

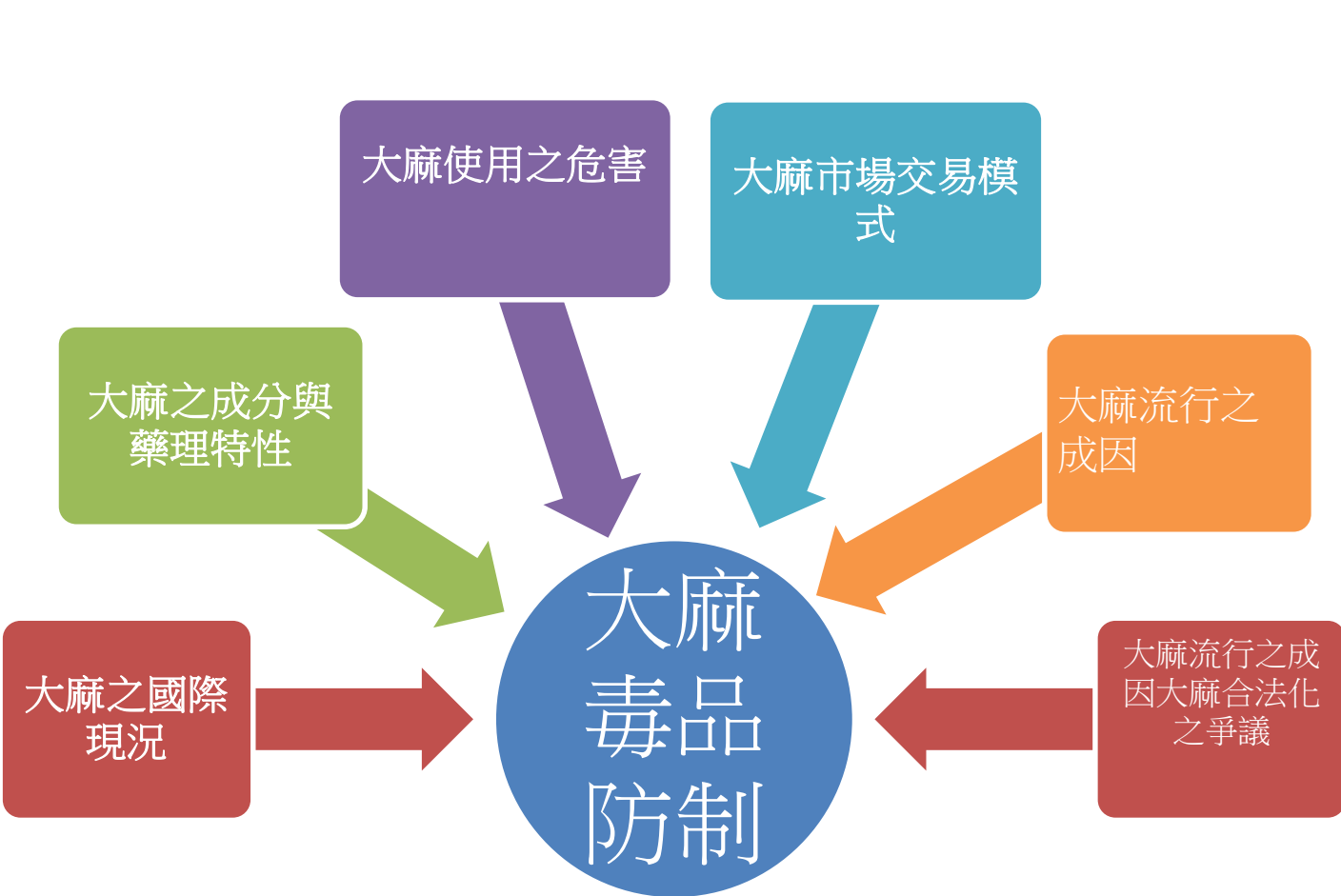
大麻國際現況、流行成因與 合法化爭議

報告人:楊士隆

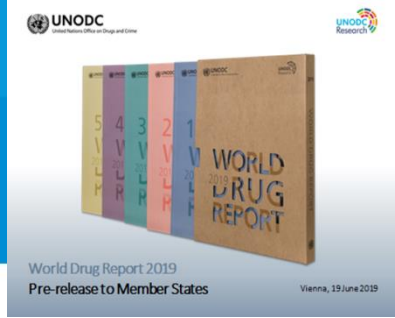
國立中正大學犯罪防治學系特聘教授
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台灣藥物濫用防治研究學會理事長



大綱



壹、大麻之全球現況簡述



- 大麻之全球現況：

大麻使用人數為全部毒品中最多的一種，2016年共有有**1.92億人**曾使用過大麻，截至2016年的十年間使用大麻人口成長近**16%**（UNODC, 2018）。2017年則有有1.88億人曾使用過大麻（UNODC, 2019）

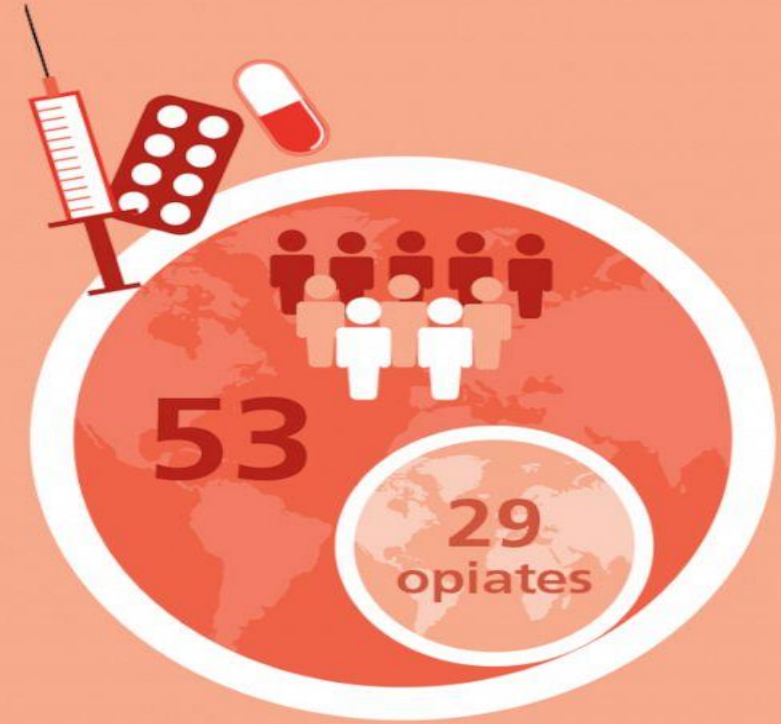
大麻為全球種植最為廣泛的毒品作物，其種植國家高達**135國**，而大麻亦是全世界**販運案件數最多的毒品**。

根據歐洲毒品和毒癮監測中心（EMCDDA）報告指出，在**歐洲大麻**仍然是使用最廣泛的非法藥物。約**1750萬歐洲青年**(15-34歲)估計去年曾使用過大麻。在歐盟估計約**1%的成年人(15~64歲)**幾乎每天是大麻消費者。2017年，歐洲約有**155,000人**因與大麻有關的問題進入藥物治療，其中約有83,000人是首次接受治療(EMCDDA, 2019)。

Number of past-year users in millions 2017



cannabis



opioids



**amphetamines and
prescription stimulants**



"ecstasy"



cocaine

全球大麻葉緝獲之數量與運輸趨勢

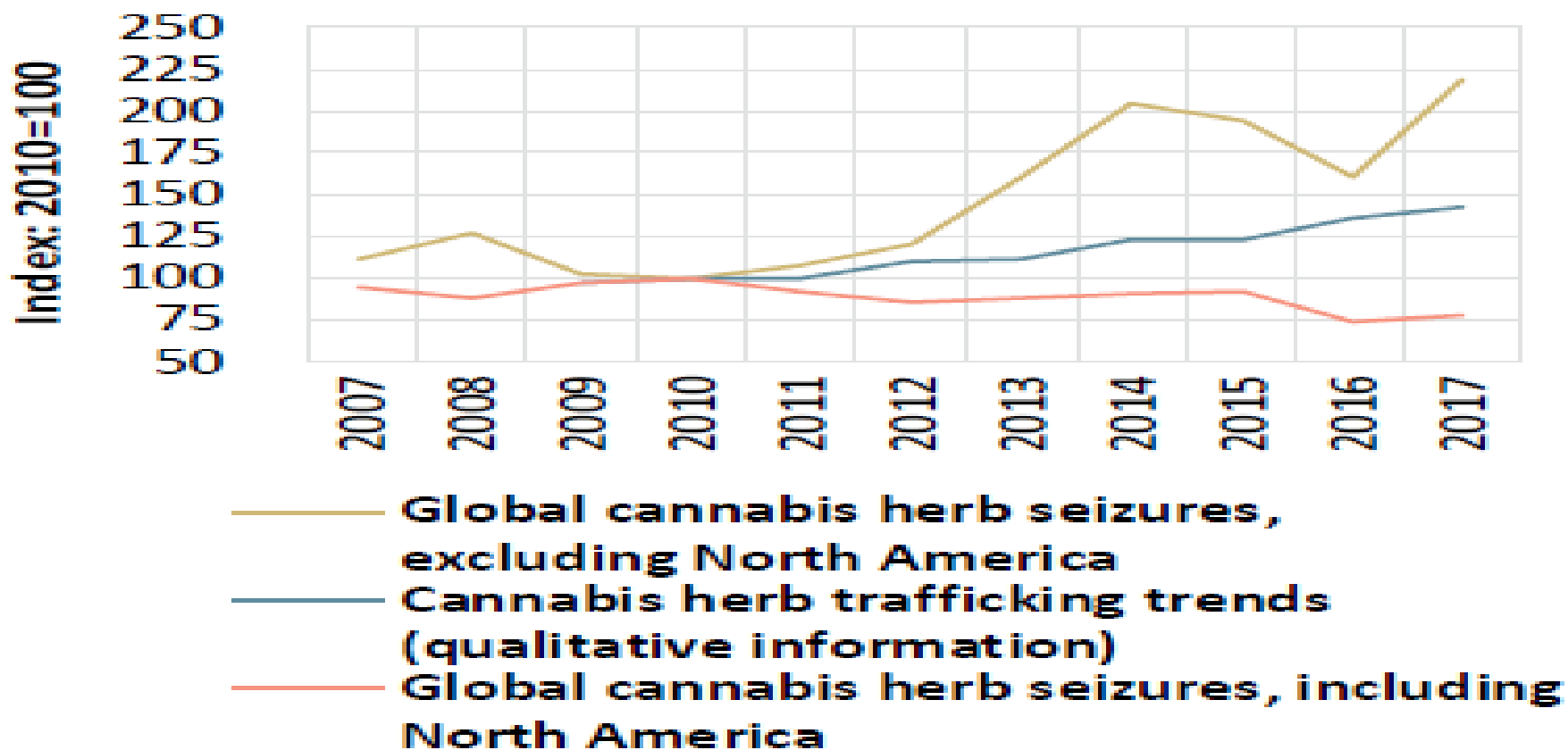


UNODC

United Nations Office on Drugs and Crime



Global trends in the quantity of cannabis herb seized and trends in cannabis trafficking, 2007-2017

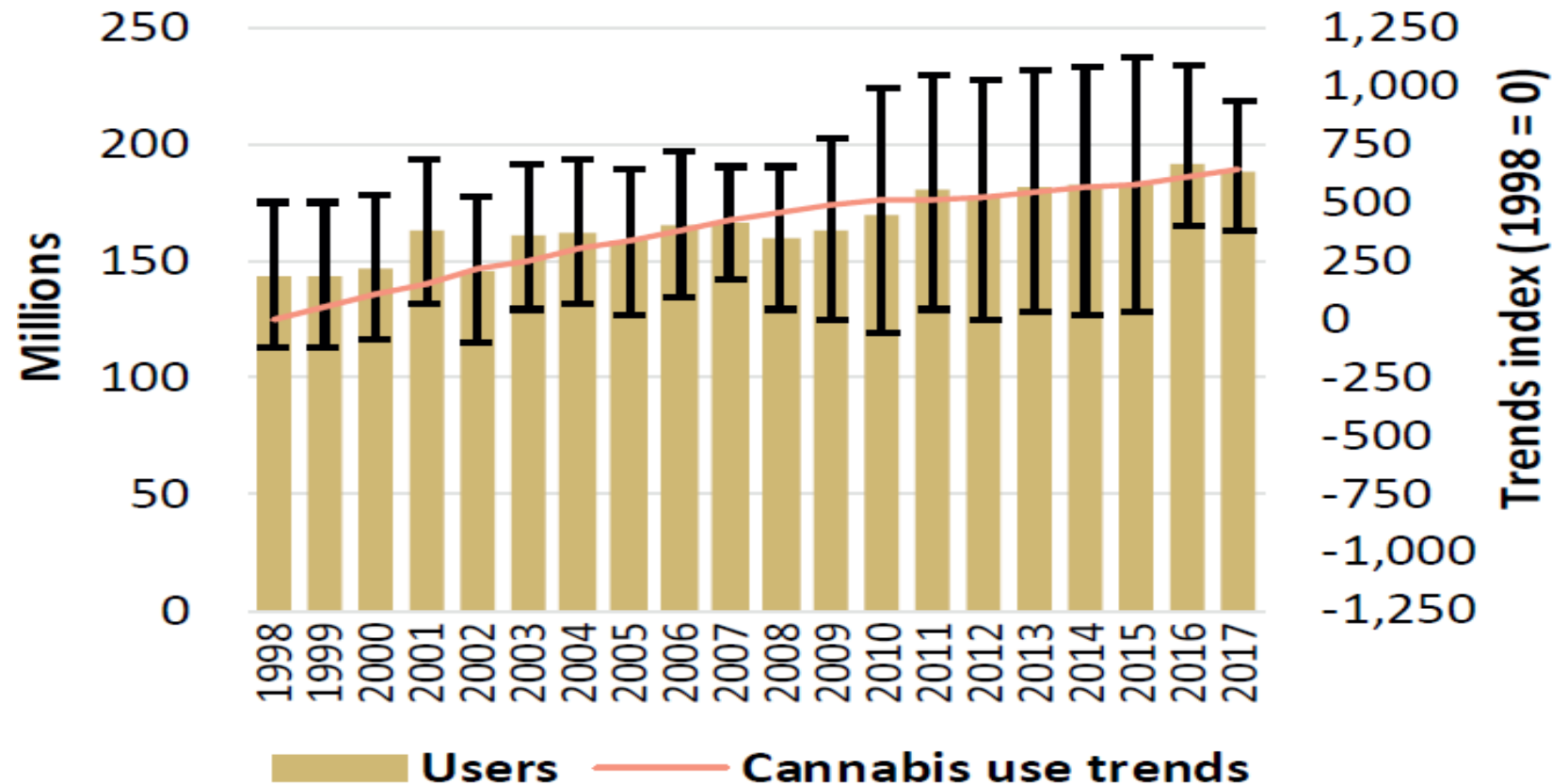


Source: UNODC, responses to the annual report questionnaire

全球大麻使用者之數量及趨勢



Global trends in number of cannabis users and qualitative information on trends in cannabis use,^a 1998–2017



Source: UNODC, responses to the annual report questionnaire

^a The index is based on information of, on average, 74 countries per year over the period 2007–2017. Two points were given for “large increase”, 1 point for “some increase”, 0 for “stable”, -1 for “some decrease” and -2 for “large decrease”. For reference, if all countries had reported each year “some increase” in cannabis use over the period 2007–2017, the cannabis use perception index would have reached 811 points in 2017. For details on the perception index calculations, refer to the methodological annex, available in the online version of the present report.

大麻之全球最新統計訊息



UNODC

United Nations Office on Drugs and Crime



根據世界毒品報告(2019)，以下幾項為重要大麻統計訊息; UNODC(2019)之 World Drug Report revealed the information of Cannabis:



a. 全球約有3.8%之15-64歲人口使用過大麻

3.8% of the world population in the age group of 15-64 years consumed marijuana at least once in 2017.

b. 過去二世紀以來，全球使用大麻之人口增加30%

In the past 2 decades, the number of people resorting to cannabis has increased by 30%.

c. 亞洲大麻之使用盛行率僅佔2%，約5400 萬人使用

With 2% of the annual prevalence rate (54 million people), Asia is at the bottom of the cannabis consumption list.

d. 在美國大麻之使用盛行率由2007年之9.9%增加至2017年之15.3%

In the United States, marijuana use rose to 15.3% in 2017 from 9.9% in 2007.
(Raghav, June 27, 2019)

WORLD
2019
DRUG
REPORT

全球毒品使用調查(2017-2019)



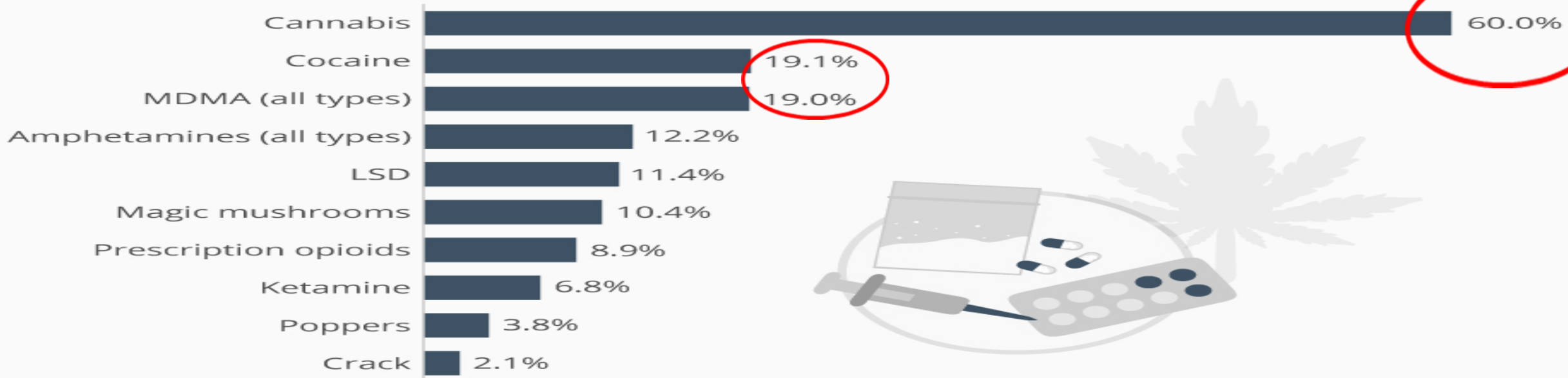
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Global Drug Use

Percentage of respondents who used following drugs in 2016



GDS seeks out younger respondents more likely to use drugs; 115,000 respondents in 28 countries, 68 percent male, 32 percent female, mean age 29.1 years
Source: Global Drug Survey

statista

The Global Drug Survey (2019) this year more than 123,000 people from more than 30 countries completed the survey. The top ten drugs used by survey respondents in the last 12 months (excluding alcohol and tobacco/nicotine products) were: Cannabis, MDMA, Cocaine, Amphetamines, LSD, Magic mushrooms, Benzodiazepines, Prescription opioids, Ketamine and Nitrous oxide



世界毒品報告指出，在青少年藥物濫用議題上，有以下幾項重大發現：
(World Drug Report, 2018)

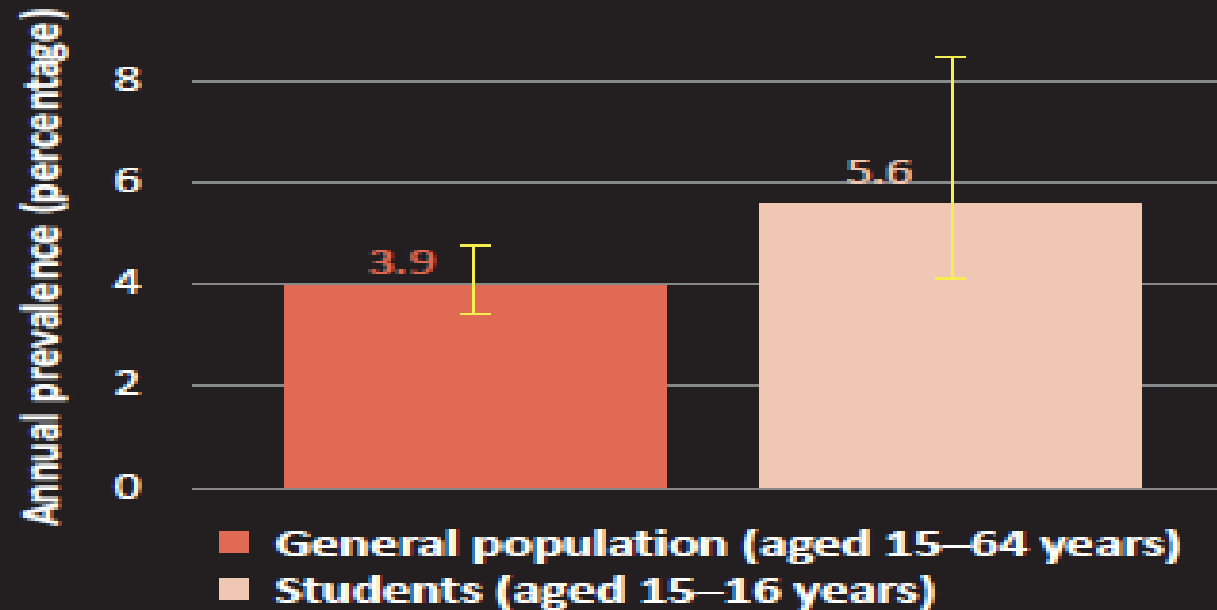
1. 對青少年而言，藥物濫用影響其健康最大。
研究顯示，12-14歲之青少年早期至 15-17歲之青少年晚期是藥物濫用之關鍵危險時期，其可能在18-25歲期間呈現藥物濫用之高峰。
2. 大麻是青年人最易取得與常使用的非法藥物。
3. 兩類青少年族群使用不同藥物：俱樂部用藥例如“ecstasy”，methamphetamine, cocaine, ketamine, LSD and GHB 等在較高收入之群體使用。較窮之街頭少年則使用吸入劑 (inhalants), 包含油漆稀釋劑 (paint thinner), 汽油 (petrol), 塗料 (paint), 修正液 (correction fluid) 及膠水 (Glue) 等。
4. 青少年藥物濫用之原因複雜，非單一因素決定，並且每個階段呈現差異。
5. 許多青少年進入毒品供應鏈係因貧窮及缺少社會與經濟成長之機會/ 受犯罪組織所誘惑及吸收所致。





First Global estimate of cannabis use among students 15-16

Global annual prevalence of cannabis use among the general population, aged 15–64 years and among students aged 15–16 years, 2016



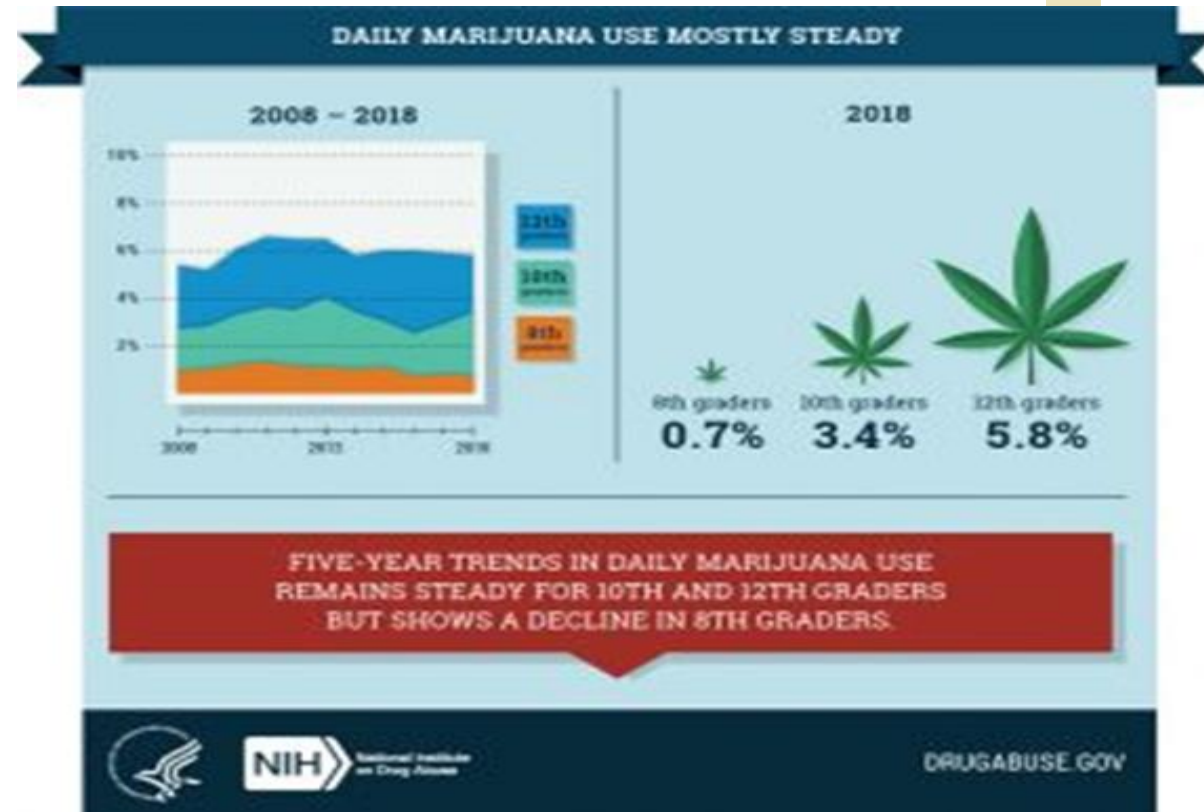
Sources: UNODC, annual report questionnaire data and other government reports.

Note: the estimate of cannabis use in the last year in young people aged 15–16 years is based on school surveys in most countries, thus the use of the term 'students'.



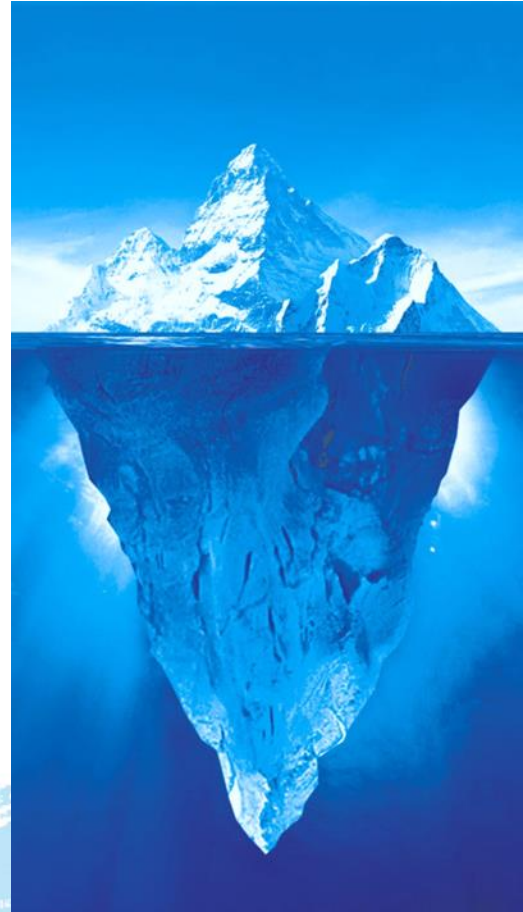
美國密西根大學 監測之未來 (monitoring the future)

- 美國SAMSH定期委託美國密西根大學進行「**監測的未來**」調查全美八、十及十二年級學生之酒精、非法藥物及抽菸之盛行率。主要發現如下:(Johnston, Miech, O'Malley, Bachman, Schulenberg, Patrick, 2019)
- 1.學生使用非法藥物的終身盛行率為33.9%，使用除大麻外的其他非法藥物之終身盛行率為14.2%。**使用大麻的終身盛行率為29.7%。**
- 2.在過去一年青少年物質濫用之方面，**2018年8年級、10年級學生、12年級的學生使用非法藥物的盛行率為27.1%**，使用除大麻外的其他非法藥物之盛行率為9.3%，創歷年新低。



大麻緝獲之台灣現況

- 2016年台灣緝獲的大麻總重為22.6公斤，2017年查獲量暴增到**499.1公斤**（法務部，2018），起訴人數為48人，2018年起訴人數為128人(台灣高等檢察署全國毒品資料庫辦公室、統計室，2019/03/08)。2017年各機關所通報的**32,981人中僅有284人**為使用大麻者，通報個案從2016至2017年間增長了**34.6%**（衛福部，2018）。
- 2018年查獲大麻之人數1,230人(男性1,101人，女性129人)。其中持有505人，施用299人，販賣198人，意圖販賣86人，製造或栽種59人，運輸50人，轉讓28人。2019年1至6月查獲746人(男性672人，女性74人)(內政部警政署刑事警察局，2019/08/15)
- 台灣大麻查獲有以下特性:1.大麻主要的使用族群以外籍人士及白領階層居多。2.大麻取得管道從以往由國外攜入或網站購買，開始轉變為鋌而走險自行種植，來供自己吸食或販賣牟利。3.大麻吸食者的查緝不易，導致容易產生犯罪黑數。4.麻在台灣市場上價格不斐，為謀取暴利容易引發相關犯罪行為。



台灣緝獲大麻之現況

- 2018年10月16日台中港務警察總隊查獲國內首見內裝含THC（四氫大麻酚）大麻成分的軟糖及大麻油的電子菸霧化器濾嘴，並起出13公斤多的「貴族毒品」大麻花，市價高達4千多萬元，同時逮捕兩名林姓嫌犯。警方表示，兩嫌以國際快遞、飯店收件方式，逃避警方追緝，從加拿大走私大麻至國內販售，並試圖引進新型的大麻軟糖及電子菸霧化器濾嘴至國內市場試水溫，遭財政部關務署台北關發現，警方並會同檢調等進一步追查才破獲。(2018-10-16 11:18:04自由時報記者歐素美報導)



<https://news.ltn.com.tw/news/society/breakingnews/2582036>

2018-10-16 11:18:04自由時報記者歐素美翻攝 台中港務警察總隊、台北關查獲

台灣緝獲大麻之現況

2018年12月12日海巡台東查緝隊與警方今天宣布破獲種植大麻案件，起獲794株大麻活株、7公斤重的乾燥大麻，以及相關成品及栽種工具等，市值達2億3千萬元，可供數十萬人次吸食。張姓（60歲）及陳姓（68歲）主嫌被依毒品危害防制條例製造第二級毒品罪，羈押禁見獲准。

資料來源:三立新聞網2018年12月12日

下午8:05記者陳啓明／台東報導



台灣緝獲大麻之現況案例

NOWnews 今日新聞 Reporter記者李春台 / 桃園報導

發布時間 2020年1月10日 12:43

航警局安全檢查大隊與關務署臺北關在去年12月28日5時左右，在桃園機場進行託運行李X光檢查勤務，發現加拿大入境班機之外籍華人旅客危姓男子託運的1件行李影像可疑，因此會同關務署臺北關會進行更深入的檢查，當場於該2件託運行李箱內各查獲第二級毒品大麻，共計20包，毛重20,077公克，估計市價約達3000萬元。

航警局指出，這名危姓男子自稱受到不知名外籍男子委託，以新台幣4萬元代價，並由對方提供食宿與機票，為這名男子攜帶這批大麻花入境台灣。這次將**大麻花壓製成普洱茶餅**想闖關入境，毒販以及協助運毒的危男可能認為這樣的偽裝可以騙過緝毒人員以及X光機的檢查，才大膽地放在行李箱中託運。



Source: <https://www.nownews.com/news/20200110/3873797/>

台灣緝獲大麻之現況案例

中央社記者郝雪卿台中01/21/2020日電報導
台中市警察局刑警大隊宣布在太平區一處透天民宅查獲大麻植株53株，採收的大麻再送到大里區的廠房加工、包裝，工廠內還飼養5隻美國惡霸犬看門，增加警方查緝困難度。警方共起出大麻成株53株、大麻種子57顆、成品大麻花5包、栽種工具一批、肥料、真空袋、封口機、研磨器等，並將詹男（43歲）、王男（53歲）等人依違反毒品危害防制條例罪嫌移送偵辦。（編輯：黃世雅）

1090121



貳、大麻之意涵、成分、來源與管制

1.Cannabis或Marijuana大麻：

是雌性大麻的花與毛狀體製成的醫用或娛樂用的藥物，主要分為**Sativa**（Cannabis sativa）、**Indica**（Cannabis indica）和結合兩者特點的雜交大麻（英語：**hybrid cannabis**）三種栽培品種。其主要作用於精神方面的成份為四氫大麻酚（tetrahydrocannabinol，縮寫THC），而大麻亦含有超過423種已知化合物，其中包括至少65種其他大麻素，例如大麻酚（cannabinol，簡稱CBN）、大麻二酚（cannabidiol，簡稱CBD），他們所產生的感官影響與四氫大麻酚所產生的精神影響有明顯的差異（維基百科 <https://zh.wikipedia.org/wiki/%E5%A4%A7%E9%BA%BB>）

2.Cannabis sativa:是大麻屬植物的物種之一，大麻使用者慣稱Sativa。Sativa的藥效多作用在大腦，吸食的時候會產生一種令人欣快而振奮的感覺。Sativa在高THC低CBD的基礎上與Indica相比，**擁有相對較低的四氫大麻酚（THC）含量和相對較高的大麻二酚（CBD）含量**，所以多數醫用大麻使用了Sativa或Sativa的雜交種，例如Bedrocan。

（維基百科https://zh.wikipedia.org/wiki/%E5%A4%A7%E9%BA%BB_%E7%89%A9%E7%A7%8D）

貳、大麻之意涵、成分、來源與管制

3.Cannabis indica: 印度大麻（學名Cannabis indica）是大麻的亞種，俗稱Indica、
私型大麻、私稻大麻。莖、葉與花含有豐富四氫大麻酚（THC）（維基百科
https://zh.wikipedia.org/wiki/Cannabis_indica）

4.HEMP麻類植物:

是大麻學名(Cannabis sativa) 的變種之一，俗稱漢麻、火麻、麻。該變種
目前商業種植的品種都是THC含量<0.3%的一種經濟作物。火麻纖維可以進
行紡織，也可製造紙、生物降解塑料、建築材料、食品、動物飼料以及燃
料等有用物資。主要用作工業的火麻可稱為工業大麻。火麻種子可以做成
藥材火麻仁，中醫用來治療便秘、腹瀉；火麻仁也可以榨取火麻油用作烹
飪，這類火麻可稱為食用大麻。（維基百科 <https://zh.wikipedia.org/wiki/%E7%81%AB%E9%BA%BB>）

貳、大麻之意涵、成分、來源與管制

大麻二酚（CBD）

- 據衛福部於公共政策平台所回應之內容，大麻二酚並未有影響大腦精神的作用，為大麻素中最主要的non-psychoactive成分，在台灣並非屬管制藥品
- CBD為醫療用大麻的最重要成分之一，根據研究發現CBD有治療癲癇、抗思覺失調、抗焦慮恐慌、抗發炎等功效

四氫大麻酚（THC）

- 一般為國內外文獻及研究對於大麻影響精神活性物質的主要探討成分，於我國為二級管制藥品。
- 一般THC含量大於0.5%之大麻稱毒品大麻，THC小於0.3%為工業大麻。
- 施用者易產生愉快的欣快感及放鬆感，並提高感官的功能、錯亂了對時間的感知。

CANNABIS HAS OVER 100+ CANNABINOIDS

two commonly known ones are:

header4

CBD
NON-PSYCHOACTIVE

THC
PSYCHOACTIVE
(GETS YOU "HIGH")



HEMP

MARIJUANA

contains
**0.3%
THC**
(OR LESS)

contains
**15-20%
THC**
(TYPICALLY)



貳、大麻之來源、成份與管制

國內所見的大麻及其製品大多未能有效的分離出僅有CBD物質的大麻，因此國內大麻大多仍為將對大腦及精神造成負面影響的非法物質，縱使醫療性大麻對人體或有益處，但國內所見的大麻仍將對人體造成不可逆的傷害及危害。

對記憶力及工作記憶造成損害

每日的大麻使用量將和認知表現呈現負相關

與心血管疾病相關且將造成極嚴重的死亡率和危害

具有一定的程度之成癮及濫用危害性

懷孕期間使用大麻，可能導致胎兒成長受限、早產、死胎和大腦發育問題

大麻成癮性對於使用大麻後的暴力行為具有顯著影響

進階理論說明大麻將作為硬性毒品使用的跳板

駕駛汽車方面，會造成反應較慢、車道偏離、協調性降低，對於道路的信號和聲音反應困難

貳、大麻之來源、成份與管制

- 依據毒品危害防制條例之規定，大麻(Cannabis、Marijuana、Marihuana)及其製品，例如：大麻脂(Cannabis resin)、大麻浸膏(Cannabis extracts)、大麻酊(Cannabis tinctures)及具發芽活性之大麻種子(Cannabis seeds that are capable of germination)及以大麻熟成莖及種子製成之製品中四氫大麻酚(Tetrahydrocannabinols, THC_s)含量超過10ug/g(10ppm)者，以第二級毒品列管。
- 依同條例第4條規定，旅客違法攜帶(運輸)第二級毒品者，處無期徒刑或7年以上有期徒刑，得併科新臺幣1,000萬元以下罰金。
- 資料來源:財政部台北關<https://taipei.customs.gov.tw/News>

貳、大麻之來源、成份與管制

報導者(The Reporter)陳潔(2020/05/07)指出2017年時，衛生福利部食品藥物管理署僅開放無成癮性的大麻二酚（**CBD**）成分藥品、但未核可任何藥物在台上市，患者須以個人使用方式向食藥署提出申請自行進口。衛生福利部食品藥物管理署今（5月7日）正式公告，通過開放區域級以上教學醫院可專案申請**10 ppm**高純度四氫大麻酚（**THC**）成分藥物，用於治療**2**種頑固性癲癇的罕見疾病患者。

資料來源:<https://www.twreporter.org/a/cannabis-for-medical-use-usa-experience>



叁、大麻查緝量增加與流行原因



肆、大麻合法化與除罪化等之爭議

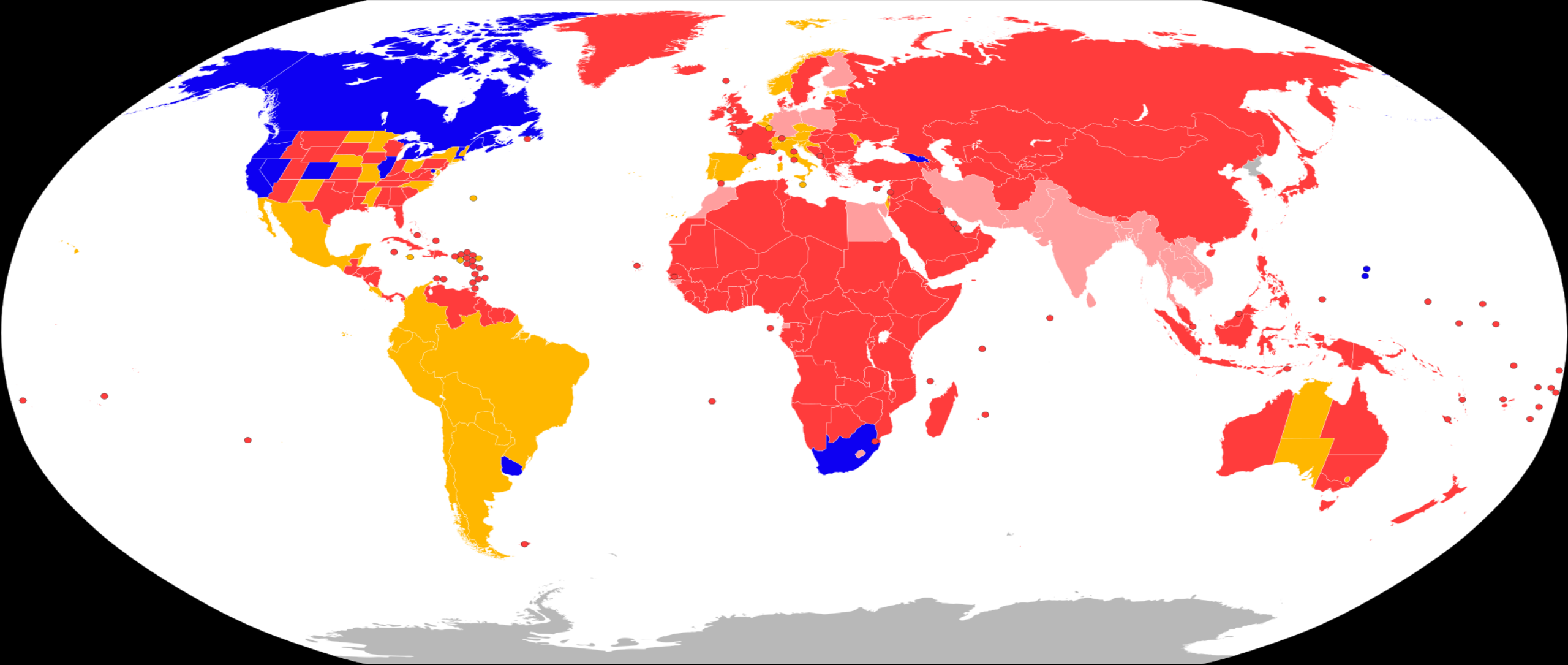
隨著世界各國逐漸放棄以嚴刑峻法打擊毒品犯罪，毒品自由化之主張成為國際毒品政策常見爭議之一。毒品自由化可分為「毒品合法化」、「毒品除罪化」等模式。

- **毒品合法化**：完全承認施用、持有、生產及販賣毒品屬合法權利，主張透過市場機制控管毒品。
- **毒品除罪化**：不再視毒品施用、持有或微量交易為刑事犯罪，改以行政處罰等替代措施懲處其違法行為。

全球毒品政策之核心已逐漸由犯罪問題之防制轉為公共衛生之防治。毒品除罪化確實有助於撕下藥癮者身上之不良標籤，提高藥癮戒治處遇參與意願，對於再犯率與吸毒致死率之改善亦有所成效。

然而，毒品除罪化卻未能有效降低毒品施用與販賣之比例，對於毒品問題之管控並未比過往之查禁策略有效。





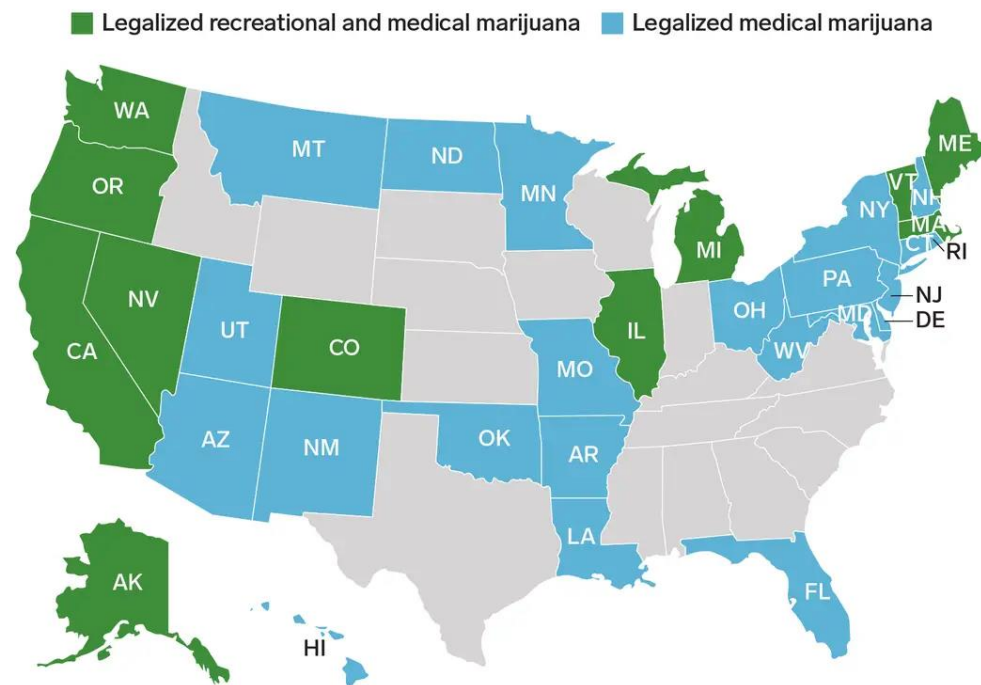
Legal status of cannabis possession for non-medical use (2018) Data taken from Wikipedia: Legality of cannabis.

- Legal
- Illegal but [decriminalized](#)
- Illegal but often [unenforced](#)
- Illegal

國際間大麻除罪化之立法情形

- 美國
- 加州：在 2010 年修法將大麻部分除罪化，癌症患者可使用大麻減輕因化療帶來不適；但持有大麻仍是違法行為，將被處以 100 美元的罰金，不會被判有期徒刑。
- 華盛頓502 號提案（Initiative 502）：州民公投表決 502 號提案，55.96%贊成通過提案，成為全美第一個大麻合法化的州，年滿 21 歲的成年人，可在華盛頓州合法購買和持有 1 盎司娛樂性大麻。但聯邦當局仍視大麻為非法毒品(許春金等，2013)。

States where marijuana is legal



BUSINESS INSIDER

Source: <https://www.businessinsider.com/legal-marijuana-states>
Jeremy Berke and Skye Gould Jan 1, 2020, 9:41 PM

國際間大麻除罪化之立法情形

美國

1. 2018年1月，在美國加州，21歲及以上的成年人可以種植六株大麻，並合法擁有一盎司的大麻。之前娛樂性大麻合法化之州別包括科羅拉多、華盛頓、俄勒岡、阿拉斯加、內布拉斯加及首都華盛頓市。

2. 2018年12月6日密西根州年滿21歲成人，可在該州購買消費大麻。每家最多種植12株大麻供個人使用；每戶可最多持有10盎司。密西根州成為美國第10個娛樂大麻合法州(2018-12-29由藤發表于環球; <https://kknews.cc/zh-mo/world/14r56qb.html>)

3. 在2020年4月前有16州對非醫療用途之大麻使用除罪化，並有11州合法化
(https://en.wikipedia.org/wiki/Decriminalization_of_non-medical_cannabis_in_the_United_States)

美國各級政府開放大麻合法的4種階段

第一階段： FDA核可大麻藥物	第二階段： 醫用大麻製品合法	第三階段： 醫用大麻花合法	第四階段 娛樂用大麻合法
與一般藥物相同，需通過研究、臨床試驗上市、療效及安全性都已認證，目前僅4款藥物，用來治療小兒癲癇、緩解噁心嘔吐、增加食慾等。聯邦政府仍將大麻視為一級管制藥品。	州政府認證可販售的大麻醫療用製品，如錠劑、粉末、大麻油，各項產品中含有不同比例的CBD與THC。 民眾須先由醫師看診取得大麻卡，再至大麻藥局由藥師給藥。	程序與第二階段相同，差別是病患可在藥局取得整株大麻花吸食。	民眾可直接購買大麻花吸食。

資料來源：美國大麻藥師林筱莉、律師李菁琪

資料整理：陳潔

製圖：黃禹禎

國際間大麻除罪化之立法情形

• 荷蘭

• 2004年開始，荷蘭對軟性毒品除罪化，硬性毒品仍維持犯罪化。在荷蘭，毒品施用者不被視為是犯罪人，而是需要協助改善其生理及心理健康的病人。

• 荷蘭的大麻政策：

• 經營者、咖啡店（coffee shop）店長與檢察總長體系內有共識，只要儲藏量未超出政府訂定的標準就不會被起訴，這些標準包括：

• （1）每次交易量不超過 5 克，咖啡店內的庫存量不得超過 500 克；（2）不販售硬性毒品；（3）不廣告毒品；（4）不造成任何紛擾；（5）不販賣含酒精性飲料；（6）不販賣毒品給未成年人（18 歲未滿），未滿 18 歲者不可進入該營業場所。持有和生產供個人施用的大麻是輕罪，可處以罰款。



大麻除罪化立法趨勢

- 2009年2月，巴西、哥倫比亞與墨西哥總統簽署毒品除罪化的宣言。
- 2012年哥倫比亞憲法法院批准了政府對持有毒品除罪化之建議，把少量的可卡因和大麻（20克以下之大麻或1克以下之可卡因）作為個人可以使用的財產。
- 2013年12月烏拉圭通過大麻合法化法案，成為全球第一個合法種植、買賣和吸食大麻的國家。依據新法，民眾每個月最多可透過有執照的藥局購買40公克大麻；消費者必須年滿18歲、具備烏拉圭居民身分，並向政府資料庫登記。當局會透過全國資料庫追蹤民眾的消費量。民眾每年最多可在自家栽植六株大麻供個人使用，最多可生產480公克，但不限制用量。不過大麻不得賣給外國人，也不能運送出境（聯合新聞網及全球中央，2014/04）。
- 葡萄牙:2000年通過新法，個人吸食及持有毒品(1公克海洛因，1公克搖頭丸，2公克古柯鹼，5公克大麻酯，25公克大麻葉)，不視為犯罪行為，他們並非罪犯，只是生病（江靜玲，2015；林明傑，2017）。
- 2018年10月17日加拿大宣布成為大麻合法化國家。部分省規定19或21歲以上才能合法購買、持有或吸食大麻。



Source: <http://news.sohu.com/20140107/n393101987.shtml>



（資料來源:2018/06/21中央社翻攝自Toronto Star）

亞洲國家大麻管制政策

- 在亞洲各國對於一向對於毒品的管制相當嚴格，但受近年來歐美部分國家相繼對於藥用及娛樂性大麻的開放，亞洲的泰國、韓國對於藥用大麻開放政策通過，可以看出亞洲各國開始對於**大麻的態度有所轉變**。
- 亞洲各國對於大麻政策的轉變，其背後是**基於經濟利益的考量**，隨著各國大麻除罪化的趨勢，未來全世界大麻市場需求大增。而美國市場研究中心（GVR）曾公開估算，到2025年底，全球合法大麻市場規模預計將達到663億美元，(Research, 2019)。這就是近年來在亞洲各國引起大麻政策轉變最主要的原因，亦稱為「**綠色淘金潮**」。
- 雖然對於藥用大麻的逐步開放是亞洲各國的趨勢，但是對於**娛樂性大麻**，亞洲地區政策上仍然是**趨向保守**。

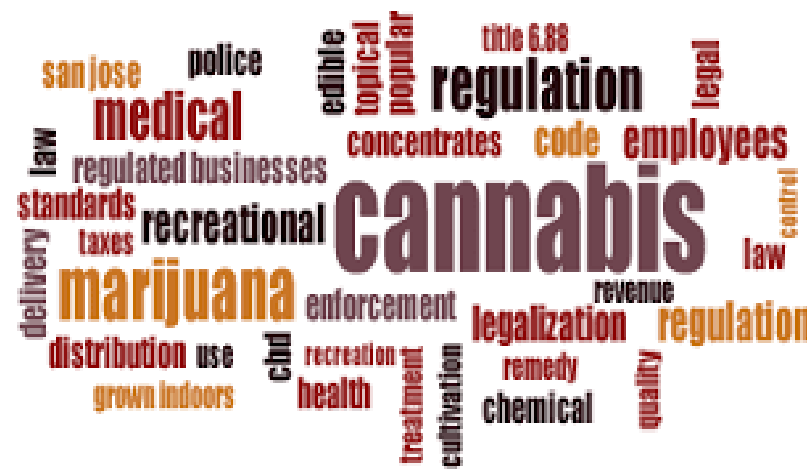
伍、國際麻醉品管制局2018 年報告

- 國際麻管局闡述了醫用大麻方案的風險和益處以及大麻用於“消遣”的問題
- 大麻和大麻素用於醫療方面存在的監管不力和不符合條約現象引起了關切
- 麻管局指出，監管不力的醫用大麻素方案可能會對公共衛生造成不利影響，可能會增加成人非醫療使用大麻的現象。這種方案還有可能削弱公眾特別是年輕人對於使用大麻的風險認知，降低公眾對於所謂“消遣性”大麻使用的關切，從而助長大麻非醫療使用的合法化。
- 大麻和大麻素醫用方案的監管及管控不力的影響
- 監管不力、不符合條約的醫用大麻方案會增加大麻被轉用於非醫療用途的風險，使大麻更為方便可得，包括以價格可能更低，藥效可能更強的形式出現，如各種濃縮產品。麻管局重申，允許將大麻用於醫療用途的各國政府應遵守條約。這包括對醫用大麻的生產和供應保持監管，向麻管局提供本國醫用大麻需要量的估計數，確保醫用大麻素的使用受到醫療監督，防止患者濫用和大麻被轉入非醫療用途。各國政府還應保持完整的藥品監管制度，如果沒有證據證明大麻素對預期的醫療目的是安全和有效的，則不允許將大麻素用於醫療實踐。

- 私人種植藥用大麻有悖於條約；吸食大麻在醫學上不可接受
- 麻管局重申，出於多種原因，私人為醫療用途種植大麻不符合《1961 年公約》：由於消費的四氫大麻酚（THC）在劑量和水準上可能不同於醫療處方，因此會加劇轉用風險，構成健康風險。麻管局申明，從醫學角度看，吸食大麻不是一種獲得大麻素標準劑量的可接受方法，因為大麻植物的成分各不相同，難以規定特定劑量，也因為吸入的大麻煙霧含有致癌物和毒素，對患者構成健康風險。



Report 2018



Source: Division of Cannabis regulation, sjpd.org

Source:

https://www.incub.org/documents/Publications/AnnualReports/AR2018/Press_Kit/press_kit_Chinese.pdf

成癮醫師與專家之呼籲與臨床警示

加拿大Tortono 大學Anita Srivastava 博士(2020)指出，加拿大雖在2019年10月批准可食用大麻、醫療製品及萃取物可在今年稍早銷售，但應注意這些製品之潛在危害，包括過度使用及不可預期之後果。其身為成癮醫學之醫師以及教授認為些可食用之產品影響及年輕人情緒、動機、睡眠及簡化之功能，大麻過度使用將造成心智之混亂及肢體之失能。在美國科羅拉多州，可食用之大麻產品係中毒之主因。在該州因可食用之大麻製品中毒青少年移送至急診室之比例由2009年之每千人1.8人提升至2015年之4.9人。



Chocolates with marijuana will be widely available as edible products are introduced to the market. (Shutterstock) <https://theconversation.com/cannabis-edibles-pose-serious-risks-to-our-kids-130021>



Edible marijuana samples are set aside for evaluation at Cannalysis, a cannabis testing laboratory, in Santa Ana, Calif. THE CANADIAN PRESS/AP/Chris Carlson <https://theconversation.com/cannabis-edibles-pose-serious-risks-to-our-kids-130021>

結論與建議

人們使用藥物需要醫療上協助，而不應以刑事懲罰對待。

取代懲罰，採用替代方式，放棄對毒品施用者的刑事懲罰，取代以罰款等行政處理，並結合醫藥治療和社會服務。

(Global commission on drug policy, 2016)

「以毒品合法化，解除毒害威脅，將是一個歷史性的錯誤。」

非法毒品危害健康，因而毒品仍然必須管控。亦同時呼籲，社會不應在保護公眾健康或公共安全上選擇，而且應兩者兼顧”。而應該投入更多的資源用於藥物濫用預防與治療，以及提出更有力的打擊與毒品相關的犯罪措施 (聯合國毒品與犯罪辦公室主任 Antonio Maria Costa, 2009)



www.shutterstock.com · 498070750

<https://www.shutterstock.com/search/decriminalization>



新興毒品(NPS)國際現況、管制與挑戰

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大綱

- 前言:何謂新興毒品？
- 國際新興毒品現況、分類與管理概況
- 新興毒品的問題:藥毒理與治療問題、社會問題
- 國際與我國對新興毒品管理的態度
- 結語

前言：何謂新興毒品？

- 新興毒品或新興影響精神物質 (New Psychoactive Substances, NPS) 定義：聯合國毒品與犯罪辦公室(UNODC) 使用 “new psychoactive substances (NPS)” 這個專有名詞，係指 “濫用的物質沒有被 1961 年「麻醉藥品單一公約」或 1971 年「影響精神物質公約」所列管，但是其濫用會在某期間造成公共衛生威脅者”。
- 所謂的 “新” 不一定是新發明，有些 NPS 是在 40 多年前被首先合成，只是到近幾年才造成濫用，因此沒有被上述聯合國公約所列管。

國際成癮物質管控：聯合國三大反毒公約

1961年麻醉藥品單一公約

嗎啡、海洛因、大麻、古柯...等麻醉藥品

1971年影響精神物質公約

影響精神物質(如安非他命等化學合成物質)

1988年禁止非法販運麻醉藥品和精神物質公約

先驅化學品(如麻黃鹼等)

1988年禁止非法販運麻醉藥品和精神物質公約

<i>Table I</i>	<i>Table II</i>
<i>N-acetylanthranilic acid</i>	<i>Acetic anhydride</i>
<i>Ephedrine</i>	<i>Acetone</i>
<i>Ergometrine</i>	<i>Anthranilic acid</i>
<i>Ergotamine</i>	<i>Ethyl ether</i>
<i>Isosafrole</i>	<i>Hydrochloric acid</i>
<i>Lysergic acid</i>	<i>Methyl ethyl ketone</i>
<i>3, 4-methylenedioxyphenyl-2-propanone</i>	<i>Phenylacetic acid</i>
<i>1-phenyl-2-propanone</i>	<i>Piperidine</i>
<i>Piperonal</i>	<i>Potassium permanganate</i>
<i>Pseudoephedrine</i>	<i>Sulphuric acid</i>
<i>Safrole</i>	<i>Toluene</i>

新興毒品 (NPS)

- 市面上常以 ‘**designer drugs**’, ‘**legal highs**’, ‘**herbal highs**’, ‘**bath salts**’, ‘**research chemicals**’, ‘**laboratory reagents**’來指稱
- 這些不同類別的合成物質一開始時都是因為學者的研究興趣或藥廠的研發成果，但是卻逐漸演變成非法的製造，例如**AM**系列為Alexandros Makriyannis (Northeastern University in Boston之生物技術及生物有機化學教授)姓名的縮寫，**JWH** 系列為當初合成者John W Huffman(Clemson University有機化學教授)姓名的縮寫，**CP**系列係由Pfizer 藥品公司所研發合成的，**HU**系列則由Hebrew University 的研究團隊所研發合成
- 由於 NPS 檢驗需具備法醫實驗室的檢驗能力，而大部分的 NPS 迄今並非法定檢驗項目，因此 **NPS不容易被發現**，是故部分國家未向 UNODC 通報有關 NPS 的濫用資訊，不表示該國沒有 NPS 濫用問題
- 在毒品交易市場所提供的 NPS 很多是與國際公約列管物質具有相似藥效或化學結構類似物質

例如：synthetic cannabinoids(包括 JWH ,AM, CP等系列，如：JWH-018) 具有與大麻主要影響精神物質成分 THC(delta-9-tetrahydrocannabinol)相仿的結構； Synthetic cathinones 物質(如：mephedrone喵喵、methyline 和 MDPV浴鹽等)，能引起類似 ATS(包括 MDMA)的興奮作用；Phenethylamines 物質(包括 安非他命衍生物，2C 等系列，如：2C-I)、NBOMe化合物(如：25I-NBOMe)會產生迷幻作用，這些物質目前僅少數如安非他命、甲基安非他命、MDMA 等項目被聯合國 公約列管

NPS常多重混用，我國早在2004年台美合作研究即發現 Trinity(三合一：搖頭丸、ketamine和大麻)現象

J Ethn Subst Abuse. 2008 ; 7(3): 237–257.

Dinosaur girls, Candy girls, and Trinity: Voices of Taiwanese Club Drug Users

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Abstract

Research among Asian MDMA users is rare. To evaluate the feasibility of a study on abuse/dependence on Ecstasy, two focus groups with users (n=12) and one with health professionals (n=7) were conducted in Taiwan. Major results included blatant human testing with “candy/dinosaur girls” and a specific sequence of use called “Trinity” (MDMA, Ketamine, and marijuana). “Head-shaked bars” and “KTVs” were public places where illegal behaviors were implicitly allowed. Depression after MDMA use was not reported. For future studies, participants suggested that MRI could be a strong incentive for young users to enhance willingness to participate. Cultural issues are discussed.

國際新興毒品現況、分類與管理概況



World Drug Report 2019

Vienna, 19 June 2019

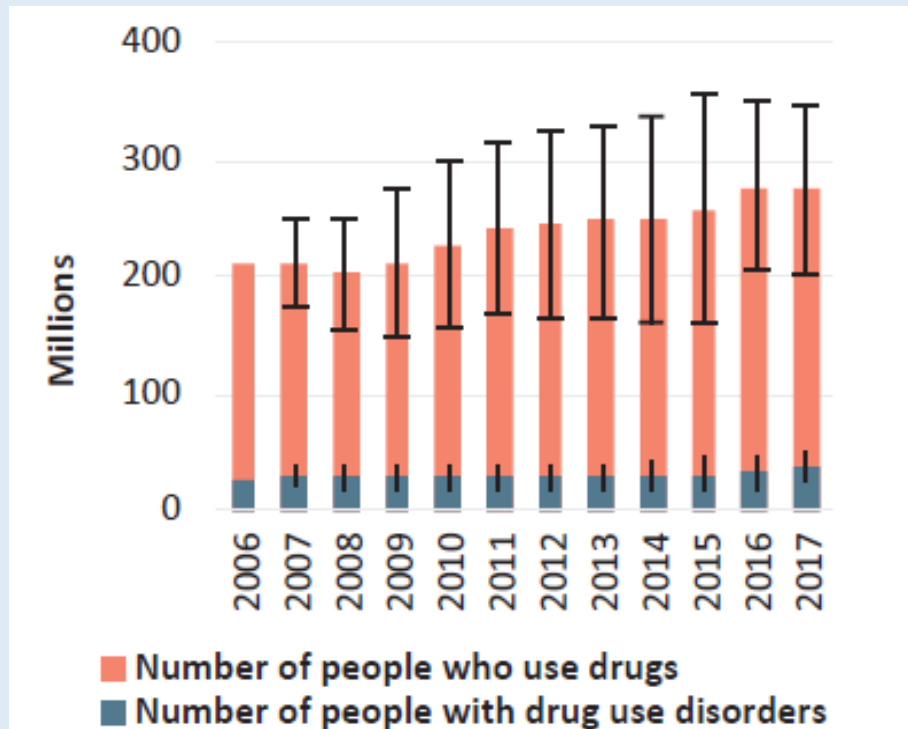
DRUG USE

In 2017, an estimated 271 million people worldwide aged 15–64 had used drugs at least once in the previous year

This corresponds to 5.5 % of the global population aged 15–64, representing one in every 18 people.

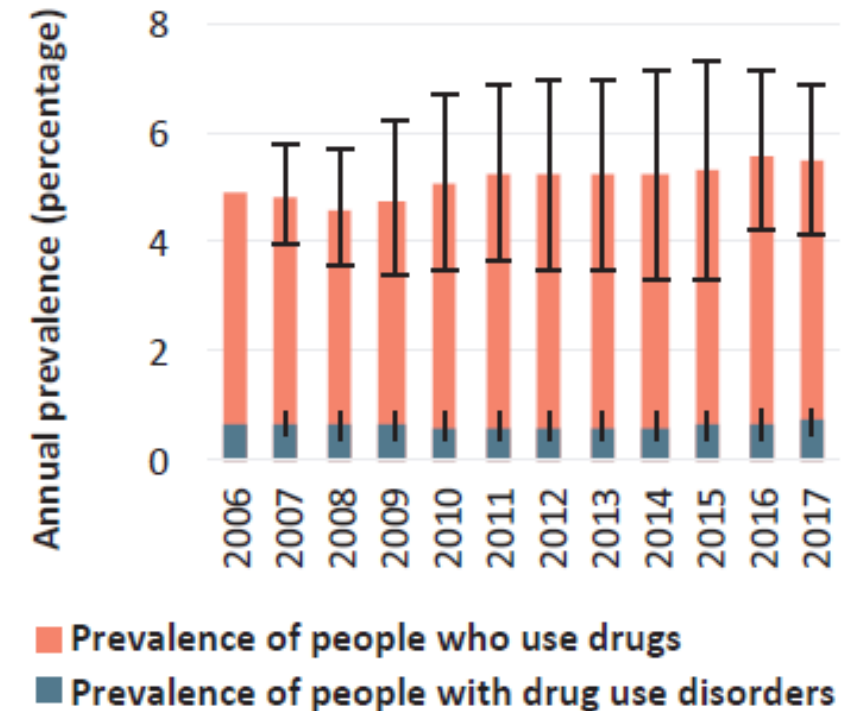
35.0 million, or almost 13 %, are estimated to suffer from drug use disorders

Global trends in the estimated number of people who use drugs and those with drug use disorders, 2006–2017



Source: UNODC, responses to the annual report questionnaire.
Note: Estimates of people who use drugs are for adults (aged 15–64) who used drugs in the past year.

Global trends in the estimated prevalence of drug use and drug use disorders, 2006–2017



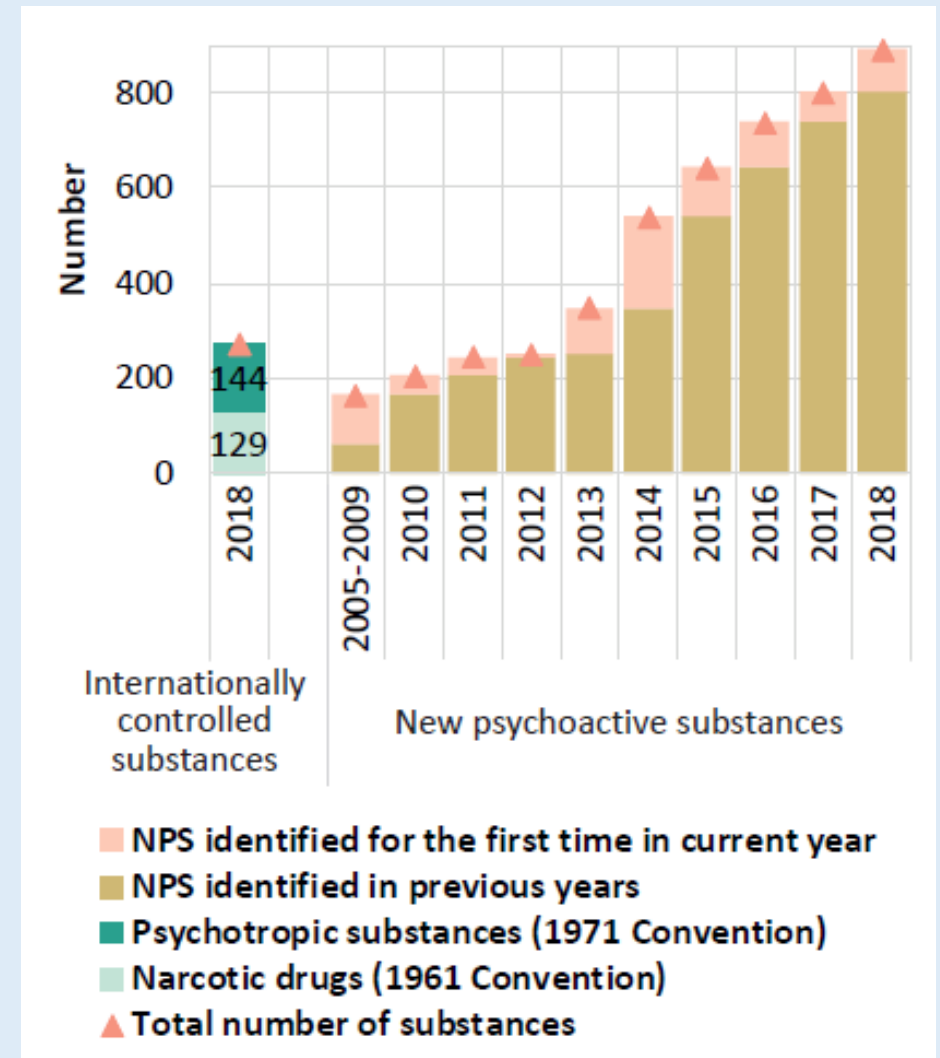
Source: UNODC, responses to the annual report questionnaire.
Note: Estimated percentage of the annual prevalence of drug use is for adults (aged 15–64) who used drugs in the past year.

Internationally controlled drugs in 2018 and identified new psychoactive substances at the global level, 2005–2018 (cumulative)

Following the decision by the Commission on Narcotic Drugs in March 2018 to schedule another six substances under the Single Convention on **Narcotic Drugs of 1961** as amended by the 1972 Protocol and a further six substances under the Convention on **Psychotropic Substances of 1971**, **273 psychoactive substances** were under international control at the end of 2018.

By comparison, the number of NPS identified by authorities worldwide and reported to the UNODC early warning advisory is already three times higher, having reached **a total of 892 substances in December 2018**, up from 166 in 2009.

Not all NPS identified may merit being put under international control, as taking such a step depends on the harm they can cause as well as their persistence on the market: some only emerge for a short period of time and then disappear from the market.

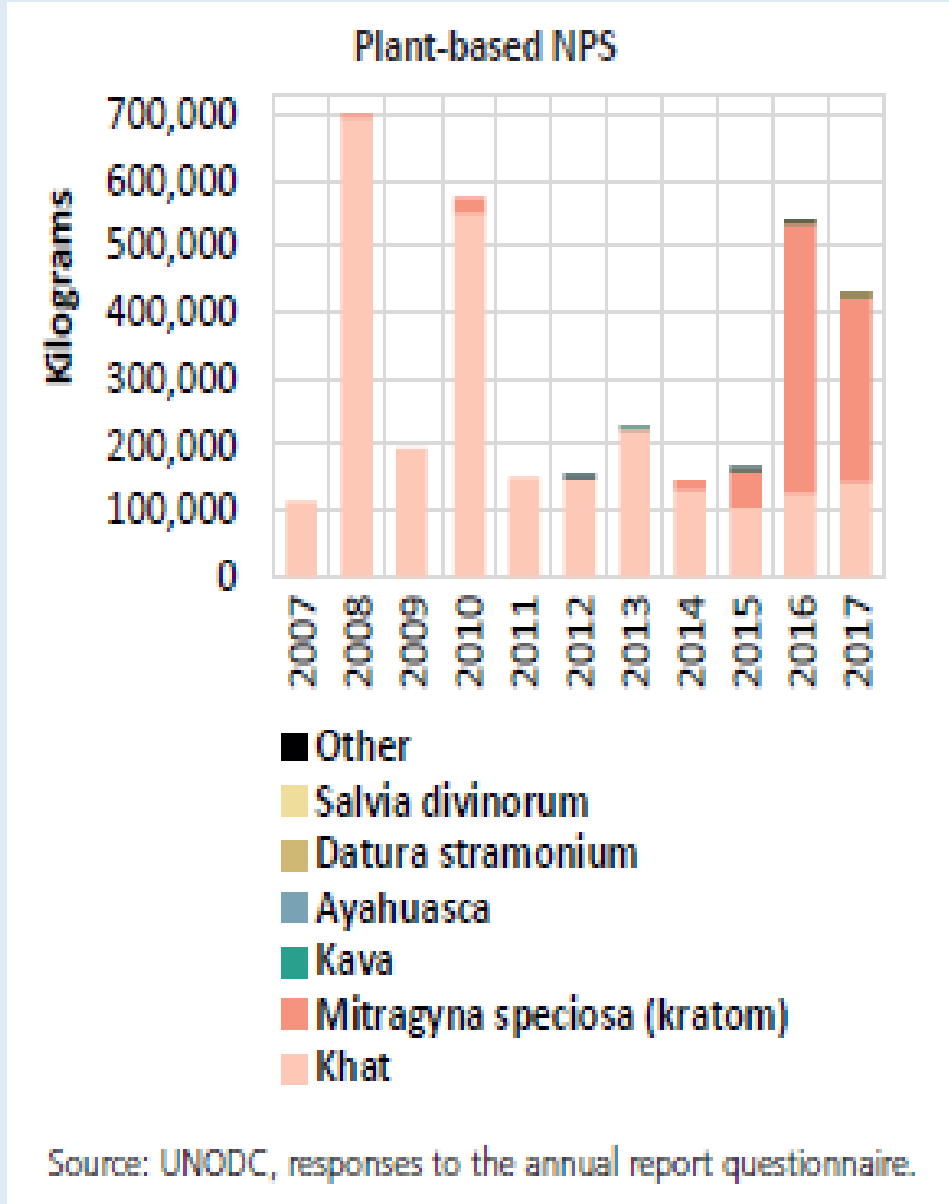


NPS 種類

- Aminoindanes
- Synthetic cannabinoids (合成大麻素)
- Synthetic cathinones (合成卡西酮)
- Ketamine(愷他命) 及 Phencyclidine (PCP)
- Piperazines
- Phenethylamines:除安非他命類(ATS)外，多未被列管
- Plant-based substances(植物性成癮物質)
 - e.g., Kratom, Salvia, Khat
- Tryptamines
- Others

Seizures of plant-based NPS reported to UNODC shows the growing importance of kratom in 2016 and 2017, while the amount of khat seized globally has remained largely stable in recent years.

Khat was seized by 52 countries across all regions over the past decade, interceptions of kratom were reported by six countries, mostly in South-East Asia.



New Psychoactive Substances of Natural Origin : NPS有天然來源，也常是Synthetic NPS的模板

JOURNAL OF FOOD AND DRUG ANALYSIS 25 (2017) 461–471

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Review Article

New psychoactive substances of natural origin: A brief review

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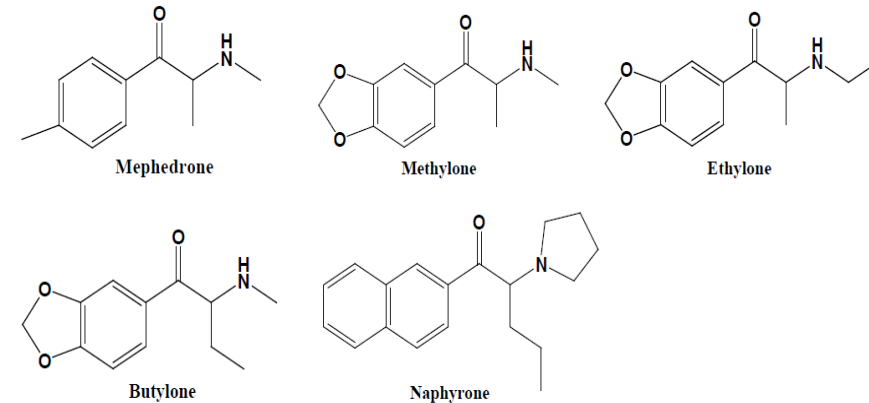
ABSTRACT

Plant-based drugs of abuse are as old as recorded human history. Although traditional addictive substances, such as opium, cannabis and coca, have been controlled by the United Nations anti-drug conventions, many, if not most, natural plants with addictive or abuse liability remain elusive. Therefore, the United Nations Office on Drugs and Crime (UNODC) has warned the emerging threat from new psychoactive substances (NPS), which are mostly derived or modified from the constituents of natural origin. For example, synthetic cannabinoids and synthetic cathinones are derived from the cannabis and khat plant, respectively. In this review, we briefly discussed the chemistry, pharmacology and toxicology of five common NPS of natural origin, i.e., khat, kratom, salvia, magic mushroom and mandrake. Through the review, we hope that professionals and general public alike can pay more attention to the potential problems caused by natural NPS, and suitable control measures will be taken.

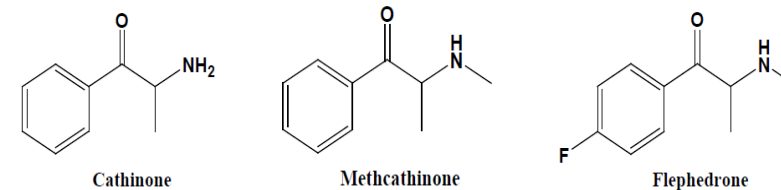
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Three types of Cathinones

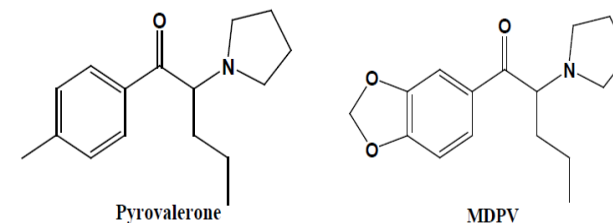
(1) Cocaine-MDMA-mixed cathinones



(2) Methamphetamine-like cathinones



(3) Pyrovalerone-cathinones



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Original Article

Quantitative determination of salvinorin A, a natural hallucinogen with abuse liability, in Internet-available *Salvia divinorum* and endemic species of *Salvia* in Taiwan



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Salvia divinorum
(墨西哥鼠尾草):
含有迷幻成分
Salvinorin A



Fig. 1 – Dried leaves and related products of *Salvia divinorum* purchased from the Internet in Taiwan. (A) Dry leaves of *S. divinorum*; (B) *S. divinorum* 100fx; (C) *S. divinorum* 30fx.

Research Article

**Following “the Roots” of Kratom (*Mitragyna speciosa*):
The Evolution of an Enhancer from a Traditional Use to Increase
Work and Productivity in Southeast Asia to a Recreational
Psychoactive Drug in Western Countries**

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Darshan Singh,³ Zsolt Demetrovics,⁴ Andres Roman-Urrestarazu,^{5,6}
Francesco Saverio Bersani,^{1,7} Balasingam Vicknasingam,³ Giulia Piazzon,¹
Jih-Heng Li,⁸ Wen-Jing Yu,⁸ Máté Kapitány-Fövényi,^{4,9,10} Judit Farkas,^{4,10}
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The use of substances to enhance human abilities is a constant and cross-cultural feature in the evolution of humanity. Although much has changed over time, the availability on the Internet, often supported by misleading marketing strategies, has made their use even more likely and risky. This paper will explore the case of *Mitragyna speciosa* Korth. (kratom), a tropical tree used traditionally to combat fatigue and improve work productivity among farm populations in Southeast Asia, which has recently become popular as novel psychoactive substance in Western countries. Specifically, it (i) reviews the state of the art on kratom pharmacology and identification; (ii) provides a comprehensive overview of kratom use cross-culturally; (iii) explores the subjective experiences of users; (iv) identifies potential risks and side-effects related to its consumption. Finally, it concludes that the use of kratom is not negligible, especially for self-medication, and more clinical, pharmacological, and socioanthropological studies as well as a better international collaboration are needed to tackle this marginally explored phenomenon.

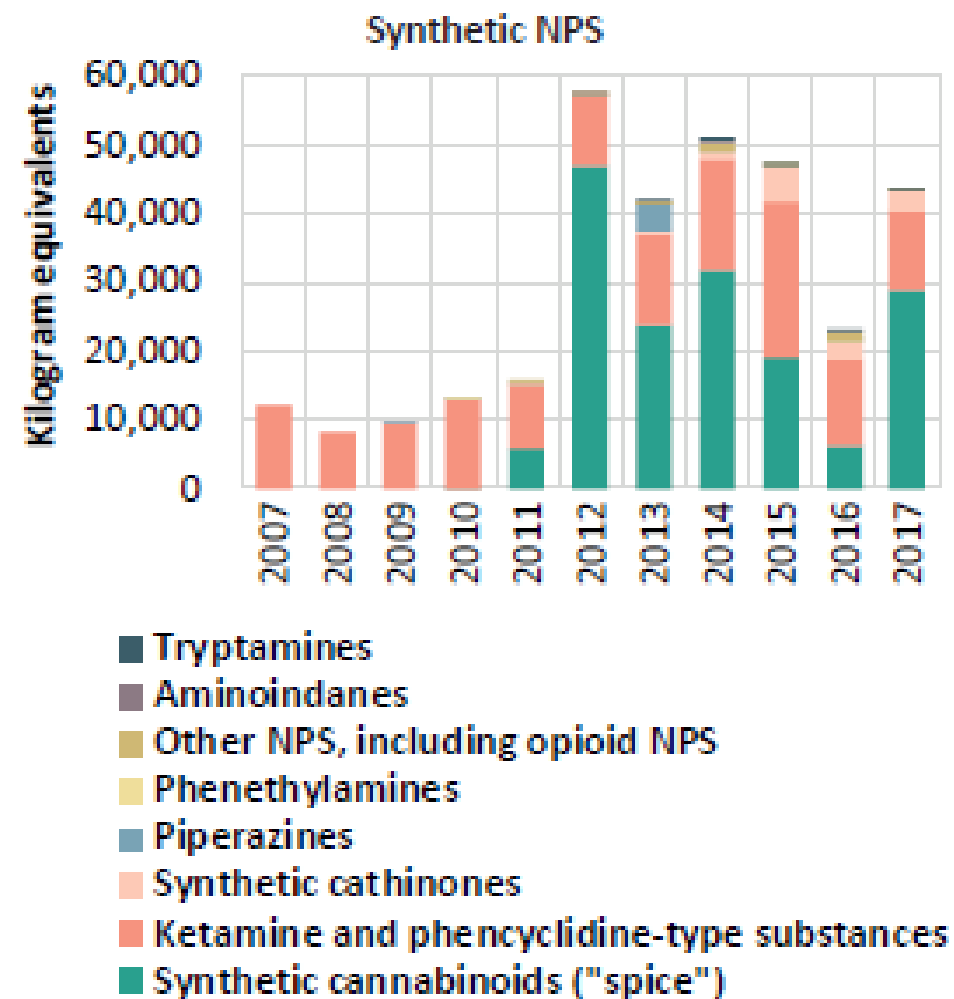
TABLE 1: Report of adverse/toxicological effects of kratom.

Short time use effects	Nausea, constipation, sleep problems, temporary erectile dysfunction, itching, or sweating
Long time use effects	Anorexia, dry mouth, problems in diuresis, darker skin, and hair loss
Withdrawal symptoms	Hostility, aggression, aching of muscles and bones, jerky movements of the limbs, anorexia and weight loss, and insomnia
Infrequent effects	Seizures (individuals using high doses of kratom, either alone or combined with other drugs), intrahepatic cholestasis, psychotic symptoms, Adult Respiratory Distress Syndrome, and hypothyroidism
Fatalities	Kratom mixed with other substances: O-desmethyltramadol; propylhexedrine; over-the-counter cold medications and benzodiazepines; venlafaxine, diphenhydramine, and mirtazapine; zopiclone, citalopram, and lamotrigine

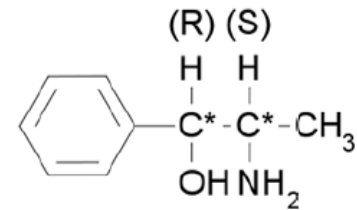
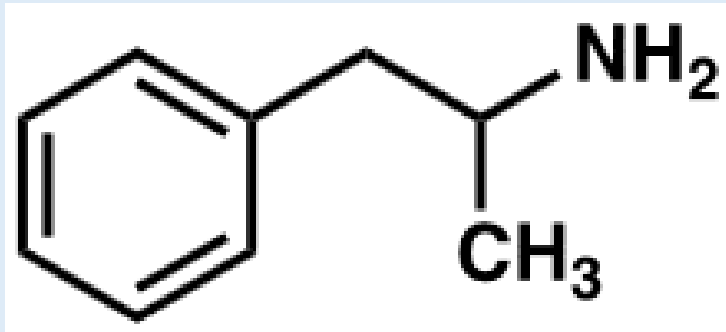
66 countries across all regions reported seizures of synthetic NPS to UNODC over the period 2007–2017, rising from 15 countries in 2007 to 45 countries in 2017.

Most of the quantities of synthetic NPS seized were reported in the Americas (mostly North America), followed by Asia (mostly East and South-East Asia) and Europe (Western and Central Europe and Eastern Europe).

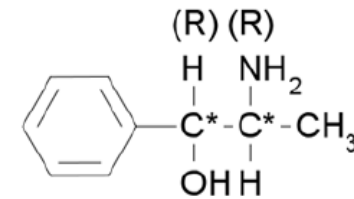
Data also indicate the dominance of synthetic cannabinoids within the seizures of synthetic NPS throughout the second decade of the new millennium. These were followed by ketamine and synthetic cathinones over the period 2014–2017.



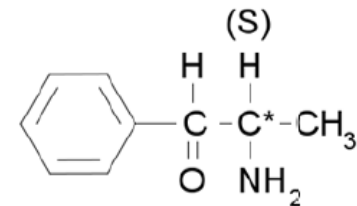
NPS若以藥理作用分，具有興奮劑(stimulants)作用者，類似Amphetamine類，例如 卡西酮類(Cathinones) 和 苯乙胺類(phenethylamines)



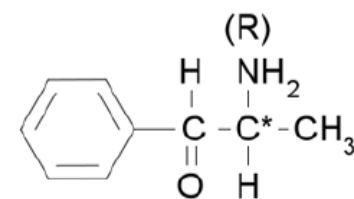
R/S-(-)-Norephedrine and
S/S-(-)-Norpseudoephedrine
(+)-Cathine



R/R-(-)-Norpseudoephedrine



S-(-)-Cathinone
[S-(-)-alpha-aminopropiophenone]

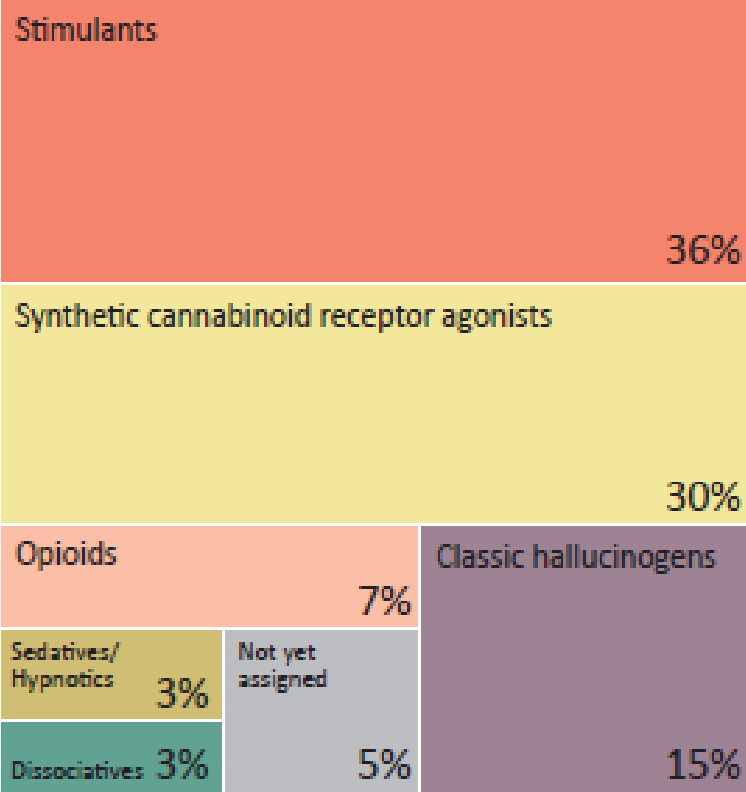


R-(+)-Cathinone

Data show that **36 %** of the synthetic NPS substances identified over the period 2009–2018 had **stimulant effects**. Most of them were **cathinones and phenethylamines**. **Thirty %** of the synthetic NPS were **synthetic cannabinoids receptor agonists** and **15 %** could be considered **classic hallucinogens (mostly tryptamines)**.

The main concern for the authorities in a number of countries, however, has been the emergence of **new synthetic opioid receptor agonists (opioid NPS)** in recent years, often **fentanyl analogues**. They prove to be particularly harmful, leading to growing numbers of NPS-related deaths, in particular in North America and, to a lesser extent, in Europe. Over the period 2009–2018, about 7 per cent of all identified NPS were opioid NPS.

FIG. 28 Proportion of identified synthetic new psychoactive substances by effect group, as of December 2018 (N = 868)



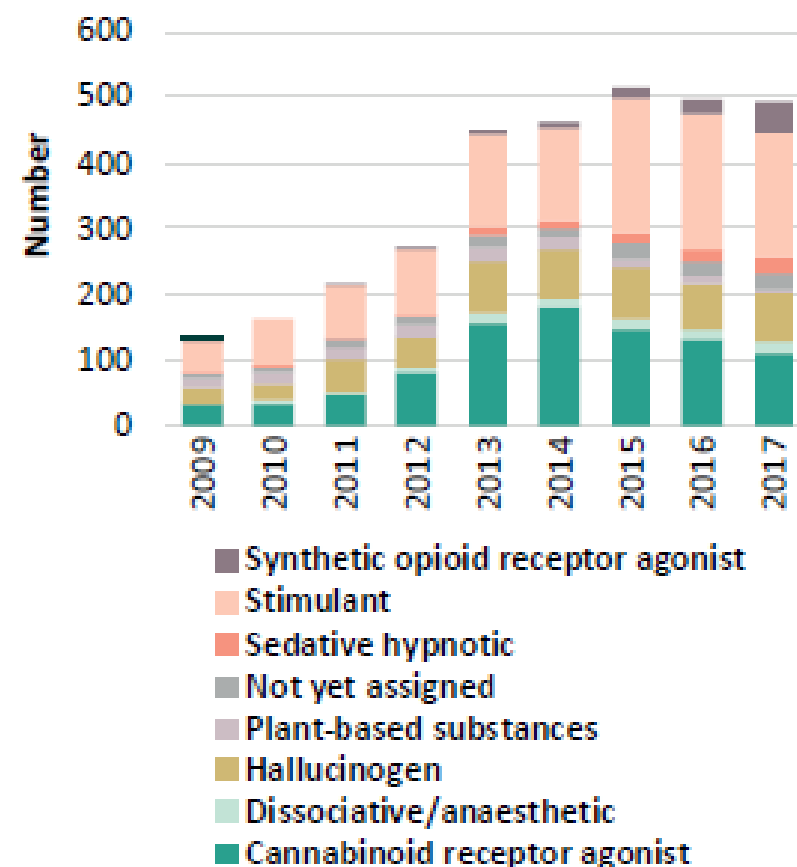
Source: UNODC early warning advisory on new psychoactive substances.

Note: The total number of NPS amounted to 892 substances, including 868 synthetic NPS. The analysis of the pharmacological effects comprises NPS registered up to December 2018 (868 substances). Plant-based substances were excluded from the analysis as they usually contain a large number of different substances, some of which may not have been known and whose effects and interactions are not fully understood.

The analysis of NPS identified annually by the forensic laboratories of national authorities and reported to the UNODC early warning advisory suggests a proliferation of individual NPS up until 2015 and a subsequent trend towards a stabilization in the number of new substances arriving on the market, at a rate of about 500 NPS per year (492 in 2017).

While recent years have seen a **decrease in the number of new synthetic cannabinoids** arriving on the market, the number of **NPS with stimulant effects has increased** and, in relative terms, the number of newly emerging **opioid NPS has risen sharply**, from just 1 substance in 2009 to 15 in 2015, 22 in 2016 and 46 in 2017. Those increases are equivalent to an increase of less than 1 per cent of all identified NPS in 2009, 4 per cent in 2016 and 9 per cent in 2017.

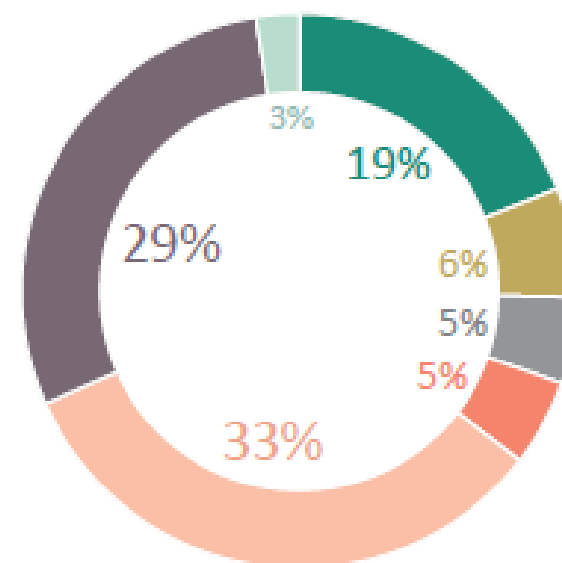
FIG. 29 Synthetic new psychoactive substances reported annually to UNODC, 2009–2017, by psychoactive effect group



Source: UNODC early warning advisory on new psychoactive substances.

Of the 78 NPS that emerged for the first time at the global level in 2017, synthetic opioid receptors agonists accounted for 29 per cent of the total, slightly less than the percentage of NPS with **stimulant effects**, which accounted for 33 per cent, but more than the percentage of cannabinoids receptor agonists (19 per cent).

FIG. 30 Synthetic new psychoactive substances reported for the first time at the global level in 2017 (N = 78)



- Synthetic opioid receptor agonist
- Hallucinogen
- Not yet assigned
- Sedative hypnotic
- Stimulant
- Cannabinoid receptor agonist
- Dissociative/anaesthetic

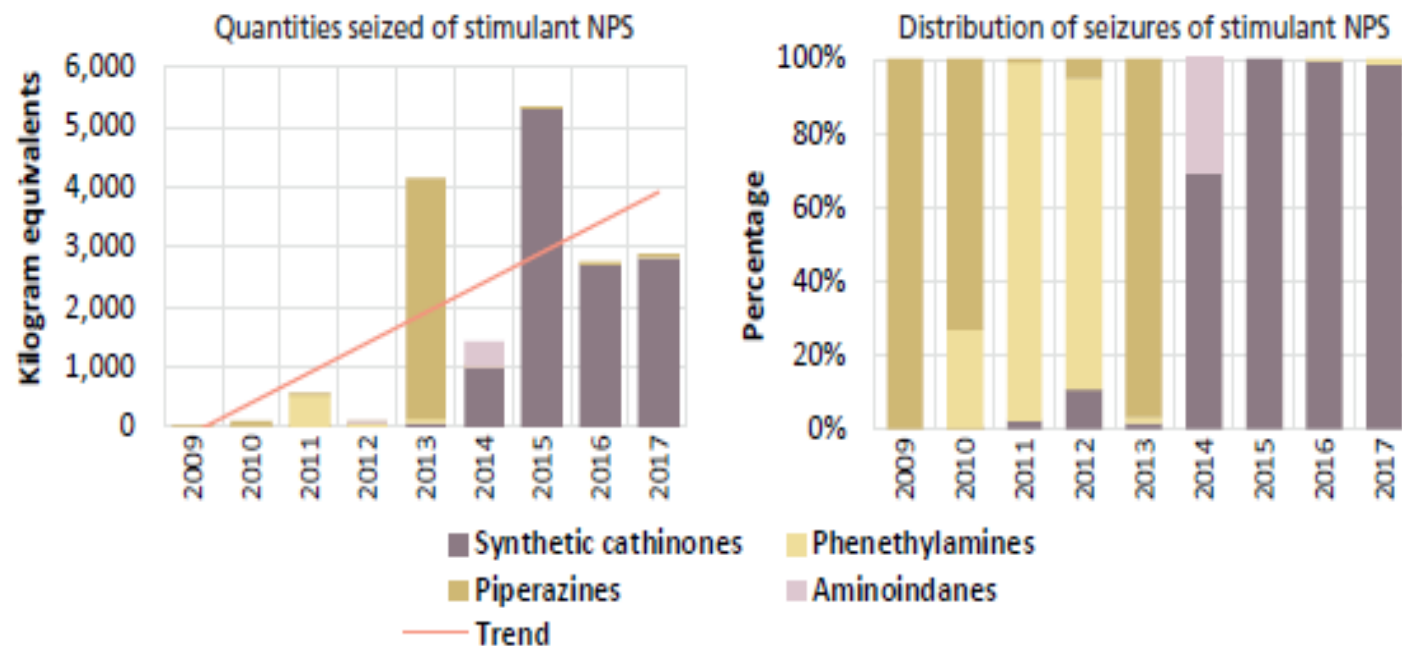
Source: UNODC early warning advisory on new psychoactive substances.

Quantities of stimulant NPS seized increased slightly (5 per cent) in 2017 from the previous year, mainly driven by **seizures of cathinones**, which rose by 4 per cent to 2.8 tons, most of which was accounted for by 2.7 tons of the cathinone metamfepramone seized in the Russian Federation.

The largest rise in relative terms was of **phenethylamines**, from 0.2 kg in 2016 to 39 kg in 2017. By contrast, quantities of piperazines and aminoindanes seized decreased by 95 per cent or more in 2017 from a year earlier.

The most widely seized NPS stimulants in this period were piperazines (in 2009, 2010 and 2013), phenethylamines (in 2011 and 2012) and cathinones (in 2014 to 2017).

FIG. 67 Quantities and distribution of stimulant NPS seized, 2009–2017*



Source: UNODC, responses to the annual report questionnaire.

* Substances currently not under international control.

新興毒品的問題:藥毒理與治療問題、社會問題

NPS衍生的問題

- 列管與分級問題
- 迷幻作用與毒駕、意外事件問題
- 不安全性行為與HIV問題
- 藥癮治療問題

NPS管理及分級問題： 以Ketamine為例

- 愷他命(Ketamine) 為天使塵 (Phencyclidine, PCP)的衍生物，具麻醉及鎮痛作用。由於半衰期短且安全劑量範圍大，不具呼吸及循環系統抑制作用，所以在臨床上被認為是較安全的麻醉劑。近來也有研究指出，低劑量(0.5 mg/kg) 愷他命具有抗憂鬱作用，因此愷他命為**具有醫療價值**的藥品
- 然而**其醫療價值常被副作用所抵消**，長期濫用愷他命會出現心理依賴、失去方向感及降低認知記憶、靈魂出竅(瀕臨死亡)及幻覺等現象，甚至會造成腦部及膀胱功能受損。吸食愷他命常導致不可逆的慢性間質性膀胱炎，使得年僅20~30歲的年輕人在長期使用愷他命後，產生頻尿、急尿、小便疼痛、血尿等症狀，嚴重者甚至需終身包尿布，且會出現腎功能不全等症狀
- Ketamine為我國NPS濫用的大宗，已知具有迷幻作用，會導致膀胱纖維化，產生性衝動及暴力行為等，且近幾年來常居藥物濫用致死原因的第二位或第三位，**經國內專家會議評估，認為ketamine目前雖列為三級毒品，但其整體毒性及濫用所造成之危害問題遠大於現行被列管的許多二級毒品**，顯示我們對NPS之管理有待檢討。而由於NPS大多未被列管，所以即便已經產生濫用情形，可能因未列為法定檢驗項目而無數據，故也無相關濫用通報資料
- 對於聯合國尚未列管的NPS，美國的因應之道是**Analogue Control**，對可能被濫用的成癮物質類似物，依法先予以緊急列管，英國則採**Generic Control**，將具有可製造成毒品的某些特定核心結構化學品，予以列管。這兩種管理策略除了可避免因無法可管而成為燎原之火，更可以避免因無從收集資料而低估其濫用程度，可供我國有關單位參考。

To use or not to use: an update on licit and illicit ketamine use

This article was published in the following Dove Press journal:

Substance Abuse and Rehabilitation

15 March 2011

[Number of times this article has been viewed](#)

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Abstract: Ketamine, a derivative of phencyclidine that was developed in the 1960s, is an anesthetic and analgesic with hallucinogenic effects. In this paper, the pharmacological and toxicological effects of ketamine are briefly reviewed. Ketamine possesses a wide safety margin but such a therapeutic benefit is somewhat offset by its emergence phenomenon (mind-body dissociation and delirium) and hallucinogenic effects. The increasing abuse of ketamine, initially predominantly in recreational scenes to experience a “k-hole” and other hallucinatory effects but more recently also as a drug abused during the workday or at home, has further pushed governments to confine its usage in many countries. Recently, urinary tract dysfunction has been associated with long-term ketamine use. In some long-term ketamine users, such damage can be irreversible and could result in renal failure and dialysis. Although ketamine has not yet been scheduled in the United Nations Conventions, previous studies using different assessment parameters to score the overall harms of drugs indicated that ketamine may cause more harm than some of the United Nations scheduled drugs. **Some countries in Southeast and East Asia have reported an escalating situation of ketamine abuse. Dependence, lower urinary tract dysfunction, and sexual impulse or violence** were the most notable among the ketamine-associated symptoms in these countries. These results implied that the danger of ketamine may have been underestimated previously. Therefore, the severity levels of the ketamine-associated problems should be scrutinized more carefully and objectively. To prevent ketamine from being improperly used and evolving into an epidemic, a thorough survey on the prevalence and characteristics of illicit ketamine use is imperative so that suitable policy and measures can be taken. On the other hand, recent findings that ketamine could be useful for treating major depressive disorder has given this old drug a new impetus. If ketamine is indeed a remedy for treating depression, more research on the risks and benefits of its clinical use will be indispensable.

Keywords: ketamine, psychedelic effects, urinary tract dysfunction, anti-depressant, cognitive impairment, epidemiology

迷幻作用與毒駕、意外事件問題

New psychoactive substances in a drugged driving population: Preliminary results

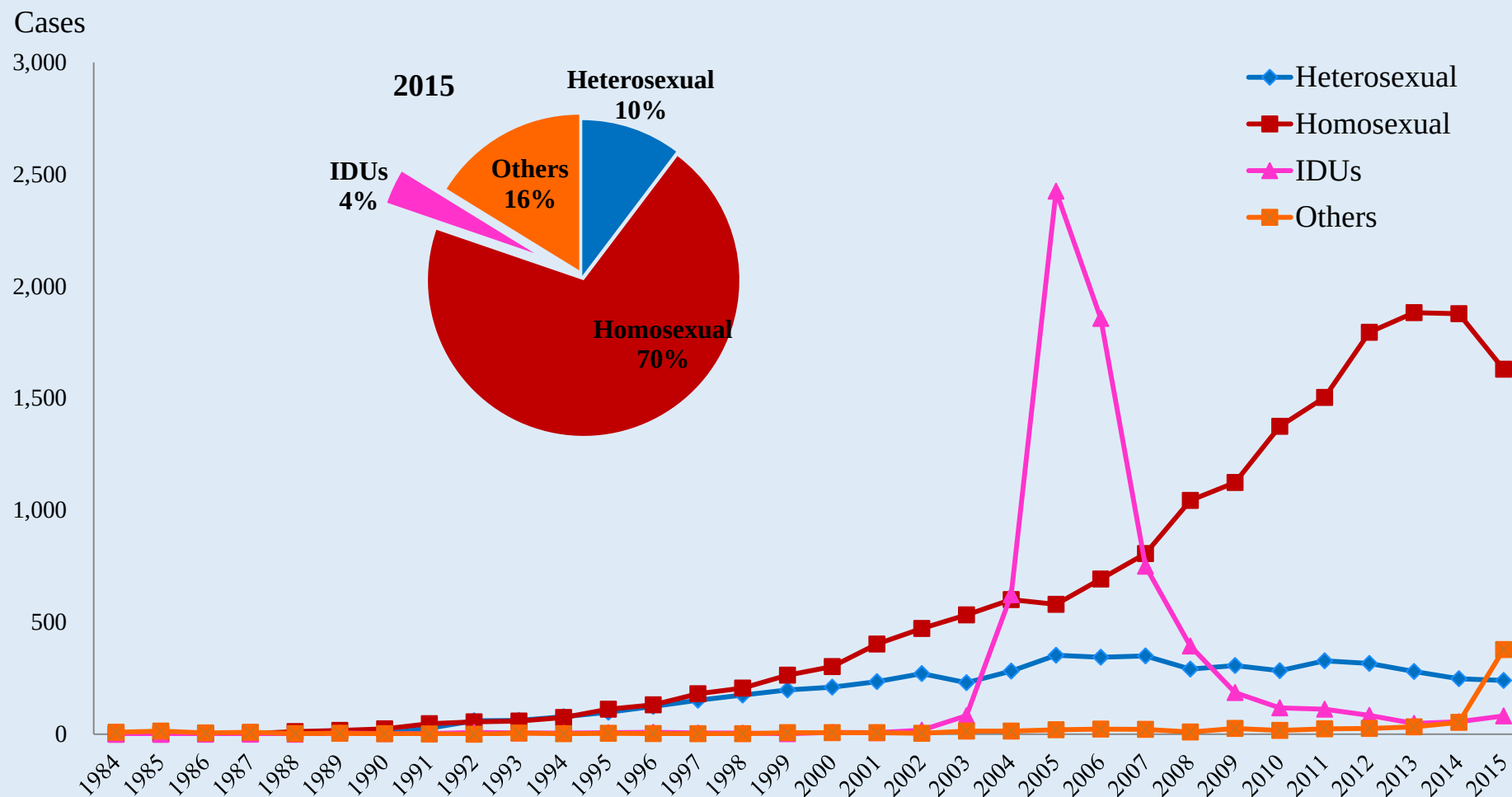
Mélodie Nachon-Phanithavong, Sarah Wille, Camille Richeval, Vincent Di Fazio, Nele Samyn, Luc Humbert, Jean-Michel Gaulier, Delphine Allorge

Toxicologie Analytique et Clinique Volume 29, Issue 1, February 2017, Pages 41-46

Summary

Action against driving under the influence of drugs (DUID) often starts with an on-site immunological screening which is not yet developed for new psychoactive substances (NPS). Our aim was to determine the prevalence of NPS in drivers screened positive for a classical [illicit drug](#). Blood samples ($n = 556$) were obtained between January–August 2015 in Belgium. The on-site Drugwipe 5S (Securetec) results and the subjects' signs of recent drug use were available. Classical illicit drugs were confirmed in blood via [LC-MS/MS](#) methods. NPS screening was performed using 2 methods: LC-HRMS and LC-MS/MS. **Of the 256 samples yet analysed, NPS were detected in 13 samples (5%) including following substances (n): [ketamine](#) (5), [methoxetamine](#) (2), diphenidine (2), 5-MeO-DALT (1), 4-AcO-DIPT (1), methiopropamine (1), [methedrone](#) (1), α -PVP (1), a mix of 5-MAPB/5-EAPB (1), and AB FUBINACA (1).** This preliminary study demonstrates a **prevalence of 5%**. However, this result should be confirmed and reassessed at the end of our study.

不安全性行為與HIV問題



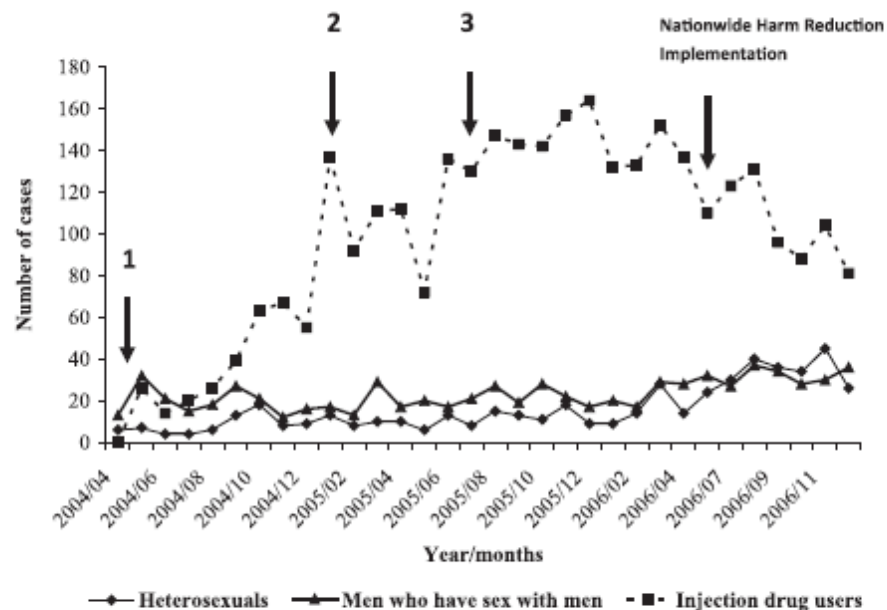


Figure 1. Dates of important national policies on HIV prevention and numbers of HIV-infected persons in three major high-risk groups reported to the Taiwan Centers for Disease Control from April 2004 through December 2006. There were at least three important policies implemented before and during the PHRP period. "1" denotes a mandatory HIV screening test, which took effect in April 2004 in drug users who violated the Narcotics Control Act. "2" represents a national program of HIV screening initiated in pregnant women to prevent mother-to-child transmission in January 2005. "3" represents the start time of the MMTP, in which only 385 patients participated. In July 2006, the harm reduction policy was fully implemented in all administrative areas of Taiwan.



ORIGINAL ARTICLE

Essentiality of HIV testing and education for effective HIV control in the national pilot harm reduction program: The Taiwan experience

Hsin-Ya Lee ^a, Yi-Hsin Yang ^b, Wen-Jing Yu ^c, Lien-Wen Su ^d, Tsang-Yaw Lin ^e, Hsien-Jane Chiu ^f, Hsin-Pei Tang ^f, Chien-Yang Lin ^g, Ryh-Nan Pan ^h, Jih-Heng Li ^{a,*}

Effects of education on harm-reduction programmes Shu-Yu Lyu, Lien-Wen Su, *Yi-Ming Arthur Chen Lancet 2011

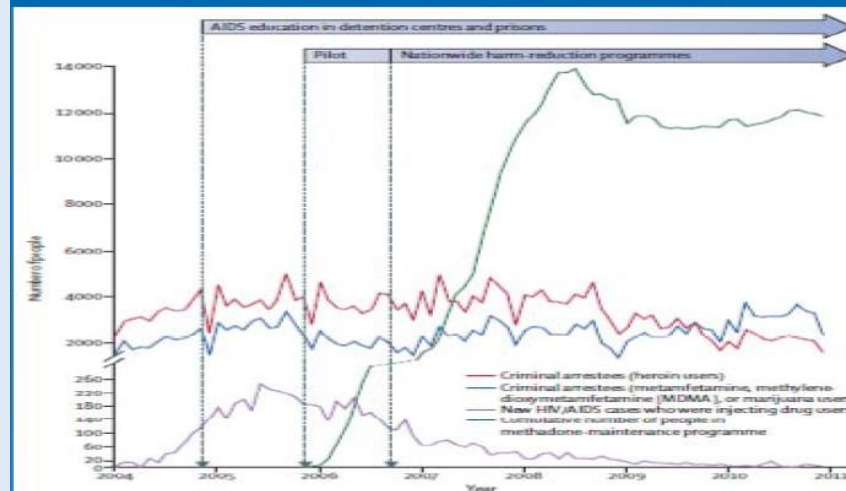


Figure: Effectiveness of AIDS education and harm-reduction programmes in Taiwan. Data on new HIV-1-infected injecting drug users and cumulative numbers of patients enrolled in methadone-maintenance clinics are from Taiwan Centers for Disease Control.⁷ Data for schedule-I criminal arrests (heroin users) and schedule-II criminal arrests (metamfetamine, methylenedioxyamfetamine [MDMA], or marijuana users) are from Taiwan's Ministry of Justice.⁸ A pilot programme was done in two cities and two counties, from November, 2005, to July, 2006.

Methadone maintenance treatment在台灣使用的濫觴

304

Original Articles

Narcotic Blockade

VINCENT P. DOLE, MD; MARIE E. NYSWANDER, MD; AND
MARY JEANNE KREEK, MD, NEW YORK

Best wishes my dear
John & wife!

This was our
"beginning" in the
field - 1964

My love, M

HEROIN, as used by addicts, produces quite different effects than are seen with use of narcotic drugs in ordinary medical practice. Addicts inject themselves repeatedly with larger doses of a narcotic than are usually prescribed for analgesia, and develop modified responses to the drug. In particular, the euphoric effect appears to be a learned phenomenon, like pleasure from smoking; the first shots of heroin taken by a curious adolescent are more likely to cause nausea than pleasure. Later, the euphoric experience becomes central to the addict's life and leaves little room for other interests. With continued use of narcotics, however, the addict finds it progressively more difficult to achieve euphoria, because a chronic

of addicts to become normal members of society. In practice, this approach has consistently failed as a treatment for chronic addiction to heroin. It has not failed because of lack of effort or facilities; devoted and well-trained physicians—assisted by competent nurses, social workers, probation and enforcement agents—working in special facilities both in the city and removed from the city, have tested this approach for 30 years. A careful search of the literature has failed to disclose a single report in which withdrawal of drug and psychotherapy has enabled a significant fraction of the patients to return to the community and live as normal individuals.

It thus seemed reasonable to look for

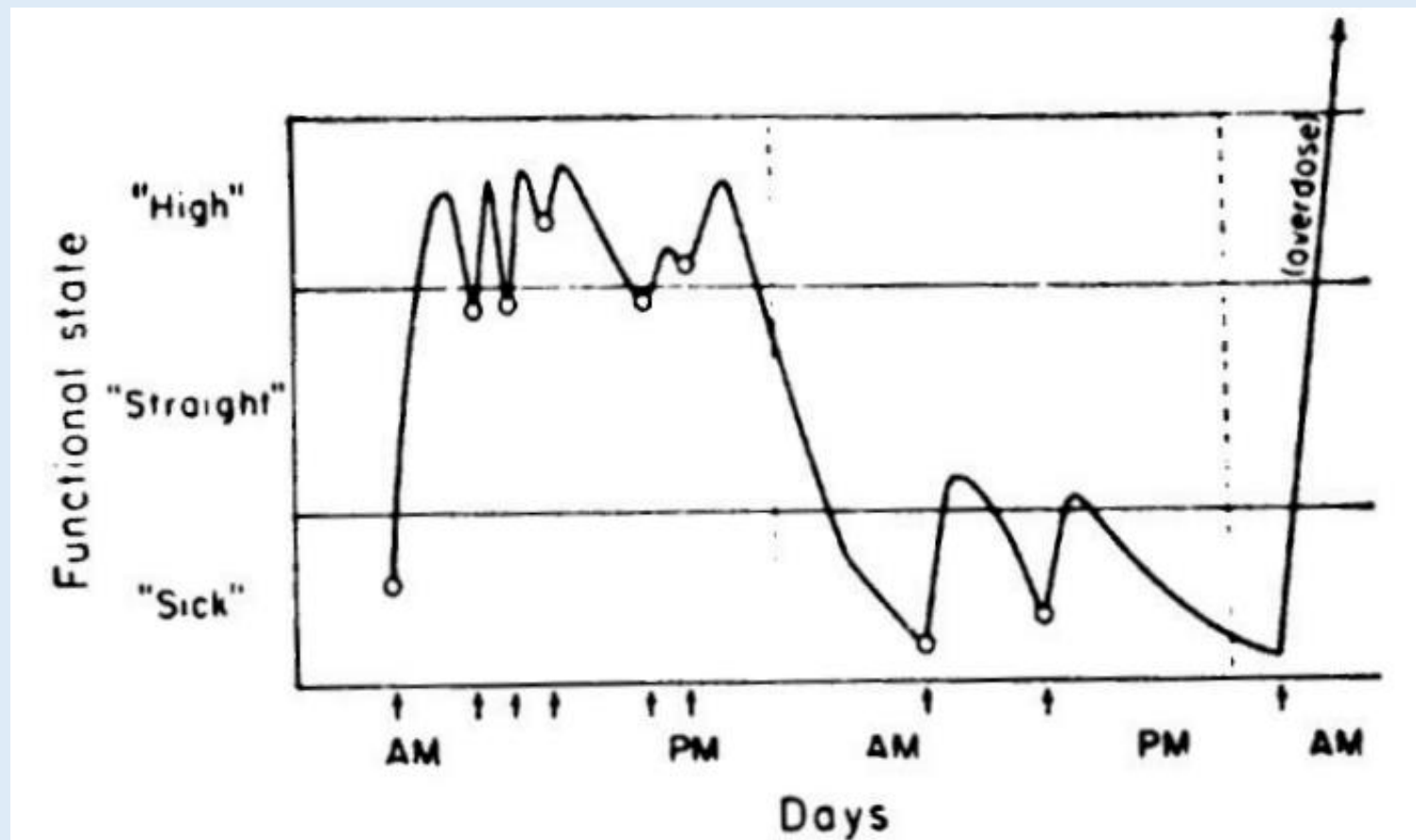


Fig. Diagrammatic summary of functional state of typical “mainline” heroin user. Arrows show the repetitive injection of heroin in uncertain dose, usually 10 to 30 mg but sometimes much more. Note that addict is hardly ever in a state of normal function (“straight”).

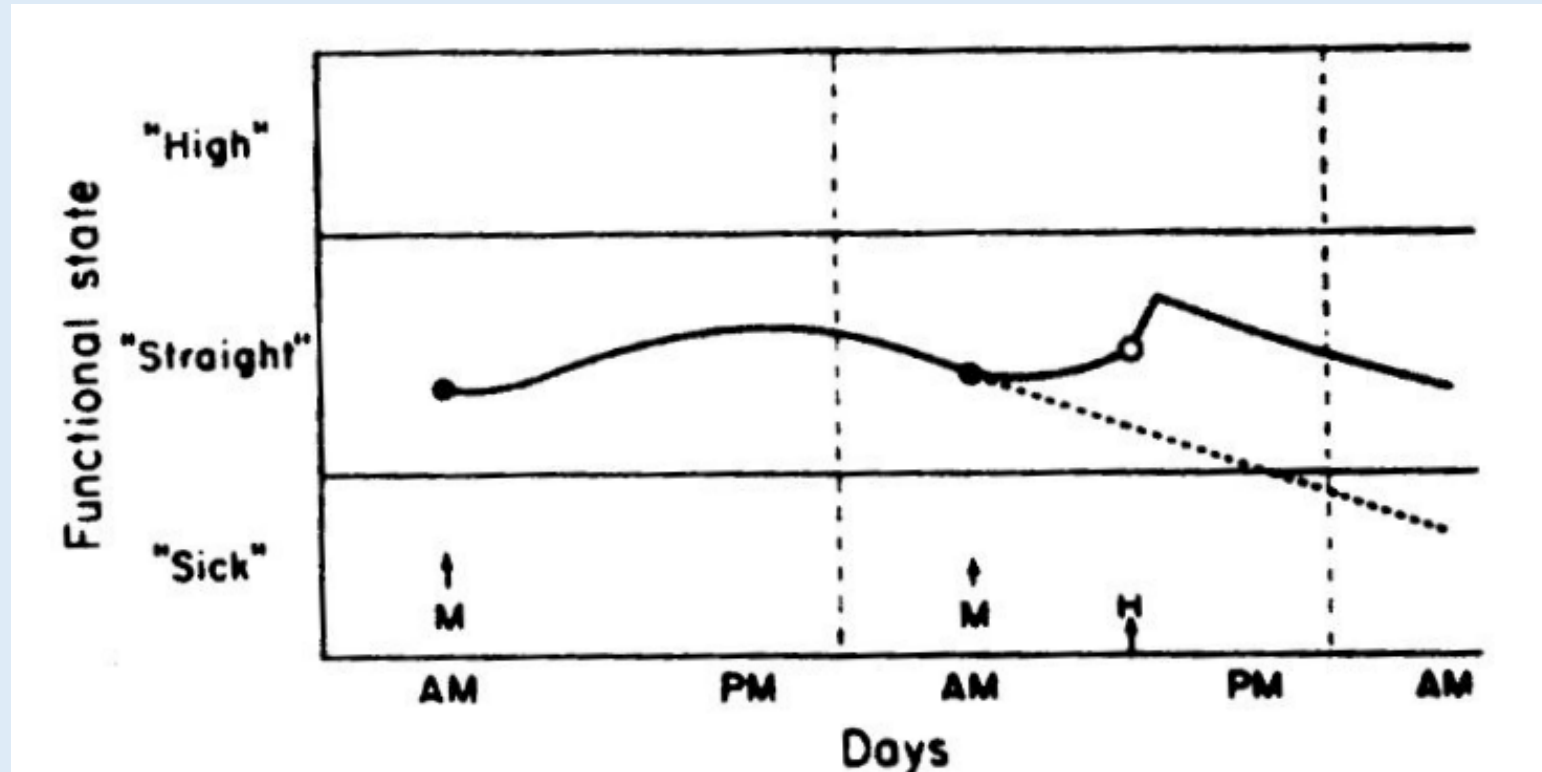


Fig. Stabilization of patient in state of normal function by blockade treatment. A single, daily, oral dose of methadone prevents him from feeling symptoms of abstinence ("sick") or euphoria ("high"), even if he take a shot of heroin. Dotted line indicates course if methadone is omitted.



UNODC

United Nations Office on Drugs and Crime

Systematic Literature Review on Stimulant use and HIV (A)

Part 4 /5

New Psychoactive Substances Risk and Transmission

- Recent outbreaks of HIV among PWID have been documented in some countries in Europe (Hedrich, 2013 ; Pharris, 2011) and in Israel. The outbreaks identified were in: Romania 2011, Hungary 2011, Greece 2012, Israel 2012-2013, Ireland 2015 and Glasgow in 2015. An increase in HCV and HCV and HIV co-infections has also been reported in Wales. The outbreaks in Greece and Glasgow were reported among heroin users, and factors other than NPS use might be associated with those outbreaks (Kentikelenis et al., 2011). However, **there is some indication that the outbreaks in Romania, Hungary, Ireland, Israel and Wales were associated to changes in drug consumption patterns, more specifically traditional opioid users switching to injecting synthetic cathinones, such as mephedrone, α -PVP and MDPV.** In Hungary, a study with 183 PWID from a large NEP found that during 2011 nearly half of the former amphetamine injectors had switched to MDPV as had 41.7% of the former heroin injectors and 78.6% of those using other substances (cocaine and mephedrone) (Csák, Demetrovics, & Rác, 2013).

NPS的毒性問題

- 依照藥理作用，可以分為興奮、抑制與迷幻作用，與傳統毒品的作用相類似。但是由於多未經研究，劑量、毒性和副作用無從預防。
- 加上NPS常有多種混用情形，使用之後果難以預測。

Table 1. The detection ranking of emerging NPS in Taiwan

Year	Ranking				
	First	Second	Third	Fourth	Fifth
2014	Ketamine, 34377 (34.98%)	bk-MDMA, 12469 (12.69%)	Mephedrone, 10716 (10.90%)	Phenazepam, 4797 (4.88%)	Ethylone, 2470 (2.51%)
2015	Ketamine, 33802 (28.88%)	Ethylone, 11952 (10.21%)	bk-MDMA, 7713 pieces (6.59%)	CMC, 7136 (6.10%)	5-MeO-MIPT, 4472 (3.82%)
2016	Ketamine, 26866 (25.32%)	CMC, 14077 (13.27%)	Mephedrone, 4934 (4.65%)	Ethylone, 4555 (4.29%)	bk-MDMA, 4012 (3.78%)
2017	Mephedrone, 25612 (19.49%)	Ketamine, 21429 (16.31%)	CMC, 9283 (7.06%)	N-Ethylpentylone, 6457 (4.91%)	5-MeO-MIPT, 4010 (3.05%)
2018	MEAPP, 21304 (15.71%)	Ketamine, 21044 (15.52%)	4-CEC, 19198 (14.16%)	Mephedrone, 17638 (13.01%)	N-Ethylpentylone, 12295 (9.07%)
201901~201910	Mephedrone, 55343 (42.04%)	Ketamine, 15499 (11.77%)	Methyl- α - ethylaminopentiophenone, 9106 (6.92%)	4-CEC, 8844 (6.72%)	4-MDMC, 8378 (6.36%)

Source: Drug Abuse Notification System, TFDA.

4-CEC, 4-chloroethcathinone; 4-MDMC, 4-methyl-N,N-dimethylcathinone; 4-MEC, 4-methylethcathinone; 5-MeO-MIPT, 5-methoxy-N,N-methylisopropyltryptamine; bk-MDMA, β -keto-methylenedioxymethylcathinone; bk-DMBDB, β -keto-dimethylbenzodioxolylbutanamine; CMC, chloromethcathinone; MDPV, methylenedioxypyrovalerone; MEAPP, methyl- α -ethylaminopentiophenone.

Feng LY, Li JH* (2020) New Psychoactive Substances in Taiwan: Challenges and Strategies. Current Opinion in Psychiatry 33(4): 306-311.

Year	Ranking				
	First	Second	Third	Fourth	Fifth
2001	Heroin (46.0%)	Methamphetamine (38.0%)	Diazepam (13.1%)	Ephedrine (5.8%)	MDMA, Flurazepam (2.9%)
2002	Heroin (44.7%)	Methamphetamine (27.6%)	Diazepam (18.4%)	Oxazepam (7.9%)	Ketamine (7.2%)
2003	Heroin (43.9%)	Diazepam (20.1%)	Methamphetamine (18.5%)	FM2 (12.7%)	Oxazepam (8.5%)
2004	Heroin (49.2%)	Methamphetamine (35.2%)	Diazepam (10.6%)	FM2 (8.0%)	Oxazepam (7.5%)
2005	Heroin (39.9%)	Methamphetamine (29.1%)	Diazepam, Zolpidem (7.2%)	FM2, Oxazepam (5.4%)	Ketamine (4.9%)
2006	Heroin (42.9%)	Methamphetamine (23.6%)	FM2, Zolpidem (11.2%)	Ketamine (7.7%)	Diazepam, Oxazepam (6.4%)
2007	Heroin (45.4%)	Methamphetamine (22.3%)	FM2, Zolpidem (13.1%)	Diazepam (7.9%)	Ketamine (7.0%)
2008	Heroin (35.2%)	Methamphetamine (19.2%)	Zolpidem (16.9%)	FM2 (15.7%)	Ketamine (13.8%)
2009	Heroin (31.8%)	Zolpidem (19.7%)	Methamphetamine (19.3%)	Ketamine (15.7%)	FM2 (13.97%)
2010	Heroin (31.8%)	Methamphetamine (23.2%)	Ketamine (15.9%)	FM2 (14.9%)	Zolpidem (13.6%)
2011	Heroin (37.8%)	Ketamine (19.9%)	Methamphetamine (19.2%)	FM2 (18.6%)	Zolpidem (10.7%)
2012	Heroin (32.9%)	Methamphetamine (22.1%)	Ketamine (18.3%)	Zolpidem (13.8%)	FM2 (12.5%)
2013	Heroin (29.7%)	Ketamine (20.7%)	Methamphetamine (17.7%)	FM2 (14.7%)	Zolpidem (14.0%)
2014	Heroin (23.7%)	Methamphetamine (23.4%)	FM2 (20.1%)	Ketamine (17.8%)	Trazodone (10.7%)
2015	Methamphetamine (32.6%)	Heroin (25.8%)	Ketamine (22.1%)	FM2 (15.3%)	Zolpidem (9.3%)
2016	Methamphetamine (39.0%)	Heroin (21.7%)	Ketamine (15.3%)	FM2 (14.9%)	Trazodone (14.4%)

Data source: Institute of Forensic Medicine, Ministry of Justice.

國際與我國對新興毒品管理的態度

Approaches to control NPS



- Different types of consumer safety laws have been enforced, some targeting psychoactive products in general (as happened in Poland, resulting in mass 'headshop' closures), others directed towards individual substances. Having first used consumer safety laws, **Poland** subsequently modified its **legal definition of a 'substitute drug'** (a substance used instead of a drug or for the same purposes) and updated the health protection law, so that it could be used when there was suspicion that a substitute drug posed a health threat.
- In **Italy**, for example, **regulations requiring that goods or food on sale be clearly and accurately labelled in relation to their expected use have been invoked to confiscate products containing synthetic cannabinoids that were not labelled in the national language.** A similar approach was used in the **United Kingdom** to stop the sale of mephedrone labelled as bath salts and plant food.
- Some countries have introduced **temporary control** regimes, allowing time for investigation of the need for permanent control. For example, temporary control procedures were enacted in **Latvia and Slovakia** in 2013.
- In 2011 the **United Kingdom** enacted a procedure allowing temporary class drug orders, under which named substances could be quickly controlled under drug laws for up to one year.

Approaches to control NPS (cont'd)

- Personal **possession of new psychoactive substances** has often been excluded from punishment, in 2014 it was made an **administrative offence in Latvia**, and **possession of more than 10 g of active substance was criminalised in Hungary**.
- Some countries have chosen to extend the coverage of existing drug laws by listing defined groups of substances, rather than individual drugs as had been done previously. Tight '**generic**' group definitions have been used for years in Ireland and the United Kingdom, while broader '**analogue**' groups, or derivatives, are controlled in Bulgaria, Latvia and Malta

Generic system: legislation includes a precise definition of a family of substances (such as by describing substitution patterns in a parent molecule). Examples are Ireland and the United Kingdom.

Analogue system: legislation includes a more general definition of 'similarity in pharmacological activity', as well as 'similarity in chemical structure'. Examples are Latvia and Bulgaria.

Derivative: a compound that is formally (not synthetically) derived from the structure of a well-known compound

Approaches to control NPS (cont'd)

- The most comprehensive response undertaken by European countries has been the introduction of new laws to **manage unauthorised distribution of psychoactive substances**, as has occurred in Ireland, Austria, Portugal, Romania, Sweden and the United Kingdom.
- All five countries define a psychoactive substance as one that stimulates or depresses the central nervous system.
- In Ireland, Austria, Portugal and Romania is associated with dependency, hallucinations or disturbances in motor function or behavior
- In the United Kingdom it is one that 'affects' the person's mental functioning or emotional state.
- Under the new legislation, naming of a substance is not required in Ireland, Romania or the UK, as supply of any substance that possesses the properties defined in the law is implicitly covered.

The recent characteristics of drug abuse in Asian countries

- In the past two decades, the Asian region has witnessed an explosive increase in the manufacture and use of **amphetamine-type stimulants (ATS)** and **ketamine**, especially among the younger population
 - Increasing abuse of ATS drugs is occurring in East and Southeast Asian nations

	Worldwide	China	India	Malaysia	Taiwan	Vietnam	Korea
No. 1	Cannabis	Heroin	Cannabis	Heroin	Heroin	Heroin	Methamphetamine cannabis opiates
No. 2	Opioids/opiates	ATS	Opiates	Cannabis	ATS	ATS	
No. 3	ATS	Ketamine		ATS	Ketamine	Cannabis	

全國物質濫用盛行率調查(Taiwan National Household Survey)

■ 1.2% in 2005 National Household Survey:

- The top three most popular illicit drugs were Amphetamine(s), MDMA, and Ketamine.

■ 1.4% in 2009 National Household Survey:

- The top three most popular illicit drugs were Amphetamine(s), Ketamine, and MDMA.

■ 1.29% in 2014 National Household Survey:

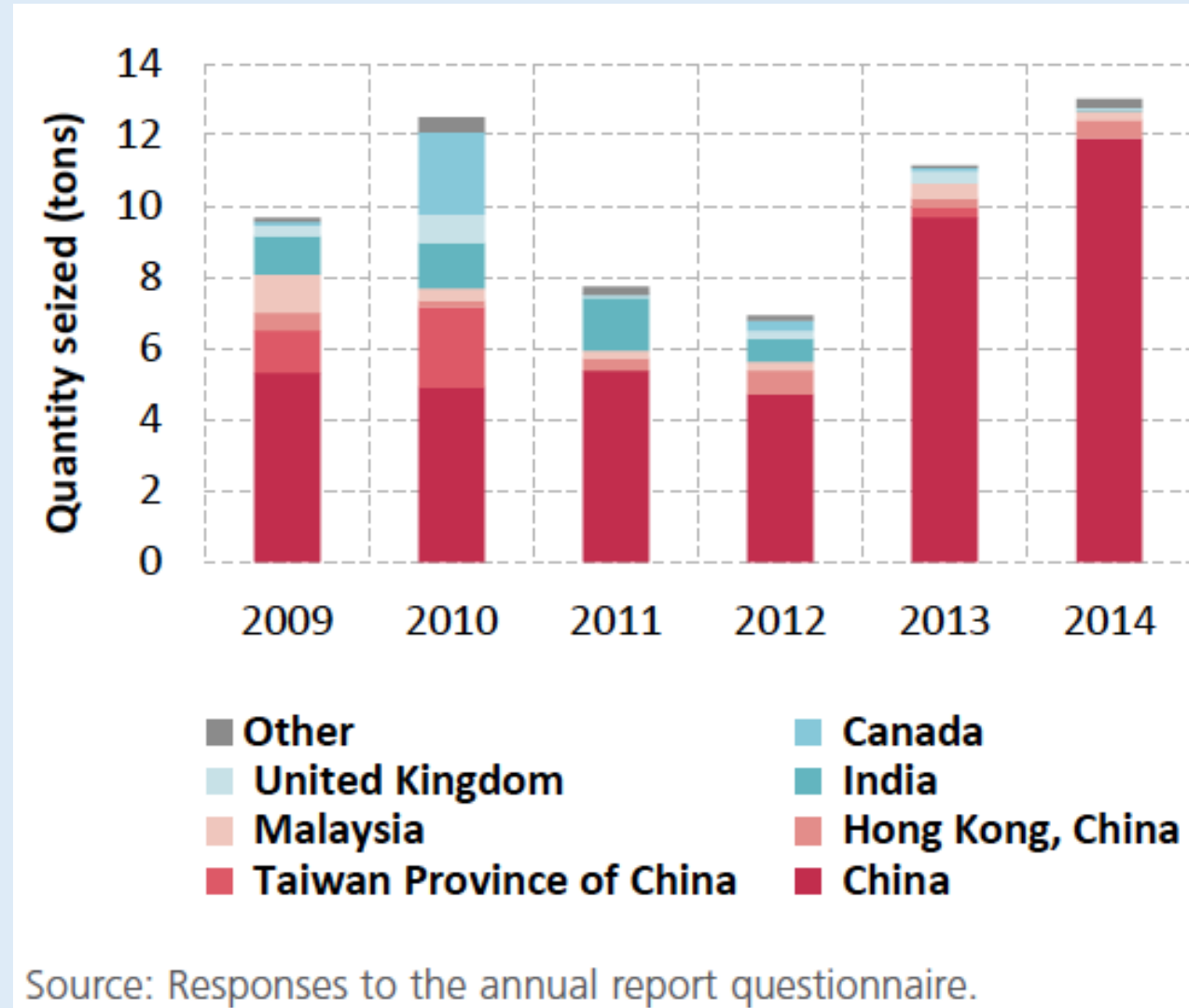
- The top three most popular illicit drugs were Amphetamine(s), Ketamine, and Cannabis.

■ 1.46% in 2018 National Household Survey

The top five most popular illicit drugs were **Amphetamine(s)(0.42%), Ketamine (0.40%), MDMA (0.36%), Cannabis (0.32%) and NPS-containing sachet (0.18%).**

*安非他命(0.42%)、愷他命(0.40%)、搖頭丸(0.36%)及大麻(0.32%)。值得注意的是，近年出現的改裝型混合式毒品，在本次調查中首次納入即排名第五(0.18%)

Quantities of ketamine seized worldwide, 2009-2014



韓國主要非法藥物緝獲量

種類	非法藥物	Unit	2006	2007	2008	2009	2010	2011	2012	2013	2014
Narcotic	Poppy	Stump	32,081	37,275	35,488	113,422	38,554	37,443	22,753	25,369	65,023
	Raw poppy	Kg	0.098	0.137	0.395	0.166	0.05	-	-	-	0.11
	Heroin	Kg	0.018	-	-	1.914	0.081	-	0.004	-	-
	Cocaine	Kg	4.772	0.079	8.869	0.298	-	2.153	0.064	1.215	0.011
Psychotropic	Methamphetamine	Kg	21.543	23.739	25.572	15.189	11.888	23.466	20.716	37.689	47.680
	MDMA	Kg	0.356	18.323	0.236	0.295	0.16	0.185	0.774	0.407	0.216
	YABA	Kg	-	0.196	0.151	0	0.002	0.002	0.133	1.319	0.93
	LSD	Kg	-	-	-	-	-	-	0.011	-	0.008
	JWH-018 & Analog	Kg			-	0.063	0.194	1.183	4.454	1.107	0.049
	Propofol	Ampoule (50ml)	-	-	-	-	-	2,004	20,202	159	319
	Etc	Kg				4.449	4.789	3.840	9.264	10.172	15.017
Cannabis	Cannabis	Stump	3,890	4,251	3,385	12,690	3,244	70,916	5,195	8,072	5,088
	Marijuana	Kg	20.859	22.202	92.692	122.539	44.484	83.559	21.722	24.396	23.315
	Seed	Kg	62.186	10.684	61.196	218.156	37.048	28.229	27.871	6.215	4.391
	Hashish	Kg	0.158	0.761	2.021	0.517	0.038	0.06	0.334	0.066	0.334

日本主要非法藥物緝獲量

種類 \ 年別			平23	平24	平25	平26	平27
覚醒剤			338.8	348.5	831.9	487.5	429.8
	うち粉末		338.8	348.5	831.9	487.5	429.7
	うち錠剤	(kg)	0.0	0.0	0.0	0.0	0.1
		(錠)	39	223	178	51	741
乾燥大麻			134.2	301.8	161.5	165.0	101.0
大麻樹脂			28.0	41.7	1.1	36.7	3.9
大麻草	(本)		5,323	6,680	3,850	5,195	3,355
	(kg)		39.2	33.8	39.0	120.1	87.6
合成麻薬		(錠)	26,288	3,674	2,135	479	1,055
	うちMDMA	(錠)	25,966	3,551	1,886	471	981
コカイン 古柯鹼			28.7	6.6	119.6	2.2	18.5
ヘロイン 海洛因			3.5	0.1	3.8	0.0	2.0
あへん 鴉片			7.6	0.2	0.2	0.2	0.0

注1: 錠剤型覚醒剤の押収量は、1錠を0.168gで計算している。

注2: 大麻草の押収量(kg)は、本数で捉えられないものを表示している。

注3: 合成麻薬の押収量は、覚醒剤とMDMA等の混合錠剤を含む。

我國及鄰近亞洲國家對於新興毒品之 管制作為比較

RESEARCH

Open Access

Comparison of illegal drug use pattern in Taiwan and Korea from 2006 to 2014



Ling-Yi Feng¹, Wen-Jing Yu¹, Wei-Ting Chang¹, Eunyong Han², Heesun Chung^{3*} and Jih-Heng Li^{1*} 

Abstract

Background: Illegal drug use has long been a global concern. Taiwan and Korea are geographically adjacent and both countries have experienced the illegal use problems of methamphetamine, a predominant prototype of New Psychoactive Substances (NPS). NPS, a term coined by the United Nations Office on Drugs and Crime (UNODC) in recent years, have not been scrutinized for their safety and may become a new threat to public health and security worldwide. To conduct evidence-based drug policy, it is imperative to estimate the trend and pattern of illegal drug use. Therefore, this study aims to analyze and compare the current status of drug-related seizures, arrests and illegal drug use, with a focus on methamphetamine and NPS, between Taiwan and Korea.

Methods: Data of illegal drug (including NPS)-related seizures and arrests were collected via anti-drug related agencies of both countries from 2006 through 2014. Since listing of NPS as controlled substances was a result of NPS abuse liability through official evaluation, the items of controlled NPS were used as an indicator of emerging use. These data obtained from Taiwan and Korea was then compared.

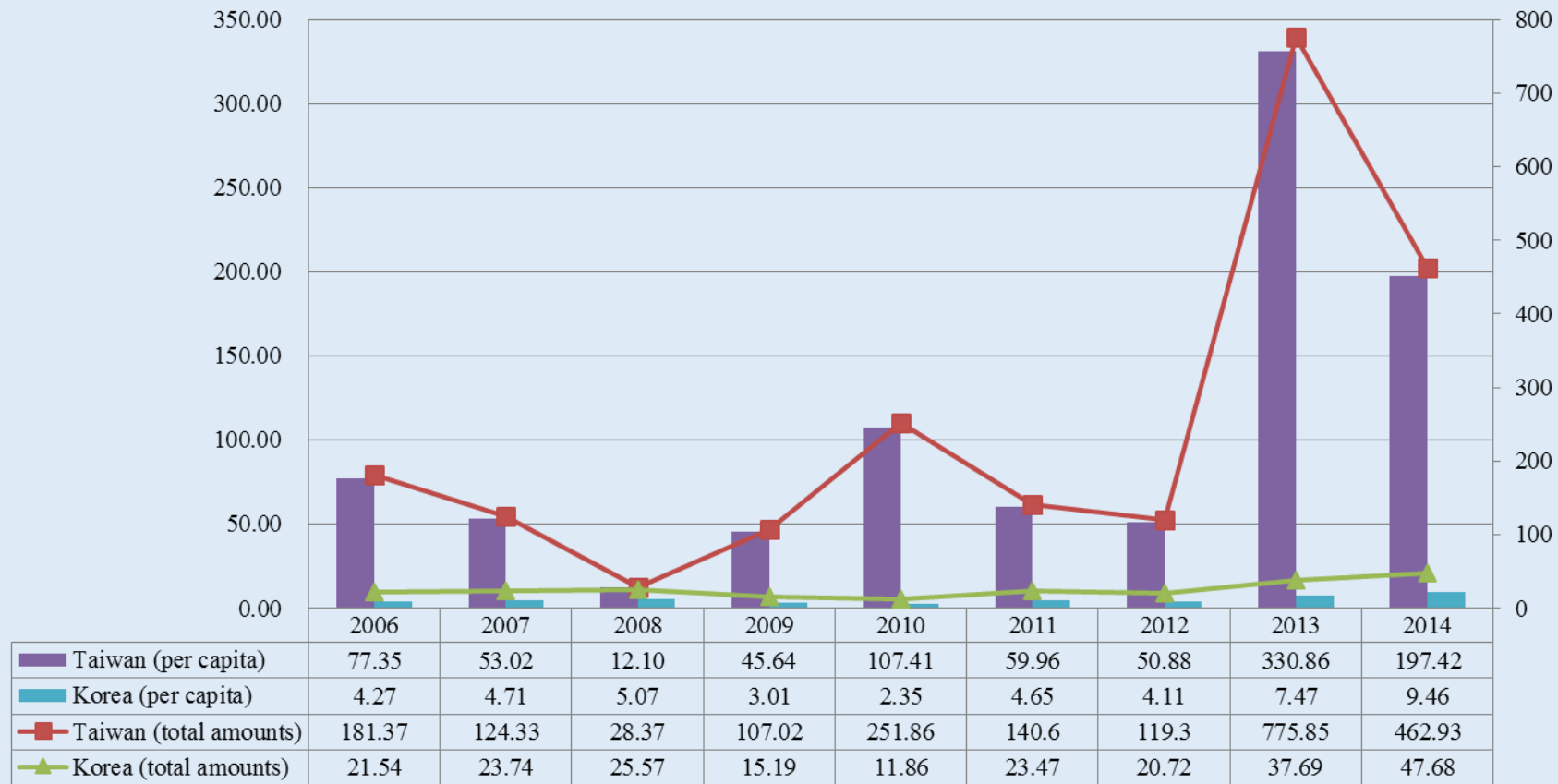
Results: The results showed that while methamphetamine remained as a predominant drug in both Taiwan and Korea for decades, different illegal drug use patterns have been observed in these two countries. In Taiwan, the major illegal drugs were methamphetamine, heroin, and ketamine, whereas in Korea those were methamphetamine and cannabis. By comparison of *per capita* illicit drug seizures, the illegal drug use situation in Taiwan was at a higher stake than that in Korea. In terms of NPS use, ketamine has been a major drug in Taiwan, but it was seldom found in Korea. Besides ketamine, the major type of NPS was synthetic cathinones in Taiwan whereas it was synthetic cannabinoids and phenethylamines in Korea. The difference in the numbers of controlled NPS items between Taiwan (23) and Korea (93) may be due to the implementation of temporary control on NPS in Korea since 2011.

Conclusion: While the problem of methamphetamine still lingers, NPS have emerged as a new issue in both countries. However, the NPS pattern was different between Taiwan and Korea. Although the controlled NPS items in Taiwan were far less than those in Korea, the quantity of total NPS seizures, especially with ketamine, was much larger in Taiwan than in Korea. Different NPS pattern may also imply they were from different sources. Factors other than geographical proximity, such as drug policy and availability and accessibility to drugs, should be taken into account for the current status of illegal drug use in Korea and Taiwan.

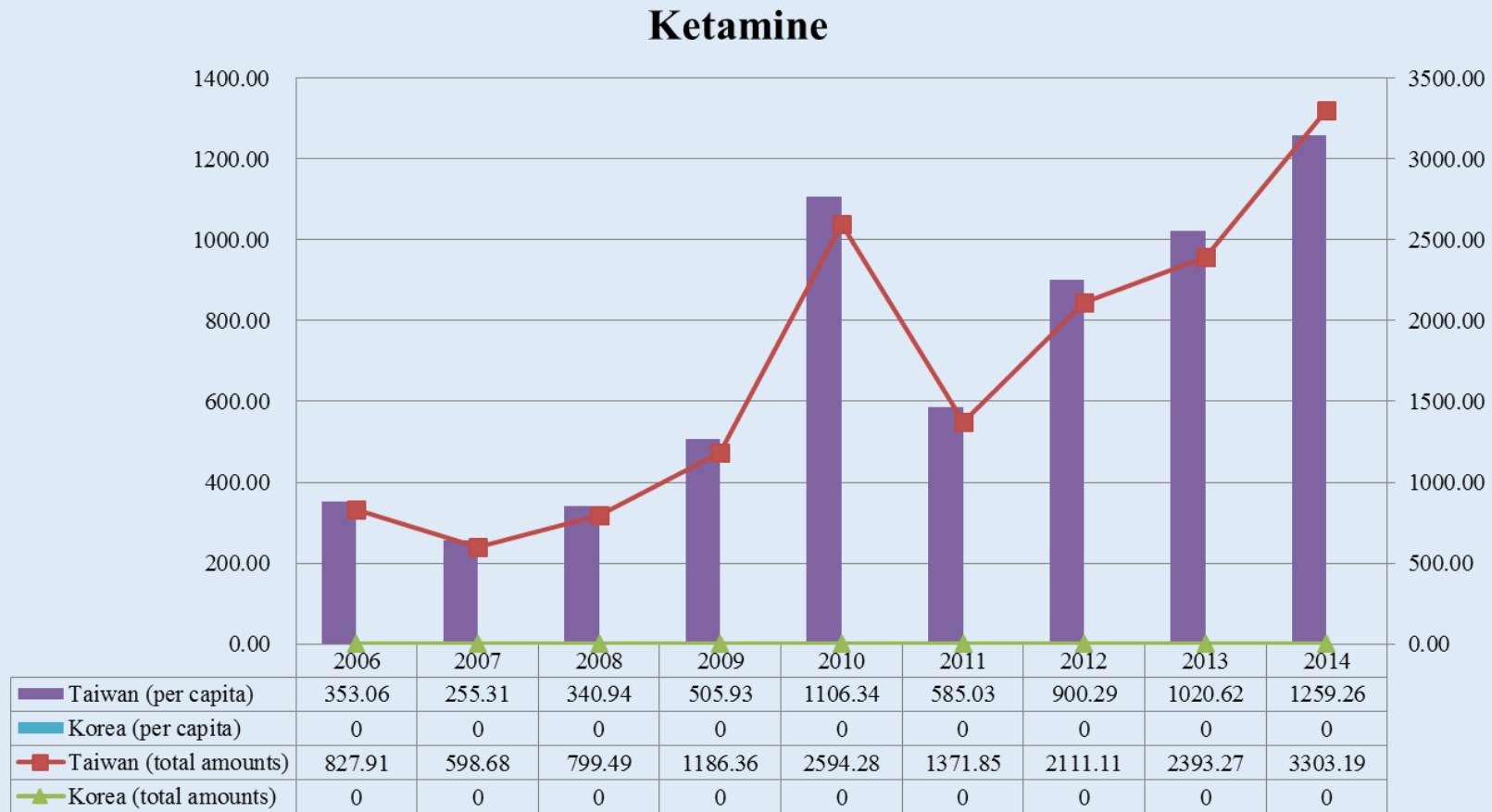
Keywords: New Psychoactive Substances (NPS), Drug seizures, Ketamine, Methamphetamine, Taiwan, Korea

以methamphetamine查緝量而言，台灣的methamphetamine問題比韓國嚴重

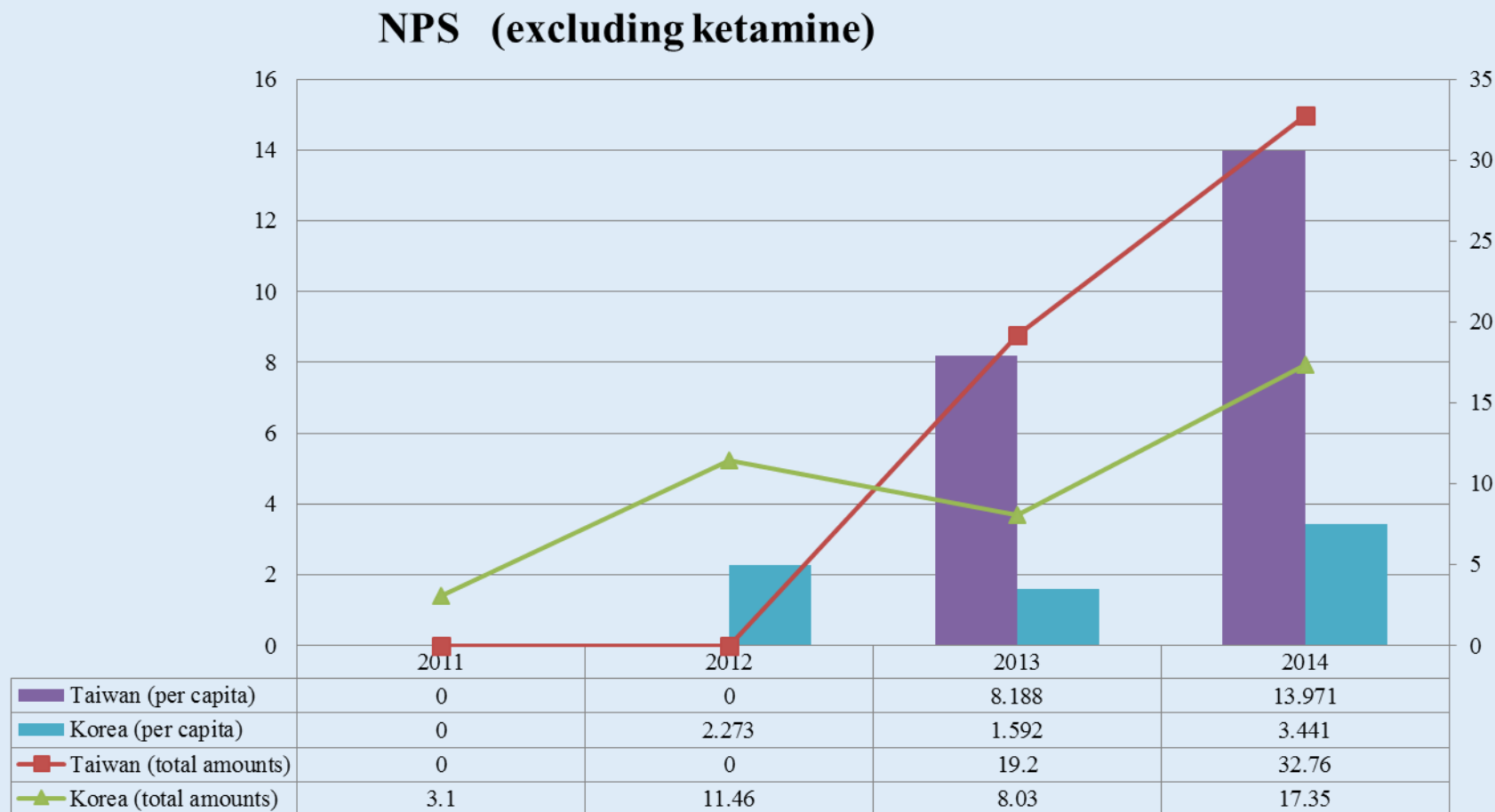
Methamphetamine



Ketamine的查緝量更遠多於韓國



ketamine以外的NPS查緝量也是如此



但2006-2014，韓國的NPS管制品項卻多出台灣甚多

Year	Taiwan	Category(Number)	Korea	Category(Number)
~2008	N,N-Dimethylamphetamine-(DMA) / 2,5-Dimethoxyamphetamine p-Methoxymethamphetamine (PMMA)	Phenethylamines (2)	5-MeO-DIPT	Tryptamines (1)
2009	p-Methoxyethylamphetamine (PMEA)	Phenethylamines (1)	JWH-018, HU-210, CP-47,497, 4-methylmethcathinone, 5-MeO-MIPT, 5-MeO-AMT, 4-Acetoxy-DIPT	Synthetic cannabinoids (3) Synthetic cathinones (1) Tryptamines (3)
2010	Mephedrone (4-MMC)	Synthetic cathinones (1)	5-MeO-DMT	Tryptamines (1)
2011	CP-47,497, HU-210, JWH-018, JWH-073, JWH-250, 5-MeO-DIPT	Synthetic cannabinoids (5) Tryptamines (1)	Analog of JWH-018 (naphthoylindoles), CP-47,497, methcathinone, and phencyclidine, MDPV	Ketamine and phencyclidine-type substances (1) Synthetic cannabinoids (2) Synthetic cathinones (2)
2012	MDPV (3,4-Methylenedioxypropylvalerone), Methylone (bk-MDMA), Ketamine, 2-Fluoromethamphetamine (2-FMA), 3-Fluoromethamphetamine (3-FMA), 4-Fluoromethamphetamine (4-FMA), TFMPP	Ketamine and phencyclidine-type substances (1) Phenethylamines (4) Piperazines (1) Synthetic cathinones (1)	4-Fluoroamphetamine and 4-methylamphetamine	Phenethylamines (2)
2013	AM-2201, JWH-122	Synthetic cannabinoids (2)	6-APB(Benzo Fury), methiopropamine, 5-MAPB, 5-APDB(EMA-4, 3-Desoxy-MDA), α-methyltryptamine (αMT, AMT, Indopan), p-chloroamphetamine(PCA, 4-CA), NMT, AB-001, ADB-FUBINACA, ADBICA, AB-PINACA, QUPIC(PB-22), 4-HO-DET(CZ-74, ethocin), 2,3-DCPP, Desoxy-D2PM(A3A, Methano, Green powder), JWH-030, α-PVT, JWH-307, 5-Fluoropentyl-3-pyridinoylindole, MDAI, AM-1241, and 5 F-PB-22,25I-NBOMe, 2C-C-NBOMe, 3-Fluoromethamphetamine, 5-(2-Aminopropyl)indole, 5-IAI, Dimethoxy-methamphetamine, Dimethylamphetamine, DOC, Ethylphenidate, Lisdexamphetamine, Phenazepam, MT-45, 4-AcO-DIPT, 5-MeO-EPT, 5 F-NNEI, A-834,735, AB-FUBINACA, NNEI, QUCHIC, RCS-4 ortho-isomer, AH-7921, alkyl nitrite(isobutyl nitrite, isopropyl nitrite, pentyl nitrite, isopentyl nitrite, tertiarybutyl nitrite, cyclohexyl nitrite, and butyl nitrite)	Aminoindanes (2) Other substances (1) Phenethylamines (17) Piperazines (2) Synthetic cannabinoids (16) Synthetic cathinones (1) Tryptamines (5)
2014	XLR-11, 3-Fluoromethcathinone (3-FMC), 4-Fluoromethcathinone (4-FMC), 25B-NBOMe (2C-B-NBOMe)	Phenethylamines (2) Synthetic cannabinoids (1) Synthetic cathinones (1)	MN-18, 5 F-MN-18, Methyl-1-(cyclohexylmethyl)- 1H-indole-3-carboxylate, 5 F-AB-PINACA, FUB-PB-22, 5 F-ADBICA, A-836339, p-Chloromethamphetamine, p-Bromoamphetamine, 25B-NBOMe, 25D-NBOMe, 25H-NBOMe, 5-EAPB, 2C-C, 2C-P, N-methyl-2-Al, 3,4-dichloromethylphenidate, W-15, RH-34, N-ethyl-norketamine, Mepirapim, XLR-12, ADB-PINACA, FDU-PB-22, AB-CHMINACA, 5 F-AMB, 2C-N, Bk-2C-B, acetylferantyl, LY2183240, Revise rules in detail, add list (JWH-030, JWH-175, JWH-176)	Aminoindanes (1) Other substances (3) Phenethylamines (12) Synthetic cannabinoids (17)
Sum	23	Ketamine and phencyclidine-type substances (1) Phenethylamines (9) Piperazines (1) Synthetic cannabinoids (8) Synthetic cathinones (3) Tryptamines (1)	93	Aminoindanes (3) Ketamine and phencyclidine-type substances (1) Other substances (4) Phenethylamines (31) Piperazines (2) Synthetic cannabinoids (38) Synthetic cathinones (4) Tryptamines(10)

Contents lists available at ScienceDirect

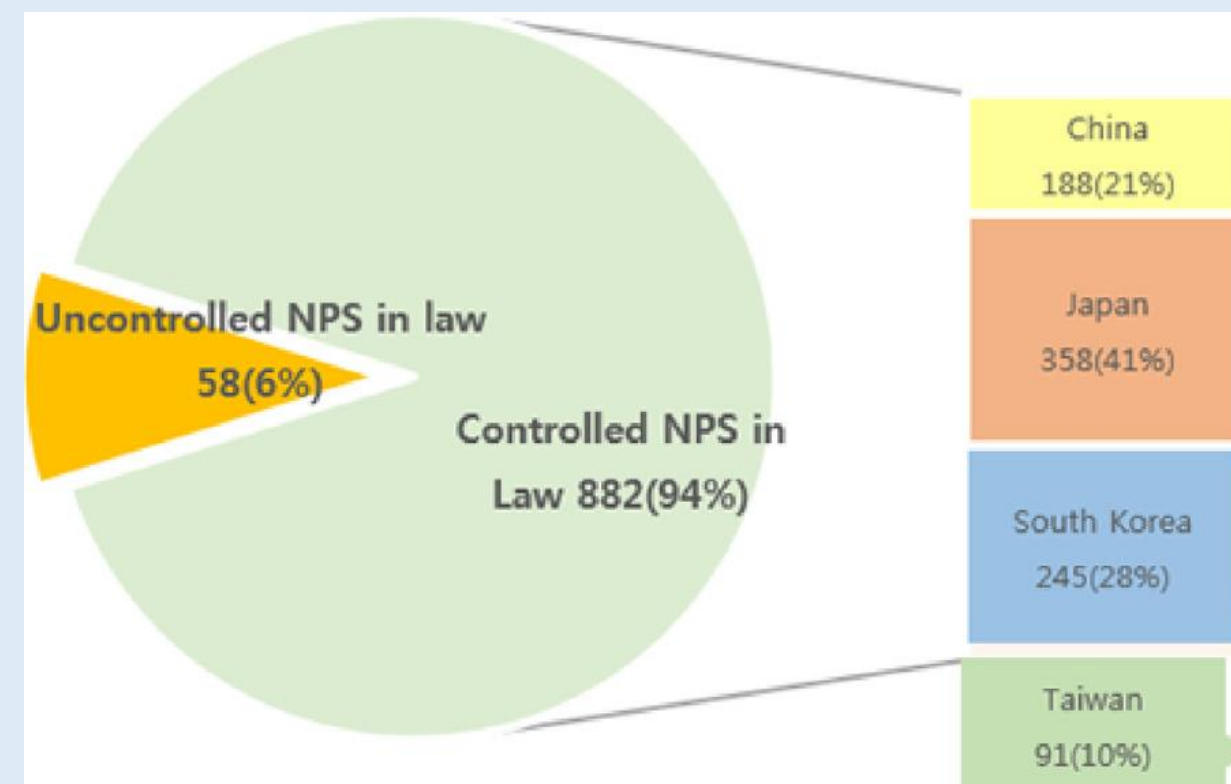
Forensic Science International

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Prevalence of new psychoactive substances in Northeast Asia from 2007 to 2015

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2007-2015年，在東北亞四國中，各國的NPS管制品項也都比台灣多，而最多的是日本

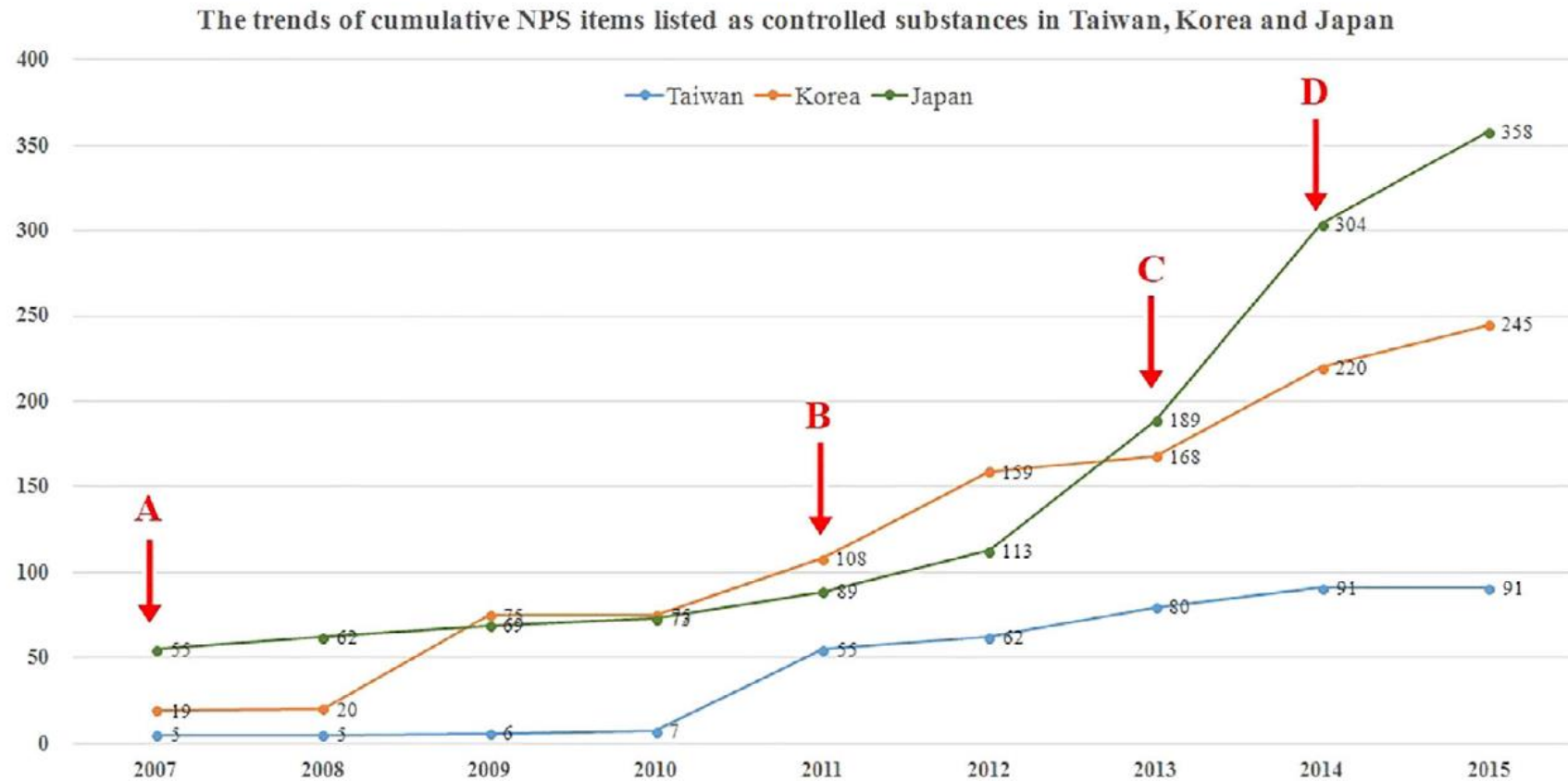


FIGURE 1 The trends of cumulative new psychoactive substance items listed as controlled substances in Taiwan, South Korea, and Japan. Japan: Designated Drug Regulation promulgated and ketamine declared a narcotic in 2007; B, South Korea: Temporary designation system and analog control system implemented in 2011; C, Japan: JWH-018 analogue control enforced in 2013; D, Japan: Dangerous Drug Regulation promulgated by the revised Pharmaceutical Affairs Law in 2014. Cathinone analog control enforced in 2014, 2015

Feng LY, Wada K, Chung H, Han E, Li JH* (2020) Comparison of legislative management for new psychoactive substances control among Taiwan, South Korea, and Japan. *Kaohsiung Journal of Medical Sciences*, 36:135–142

日本新興毒品

台日韓三國之NPS列管與法律機制比較

- 台灣, 韓國, 日本對於非法使用成癮物質, 均視為犯罪行為
- The difference in the item numbers of controlled NPS between Taiwan and Korea may be due to the implementation of temporary designation system (暫時指定列管, 或稱緊急列管) and analogue control on NPS in Korea since 2011, while the surge of newly controlled NPS items in Japan was due to the promulgation of Designated Drug Regulation (指定藥物法) and subsequent control of “Dangerous Drug” (危險藥物法) by the revised Pharmaceutical Affairs Law.

梵蒂岡打擊全球毒品成癮 台灣響應分享作法

最新更新：2018/12/02 10:51



高雄醫學大學教授李志恒應邀到梵蒂岡研討會，分享台灣與東北亞國家對新興毒品的防治作法。（駐教廷大使提供）中央社記者黃雅詩梵蒂岡傳真 107年12月2日



（中央社記者黃雅詩梵蒂岡1日專電）教廷關切全球的毒品成癮問題，邀請各國學者舉行研討會，高雄醫學大學教授李志恒應邀出席分享台灣作法，今天會後並獲得教宗接見。

李志恒身兼台灣藥學會與毒物學會理事長，他表示，他與教宗握手時有特別介紹自己是從台灣來的，因為他父母都是基督徒，所以他這次有機會親自見到教宗，父母都很興奮。

梵蒂岡11月29日到12月1日舉辦「毒品與成癮」防治研討會，多國官方與學界專家與會，包括教廷促進整體人類發展部部長涂克森（Peter Turkson）樞機主教，歐盟委員會移民與內政副總幹事歐尼迪（Olivier Onidi），聯合國藥物犯罪辦公室（UNODC）主任蓋拉（Gilberto Gerra）等。

李志恒在會中以「東北亞新興毒品問題」為題發表演說，將台灣的毒品濫用現象及防治做法，與鄰近的南韓、日本、中國相比。

結語

- 台灣現階段主要的濫用藥物為：Methamphetamine, Ketamine, MDMA, Cannabis, NPS.新興毒品已經成為濫用的大宗。
- 但是NPS除了少數品項研究較為透徹，可以知道其毒性外，許多的NPS因為出現的時間不長，其毒性多未了解。加上NPS常有混用情形，使問題更形複雜。
- NPS的出現，與以往的毒品型態和問題不同：
 1. 如何檢測與預警，以適當納管，成為新挑戰。日韓的作法可供台灣參考。
 2. 與其他毒品相較，大部分的NPS使用者之年齡層較低，故應加強對青少年之教育宣導。

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教育部

毒品對青少年之生理危害－醫師之觀點

三軍總醫院 精神醫學部
國防醫學院 醫學系
台灣成癮科學學會 理事長

黃三原 教授



課程大綱

1. 成癮 (Addiction)的定義?
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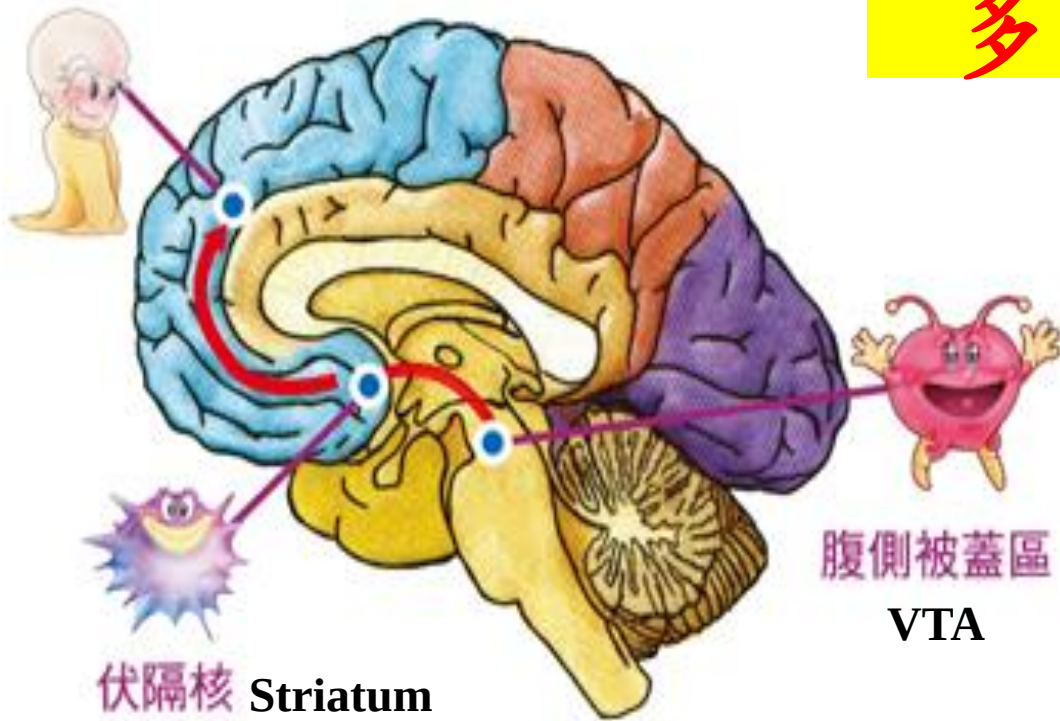


物質成癮行為：是一種犯罪行為還是疾病？



為什麼會上癮？

PFC
前額葉皮質區



天生自然獎賞效應：
多巴胺神經迴路。



腹側被蓋區 VTA



伏隔核 Striatum

成癮行為基本概念

◆藥物成癮是一種慢性復發性疾病

- 1)衝動 尋找或使用藥物
- 2)失控：對自我限制使用藥物的失控
- 3)出現負性情緒：Emergence of a negative emotional state (dysphoria, anxiety and irritability)

成癮行為：

衝動和強迫之失控是造成成癮的兩大根本原因

衝動控制循環
Impulsive Control Cycle



衝動使用藥物
Impulsive drinking

獎賞 (Reward)

失去控制力
Lost of control

罪惡感, 懊悔, 自責
Guilty, Regret
Self-reproach

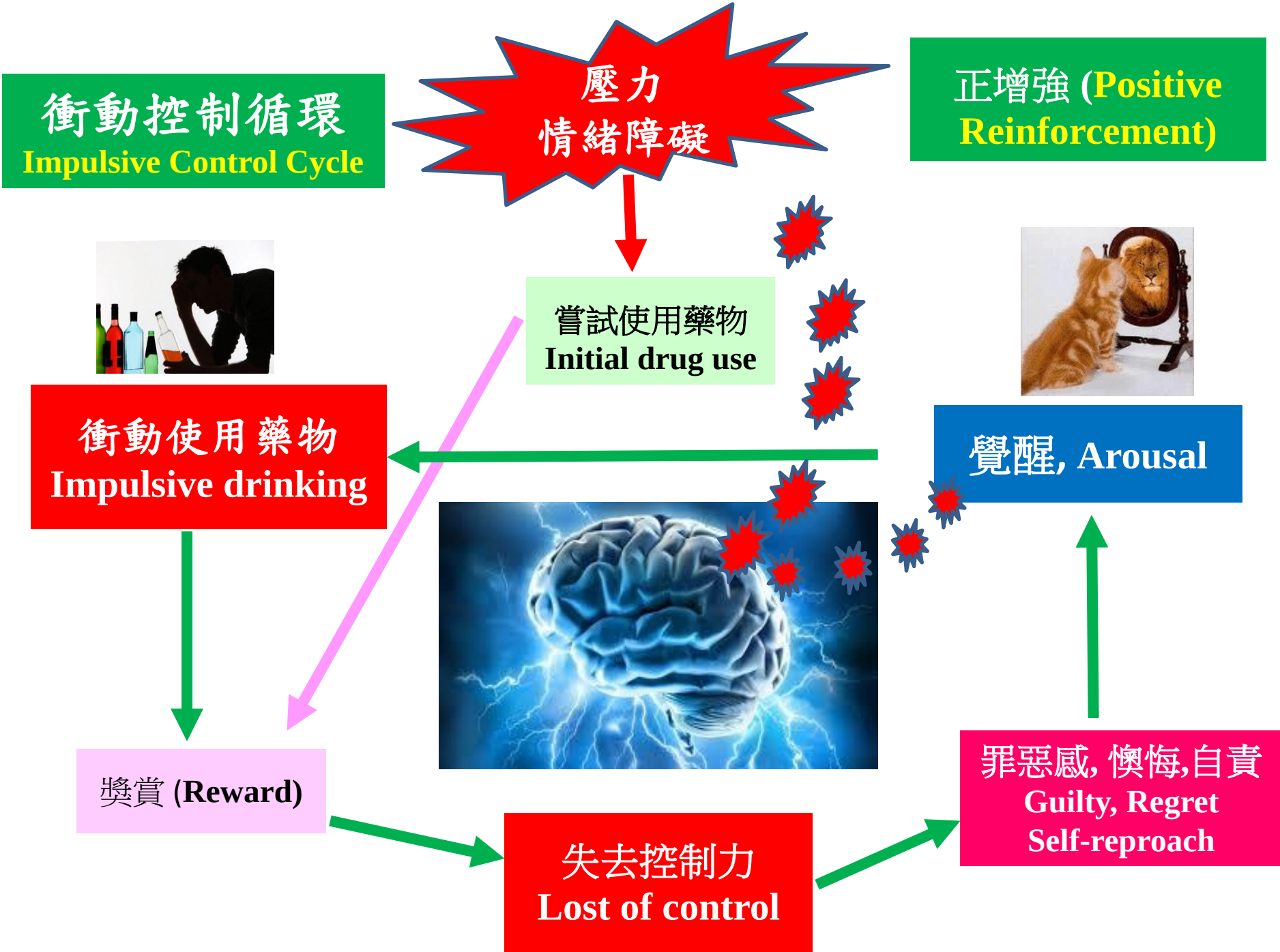
壓力
情緒障礙

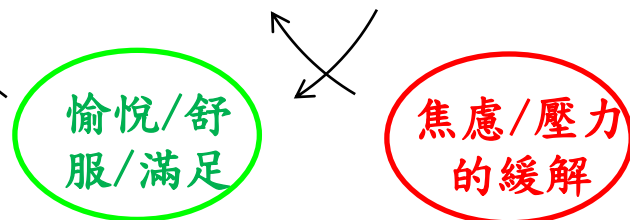
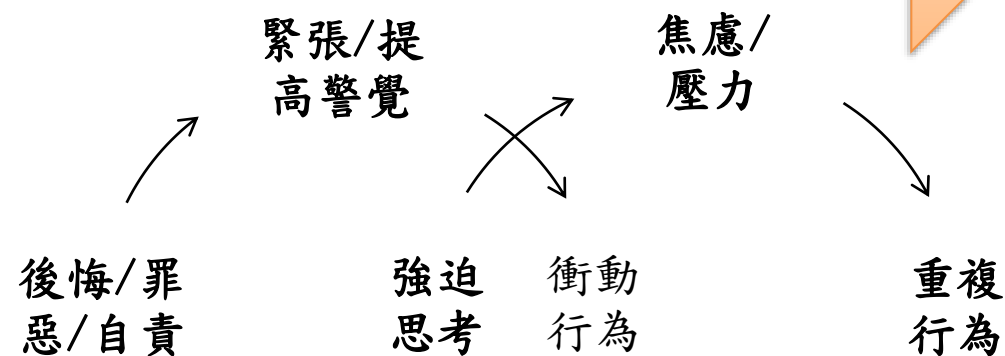
嘗試使用藥物
Initial drug use

正增強 (Positive
Reinforcement)



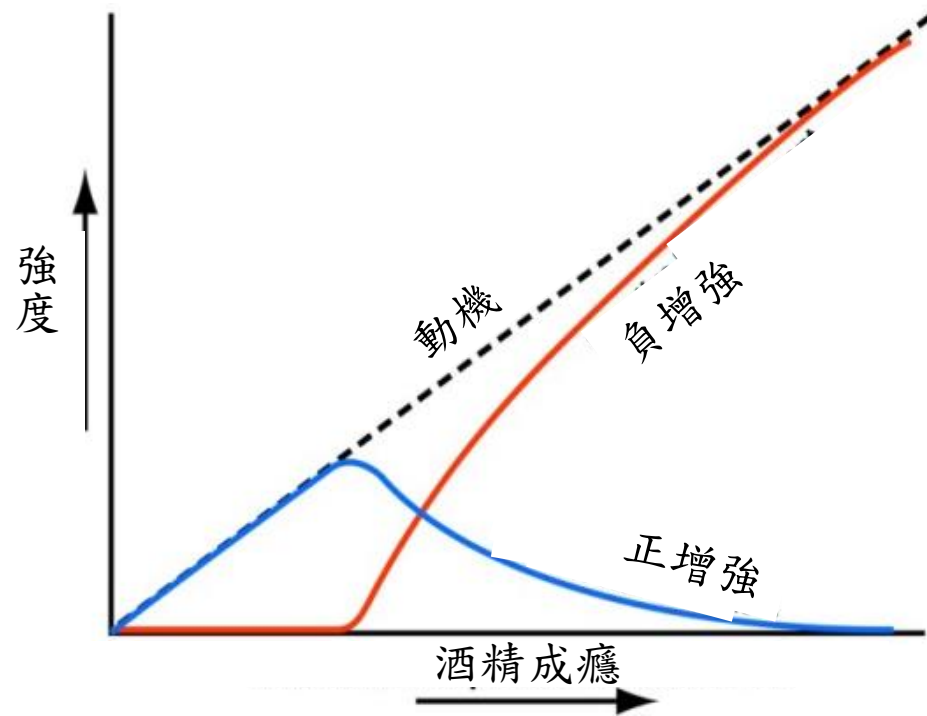
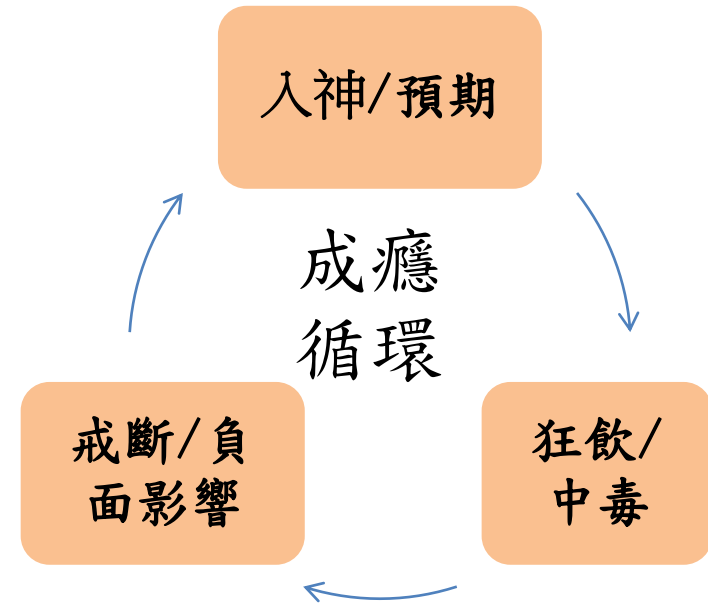
覺醒, Arousal





正增強
Positive reinforcement

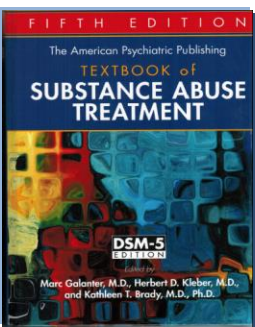
負增強
Negative reinforcement



成癮 (Addiction)的定義

分**物質成癮**(substance addiction)與**行為成癮**(active addiction)

- 一般將一個人長期服用某種藥物成了習慣為藥癮(**Drug addiction**)。
- 世界衛生組織在1963年以**依賴(Dependence)**取代「癮, addiction」這名詞，
- **濫用**定義
- **依賴**定義
- **成癮**定義



耐受性≠依賴≠成癮

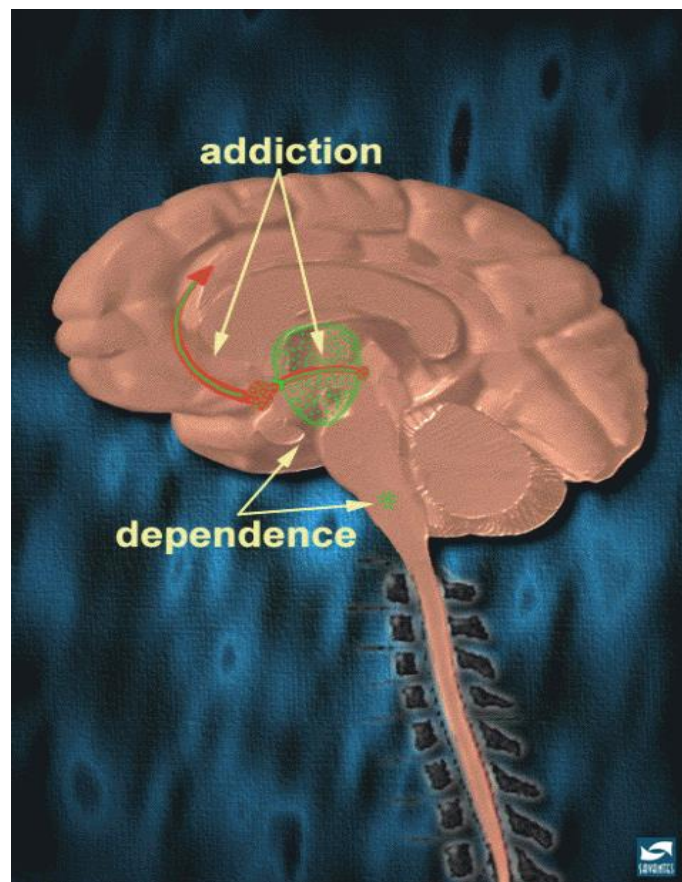
Tolerance ≠ dependence ≠ addiction

- 耐受性和依賴不是同義詞：
- 依賴和成癮是常被不適切地交替使用，但他們代表了兩個相關但不同的和可分離的現象

◆ 耐受性(Tolerance) : increasing amounts and frequently

◆ 依賴(Dependence) : withdrawal sign.

◆ 成癮：最好的定義為“藥物飢餓”或“藥物渴求”和強迫性藥物服用



➤ 但依賴及成癮均不放入DSM-5 診斷中

DSM-IV to DSM-5

物質使用疾患診斷標準：

- 1994年出版的DSM-IV，以「**物質相關疾患**」(Substance-Related Disorders)來描述此類疾病，分為兩大類

1. **物質使用疾患**(Substance Use Disorders)

2. **物質引發疾患**(Substance Induced mental Disorders)

DSM-IV to DSM-5

物質使用疾患診斷標準：

➤ 物質使用疾患 (Substance Use Disorders)

1. 物質濫用 (Substance Abuse)
2. 物質依賴 (Substance Dependence)

➤ 物質引發疾患 (Substance Induced Disorders)

1. 中毒 (Intoxication)
2. 戒斷 (Withdrawal)
3. 物質引起之相關精神疾病

(substance/medication induced mental disorder)

(DSM-5將此放到在各類精神疾病的章節中)

DSM-IV to DSM-5 物質使用疾患診斷標準：

診斷標準依有無戒斷為10或11項；一年內有以下兩個或兩個以上的症狀及功能明顯減損則屬之。

Four grouping : impaired control, social impairment, risky use, and pharmacological criteria

1. 比預期花更多時間使用或使用更大量。
2. 努力想減少或控制使用但不成功。
3. 花費許多時間以取得該物質。
4. 強烈渴望使用該物質。
5. 無法實踐責任。
6. 重複造成人際關係問題。
7. 放棄或減少社交、嗜好或工作。
8. 在對身體有害的情境下仍重複使用。
9. 即使知道使用物質會引發問題仍繼續使用。
10. 耐受性。or(戒斷症狀。)

◆ DSM-5 與DSM-IV的診斷差異：

- 去除：法律事件條款
- 加入：渴望或強烈的欲望或急迫地去使用一種物質

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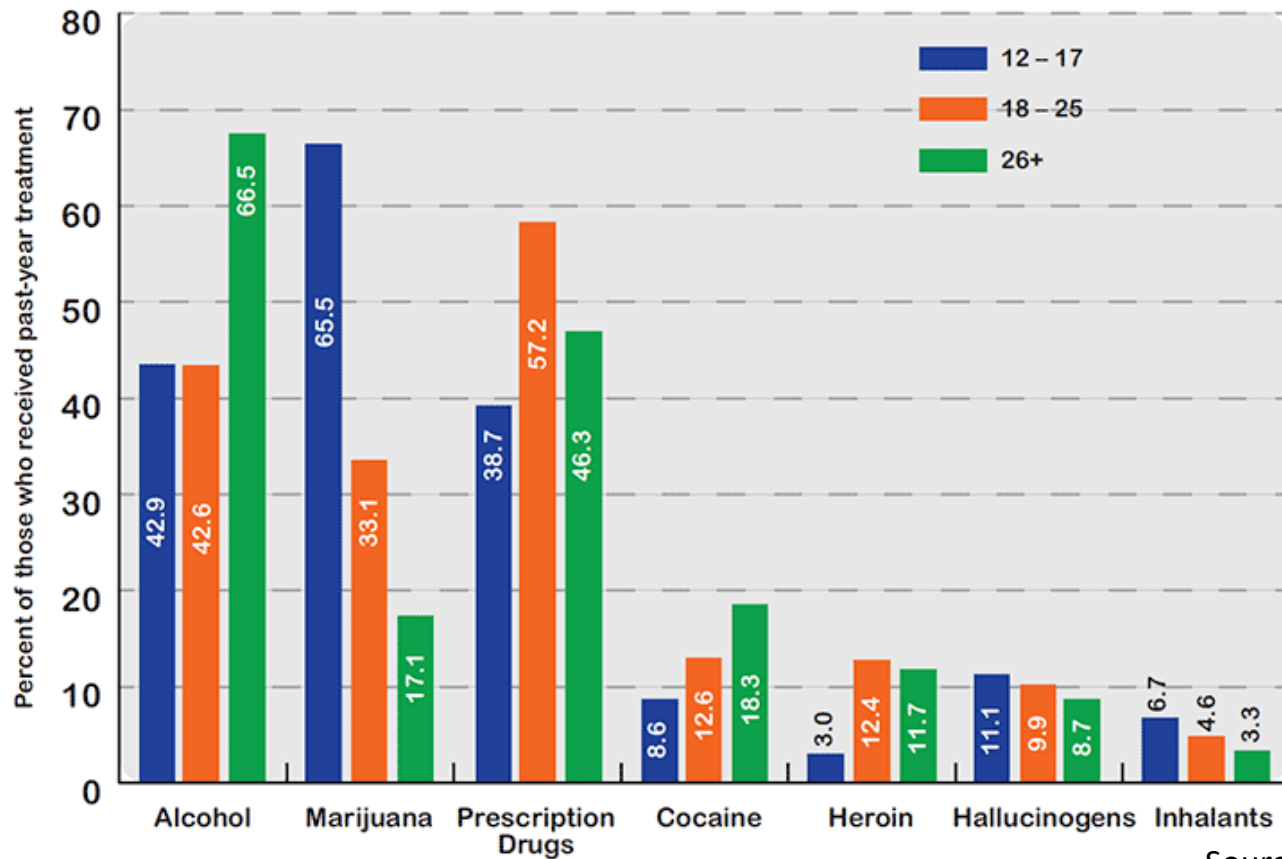
青少年和成人有何不同？



90%的成癮，是從未成年開始



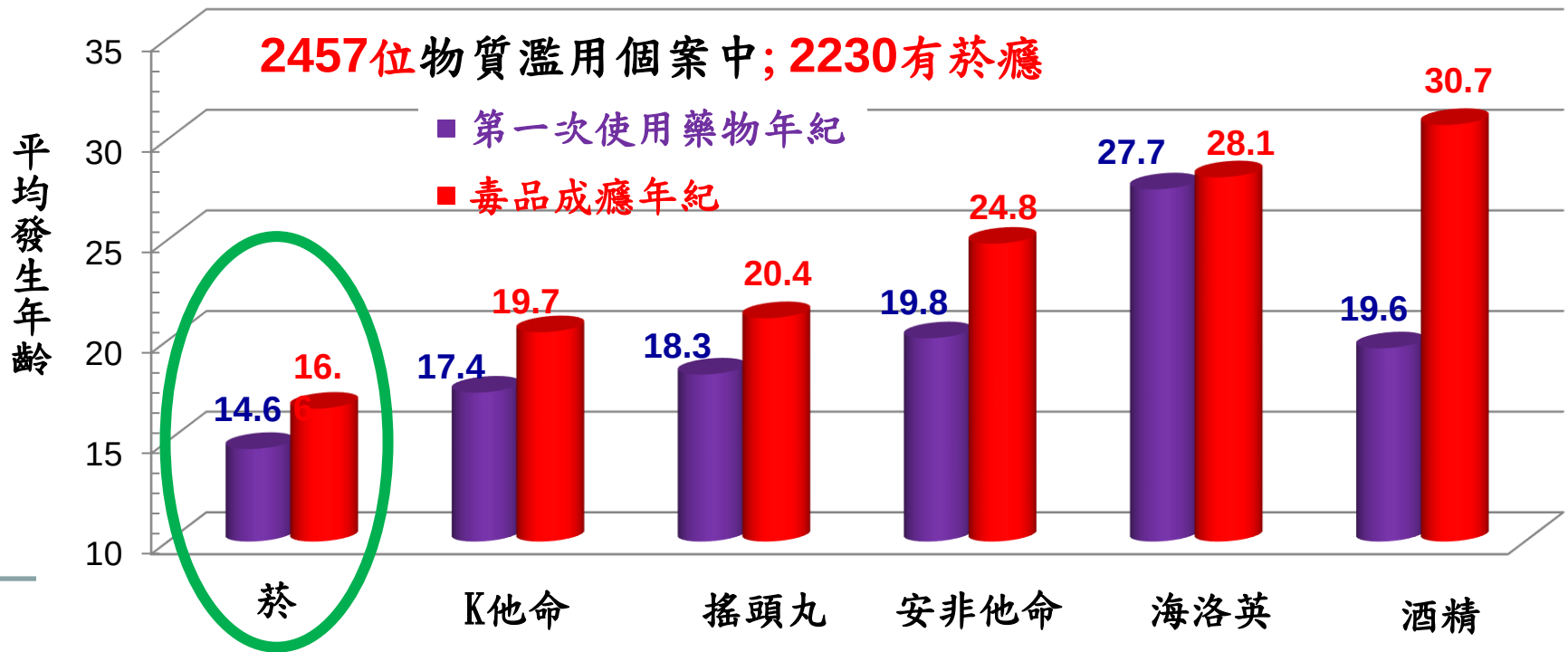
使用種類物質不同



Source : NSDUH survey



本中心研究發現：毒品使用者有**九成**在青少年階段就抽菸
提供國人**毒品預防從小做起**的重要性



使用原因不同

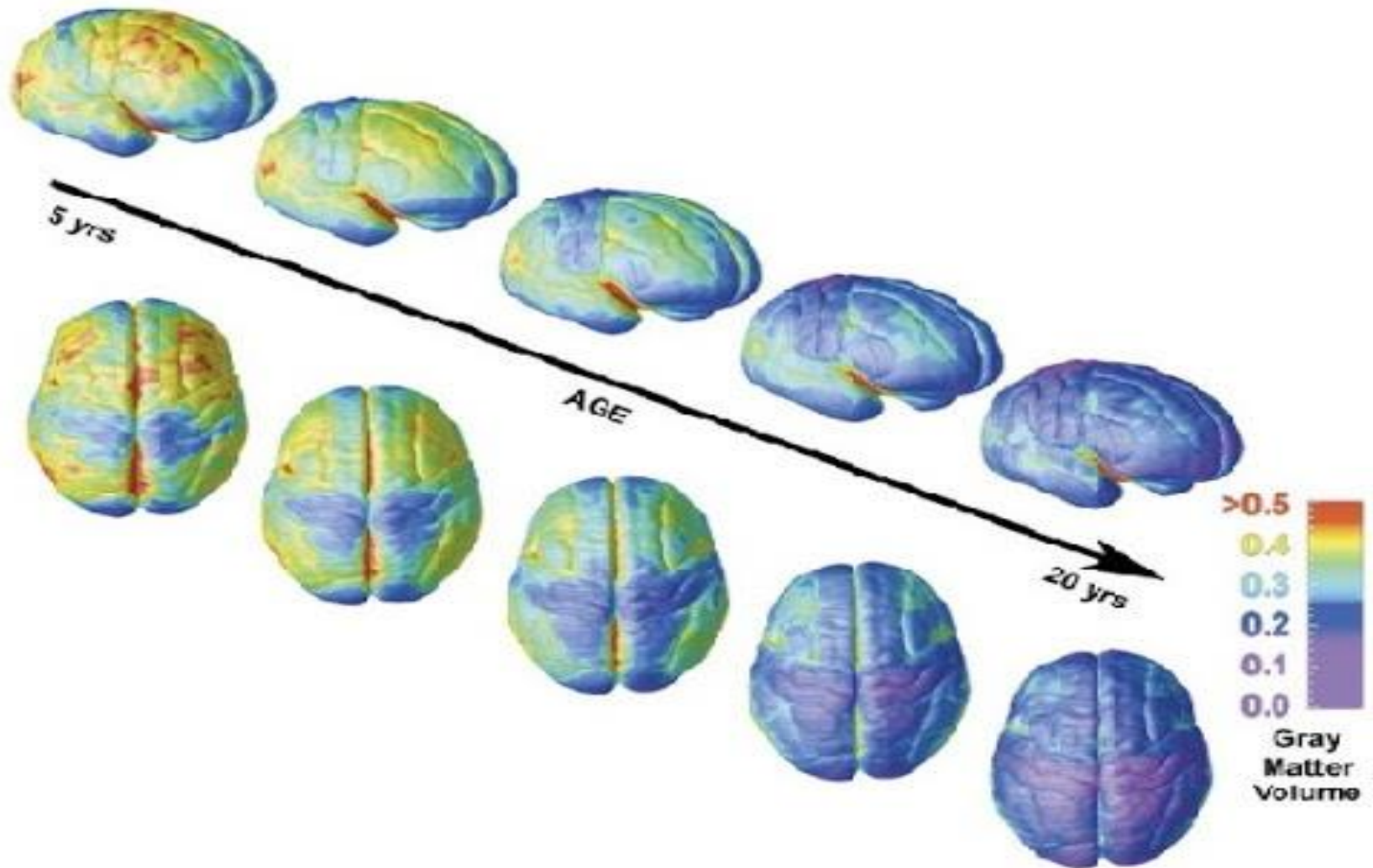
- ◆ To fit in: 因為別人也在做
- ◆ To feel good: 讓自己感覺爽
- ◆ To feel better: 自己治療憂鬱、焦慮、過動症
- ◆ To do better: 讓自己表現好一點(聰明藥)
- ◆ To experiment: 追求新奇刺激



法令也不同

施用毒品	刑責	成人	少年	差異
一二級毒品	毒品危害防制條例§10 	毒品危害防治條例§20 1、觀察勒戒 2、強制戒治 3、緩起訴 4、起訴判刑	少年事件處理法§42 1、少年保護處分 2、觀察勒戒 3、強制戒治 4、起訴判刑	1、少年保護處分 2、少年不適用緩起訴，適用少年事件處理法§28諭知「不付審理之裁定」
三四級毒品		行政罰 (毒品危害防制條例§11-1)	少年保護處分 (毒品危害防制條例§11-1) 行政罰得減輕 (行政罰§9、毒品危害事件統一裁罰基準及講習辦法 §10)	少年保護處分

大腦發展不同



Mature brain regions at each developmental stage are indicated in blue. The **prefrontal cortex** (red circles), which governs judgment and self-control, is the last part of the brain to mature.

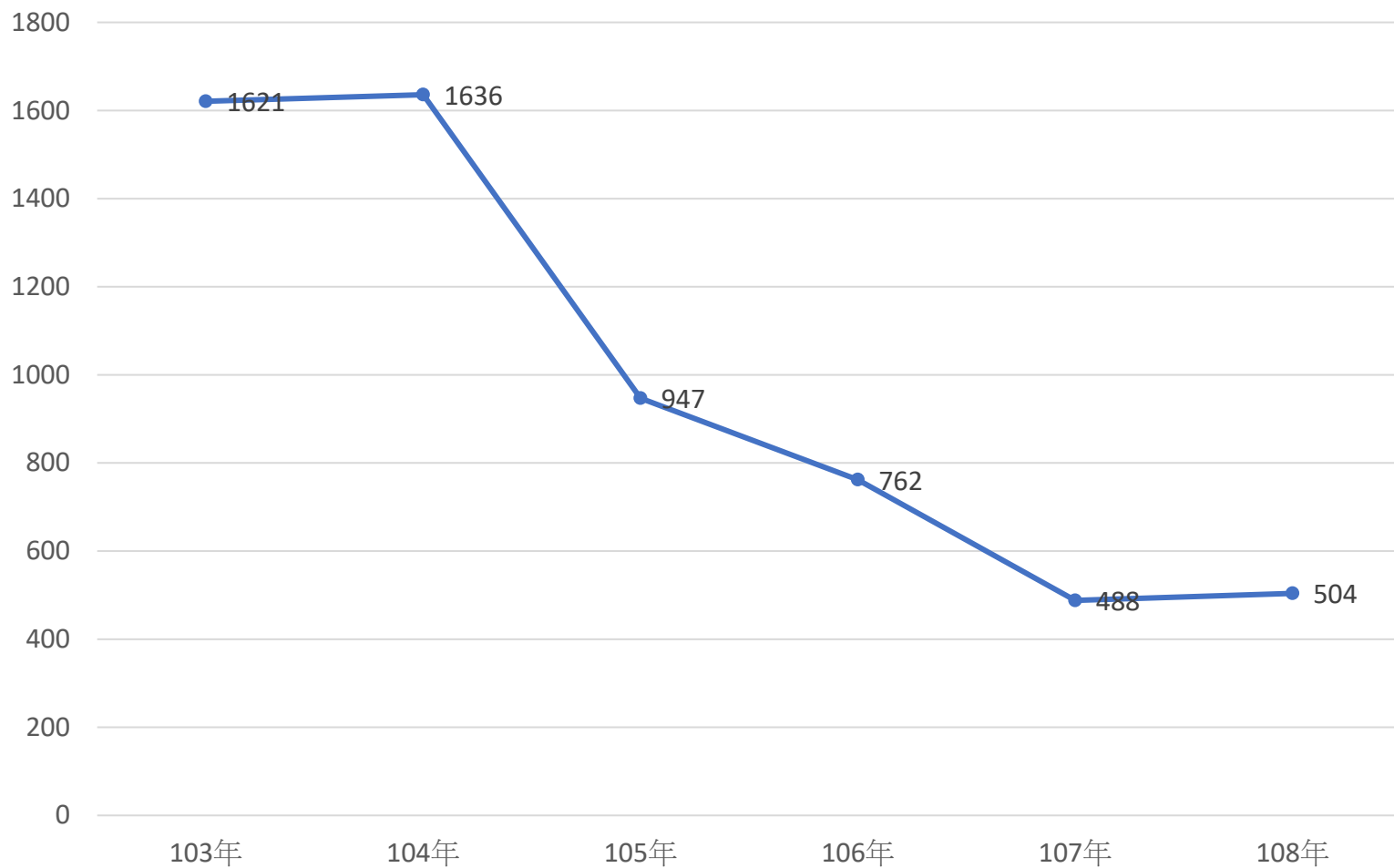
Source: PNAS 101:8174–8179, 2004.



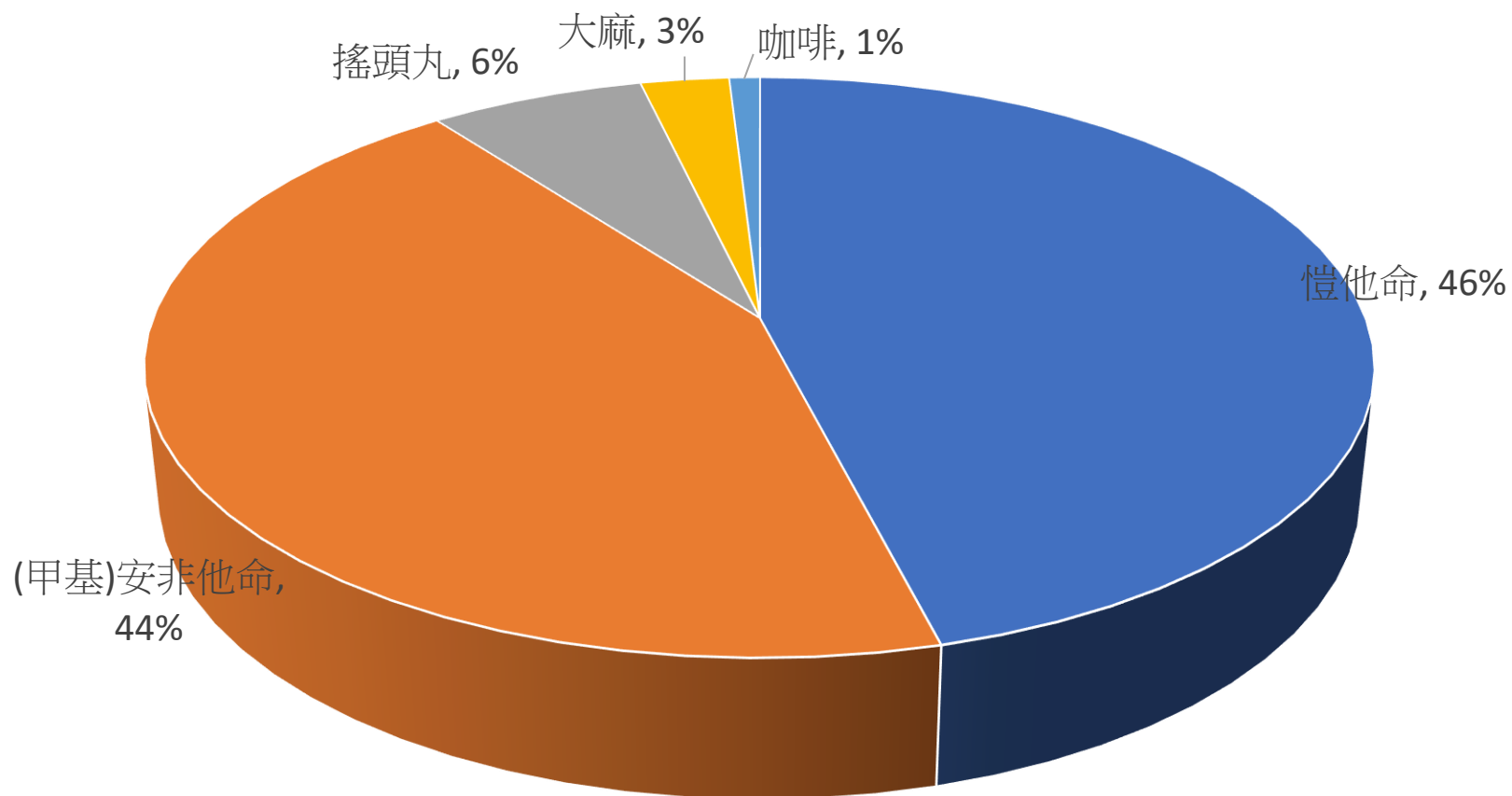
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青少年藥物濫用歷年通報人數(103-108)



青少年藥物濫用種類排序



青少年之吸毒心理特徵分析 (1)

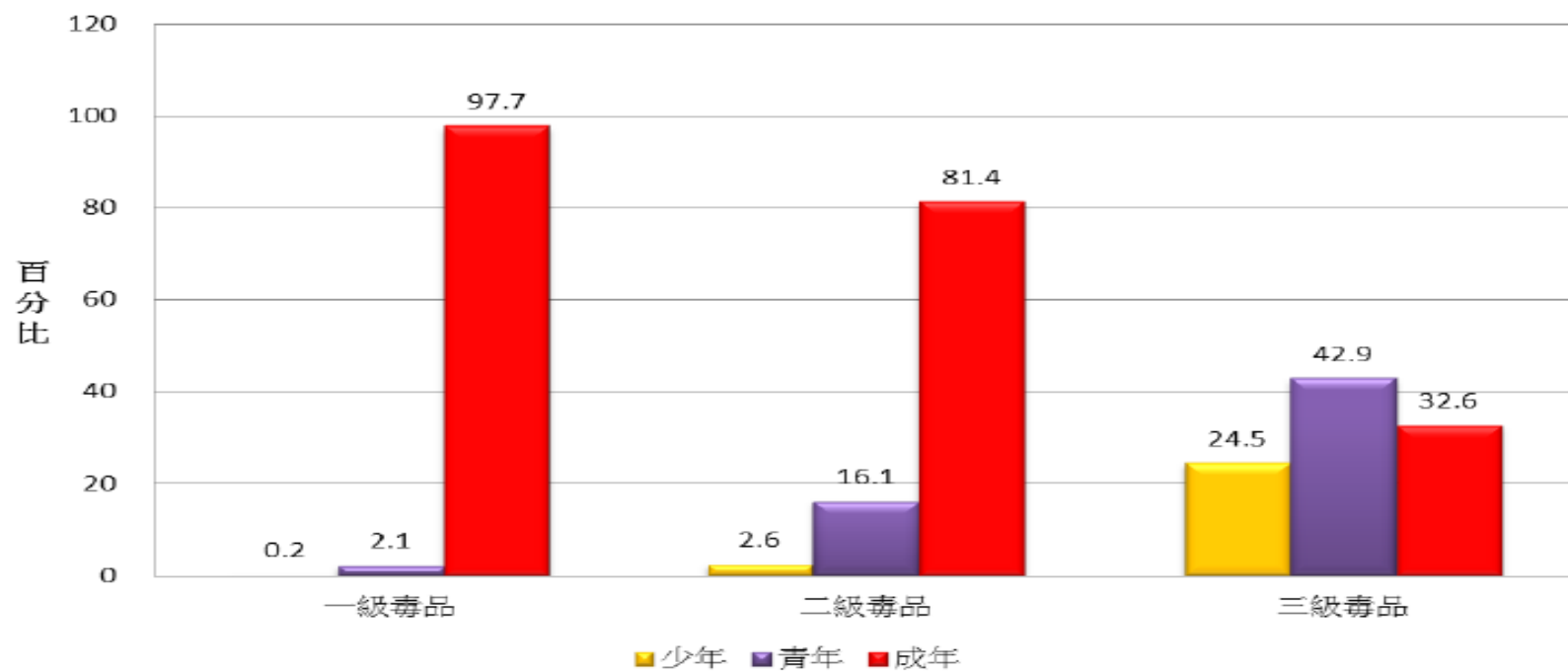
■ Begins Out of Curiosity

- ✓ New experience and altered state offers a **unique feeling**.
- ✓ As use increases, youth begin to immerse themselves **in subculture**.
- ✓ This subculture often provides **psychological needs** that may be lacking elsewhere.



青少年之吸毒心理特徵分析 (2)

- Significant Influence by **Mass Media**
 - ✓ Youth (8-18): **6.5 hrs per day** or **44.5 hrs per week** – all forms of media (TV, Radio, mp3, video game, movie, etc) and Mass media poses a significant public health risk for youth (Am. Acad. Ped., 1995; 1996; 1999; 2001a; 2001b; 2001c.)
 - ✓ In 2003, 83.6% of youths 12-17 (20.8M) reported exposure in past year to an alcohol, smoking or drug message: poster, pamphlet, radio, TV, etc. (NSDUH Report, 2005; Farrelly et al., 2005). **Current Internet**

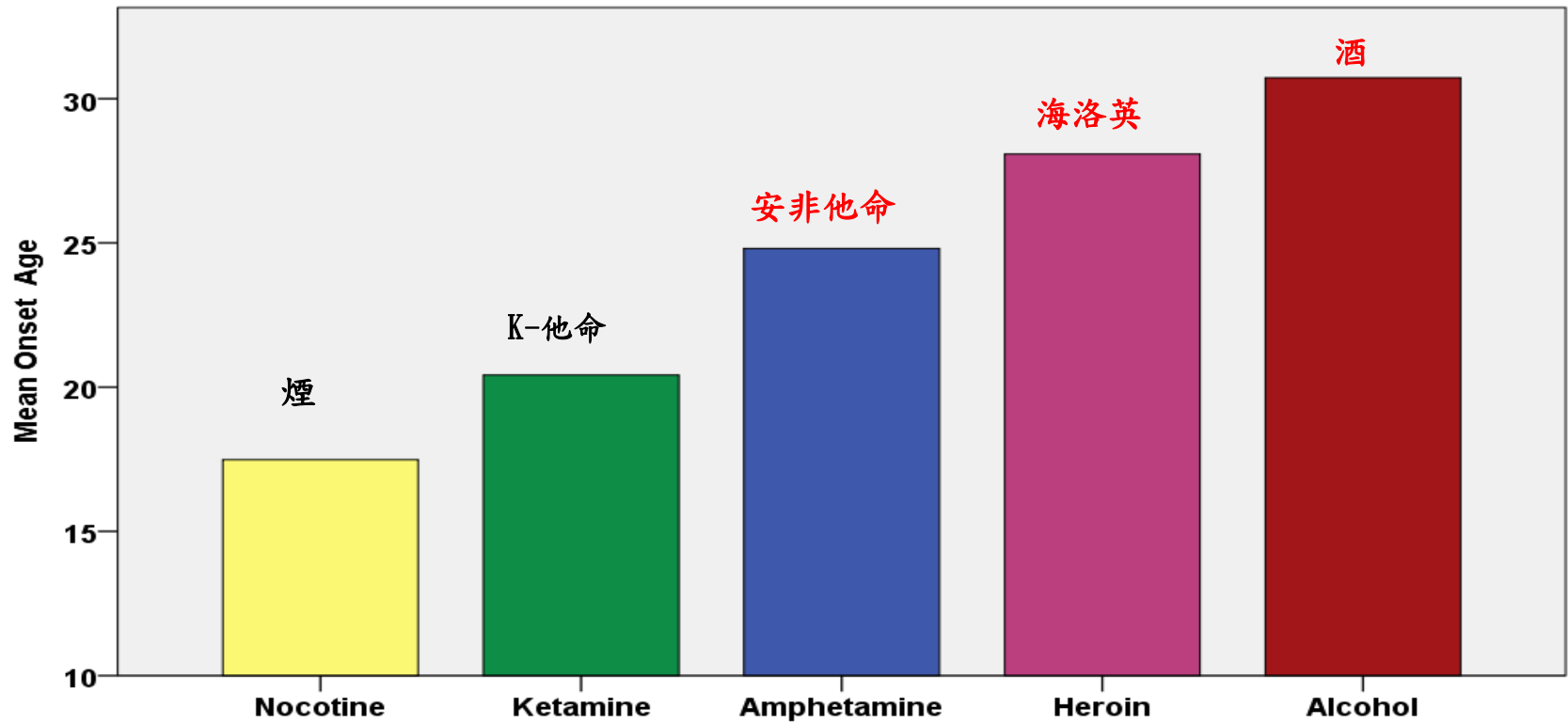


圖二十二、102年各級毒品嫌疑犯人之分齡統計(資料來源:內政部警政署)

註:少年係指12-17歲,青年係指18-23歲,



各物質成癮平均年齡



青少年之吸毒心理特徵分析 (3)

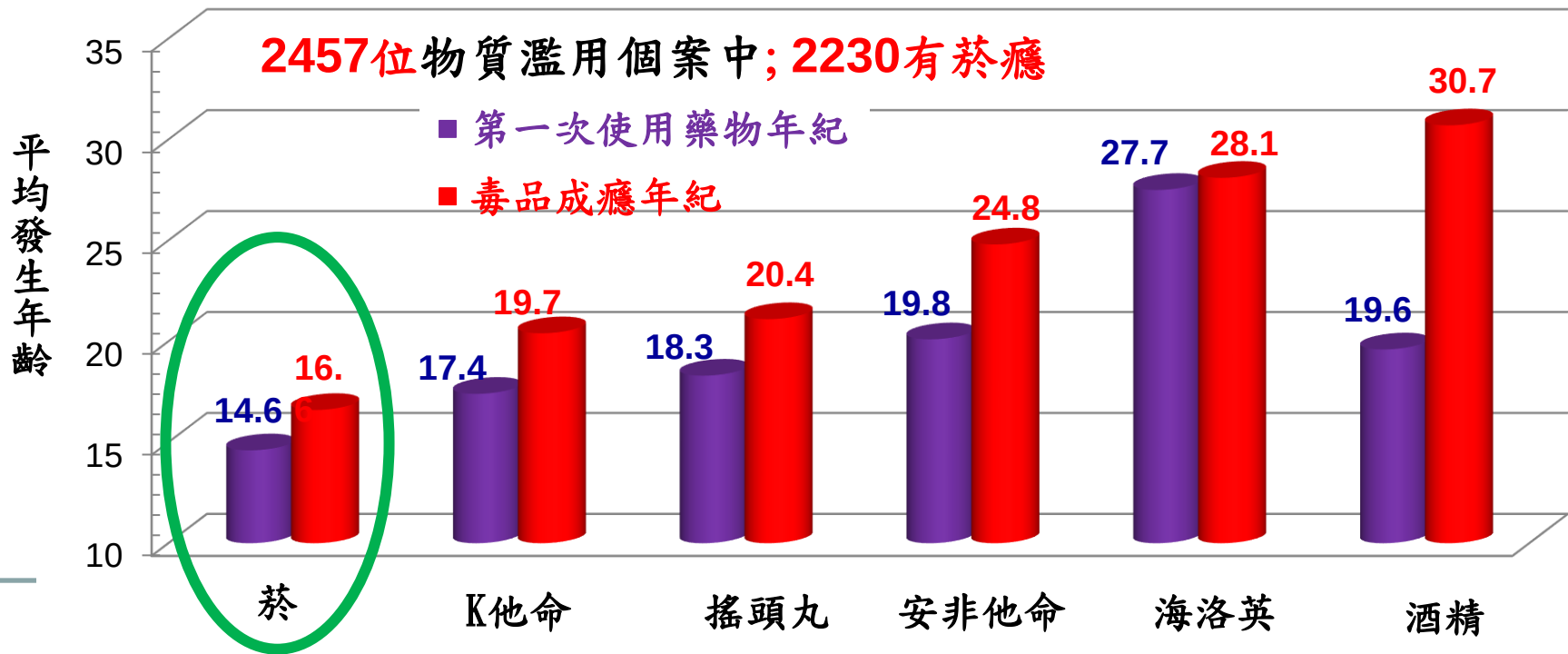
■ More Binge drinking, smoking and Marijuana

- Peak Age of Binge Drinking in USA: 20-25 yrs→
People who 1st drank at age 21, 22, 10% developed alcoholism (NSDUH, 2006)
- ✓ Illicit Drug Use Related with Alcohol and Cigarettes Use
- ✓ Combination of Club Drugs
- ✓ High-risk Sexual Behaviors





本中心研究發現：毒品使用者有**九成**在青少年階段就抽菸
→ 提供國人**毒品預防從小做起**的重要性



青少年之吸毒心理特徵分析 (4)

- Related with **Chaotic Social Life**
- ✓ **Family** disruption, conflict, and chaos
- ✓ Negative peers/ gang involvement
- ✓ Serious substance abuse: 60 - 80% of incarcerated samples
- ✓ School problems: 85%, **suspended: 80%** among Substance Using Youth (MTF, 2006)



青少年之吸毒心理特徵分析 (5)

■ **High Mental illness Comorbidity and Low Medical Services Using**

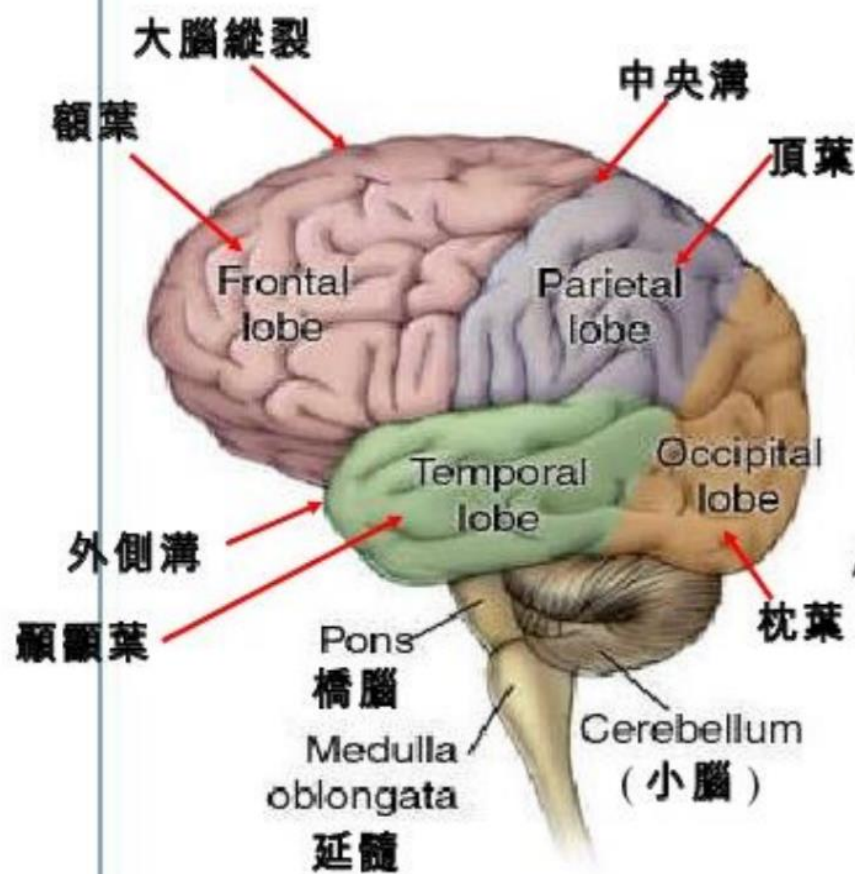
- ✓ Co-occurring mental health problems: **75% have a DSM disorder** among Substance Use Adolescents
- ✓ Low Combined treatment Rate and Ignorance of Co-occurring Problems of Mental Distress and Substance Use



課程大綱

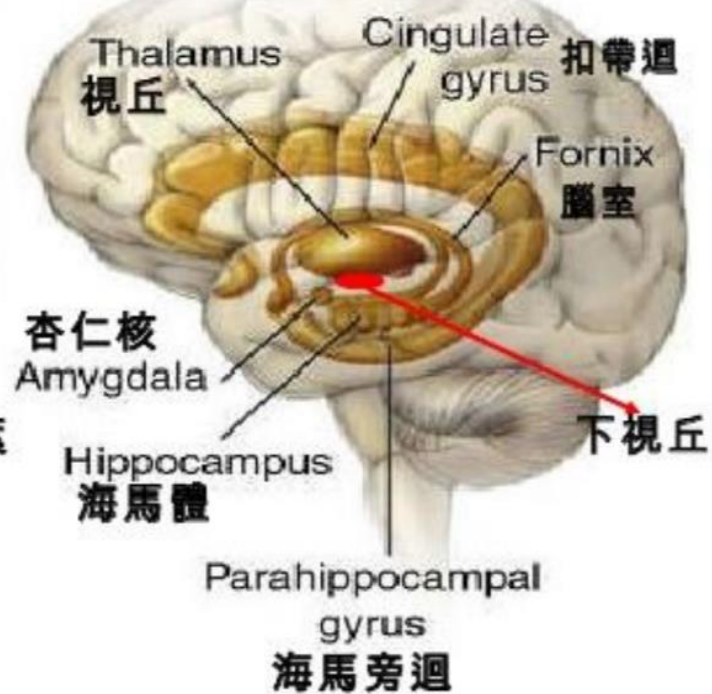
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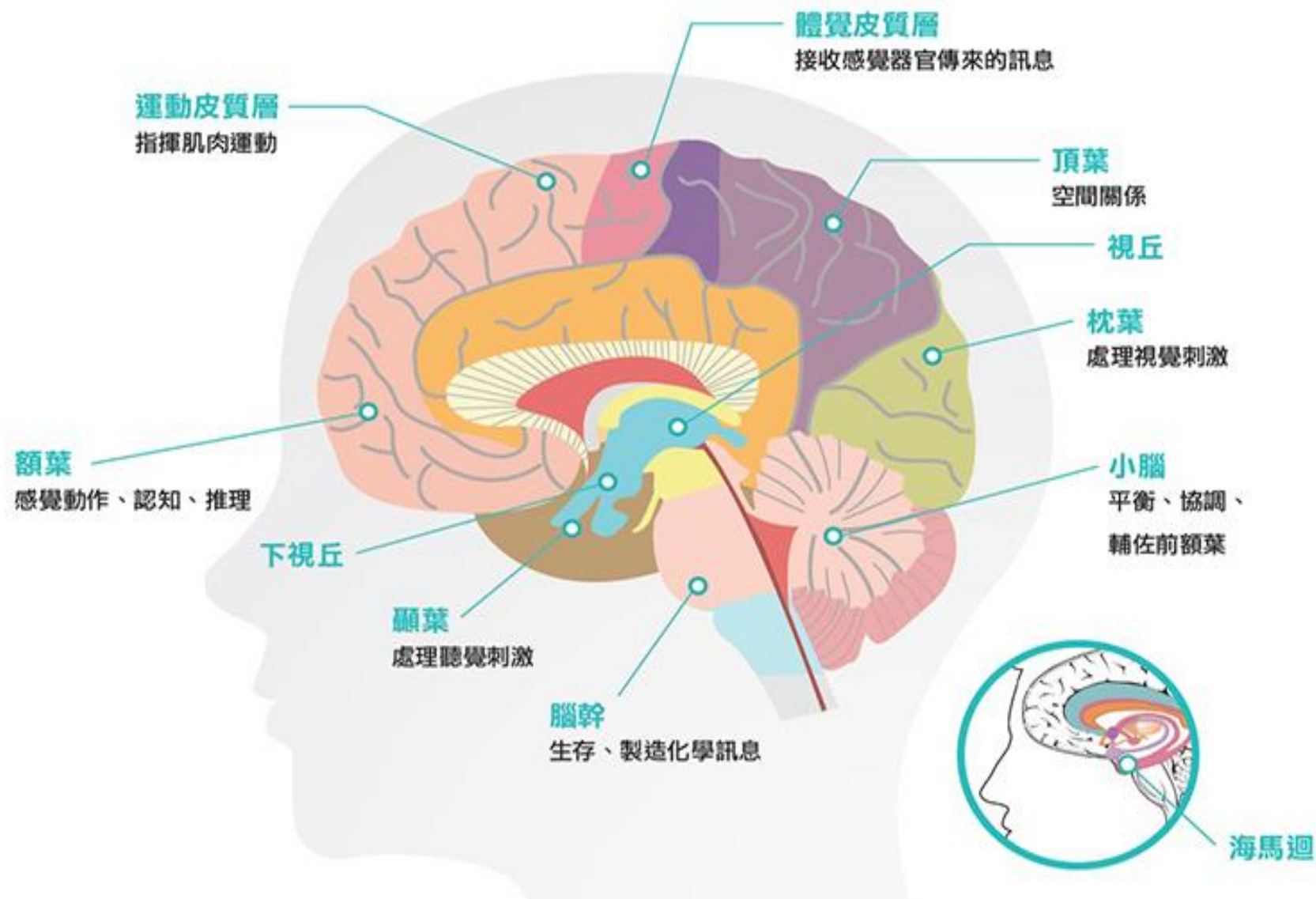
大腦皮質區



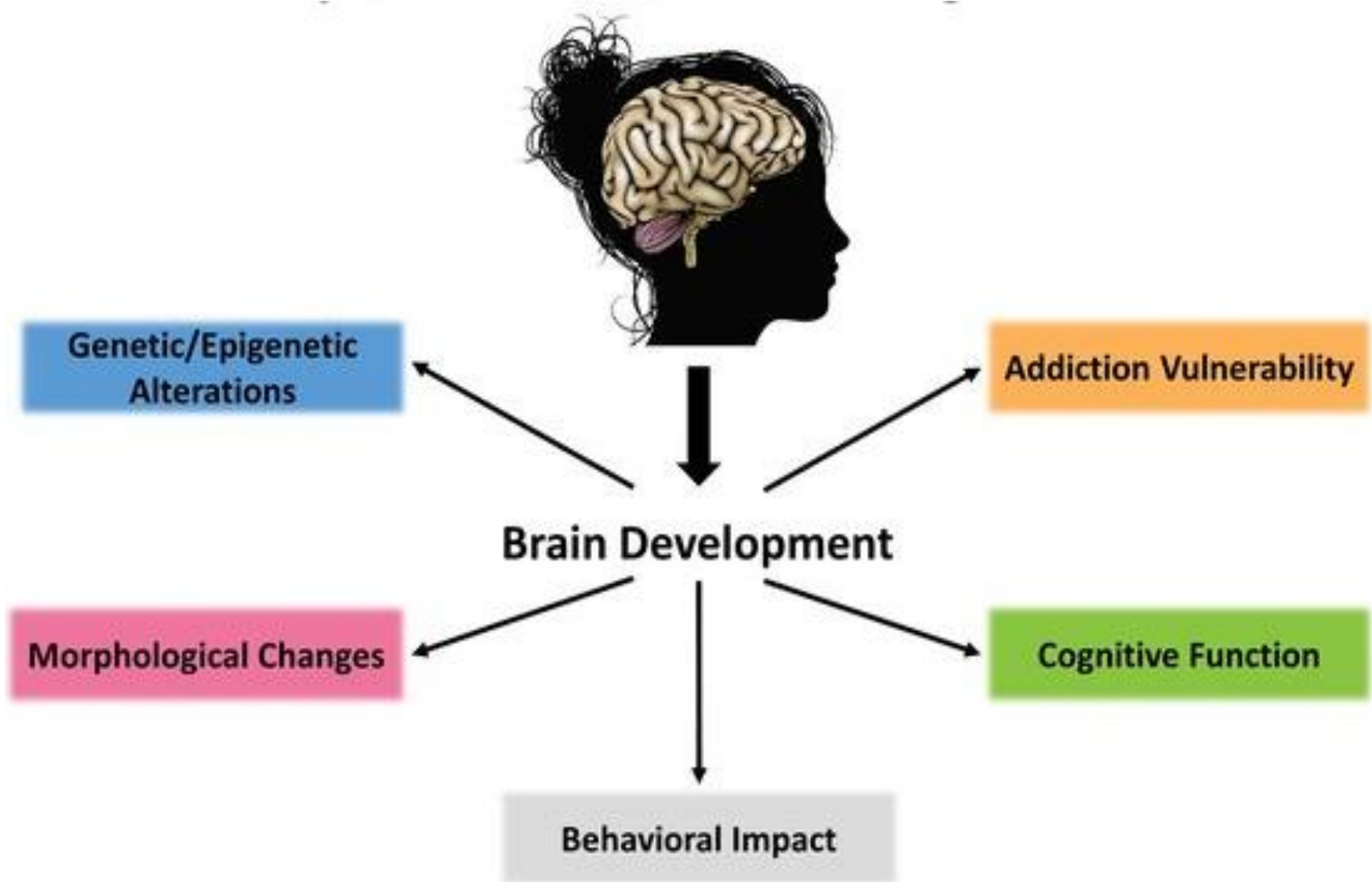
邊緣系統

Limbic System



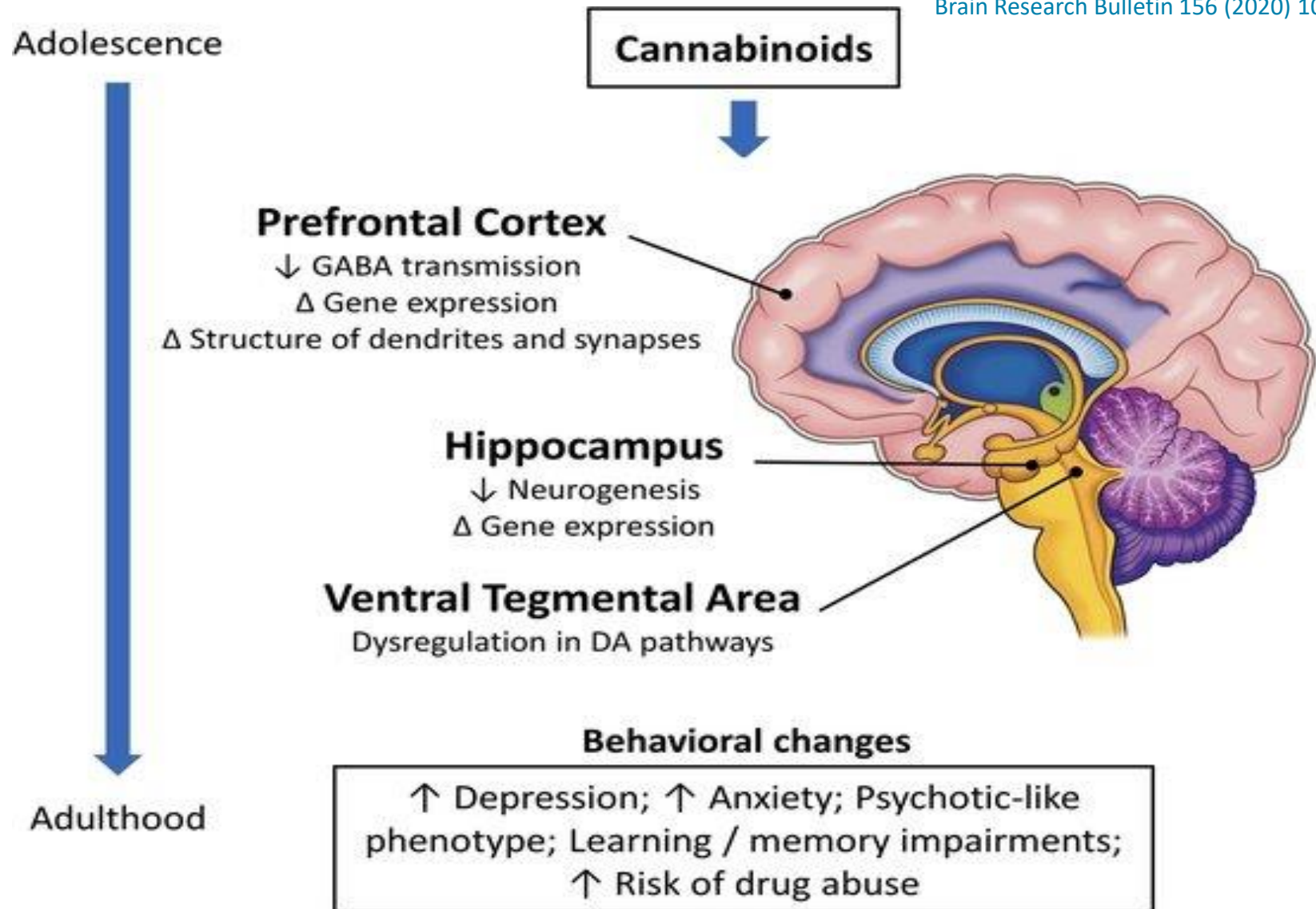


Impact of Adolescent Drug Abuse



Summary of the long-term effects of **adolescent cannabis use** on adult brain function and behavior

Brain Research Bulletin 156 (2020) 105–117

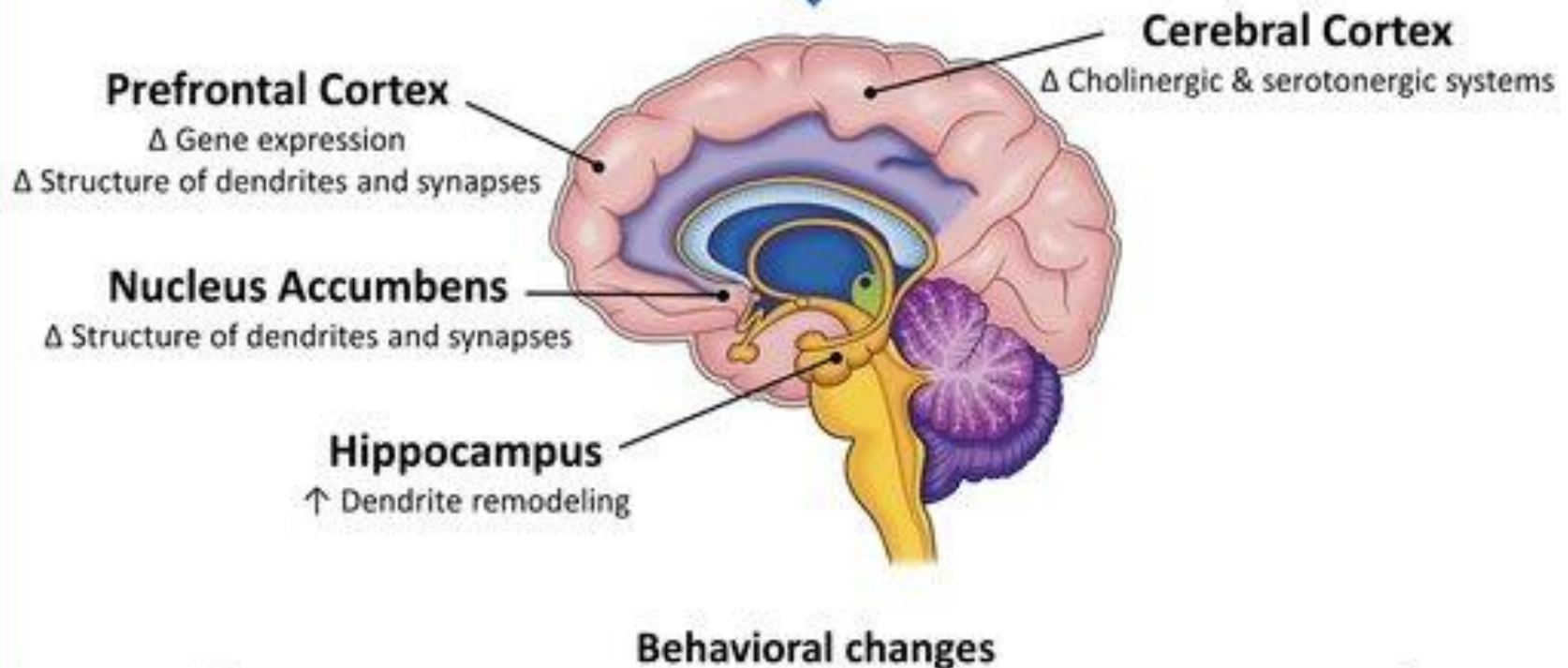


Summary of the long-term effects of **adolescent Nicotine use** on adult brain function and behavior

Adolescence

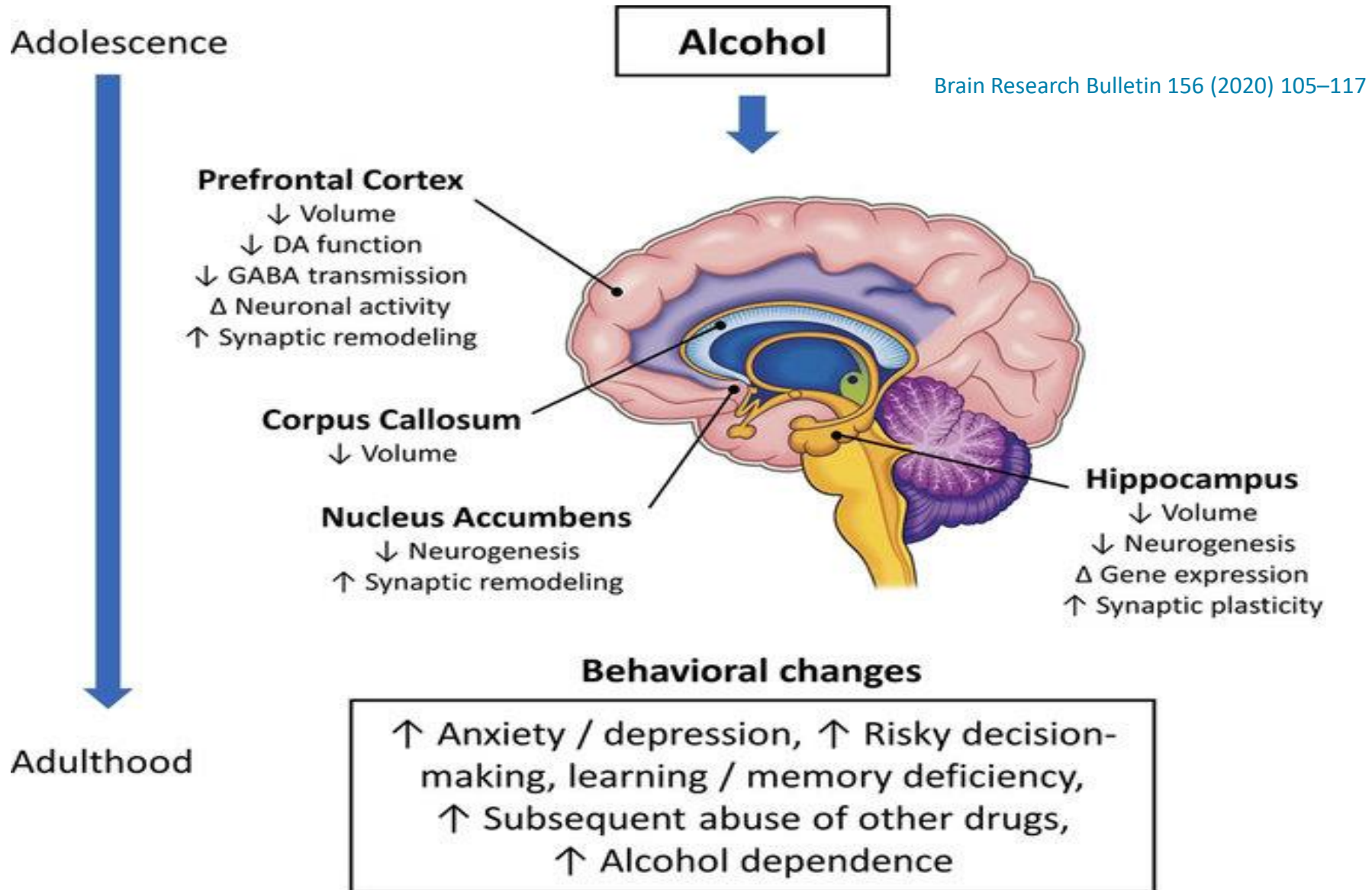
Nicotine

Brain Research Bulletin 156 (2020) 105–117

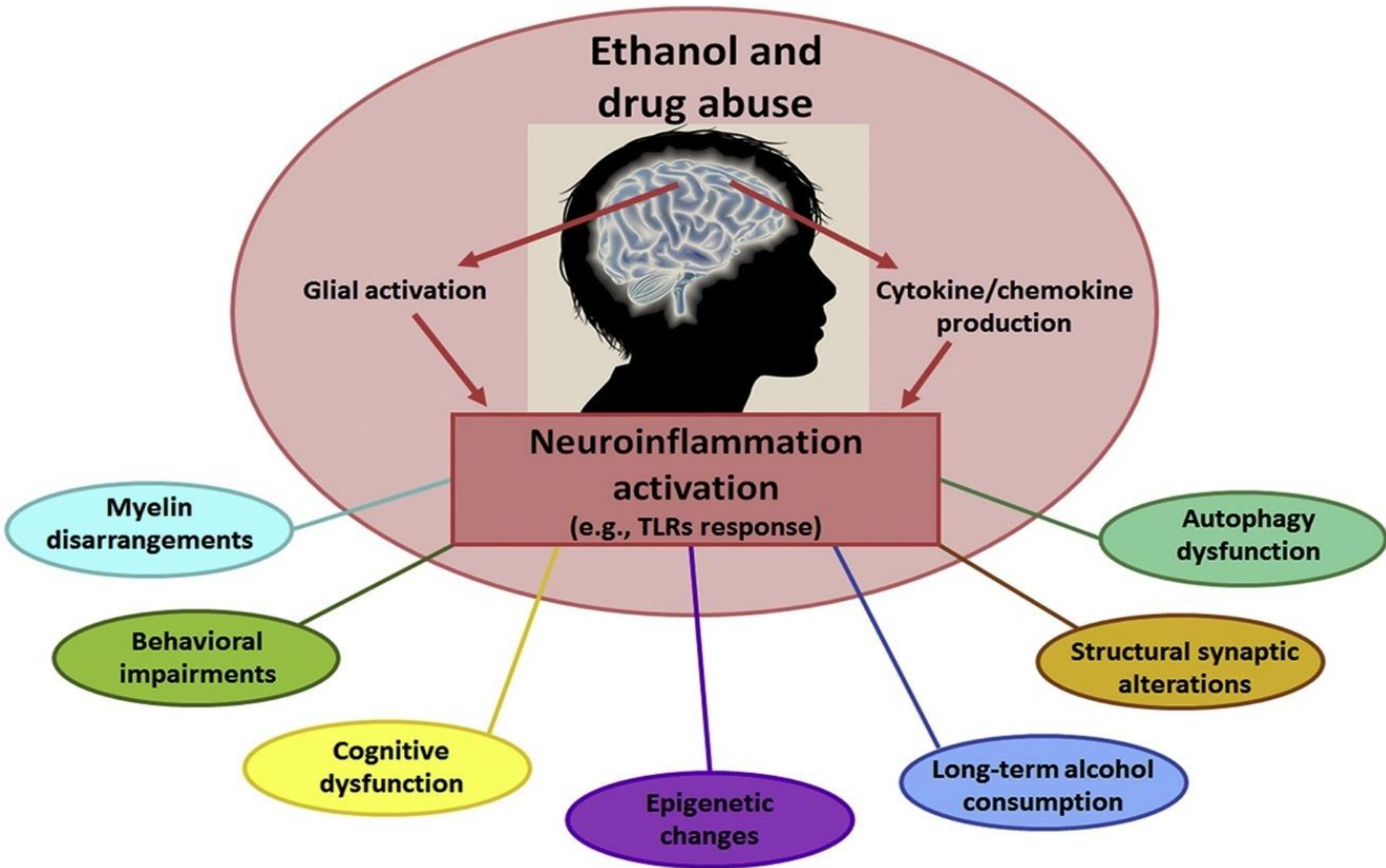


Adulthood

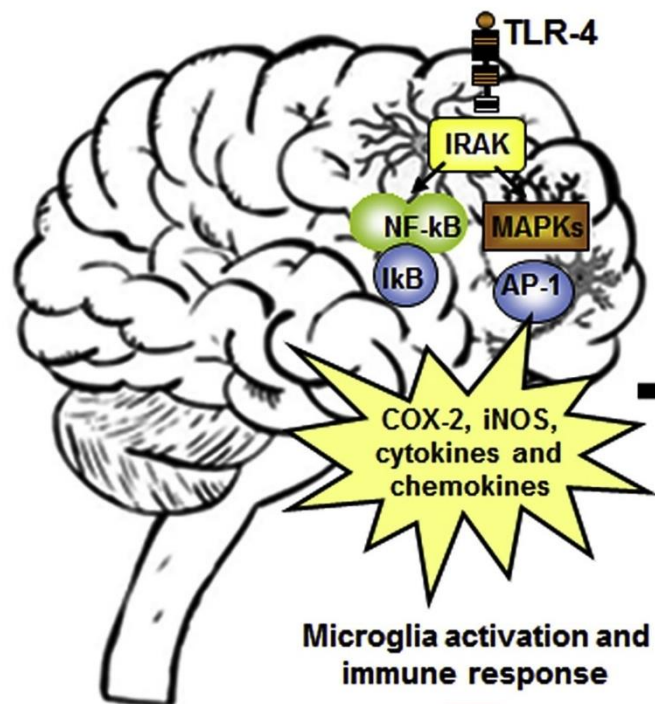
Summary of the long-term effects of **adolescent Alcohol use** on adult brain function and behavior



Impact of Adolescent Drug Abuse

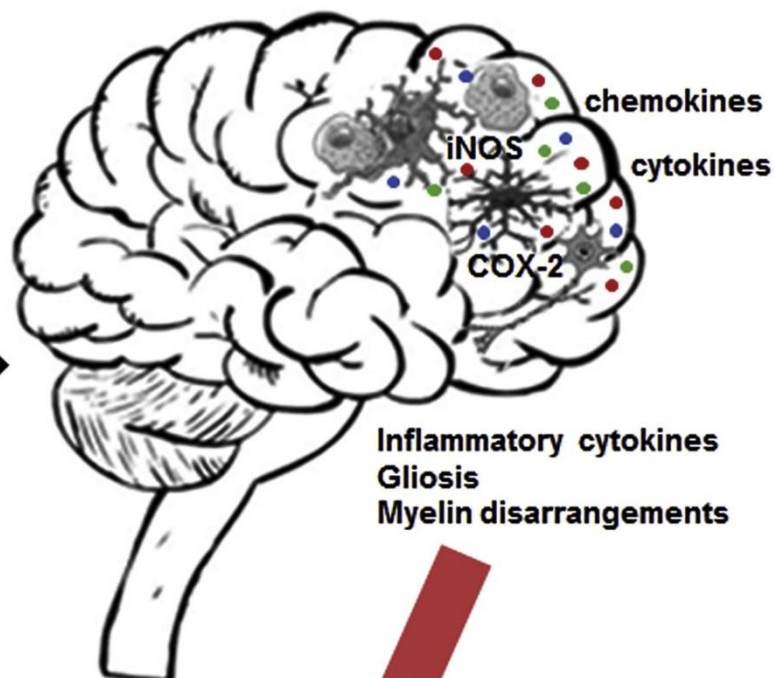


ETHANOL OR DRUGS ABUSE IN ADOLESCENCE



**Prefrontal cortex damage and
reward sensitivity**

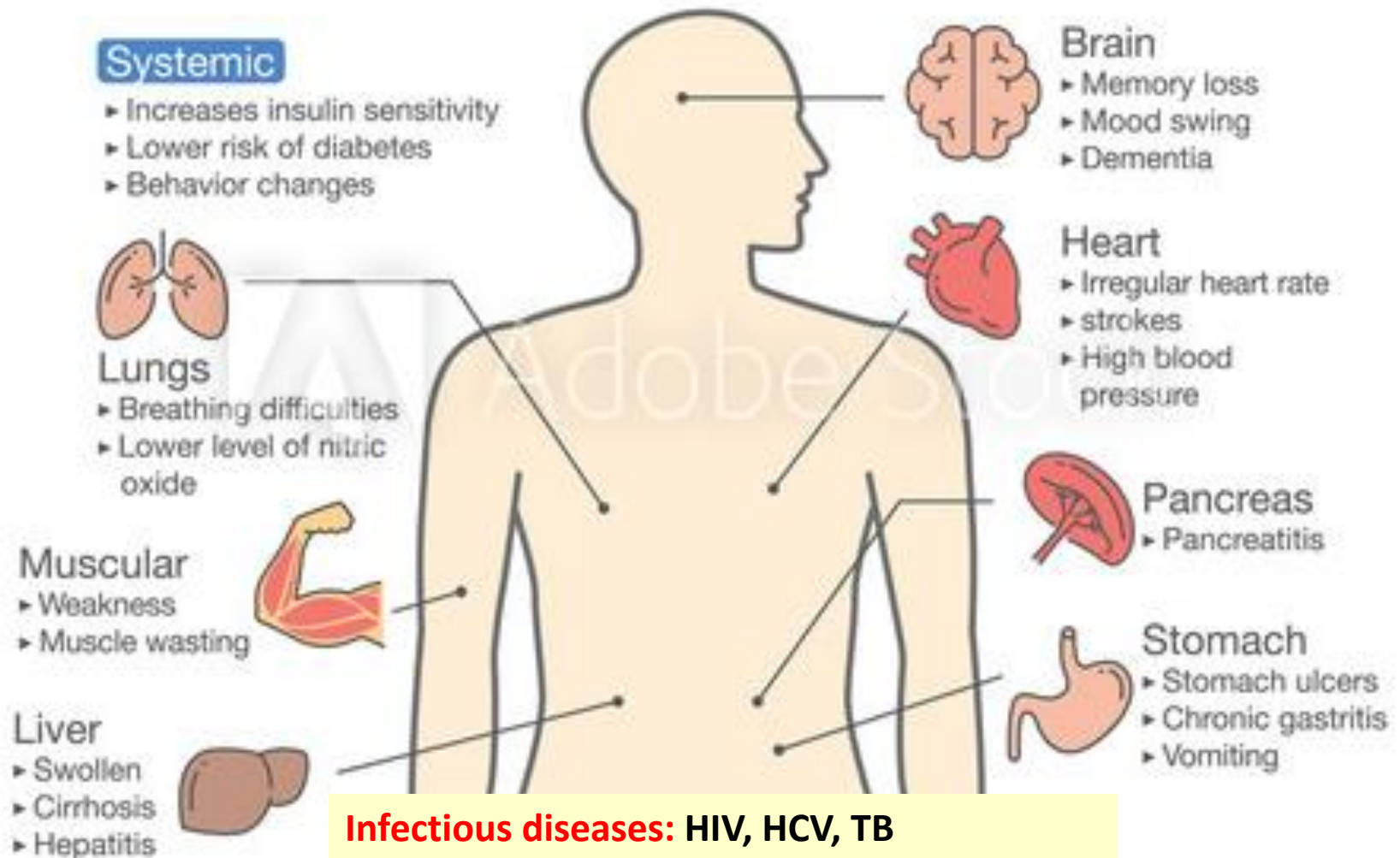
Long-term consequences



**Cognitive and behavioral
impairments and predisposition
to drug abuse**

Organ impairment in AUD

酒癮的危害



Infectious diseases: HIV, HCV, TB

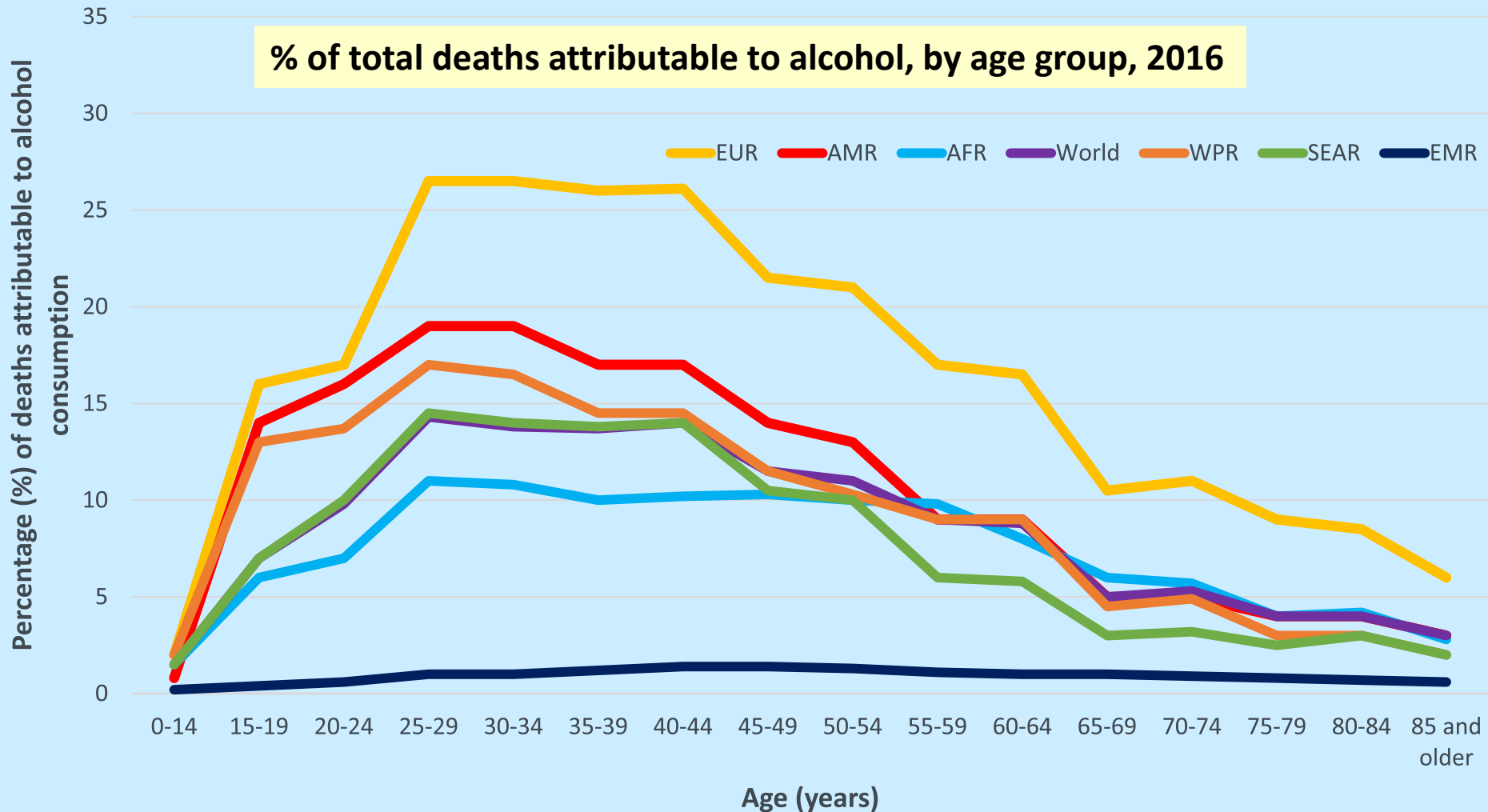
Injuries, violence, homicides and poisonings

FASD: Fetal alcohol spectrum disorders

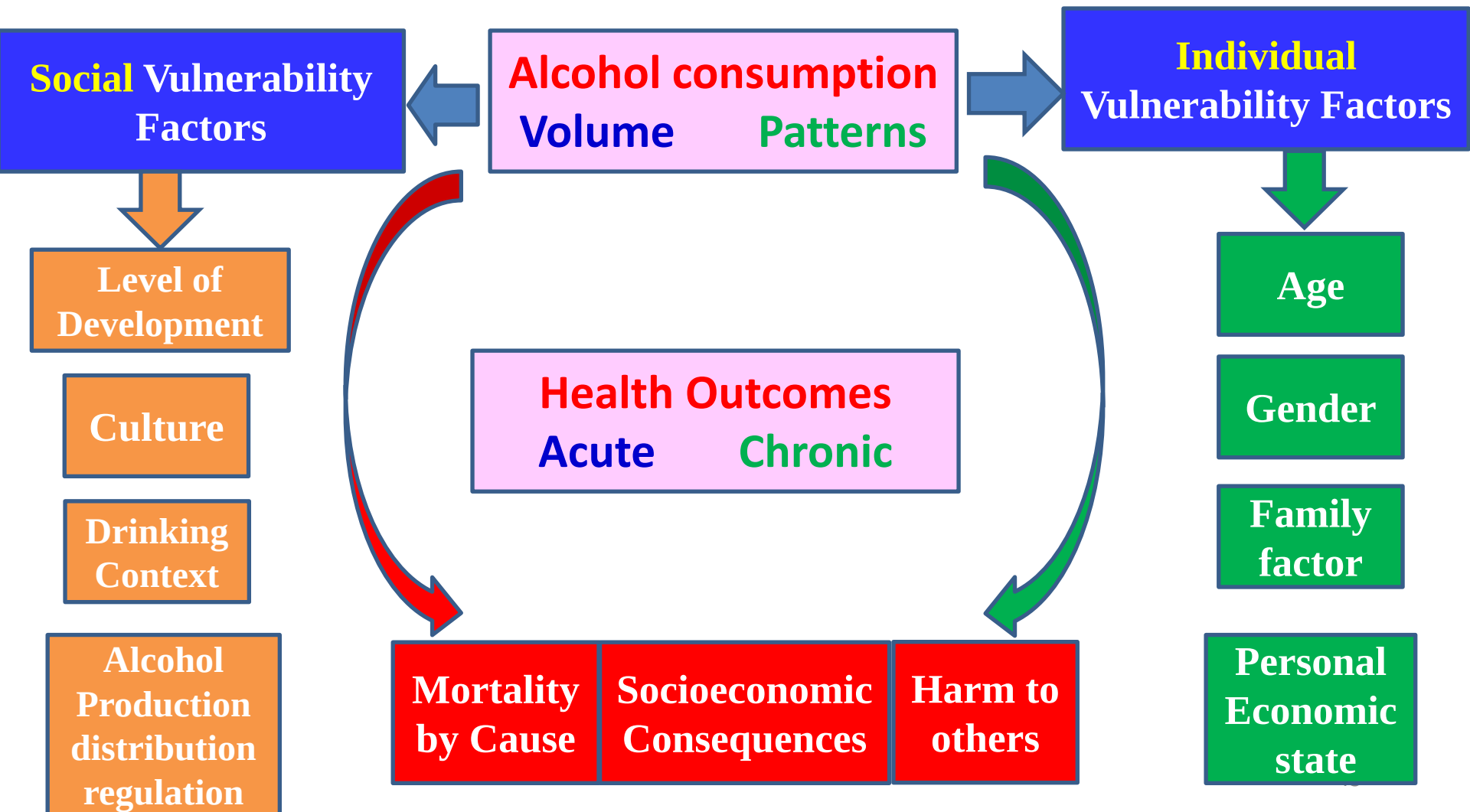
Disease burden attributable to alcohol consumption worldwide WHO, 2018report

- Harmful use of alcohol kills more than **3 million**

% of total deaths attributable to alcohol, by age group, 2016



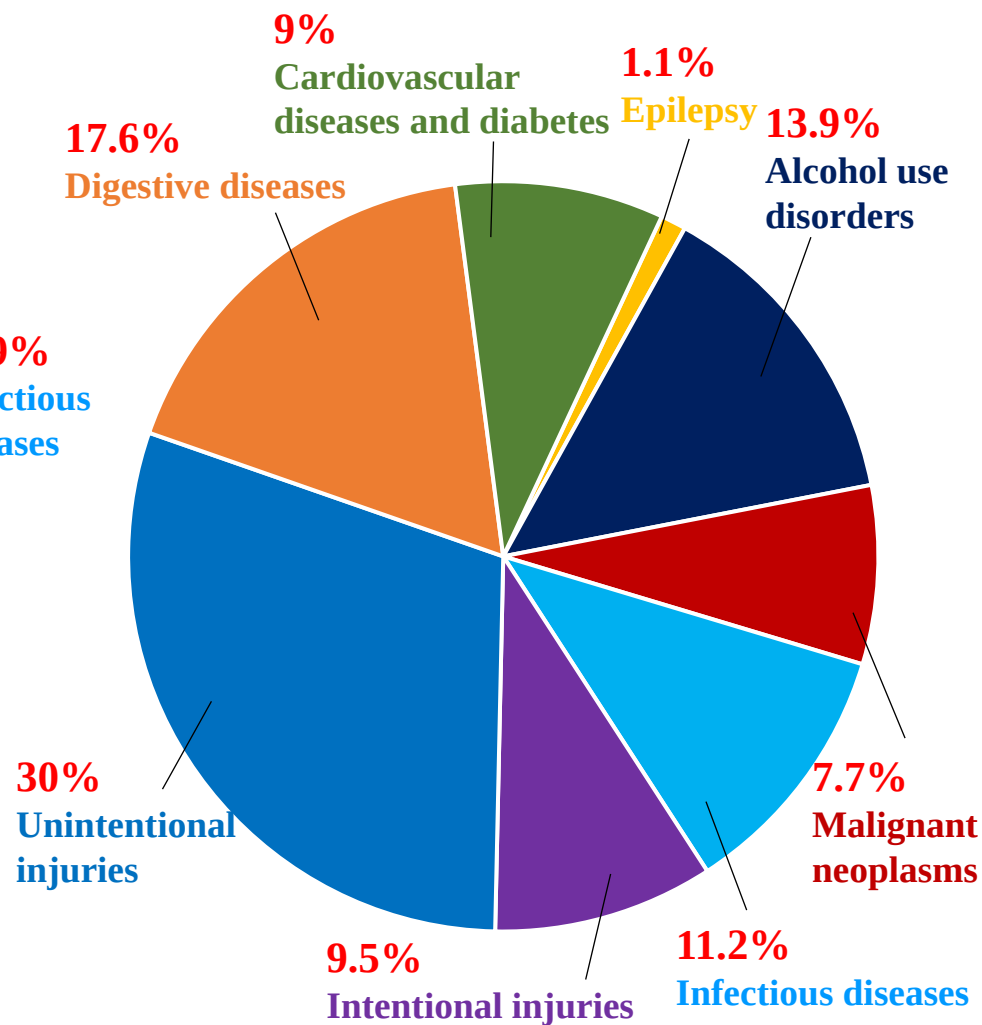
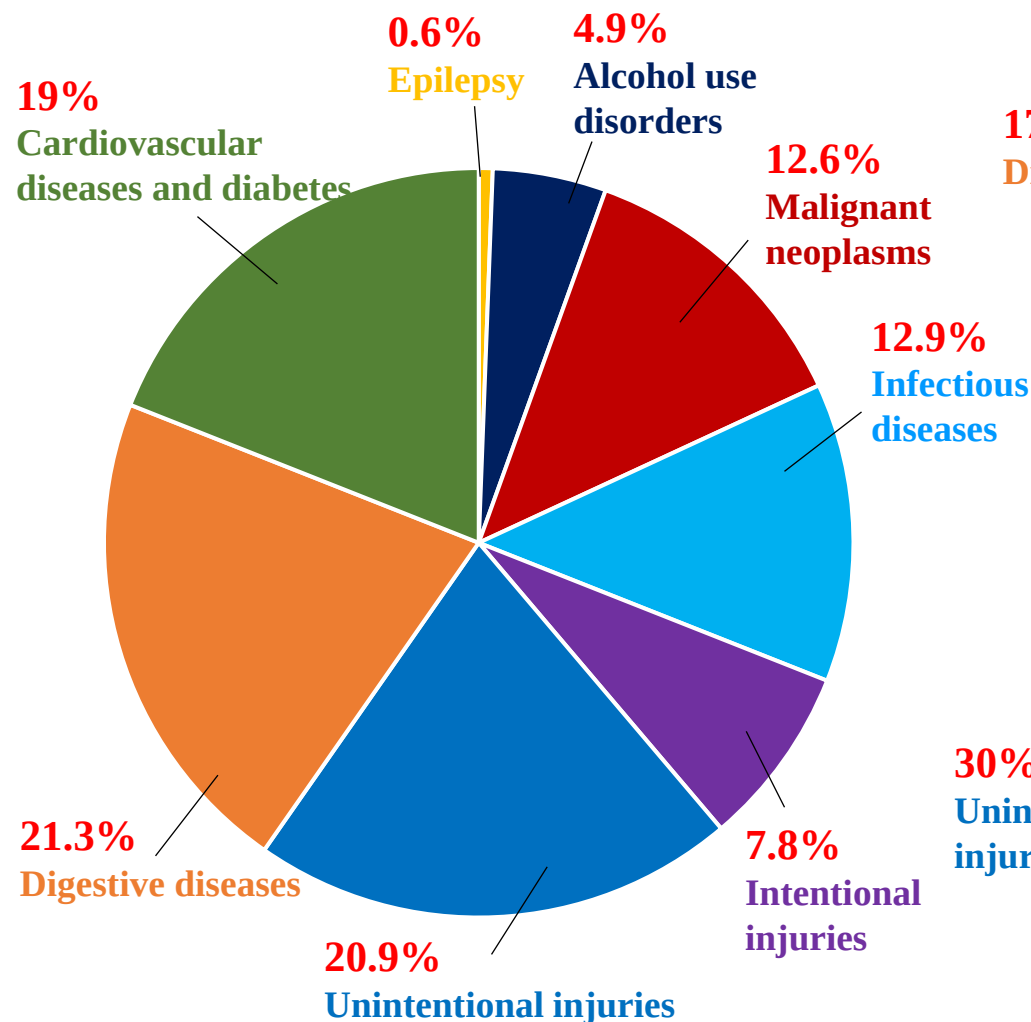
Conceptual causal model of alcohol consumption and health outcomes



Global distribution of alcohol-attributable **deaths** and **DALYs**, 2016

Deaths: 3 million

133 million DALYs



Addiction in Taiwan

Total population: 23,000,000

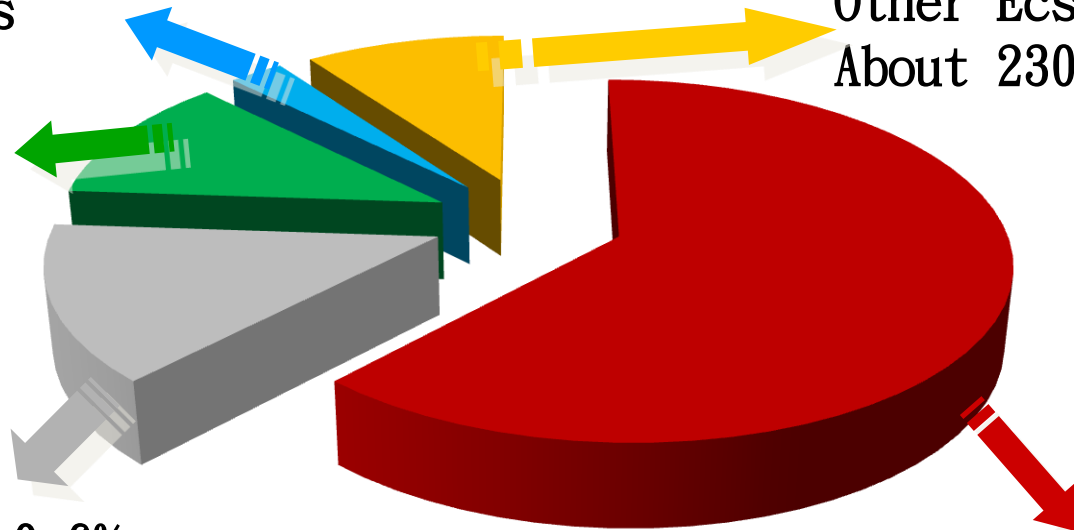
Heroin : 0.2%,
40,000 peoples

K他命成癮 : 1%,
230,000

Amphetamine : 0.6%,
120,000 people

Other Ecstasy : 0.6-1%,
About 230,000

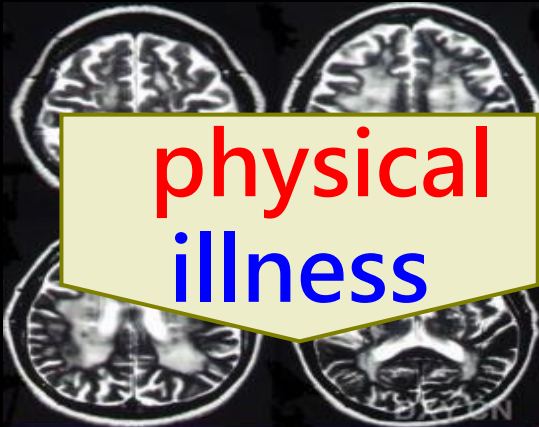
Alcohol addiction :
2-3%, 600,000



More than 1,000,000 People have addictive disorder.

No include nicotine use disorder or other addiction

Heroin induce problems



physical
illness



Public
Healthy

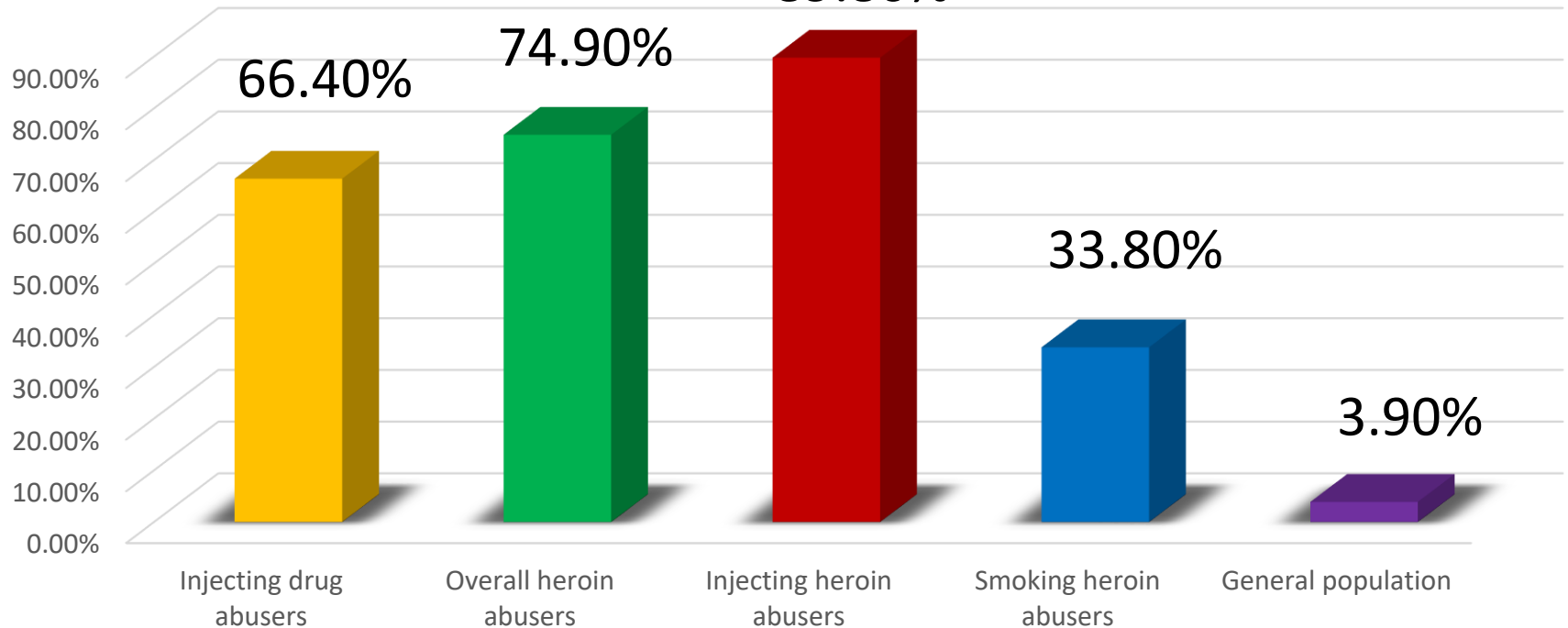


Social
impact



HCV prevalence in Taiwan

HCV prevalence



- Injecting drug abusers
- Overall heroin abusers
- Injecting heroin abusers
- Smoking heroin abusers
- General population



Classification of substance addiction.

毒品的分類？

1. 依來源分類：天然毒品；化學合成毒品

2. 依毒品對人體的作用分類：

3. 依聯合國禁毒公約方式分類：

Narcotic drugs (麻醉類藥品); psychotropic agent



毒品來源分類

毒品

天然毒品

鴉片類：鴉片，嗎啡，可待因，海洛因等。

可卡因類：古柯葉、古柯鹼、快克等。

大麻類：大麻葉、大麻油、大麻膏等。

仙人掌：麥司卡林。

蘑菇菌類：磨菇菌。

化學合成

鎮靜劑類：巴比妥類，Ketamine。

興奮劑類：安非他命。

迷幻劑類：LSD, Glue。



對人體的作用分類

- **中樞神經興奮劑**：安非他命、古柯鹼、搖頭丸(MDMA, ecstasy)、LSD(搖腳丸), PMA
- **中樞神經抑制劑**：酒精、安眠藥及鎮靜劑、有機溶劑、麻醉性止痛劑 (morphine, heroin)
- **幻覺劑類**：(MDMA)搖頭丸、LSD(搖腳丸)、MDA、PCP(天使塵)、Ketamine、蘑菇
- **綜合作用**：大麻
- **NPS**：



管制藥品與毒品關係

管制藥品(管制藥品審議委員會)		毒品(法務部毒品審議委員會)
適用法律	管制藥品管理條例	毒品危害防制條例
定義	一、成癮性麻醉藥品。 二、影響精神藥品。 三、其他認為有加強管理必要之藥品。 前項管制藥品限供醫藥及科學上之需用。	<u>麻醉藥品</u> 與其製品及 <u>影響精神物質</u> 與其製品。 <u>醫藥及科學上需用之麻醉藥品與其製品及影響精神物質與其製品之管理</u> ，另以法律定之。
分級原則	依其 <u>習慣性</u> 、 <u>依賴性</u> 、 <u>濫用性</u> 及 <u>社會危害性</u> 之程度，分 <u>四級</u> 管理。	依其 <u>成癮性</u> 、 <u>濫用性</u> 及對 <u>社會危害性</u> 分為 <u>四級</u> 。
審議委員會	由中央衛生主管機關設置 <u>管制藥品審議委員會</u> 審議後，報請行政院核定公告之。	由法務部會同衛生福利部組成 <u>毒品審議委員會</u> ，每三個月定期檢討，報由行政院公告調整、增減之。
罰則	<u>行政罰</u> (罰鍰)	<u>刑罰</u> (判刑或罰金)、 <u>行政罰</u> (罰鍰)



藥酒癮問題充斥在你我生活當中



2009-6 Michael Jackson因藥癮致死



因藥酒癮產生暴力與犯罪問題不斷在我們社會上演



2014-2奧斯卡影帝 Hoffman因毒品致死

一級毒品：海洛因(鴉片戰爭!!)

■ **濫用方式**：注射(血管及肌肉)、混菸抽吸(壓菸)或口服

■ **中毒症狀**：

使用初有欣快感，接著無感情、
心情惡劣、
反應遲滯、
瞳孔收縮、
昏昏欲睡，或昏迷、
言詞含糊、
注意力或記憶力障礙等。



海洛因的戒斷症狀

1. 心情惡劣
2. 噁心或嘔吐
3. 肌肉痠痛
4. 流淚或流鼻水
5. 瞳孔放大、豎毛、或流汗
6. 腹瀉
7. 打呵欠
8. 發燒
9. 失眠



Opiate

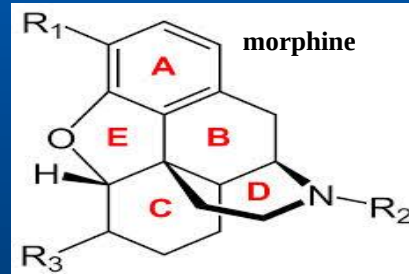
Poppy



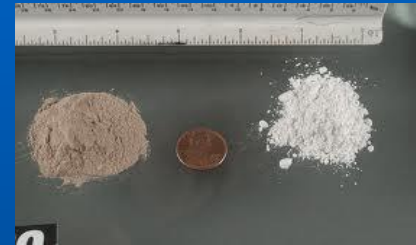
Opium(生、熟鴉片)



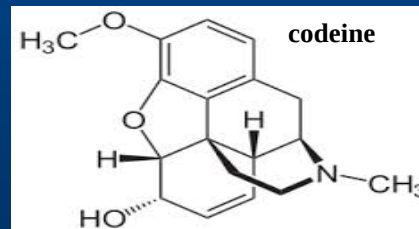
Morphine



Heroin



10 公斤嗎啡約提煉 1 公斤海洛因



二級毒品：安非他命

■ **濫用方式**：煙吸、口服、鼻吸或注射

■ **中毒症狀**：使用初有欣快感，同時會伴隨

心率過快或心率緩慢

血壓升高或降低

瞳孔放大、出汗或寒顫

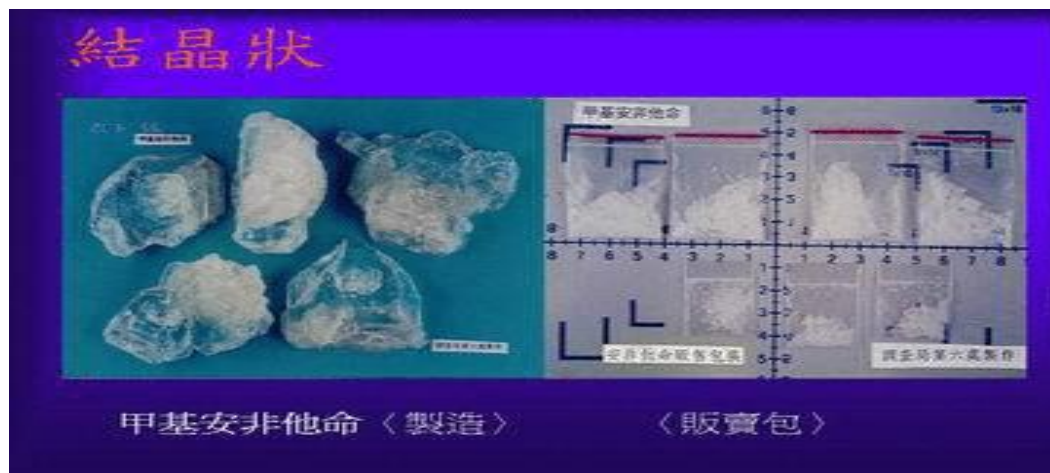
噁心或嘔吐

體重下降

精神運動性激動或遲滯

肌肉衰弱、呼吸抑制、胸痛、或心律不整

意識混亂、癲病、運動異常、肌張力異常、昏迷等



安非他命(興奮類)的戒斷症狀

1. 疲累
2. 做惡夢（鮮明而不愉快的夢）
3. 嗜睡、失眠
4. 食慾增加
5. 精神運動性遲滯、激躁



三級毒品：K他命

■ **濫用方式**：混菸抽吸(壓菸)、直接鼻吸(拉K)、口服、及注射等方式

■ **中毒症狀**：

高血壓及心悸

暈暈感、複視、視覺模糊、影像扭曲、
暫發性失憶、

身體失去平衡、等症狀。

噁心、嘔吐、

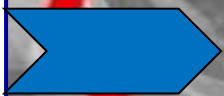


長期使用K他命對膀胱的危害

- 膀胱黏膜表層產生發炎潰瘍
- 嚴重頻尿、血尿、下腹痛甚至尿不出來
- 膀胱壁嚴重的纖維化
- 膀胱容量極小，甚至不到50cc
比一瓶小養樂多100cc還小)
- 可能需膀胱全切除，
可能一生用人造膀胱或背尿袋。
- 腎水腫甚至腎衰竭須終身接受洗腎



你是「小小膀胱、包尿布」的人嗎？





課程大綱

1. 成癮 (Addiction)的定義?
2. 藥物(毒品)在青少年與成年人有何不同?
3. 青少年之吸毒心理特徵分析
4. 毒品對青少年之生理危害(對大腦的影響)
5. 由實證醫學看毒品大腦傷害

影響成癮行為之神經物質：多巴胺

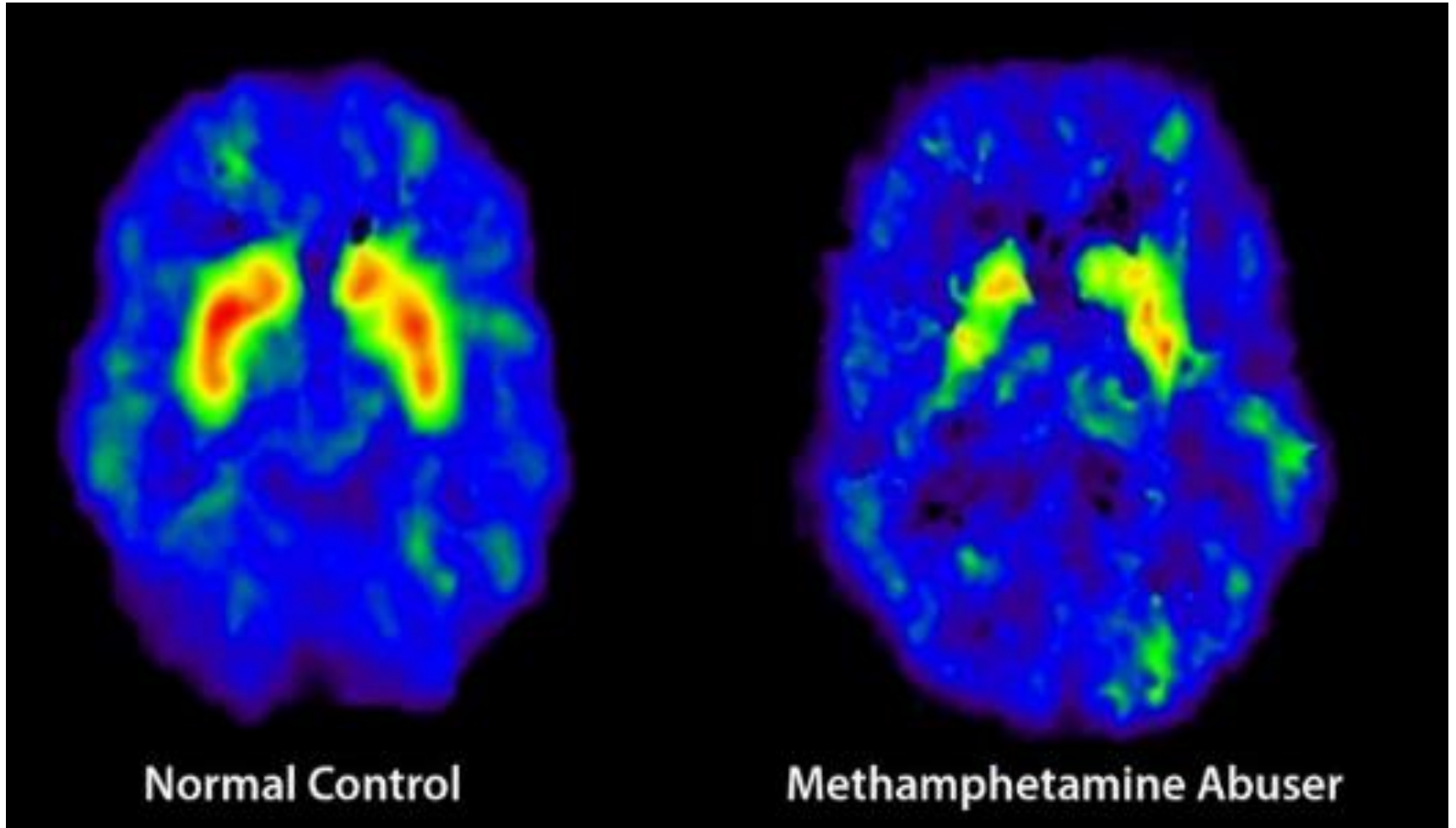
➤ 多巴胺在腦部功能之角色：

1. 與運動功能有關（包括巴金森斯症）
2. 與認知功能有關（抽象思考操作記憶和執行功能）
3. 與再增強行為有關（藥物濫用）

➤ 多巴胺轉運器相關之作用：

1. 突觸間隙之多巴胺之調節
2. 巴金森斯症導致此轉運器之喪失
3. 與認知功能相關

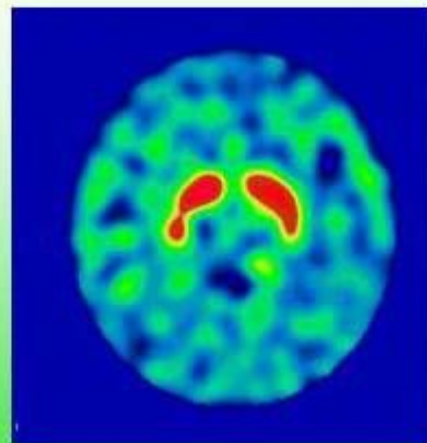
正常人與安非他命使用者之腦部差異



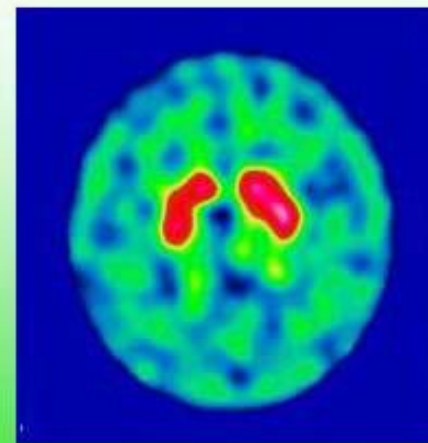
甲安藥物濫用者在停用安非他命後，其突觸前之多巴胺轉運器密度很快恢復正常

有精神病症狀之“甲安”用藥者，其在停用“甲安”1-1.5個月後，其突觸後之多巴胺受體密度卻因內生性多巴胺之持續分泌而下降

Tc-99m TRODAT 單光子造影



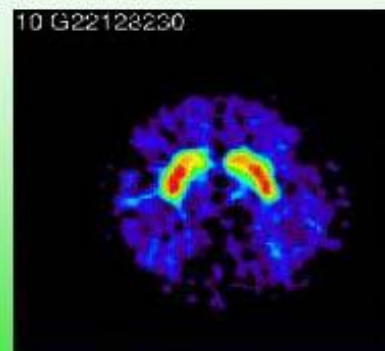
安非他命



停用兩週後

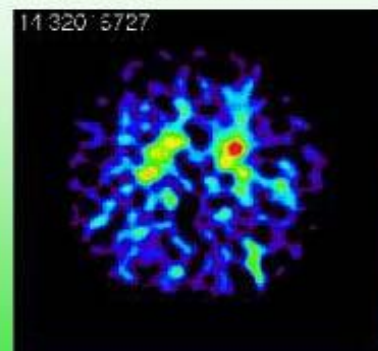
C11-raclopride 正子造影

D2 佔有率 0%



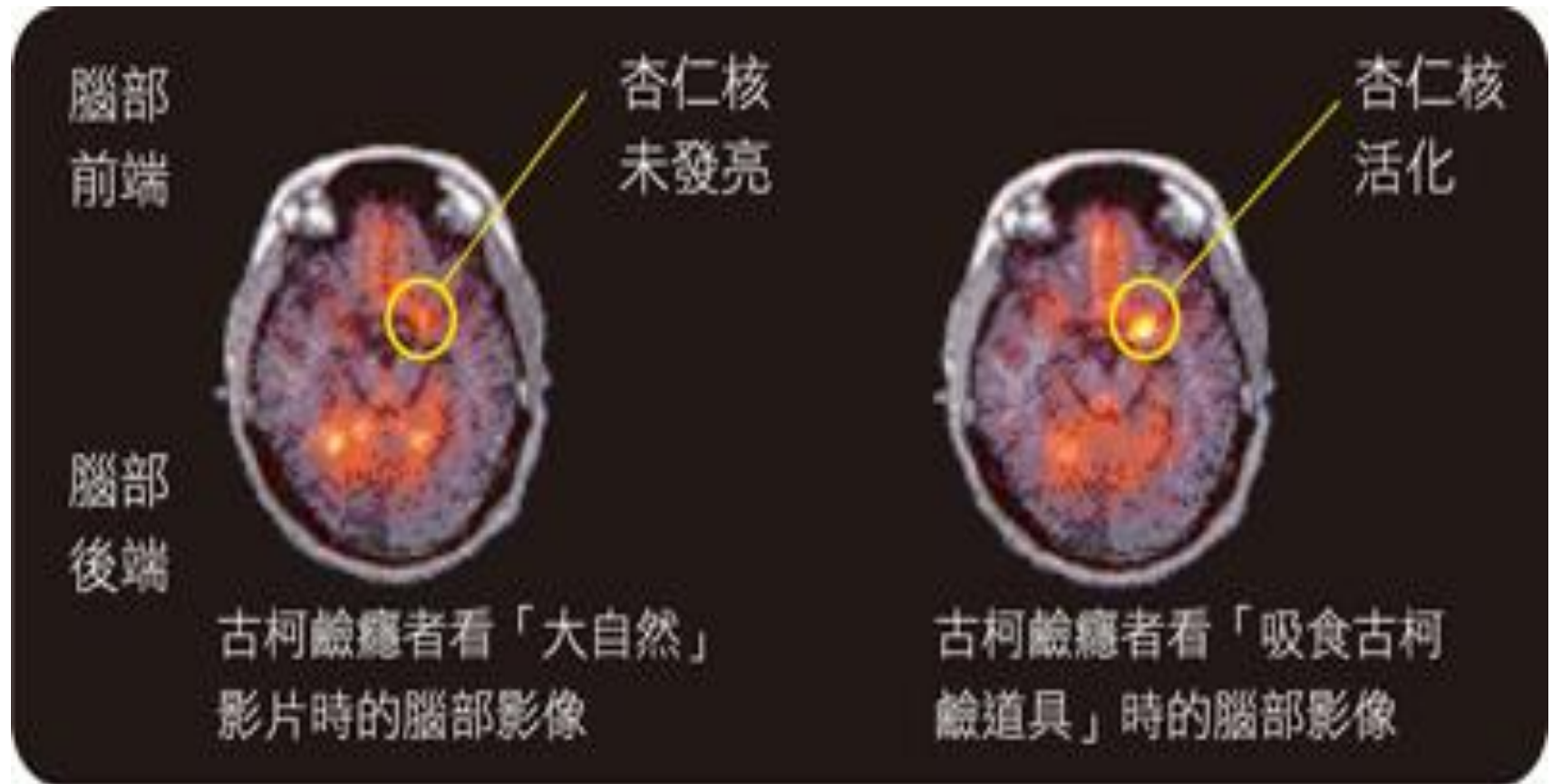
30歲健康女性

D2 佔有率 59%

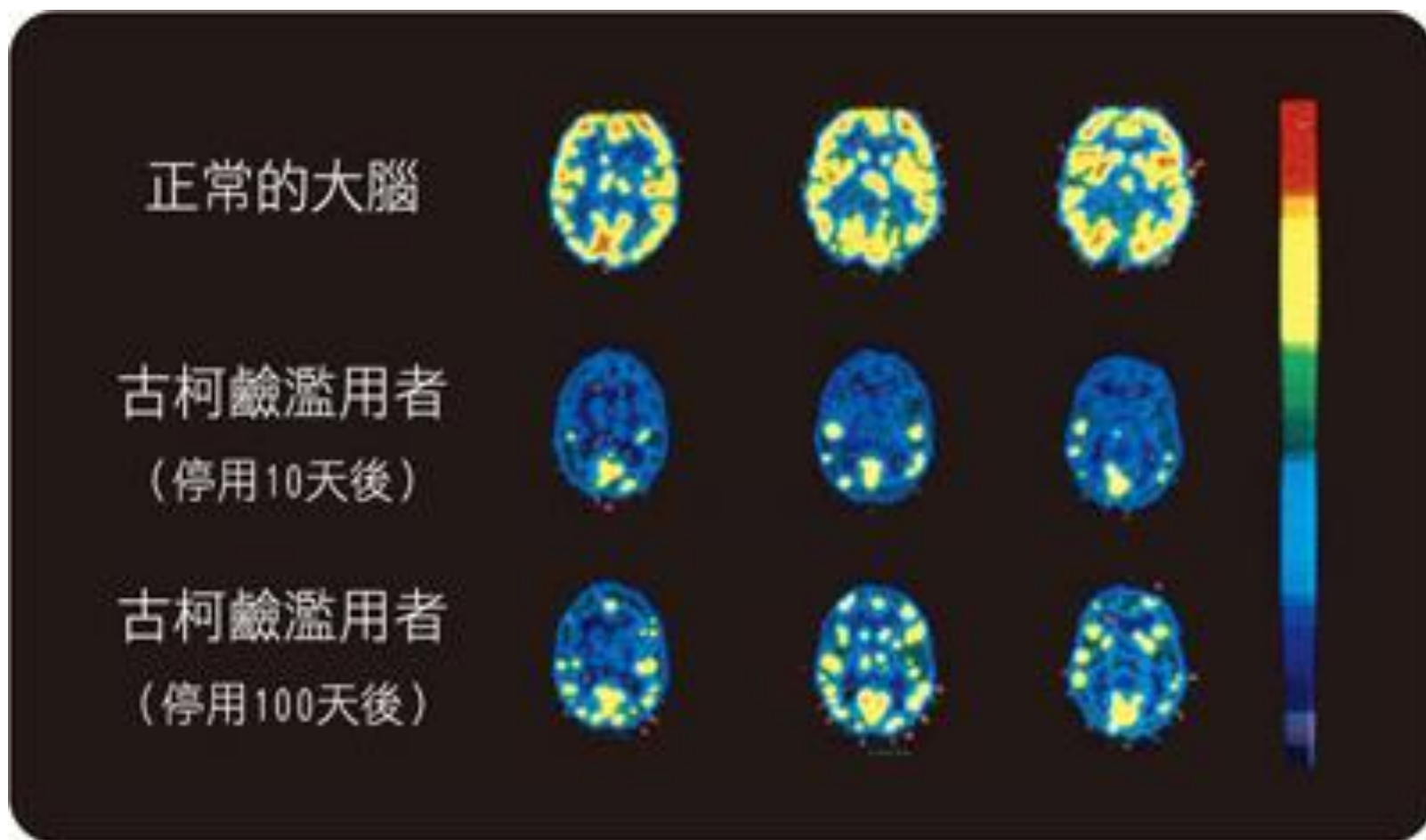


28歲男性，濫用安非他命十年
症狀為妄想、暴力、情緒不穩及憂鬱

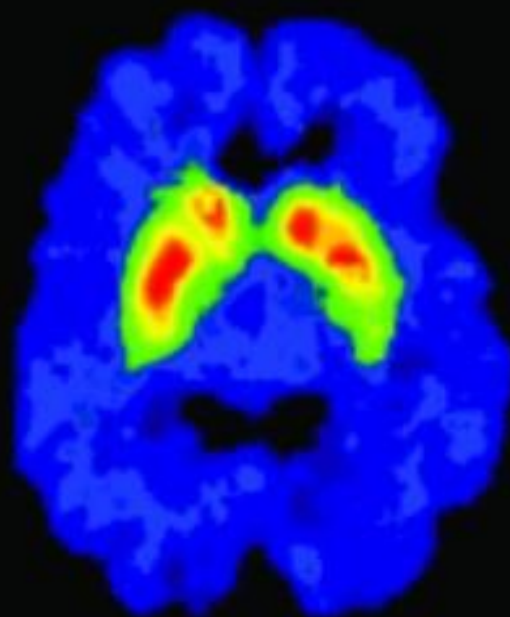
古柯鹼的人在戒毒後，即使僅看到吸食毒品的道具，癮頭仍會上來



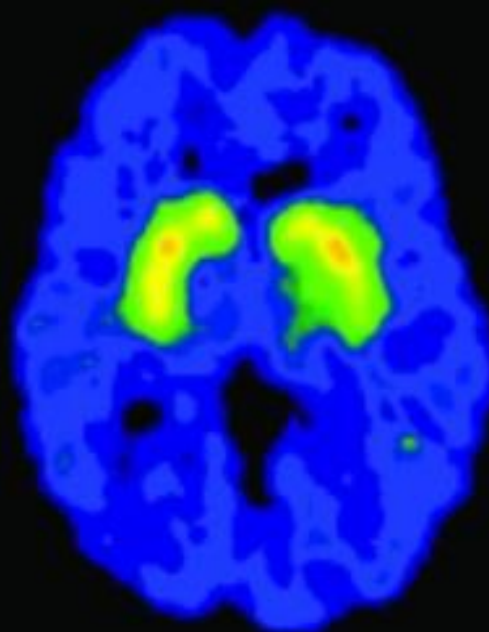
古柯鹼成癮者的腦部造影：即使在戒毒一百天後，大腦的活動仍和正常人不同。



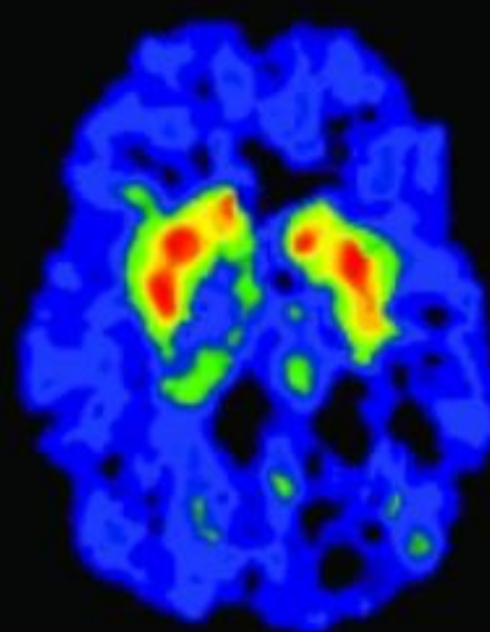
BRAIN RECOVERY WITH PROLONGED ABSTINENCE



Healthy Person

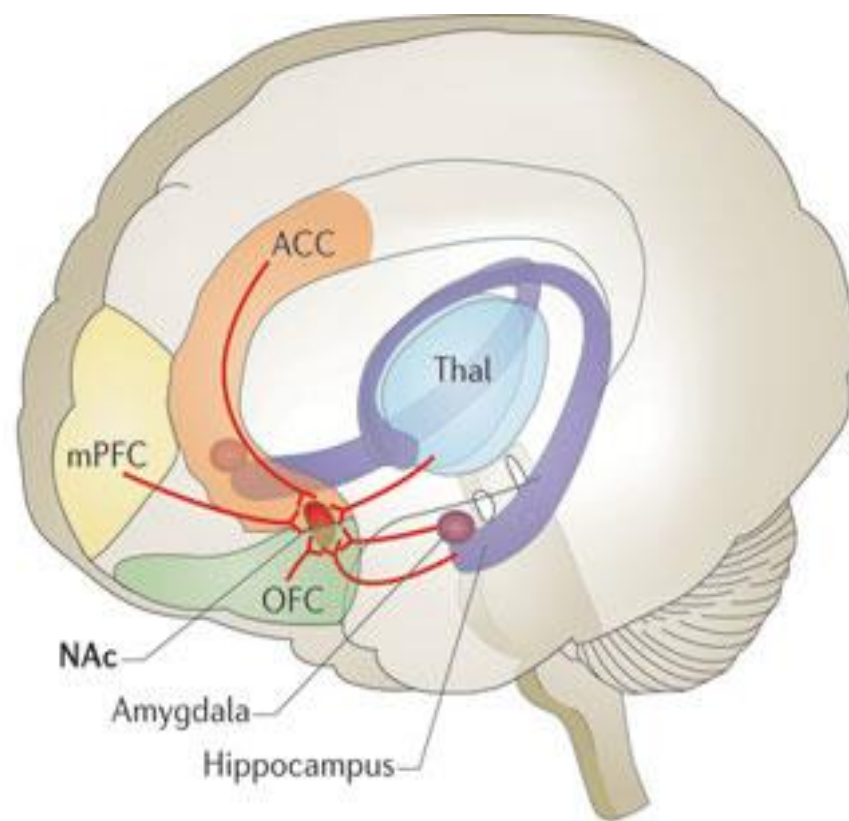
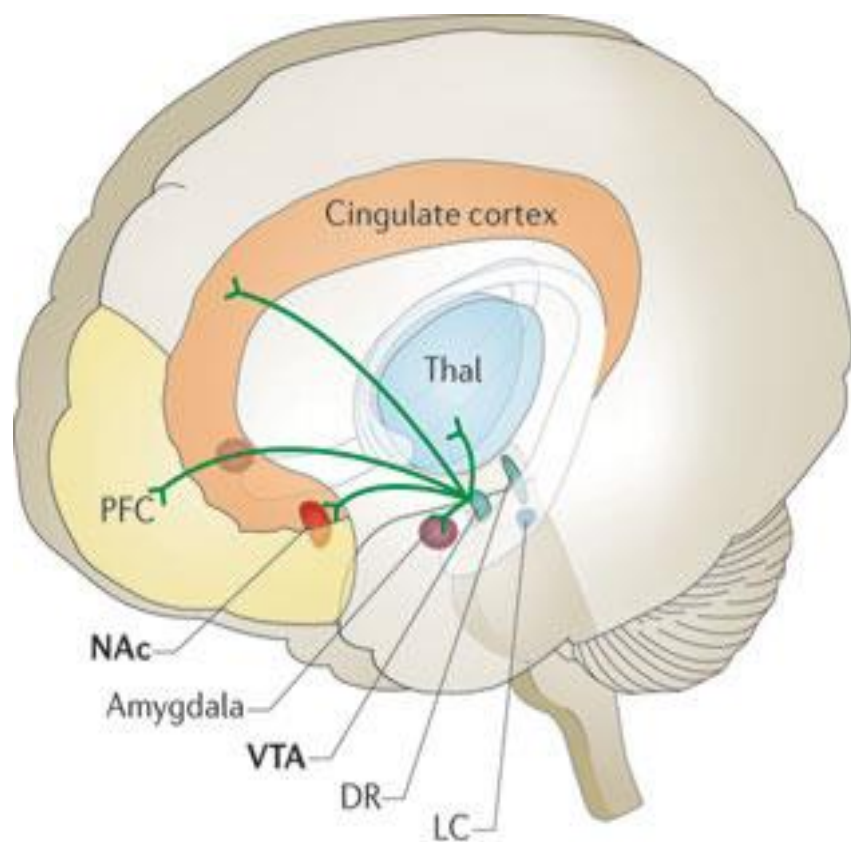


**METH Abuser
1 month abstinence**



**METH Abuser
14 months abstinence**

前額皮層-認知決策-成癮之研究



謝謝大家為台灣成癮防治業務而努力

台灣成癮科學學會
TAIWANESE SOCIETY OF ADDICTION SCIENCE
<http://www.tsas.org.tw>

別讓成癮影響健康
不濫用 不依賴 上癮危害遠離您

- 校園毒品問題與緝毒策略
 - 流言、實情與政府、策略



王捷拓律師

目前為觀晰科技法律事務所所長

曾任臺灣高等檢察署檢察官、臺灣高等檢察署臺中檢察分署檢察官

臺中緝毒專組、查扣專組、防制校園犯罪專組主任檢察官

2006年全國反毒有功人員(緝毒組)

2007年、2009年防疫有功人員

2008年行政院模範公務員、考試院十大傑出貢獻獎

2010年行政院治安有功人員

2011年韓國首爾國際檢察官協會年度檢察官獎

大綱

- 壹、反思與結論
- 貳、毒品概念
- 參、我國毒品情勢說明
- 肆、法律規定

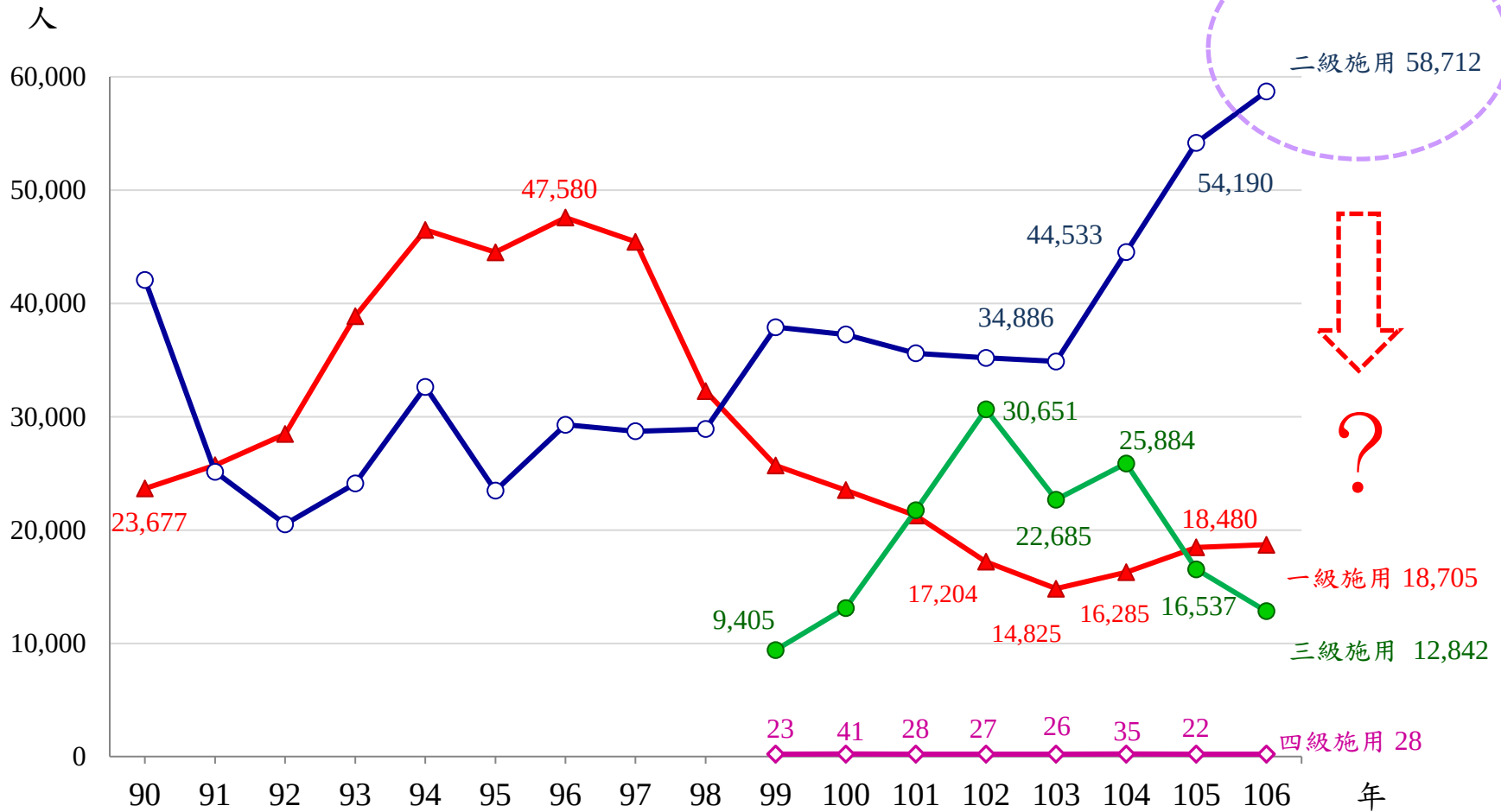
說明



- 1.毒品是什麼?重要嗎?
- 2.我們獲取政府施政成效的管道在那裏?
- 3.控制毒品問題對我們有什麼好處?
- 4.目前我國毒品現狀為何?
- 5.政府目前提出什麼因應策略?
- 6.學生出事機率及如何處理

反毒的盡頭在那?

正確預判，是解決問題的開始



問題

學生吃



?



?

- 臺灣的實際毒品情勢為何？

校園毒品嚴重否？

驚人！去年查獲近8萬吸毒者 竟有2.3萬人曾犯殺人罪

約有 100,000 根鉛筆 (28 吋長) ...

驚人！2.3萬吸毒者曾犯殺人罪5成涉強盜、擄人勒贖-風傳媒

www.storm.mg > 國內 ▼

2016年3月30日 - 根據《蘋果日報》報導，刑事局分析2015年查獲的7.9萬毒犯，發現有2成9、約2.3萬人曾犯下殺人案，除殺人、重傷害案之外，涉及搶奪、強盜、擄人勒 ...

去年2.3萬吸毒者犯殺人罪？法務部：10年來殺人被告不到4000人-風傳媒

www.storm.mg > 國內 ▼

2016年3月30日 - 《蘋果日報》29日引用刑事局資料，發現去年查獲的近8萬吸毒者中，竟有2.3萬人曾犯殺人罪。法務部30日發布新聞稿澄清，以內政部統計處的資料 ...

近8萬吸毒者有2.3萬曾犯殺人罪？法務部：報導有誤- 中時電子報

www.chinatimes.com/realtimenews/20160330004625-260402 ▼

2016年3月30日 - 針對蘋果日報今報導「驚人！去年查獲近8萬吸毒者，竟有2.3萬人曾犯殺人罪」，法務部今緊急澄清，指內政部去年統計查獲毒犯僅5.4萬人，檢院近10 ...

去年2.3萬吸毒者曾犯殺人罪？法務部這樣說| 蘋果日報

<https://tw.appledaily.com/new/realttime/20160330/828120/> ▼

2016年3月30日 - 《蘋果》昨天引用刑事局資料顯示，去年查獲近8萬吸毒者，竟有2.3萬人曾犯殺人罪；法務部今天引用內政部統計處的資料，指報導應有誤解，法務部另 ...

7 法律規定曾犯殺人罪經判決確定者不准辦理營業小客車駕駛人職業登記 ...

<https://yamol.tw/item-7+法律規定曾犯殺人罪經判決確定者不准辦理營業小客車駕駛...> ▼

7 法律規定曾犯殺人罪經判決確定者不准辦理營業小客車駕駛人職業登記，對此規定，依司法院大法官解釋，下列敘述何者錯誤？(A)此限制之目的在於增進人民對於 ...

缺少字詞： 2-3

我們一直在.....聽說+感覺

3部會合推第4波安居緝毒專案 8個月查獲5,400多公斤毒品





這裡有多少學生?

宣示反毒蘇貞昌：痛打毒品斷絕毒源- 新聞- Rti 中央廣播電臺

<https://www.rti.org.tw/news/view/id/2014485> ▼

2019年3月14日 - 行政院長蘇貞昌14日一早召集跨部會反毒會議，宣示痛打毒品決心。... 國防部報告軍中尿篩與反毒措施、教育部報告尿篩和校園毒品防制情形。蘇...

重視毒品問題蘇揆：3/14召集部會全面防堵| 芋傳媒TaroNews

<https://taronews.tw> > 政治 ▼

2019年3月12日 - 針對校園毒品問題，行政院長蘇貞昌今天說，如何防止校園毒品危機，這已是個嚴重的問題，14日上午他會邀集相關部會親自主持討論，從校園到軍...

蘇揆反毒會議宣戰：政府面對毒品就兩個字「痛打」！- 政治- 自由時報 ...

<https://news.ltn.com.tw/news/politics/breakingnews/2726689> ▼

2019年3月14日 - 蘇貞昌宣示當前政府反毒的立場，政府面對毒品的立場就是二個字「痛打」！... 政府要拒絕毒品的危害在校園、軍中再生、蔓延，行政院發言人谷辣斯。

斬軍中、校園毒源蘇揆今宣戰- 社會- 自由時報電子報

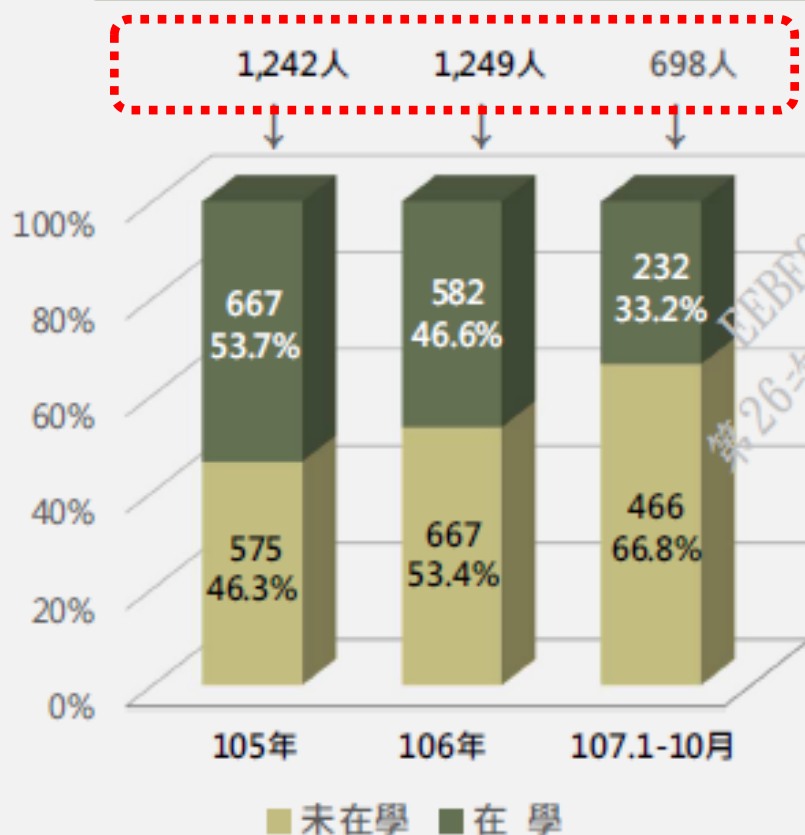
<https://news.ltn.com.tw/news/society/paper/1273924> ▼

2019年3月14日 - 對於校園毒品問題，蘇貞昌前天在立法院答詢時表示，對於學校，不只是校園附近的販賣管道，對於學生同儕之間的誘引、藥頭的使用、利用等，或是...

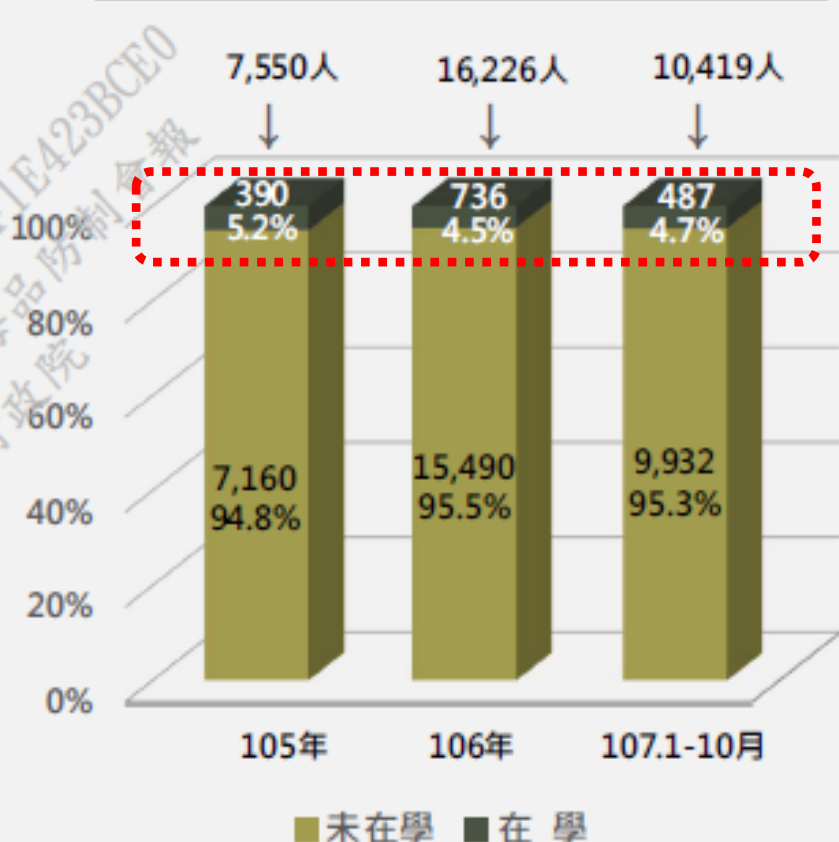
蘇貞昌親自領軍政院2周後擬具體策略「痛打」毒品| 社會| 新頭殼Newtalk

<https://newtalk.tw/news/view/2019-03-14/219799> ▼

18歲以下涉毒品案件嫌疑人學籍勾稽

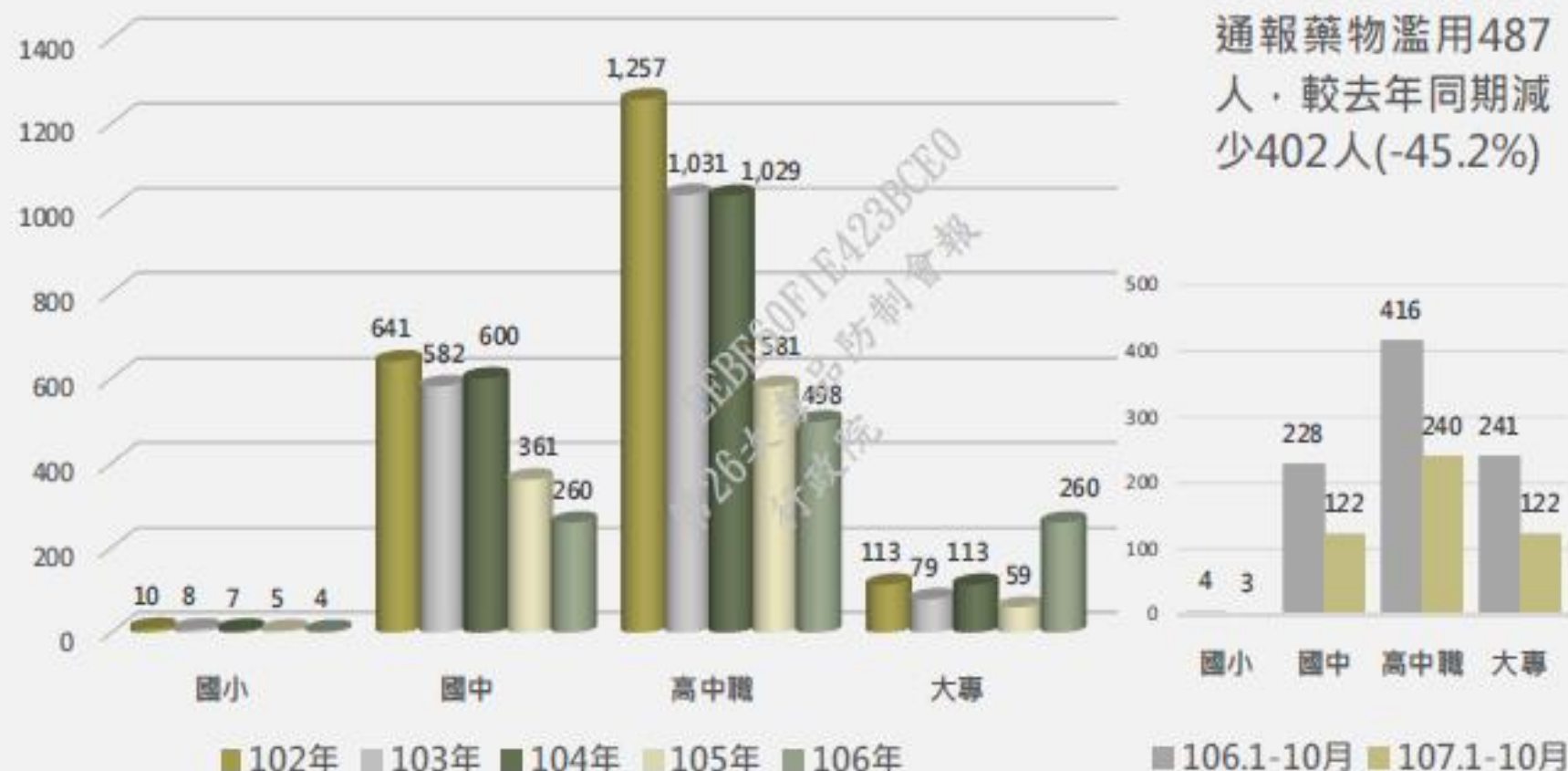


18-24歲毒品案件嫌疑人學籍勾稽



現況分析

校園藥物濫用學制分析



藥物濫用個案通報來源包括遭警查獲、學校尿篩檢驗陽性及學生自我坦承，考量因有重複犯行，經本部審慎一查核，確認有藥物濫用情形之學生總人數

資料來源：教育部

數字是這樣...

- (3) 有藥物濫用之學生總人數：學生有藥物濫用個案的通報來源，包括：1. 遭警查獲、2. 學校尿篩檢驗陽性、3. 學生自我坦承。考量因有重複犯行，經教育部審慎一一查核比對，確認學生藥物濫用人數如下表所示：

學生藥物濫用人數統計表 (單位：人數)

年度	國小	國中	高中職	大專校院	學生藥物 濫用人數 (A)	警方檢肅毒 品嫌疑犯 人數(B)	比率% (A/B)
105年	5	361	581	59	1,006	5 萬 8,707	1.71%
106年	4	260	498	260	1,022	6 萬 2,644	1.59%
107年	3	164	321	140	628	5 萬 9,861	1.05%
108.1-5月	3	102	107	42	254	2 萬 2,162	1.15%

「警方檢肅毒品嫌疑犯人數(B)」資料來源為「警政統計月報電子書(如附件2)」

我國的毒品實情

- [108年第4季國內毒品情勢分析.pptx](#)

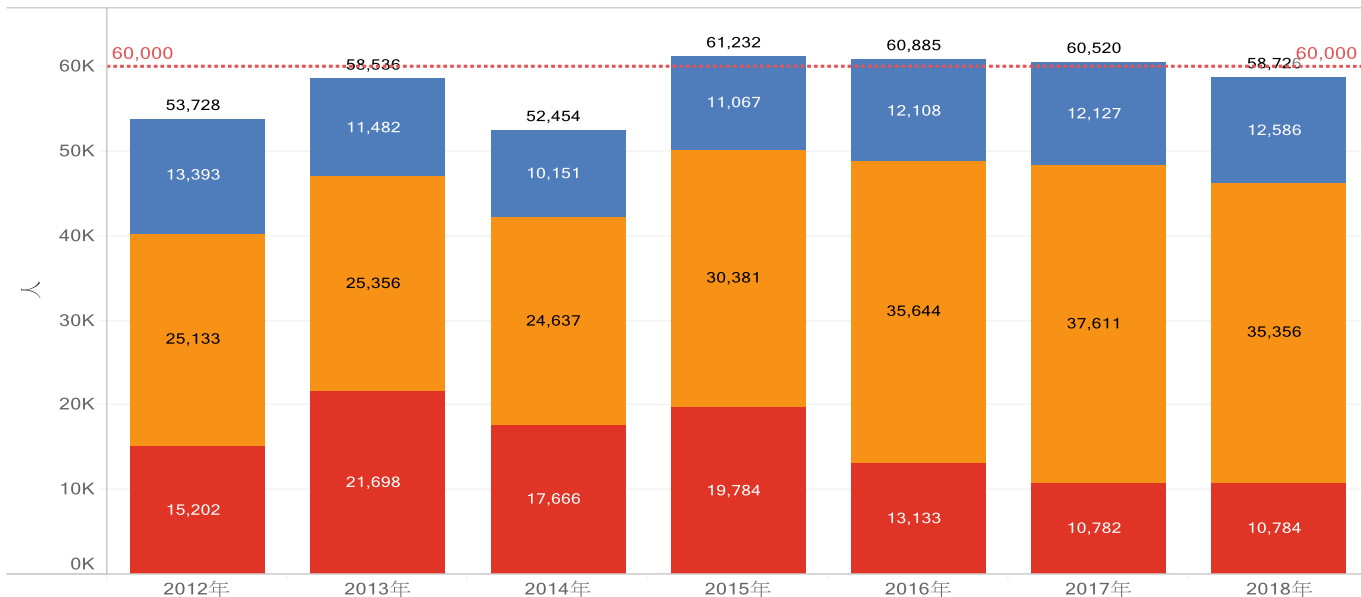


國內毒情 THE FACT

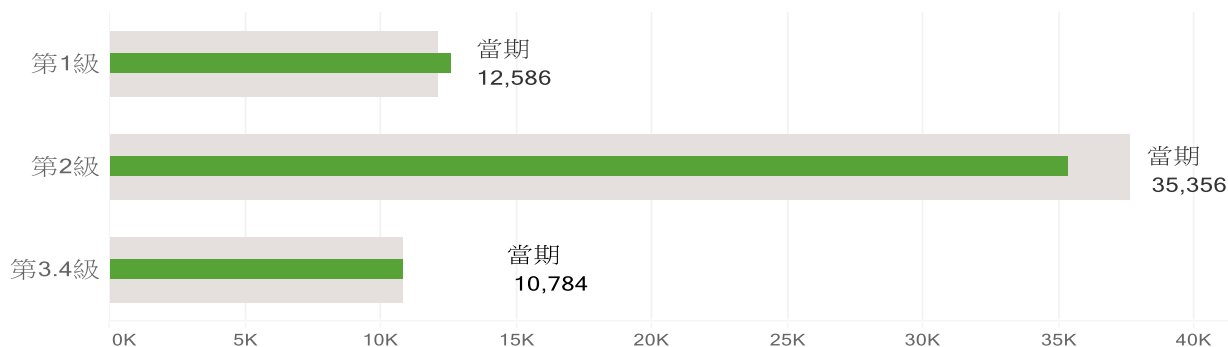
對這毒品情勢想個辦法.....

各級毒品施用人數-案次還原人數

毒品級別
■ 一級毒品施用
■ 二級毒品施用
■ 三、四級毒品施用



當期(2018年)各級毒品施用人數(案次還原人數)



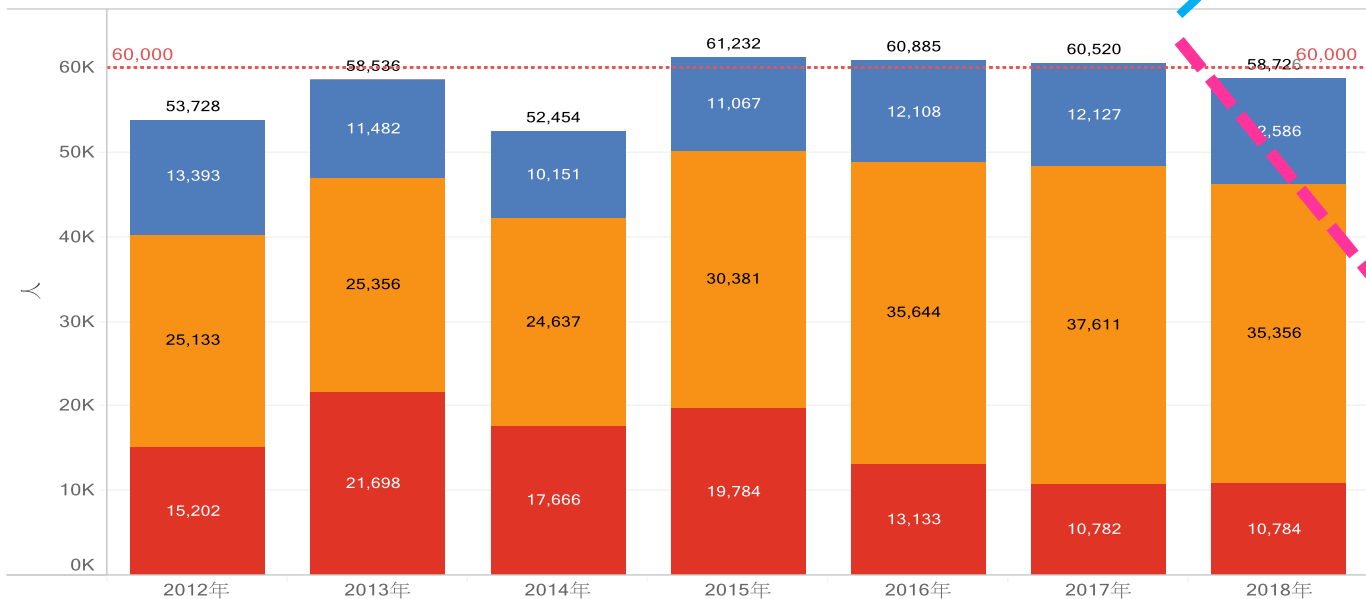


國內毒情 THE FACT

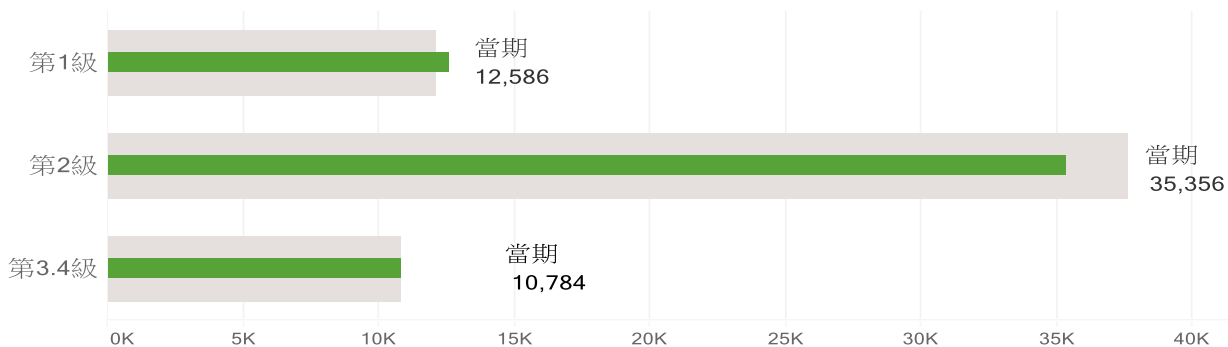
對這毒品情勢想個辦法……………

各級毒品施用人數-案次還原人數

毒品級別
■ 一級毒品施用
■ 二級毒品施用
■ 三、四級毒品施用



當期(2018年)各級毒品施用人數(案次還原人數)





最新的(108.07.31)

- 衛福部委託學者107年全國物質使用調查結果
- 12至64歲的民眾中：
 - 1.可明確指認藥物種類者的終身盛行率為1.15%，與前一波103年調查(1.29%)相比略為減少
 - 2.我國可能約有20萬4千人曾經用過非法藥物。
 - 3.若納入使用改裝型毒品者或無法辨別所用毒品者，我國使用或疑似使用任一種類非法藥物的終身盛行率為1.46%。



臺灣政府對毒品控制不佳？

1. 終身盛行率遠低於世界平均
2. 每年被逮捕者約6萬人
3. 推估終身人口23萬餘人
4. 約9成毒品來自境外



- 大家來相互多瞭解點...

—每天發生在你我身旁的事，然後想想我們生活過得如何，怎麼讓我們的社會更進步？

—我們需要大家的支持與幫忙..

換個不同思考來看待

PMMA一個月毒死28人「最年輕17歲」 檢：致死率近100%

編輯：林妍君 | 2020-04-10 14:49

PMMA 強力搖頭丸 毒咖啡包 第二級毒品 高等檢察署

LINE
f
Next



7名嫌犯移送過程。(圖／翻攝畫面，下同)

A+ A-

慘有PMMA強力搖頭丸的毒咖啡包，致死率近100%，高檢署早於去年開始便著手調查，發現自2019年10月起至年底，死亡案件高達34件。繼2019年11月逮到運送毒品的劉姓男子，追查上游後，再查獲沈姓主嫌等7人，全案依涉嫌毒品危害防制條例等罪嫌移請台灣嘉義地方檢察署偵辦。

為提供最佳服務，本站使用cookies，您可以點選 [隱私權政策](#) 查看，若繼續瀏覽網頁，即表示同意我們的cookies政策。

超兇正妹家教紅到香港「一張照」...
2020-06-18 11:04

娶了大女兒「又和小女兒勾勾纏」...
2020-06-18 16:52

女友全程觀看，男不顧她悲喊「現」...
2020-06-17 08:47

慎入！26歲男髮線狂退花4萬植髮...
2020-06-17 12:57

痞偷情女員工...妻氣炸辭退！小三...
2020-06-17 15:58

汪東城出局！混血女模懷孕「孩子」...

知道了，請關閉視窗

109%

pmma 毒品 - Google 搜尋

google.com/search?q=pmma+毒品&xsrf=ALeKk00CylpX79zwnrs6W_gWKjn6e91w:1592487083182&source=lnms&btm=nws&sa=X&ved=2ahUKewifypvXvIvqAhWDHqYKH1WWc6UQ_AUoAXoECAwQAw&biw=1918&bih=906&dpr=1.25

約有 1,260 項結果 (搜尋時間: 0.20 秒)



超級搖頭丸PMMA太恐怖！基隆一個月6人抽搐暴斃
台灣蘋果日報 (新聞發布) - 2020年6月13日
新興毒品PMMA (副甲氧基甲基安非他命) 俗稱「超級搖頭丸」，列為第2級毒品，是一種中樞神經興奮劑，毒性是安非他命的數倍以上，常被製成毒咖啡...



超級搖頭丸PMMA一個月害6死！媽下班見「兒穿內褲陳屍床上 ...
ETtoday - 2020年6月13日
俗稱「超級搖頭丸」的新興毒品PMMA (副甲氧基甲基安非他命)，基隆市在最近一個月內就有6人服用喪命，其中16歲的林姓高職生在家中抽搐發抖， ...
基隆1個月6死／超級搖頭丸慘咖啡！杯接1杯喝死的
自由時報電子報 - 2020年6月13日
[查看全部](#)



毒品咖啡包國內增長迅速 刑事局破獲史上最大原料進口
UDN 聯合新聞網 (新聞發布) - 2020年6月14日
另外警方指出，近幾國內發生多起施用PMMA (超級搖頭丸) 致死案，刑事局分析發現，PMMA多混雜在毒品咖啡包中，刑事局偵三大隊與保三總隊 ...
史上最毒咖啡包！3500公斤、市價70億原料關稅被逮
深入報導 - 自由時報電子報 - 2020年6月14日
[查看全部](#)



毒品問題青少年無感 民團持續反毒 藥家長重視
公民新聞 - 11 小時前
經刑事局分析，毒品咖啡包所混雜的毒品成分，以第三級毒品「喵喵」占72%，比例最高，同時也發現有「超級搖頭丸」稱號的第二級毒品PMMA混雜...



超級搖頭丸PMMA 3個月釀34死
Yahoo奇摩新聞 (新聞發布) - 2020年6月2日
俗稱超級搖頭丸的新興毒品PMMA (副甲氧基甲基安非他命)，已列為第2級毒品，108年10月至12月，發生34件施用含PMMA的毒品致死案例，死者...



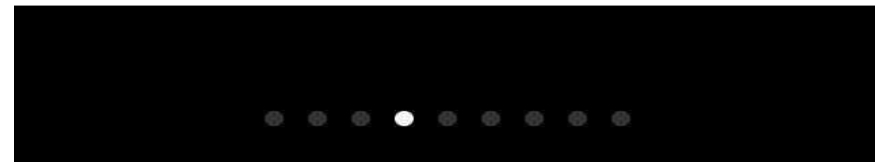
史上最大宗毒咖啡包警署破獲展成果
台灣醒報 Awakening News Network - 2020年6月15日
有「超級搖頭丸」之稱的PMMA則是甲氧基甲基安非他命，吸食會造成幻覺，腎衰竭甚

重點是??

22

- 危險事項不少

- 有些名校學生...中了



壹

結論與反思

1

什麼是毒品?

2

臺灣的毒品問題嚴重嗎？

多麼嚴重？

嚴重在那？

依據何在？

目前那一種毒品施用最多？

臺灣的毒品問題嚴重嗎？

毒品與治安的關係如何？

我國毒品都怎麼來的？

我國毒品問題與國外比較如何？

4

毒品盛行率：全球 vs. 臺灣

全球

根據聯合國2014年全球毒品報告書，全球毒品盛行率2003年到2012年的10年期間僅些微上升，無明顯變化，2012年全球毒品盛行率約為 **5.2%**

臺灣

依衛福部食藥署「103 年全國物質使用調查結果」，臺灣藥物濫用的整體盛行率為 **1.29%**，結果顯示12至64歲的民眾中約有23萬人曾經藥物濫用

民眾、您們相信嗎？怎麼可能？

最新的(108.07.31)

- 停看聽-107年全國物質使用調查結果
- 結果顯示12至64歲的民眾中，使用非法藥物且可明確指認藥物種類者的終身盛行率為1.15%，與前一波調查(1.29%)相比略為減少，依此盛行率來推估，我國可能約有20萬4千人曾經用過非法藥物且可明確指認藥物之種類。
- 另本次調查為了能掌握更全面的非法藥物使用數據，新增有關「使用改裝型混合式毒品(如毒咖啡包、毒梅粉包及毒彩虹菸等)」、「非自願使用非法藥物」及「受毒品使用者傷害」的題目，若納入使用改裝型毒品者或無法辨別所用毒品者，我國使用或疑似使用任一種類非法藥物的終身盛行率為1.46%。

5

我們的數據夠完整清楚嗎？

臺灣每年新生多少毒品人口？

每年多少人被逮捕？多少人被聲押？

施用那一種毒品最多？

黑幫或犯罪組合介入之比例為何？

統計精確？人民感受？公務員需要關心？

6

國家整合與預警機制何在？



4年間的主題？



7 臺灣的統合機制及理念在那裏？

有沒有常設統合及觀測引導機制？

- 檢警？法院？其他政府單位？

不是只有犯罪觀測而已

這是一條必然要建立的道路

8 最夯的---有大數據就成了？

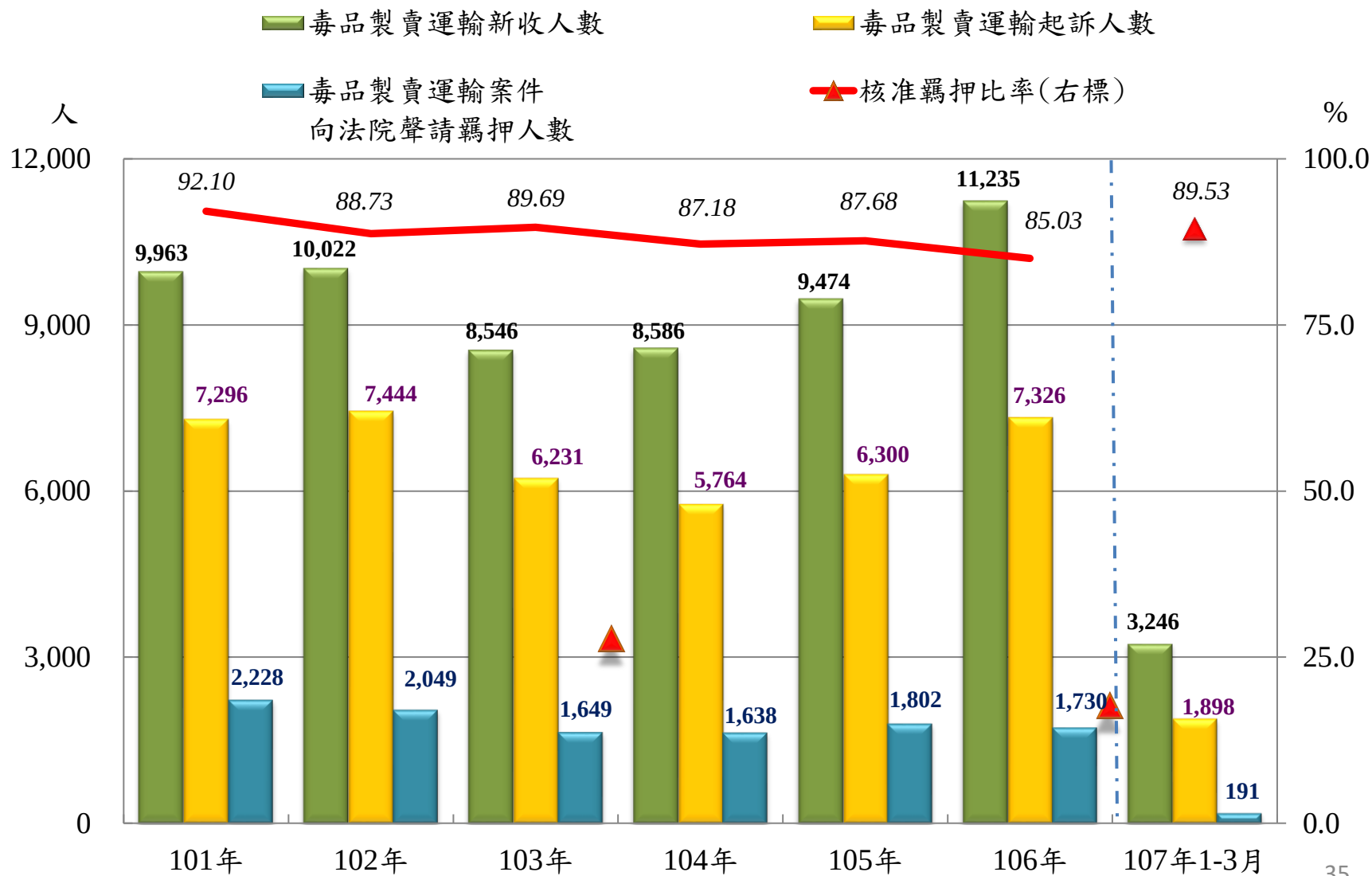
- 犯罪能精準被預測？洛杉磯警局用大數據分析
- 降低 36% 犯罪率
- （編者按：洛杉磯警局與加州大學洛杉磯分校合作，採集分析了 80 年來 1300 萬起犯罪案件，用於進行犯罪行為的大型研究，通過演算法預測成功將相關區域的犯罪率降低了 36 個百分點。）
- 可見，演算法不僅僅可以幫助運營人從用戶數據挖掘中獲得靈感，同樣，如果不是簡單地分析以往的犯罪規律，而是採用預測式警務的做法，分析人員就可以利用之前犯罪行為表現出來的規律，全神貫注地分析下一個可能發生犯罪行為的地點並重點干預。



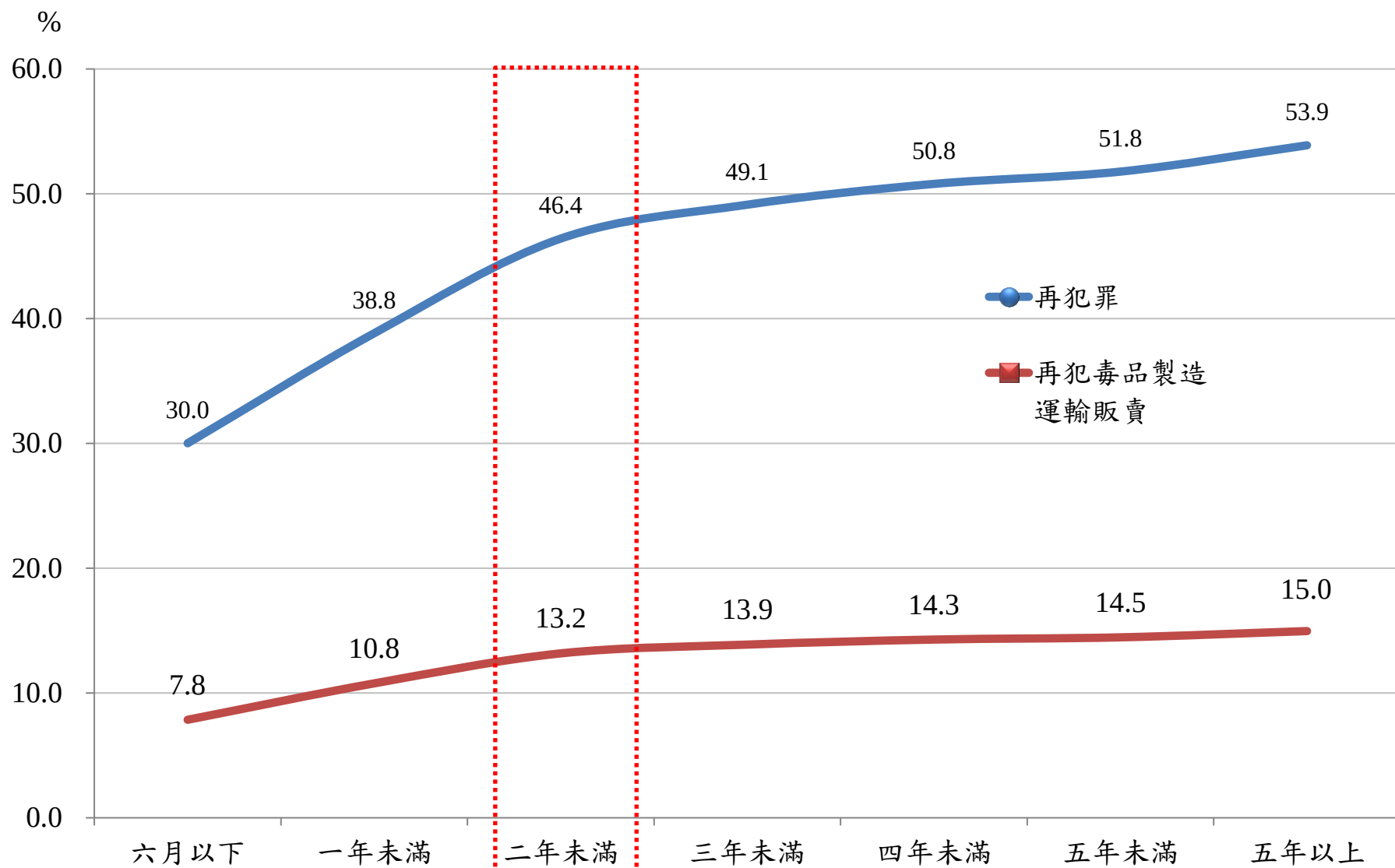
如何建置？

如何執行？

正確趨勢觀測與具體策略施行



地方法院檢察署毒品製造販賣運輸案件未羈押再犯比率—再犯經過時間



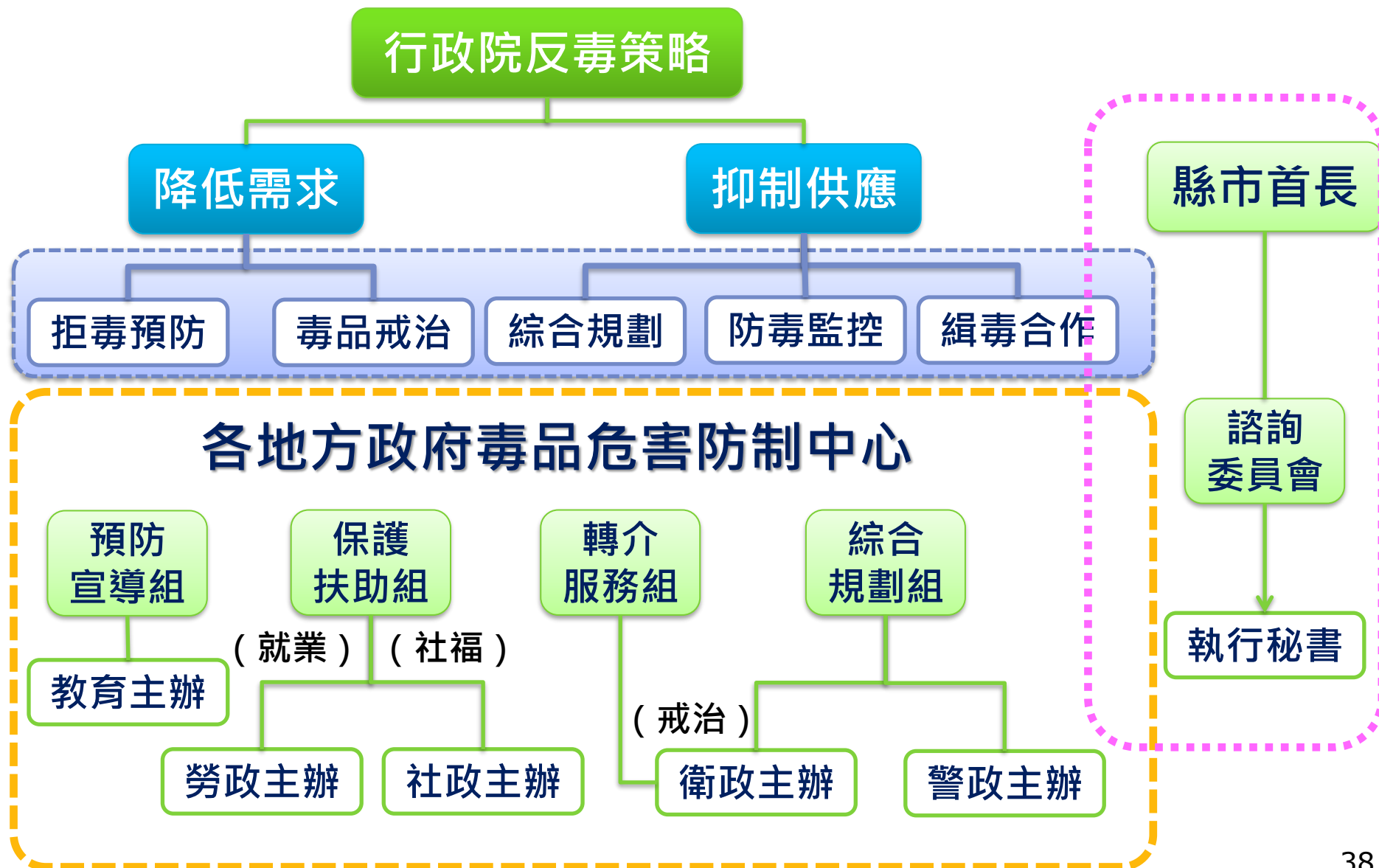
毒品防制-團隊合作+人人有責

- 不是只有緝毒
- 是各部門都應分工合作的事
- 反毒
- 防毒
- 緝毒
- 戒毒



民眾?

反毒架構



毒品的特性

高社會成本付出

黑數高

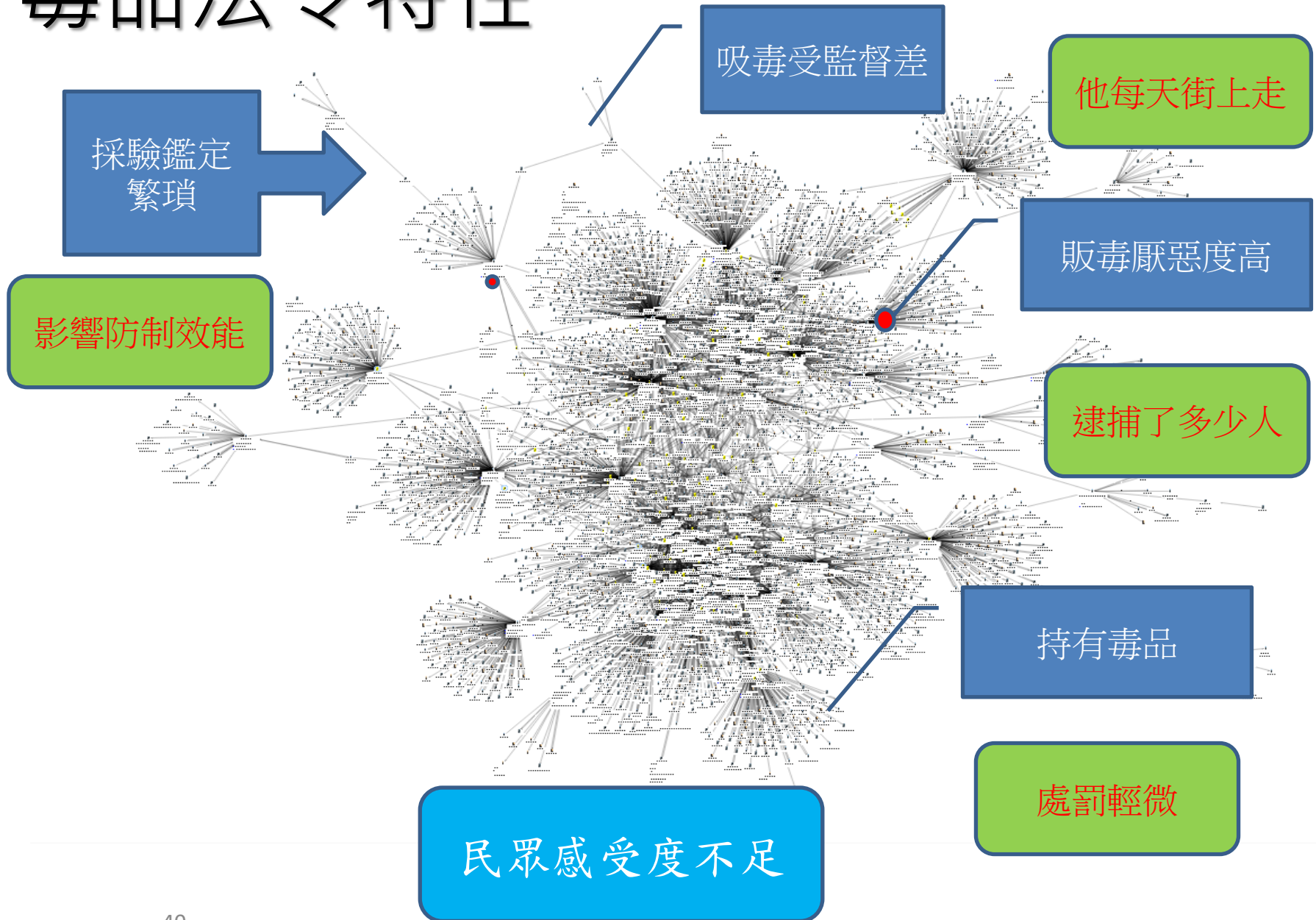
群聚性高

衍生犯罪強

民眾感受不佳

閉鎖性強

毒品法令特性



結論2:

- 1.毒品人口的確實清出機制
 - 資料庫
 - 病歷、施用史
 - 其他?
- 2.資料庫與分析
 - 觀測
 - 策略提出
 - 整合執行
 - 供偵查、審判、輔導..運用
 - (其他?)

常設機關

分析人力

公私部門?

機關整合?

實務觀察結論

毒品的危險性

- 會誘發很多犯罪
- 其中最可怕的就是由需求者變成供應者

吸星大法
犯罪



輕罪



重罪

?

如何解決及防制??

數字是有魔力的

臺中地方法院檢察署純施用毒品偵查有犯罪嫌疑後
再犯罪毒品製賣運輸情形一再犯經過時間別

截至106年2月底止

偵查終結年月別	純毒品施用數	再犯毒品製賣運輸人數及比率-按再犯經過時間分							
		計	六月以下	逾一年六月未滿	一二年以上未滿	二三年以上未滿	三四年以上未滿	四五年以上未滿	五年以上
			人數(人)						
100年-106年2月	10,104	1,004	499	168	138	82	60	44	13
100年	2,508	348	152	48	34	37	36	28	13
101年	1,703	223	94	44	36	17	16	16	-
102年	1,534	154	85	20	23	18	8	-	-
103年	1,242	113	54	21	28	10	-	-	-
104年	1,230	109	62	30	17	-	-	-	-
105年	1,608	57	52	5	-	-	-	-	-
106年1-2月	279	-	-	-	-	-	-	-	-
			比率(%)						
100年-106年2月	100.0	9.9	4.9	1.7	1.4	0.8	0.6	0.4	0.1
100年	100.0	13.9	6.1	1.9	1.4	1.5	1.4	1.1	0.5
101年	100.0	13.1	5.5	2.6	2.1	1.0	0.9	0.9	-
102年	100.0	10.0	5.5	1.3	1.5	1.2	0.5	-	-
103年	100.0	9.1	4.3	1.7	2.3	0.8	-	-	-
104年	100.0	8.9	5.0	2.4	1.4	-	-	-	-
105年	100.0	3.5	3.2	0.3	-	-	-	-	-
106年1-2月	100.0	-	-	-	-	-	-	-	-

說明：1. 本表再犯人數為純施用毒品偵查有犯罪嫌疑之被告再犯罪，至統計截止日止經檢察官偵查終結，被提起公訴、聲請簡易判決處刑、緩起訴處分、職權不起訴處分及移送觀察勒戒或戒治等有犯罪嫌疑者。

2. 「再犯經過時間」係指偵查有犯罪嫌疑結案日至偵查案件新收分案日之時間。而再犯人數則僅限於統計截止日前已偵查終結者，爰各年再犯經過時間之最後一個區間組，恐未能涵括該區間全部實際再犯人數。

3. 表中純施用毒品人數已唯一化：用以追蹤純施用毒品再犯之被告，若於6年內有多筆施用，取最早施用的案件為追蹤基礎。

成效判斷指標

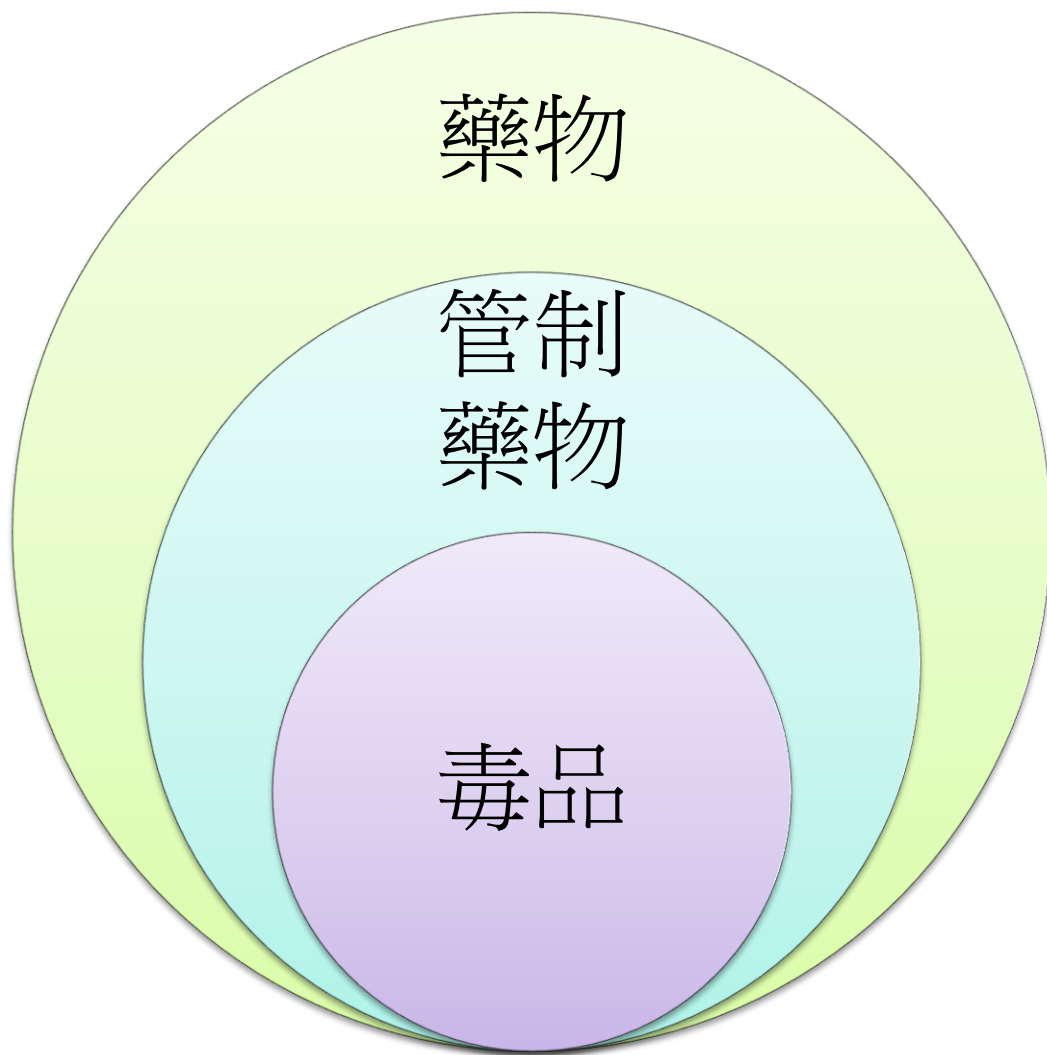
以下列四大指標來判斷毒品防制策略成效

- 1. 新生毒品人口是否下降
- 2. 毒品累犯人數是否下降
- 3. 相關刑案發生是否數下降
- 4. 參加毒品戒癮人口是否上升

貳

毒品概念

有點頭痛



NPS?

毒品的概念

- 在西方社會上習慣將毒品的施用稱為藥品濫用或藥品娛樂性使用，並沒有「毒品」一詞。
- 特定出於「非醫療目的」而反覆連續使用、能夠產生「依賴性」（即成癮性）的精神藥品或麻醉藥品。

毒品危害防制條例第2條:

本條例所稱毒品，指具有成癮性、濫用性及對社會危害性之麻醉藥品與其製品及影響精神物質與其製品。毒品依其成癮性、濫用性及對社會危害性分為四級，其品項如下：.....

聯合國公約的定義

- 聯合國於**1961**年《麻醉品單一公約》、**1971**年《精神藥物公約》，以及**1988**年《聯合國禁止非法販運麻醉藥品和精神藥物公約》中，對「毒品」一詞，給予統一定義
- (參見《國際麻醉藥品管理局》(INCB) <http://www.incb.org/e/ind_ar.htm>)。
- 聯合國對毒品意涵的描述，業已成為世界各國公認的定義，目前全世界約有超過**160**餘個國家和地區正式簽署《聯合國禁止非法販運**麻醉藥品**和**精神藥物**公約》。

藥事法

◆第 6 條

◆本法所稱藥品，係指左列各款之一之原料藥及製劑：

- ◆一、載於中華藥典或經中央衛生主管機關認定之其他各國藥典、公定之國家處方集，或各該補充典籍之藥品。
- ◆二、未載於前款，但使用於診斷、治療、減輕或預防人類疾病之藥品。
- ◆三、其他足以影響人類身體結構及生理機能之藥品。
- ◆四、用以配製前三款所列之藥品。

◆第 11 條

◆本法所稱管制藥品，係指管制藥品管理條例第三條規定所稱之管制藥品。

管制藥品管理條例第3條

本條例所稱管制藥品，係指下列藥品：

- 一、成癮性麻醉藥品。
- 二、影響精神藥品。
- 三、其他認為有加強管理必要之藥品。

前項管制藥品限供醫藥及科學上之需用，依其習慣性、依賴性、濫用性及社會危害性之程度，分四級管理；其分級及品項，由中央衛生主管機關設置管制藥品審議委員會審議後，報請行政院核定公告之。

毒品與管制藥物

毒品



毒品危害
防制條例



法務部主
政

藥品
管制藥品



藥事法
管制藥品
管理條例



衛福部主
政

毒品危害防制條例第 2 條

- 本條例所稱毒品，指具有成癮性、濫用性及對社會危害性之麻醉藥品與其製品及影響精神物質與其製品。
- 毒品依其成癮性、濫用性及對社會危害性分為四級，其品項如下：
 - 一、第一級:海洛因、嗎啡、鴉片、古柯鹼及其相類製品（如附表一）
 - 二、第二級:罌粟、古柯、大麻、安非他命、配西汀、潘他唑新及其相類製品（如附表二）。
 - 三、第三級:西可巴比妥、異戊巴比妥、納洛芬及其相類製品（如附表三）。
 - 四、第四級:二丙烯基巴比妥、阿普唑他及其相類製品（如附表四）。

毒品大概這樣分

第一級毒品	第二級毒品	第三級毒品	第四級毒品	未列等級
1.海洛因 2.嗎啡 3.鴉片 4.古柯鹼	1.安非他命 2.搖頭丸 (MDMA) 3.大麻 4.搖頭丸 (LSD) 5.液態快樂丸 GHB 6.速賜康 7.白板 8.天使塵	1.FM2 2.小白板 3.丁基原啡因 4.K他命 5.一粒眠 6.紅中 7.2C-B (六角) 8.PMMA	1.蝴蝶片 2.史帝 諾斯 3.宜安眠 4.安定、煩 寧	1.笑氣 2.強力膠
		學生愛用區		

專業語言:毒品法令的運用說明

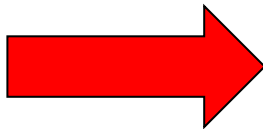
藥物濫用概念 > 施用毒品

施用及持有不同種類毒品的意義及效果
不同:在治療及查緝方法上也是不同的

持有毒品即應注意群聚及其他犯罪或被
害的問題

如何處理？

- 逮到他一堆咖啡包，說要賣...
 - 移送什麼罪？
- 驗出來是這樣？



2、檢出非毒品成分：bk-DMBDB 及 Caffeine 等。(備)
3、未檢出第二級毒品"甲基安非他命"(Methamphetamine)
"3,4-亞甲基雙氧甲基安非他命"
(3,4-Methylenedioxymethamphetamine)
第三級毒品"愷他命"(Ketamine)及
"硝甲西洋(硝甲氮平)"(Nimetazepam)
四、編號 52 至 100：檢視均為金色外包裝，外觀型態均相似
(一)驗前總毛重 397.65 公克(包裝袋總重約 80.85 公克)，
316.80 公克。
(二)隨機抽取編號 55 鑑定：經檢視內含褐色粉末。
1、淨重 5.80 公克，取 1.24 公克鑑定用罄，餘 4.56
2、檢出非毒品成分：bk-DMBDB 及 Caffeine 等。(備)
3、未檢出第二級毒品"甲基安非他命"(Methamphetamine)
"3,4-亞甲基雙氧甲基安非他命"
(3,4-Methylenedioxymethamphetamine)
第三級毒品"愷他命"(Ketamine)及
"硝甲西洋(硝甲氮平)"(Nimetazepam)
品成分之載示係供濫用藥物檢驗通報統計之用
驗餘證物均封妥隨文檢還。

新興精神活性物質(NPS)

- 聯合國毒品與犯罪辦公室(UNODC)使用“新興精神活性物質(NPS)”名詞歸類濫用物質。
- 指此濫用的物質，沒有被1961年「麻醉藥品單一公約」及1971年「精神藥物公約」所列管，但是其濫用會在某日期間造成公共衛生威脅者，部分的新興精神活性物質未在列管的範圍內，可規避法律的制裁，常被稱為“狡詐家藥物（ Designer Drug ）”。

海洛因、甲基安非他命、愷他命 三大主流毒品

- 但.....
- 新興混合式毒品?
 - 在統計、預防及查緝上都有點問題

如何適用??問題何在??

-以**25I**或**25B**化合物加入環糊精，以**1：3**之比例混合後，再加入乙醇作為溶劑，而製造出含有「3,4-Methylenedioxy-alpha-pyrrolidinobutyrophenone（以下簡稱MDPBP）」及「2-（4-Bromo-2,5 -dimethoxyphenyl-N-(2-methoxybenzyl) ethanamine（以下簡稱**25B-NBOMe**）」等足以影響人類身體結構及生理機能之偽藥成分液體，復將訂製好之類似郵票紙張（以下簡稱郵票）浸泡於內，使上開偽藥成分得以完全附著在郵票上，進而製造完成含有MDPBP及**25B-NBOMe**偽藥成分之郵票（總張數不詳，每1大張郵票可分成**25**格小郵票）.....

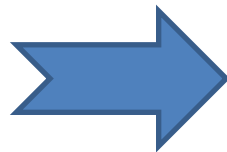
近來犯罪特徵

- 新形態毒品、NPS不斷出現
- 集團性增高
- 新興通訊方式規避
- 超商鋪貨式進貨
- 日新月異性高
- 與色情及詐欺結合度高
- 販賣者年齡下降

表象與實際觀察

- 表象觀察：
 - 海洛因有下降趨勢
 - 甲基安非他命、愷(K)他命為最大宗毒品
 - 甲基安非他命急速上升
- 實際觀察
 - 以愷(K)他命、安非他命為基礎之藥物濫用文化產生
 - 愷(K)他命、安非他命+其他新興毒品=複數藥物使用產生

新興毒品
濫用



愷(K)他命
安非他命



混合式毒品.....

- 沒鑑驗完成前，永遠不知道他的成分是什麼？
- 這兩年內被大量附隨於其他新興毒品查獲
- 很難發現只有單一藥物:混合填充(含笑半步癲)
- 都有美麗的包裝
- 群聚場合查獲率提高

• 現在的毒品...代結論3

— 危險性更高

- 多樣性+高變動性+複合施用性

— 群聚性強

— 戒治? 法律?

— 檢驗不易

— 聯繫模式改變

- 查緝? 通訊模式?.....

- 通聯、通訊監察..

- LINE...等APP模式

- 現在毒品趨勢有何改變的影響?

- 蒐證?

- 通訊監察?行動蒐證?.....

- 詢問?

- 鑑定?

- 毒品鑑定?數位鑑識?.....

- 戒癮?

- 統計?

修法

- 毒危條例第二條第一項想改成這樣

- 本條例所稱毒品，指具有成癮性、濫用性、對社會危害性之虞之麻醉藥品與其製品、影響精神物質與其製品及與該等藥品、物質或製品具有類似化學結構之物質。



參

我國毒品情勢說明

因應

新世代反毒策略



黑數?

問題?

反毒零死角

毒品人口
大普查

全國毒品
資料庫建立

毒情
及時掌握

策略正確擬定

全面
大掃毒

溯源斷根
行動

社區型
毒販打擊

溯源斷根

區域聯防

強化工作效能
符合民情

友善
通報網

校園毒品

軍中毒品

偏鄉毒品

防止死角

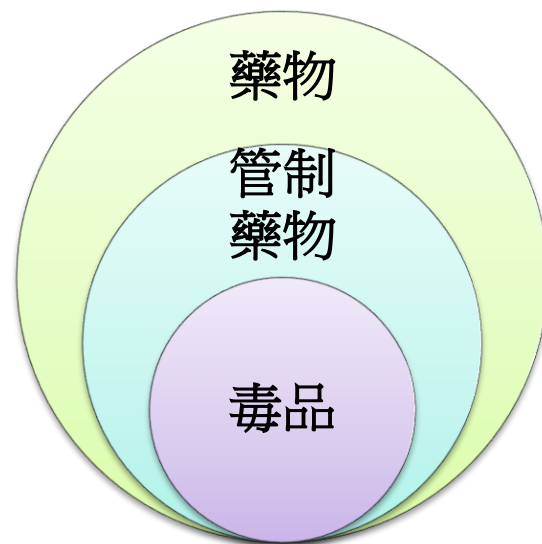
目標

- 
- 清黑數(先讓數據正確吧)
 - 找病因
 - 建資料
 - 正確因應

經分析統計的數據(1)

- 安非他命
- K他命等三四級毒品
- 海洛因
- 大麻

新興精神活性
物質(**NPS**)



- 臺灣的毒情快速觀測

- 危險情況

- 再犯率高
- 下降率低
- 統合機制差
- 查扣效能不彰

成效與問題檢討

問題與因應

急迫

1. 安非他命毒品優先壓制
2. 落實社區反毒網建設機制
3. 新興通訊擴散毒品問題

關注

1. 大麻問題應密切關注
2. 新興混合式毒品之解決究

其他

1. 提高聲押率及避免再犯
2. 毒品走私、境內製毒查緝整合
3. 外籍勞工涉毒案件黑數
4. 犯罪所得、工具效能檢討
5. 化學類毒品工廠毒、物保管
6. 貨櫃及通商口查緝人力研究
7. 院際定期會談之需求

Two white, stylized 3D human figures are standing and holding a large, light gray rectangular sign. The sign has a thin black border and the Chinese characters '簡報結束' (Briefing Ends) written in a bold, blue, sans-serif font. The figures are positioned on either side of the sign, with their hands resting on the top and sides. The background is a plain, light gray.

簡報結束