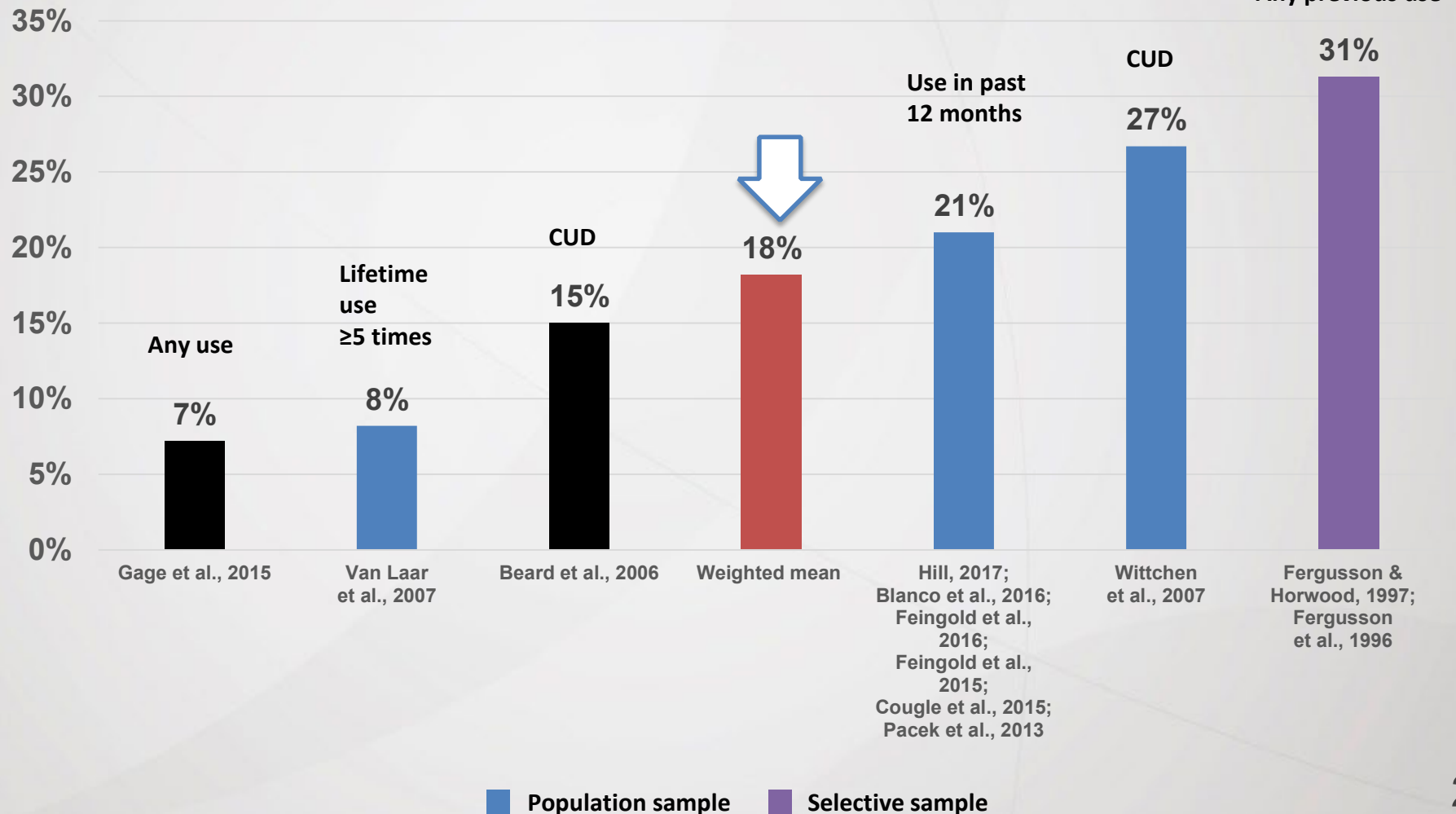
# **Cannabis use and anxiety disorders**

**(使用大麻與焦慮症)**

# Cannabis use and anxiety disorders



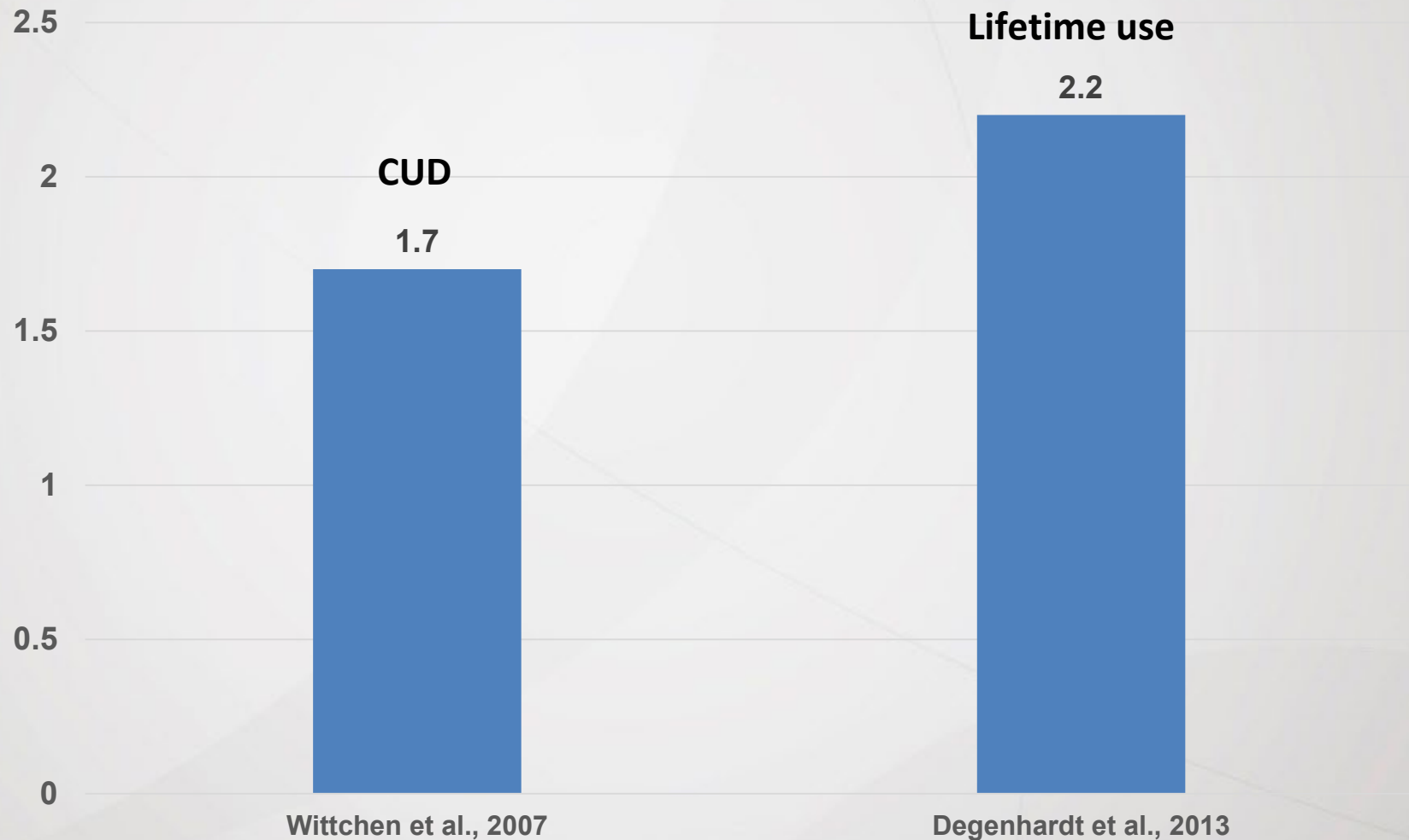
## Anxiety disorders (prospective studies)



# Cannabis use and anxiety disorders



OR: Anxiety disorders : population samples  
(prospective studies)



# Conclusions



- Cannabis use can develop into an addiction (around 1/3 of users) (使用大麻會導致成癮 -- 約 1/3 使用者)
- Cannabis use increases the risk of psychosis by two to four times (使用大麻會增加患上思覺失調的風險二至四倍)
- Cannabis use triples the risk of bipolar disorders (使用大麻會增加患上躁鬱症的風險三倍)
- Cannabis use doubles the risk of depression (使用大麻會增加患上抑鬱症的風險兩倍)
- Cannabis use doubles the risk of anxiety disorders (使用大麻會增加患上焦慮症的風險兩倍)

# Conclusions ( Con't )



Major Mental Diseases (主要精神疾病)	Prevalence (range / average) (普遍程度)
Psychosis (思覺失調)	4 – 12%
Bipolar Disorders (躁鬱症)	3 – 11%
Depression (抑鬱症)	13%
Anxiety Disorders (焦慮症)	18%

**Thank you!**

香港中文大學醫學院

**Faculty of Medicine**

The Chinese University of Hong Kong