



**UNODC**

United Nations Office on Drugs and Crime

Prevention, treatment  
and health care.

UNGASS Outcome Implementation

Gilberto Gerra

Chief

Drug Prevention and Health Branch



To deal with a **multifactorial health disorder with social causes and consequences**

The need for more systematic efforts in **prevention, treatment and healthcare**

**Inter-ministerial well coordinated approach:**  
Strengthening communities, social protection, education, reducing inequalities, supply reduction

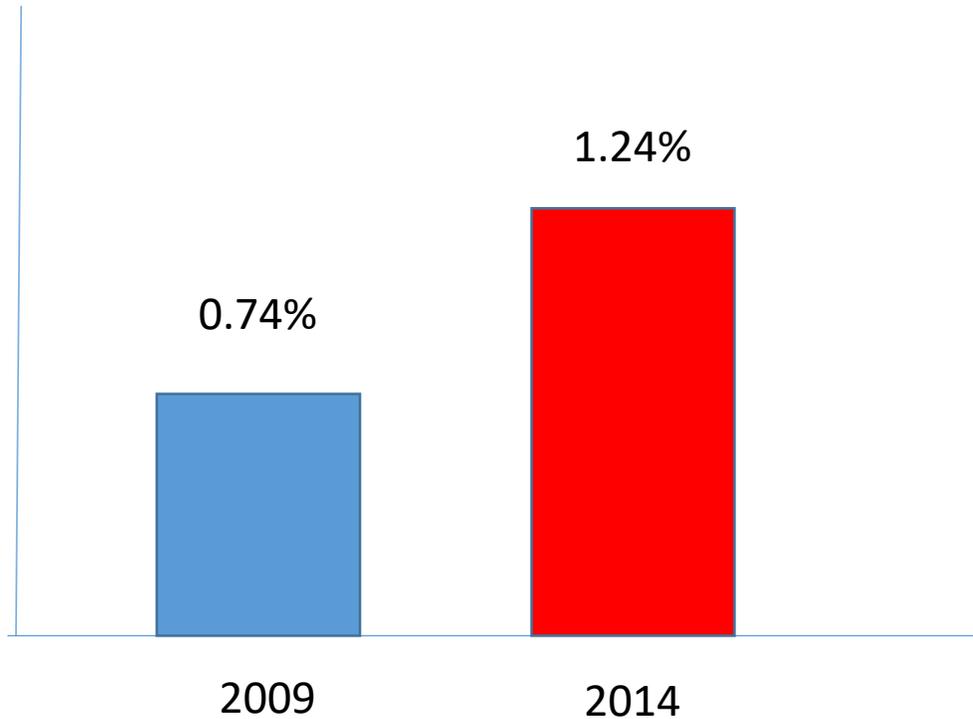
**Reduce vulnerability and increase resilience of new generations**



Med J Aust.

**Estimating the number of regular and dependent methamphetamine users in Australia, 2002-2014.**

Degenhardt et al., 2016



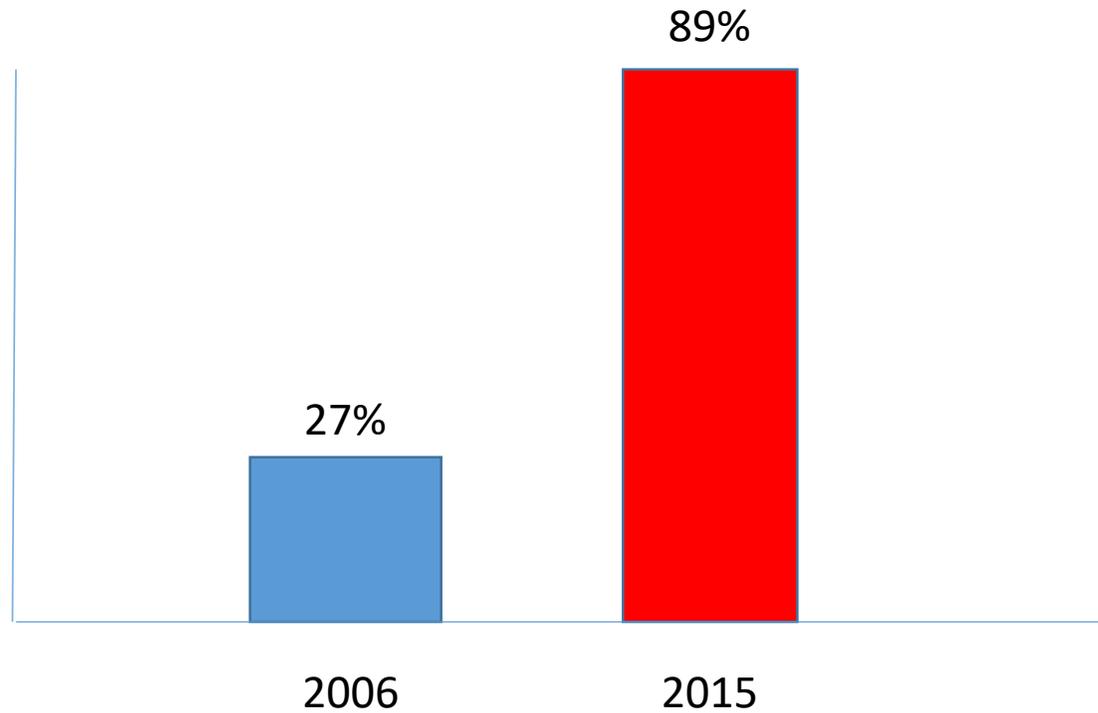
The rate of dependent use had increased since 2009-10.

2.09% for regular non-dependent use

Forensic Sci Int.

**The occurrence of alcohol/drugs by toxicological examination of selected drivers in Hong Kong.**

Cheng and Dao, 2017.



Increased use of methamphetamine among drivers: fatal accidents

Heart Lung Circ.

**The Current Epidemiology of Injecting Drug Use-Associated Infective Endocarditis in Victoria, Australia in the Midst of Increasing Crystal Methamphetamine Use.**

Wright et al., 2017



Int J STD AIDS. 2017

**Sexually transmitted infection prevalence and related risk factors among heterosexual male methamphetamine users in China.**

Liu et al., 2017

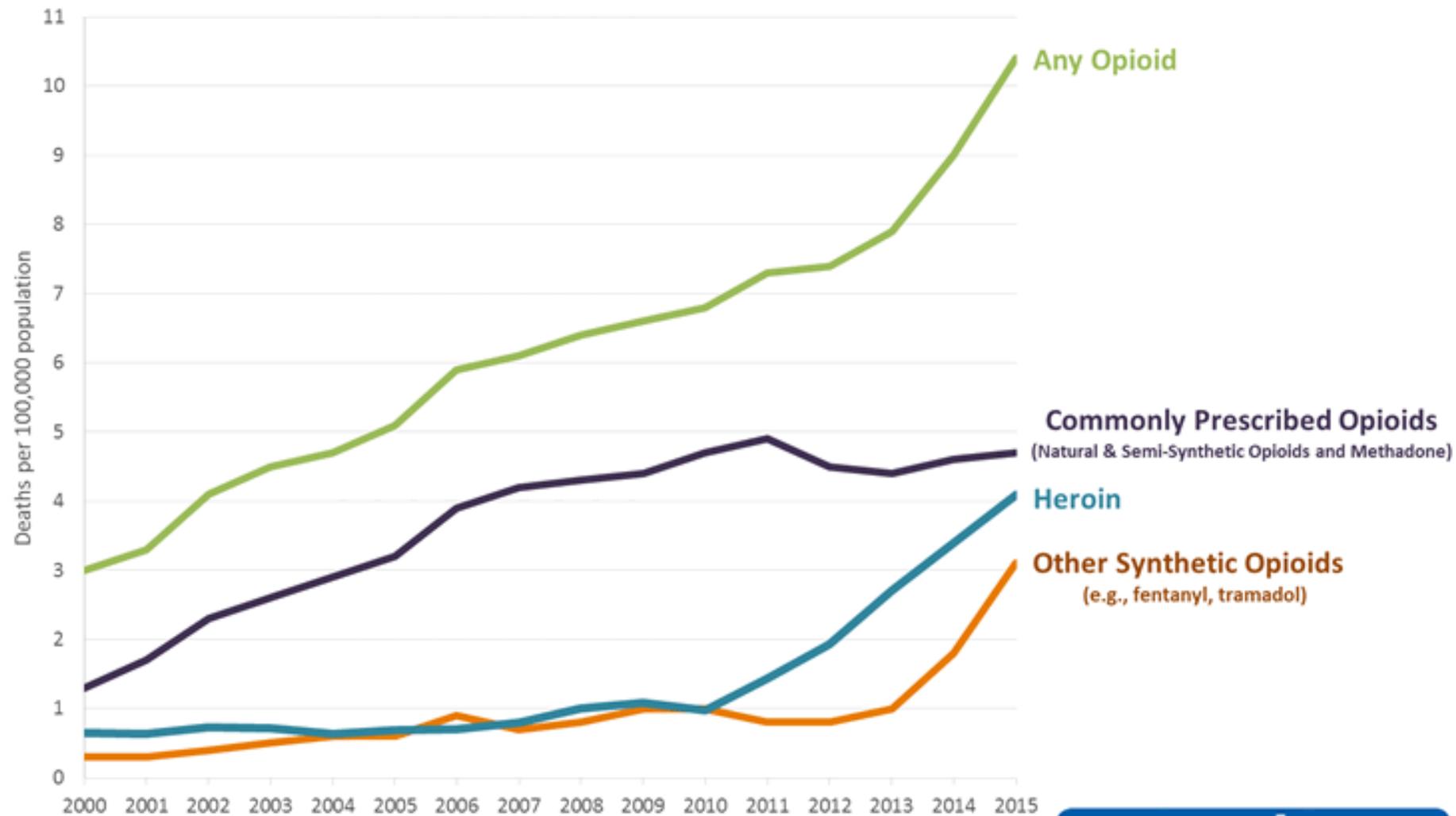


**Methamphetamine** users belong to the high-risk group for sexually transmitted infection in China.

Non-protected sex

Behavioural under-control

## Overdose Deaths Involving Opioids, United States, 2000-2015



SOURCE: CDC/NCHS, National Vital Statistics System, Mortality. CDC WONDER, Atlanta, GA; US Department of Health and Human Services, CDC; 2016. <https://wonder.cdc.gov/>.

[www.cdc.gov](http://www.cdc.gov)  
Your Source for Credible Health Information

Subst Use Misuse.

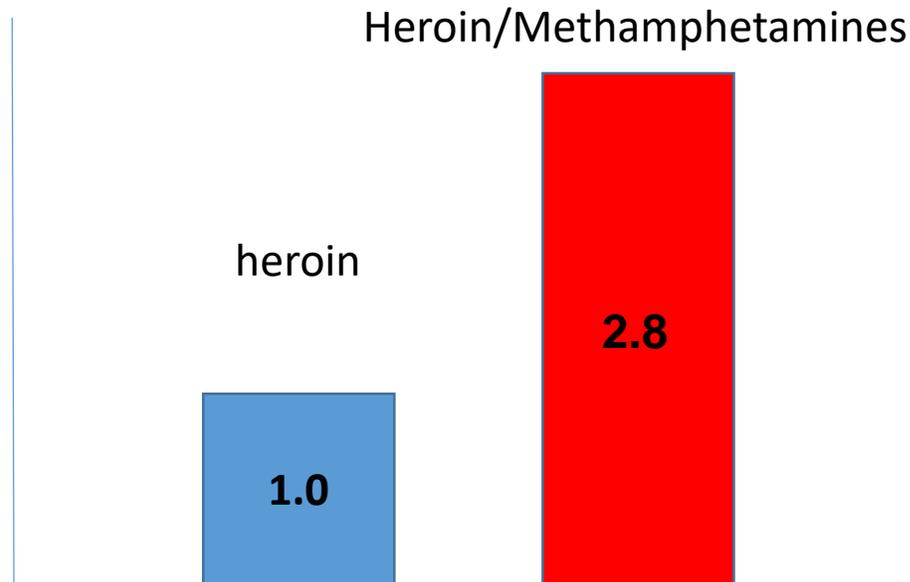
## Heroin and Methamphetamine Injection: An Emerging Drug Use Pattern.

Al-Tayyib et al., 2017

296 **(50.0%) reported injecting both drugs** during the past 12 months.

Pattern characterized by injection of both methamphetamine and heroin

Injecting both heroin and methamphetamine was associated with a **2.8** fold increase in reported overdose



+



Prev. Med.

**Cannabis use, attitudes, and legal status in the U.S.: A review.**

Carliner et al., 2017

since the early 2000s,  
perception of cannabis use  
as risky has decreased

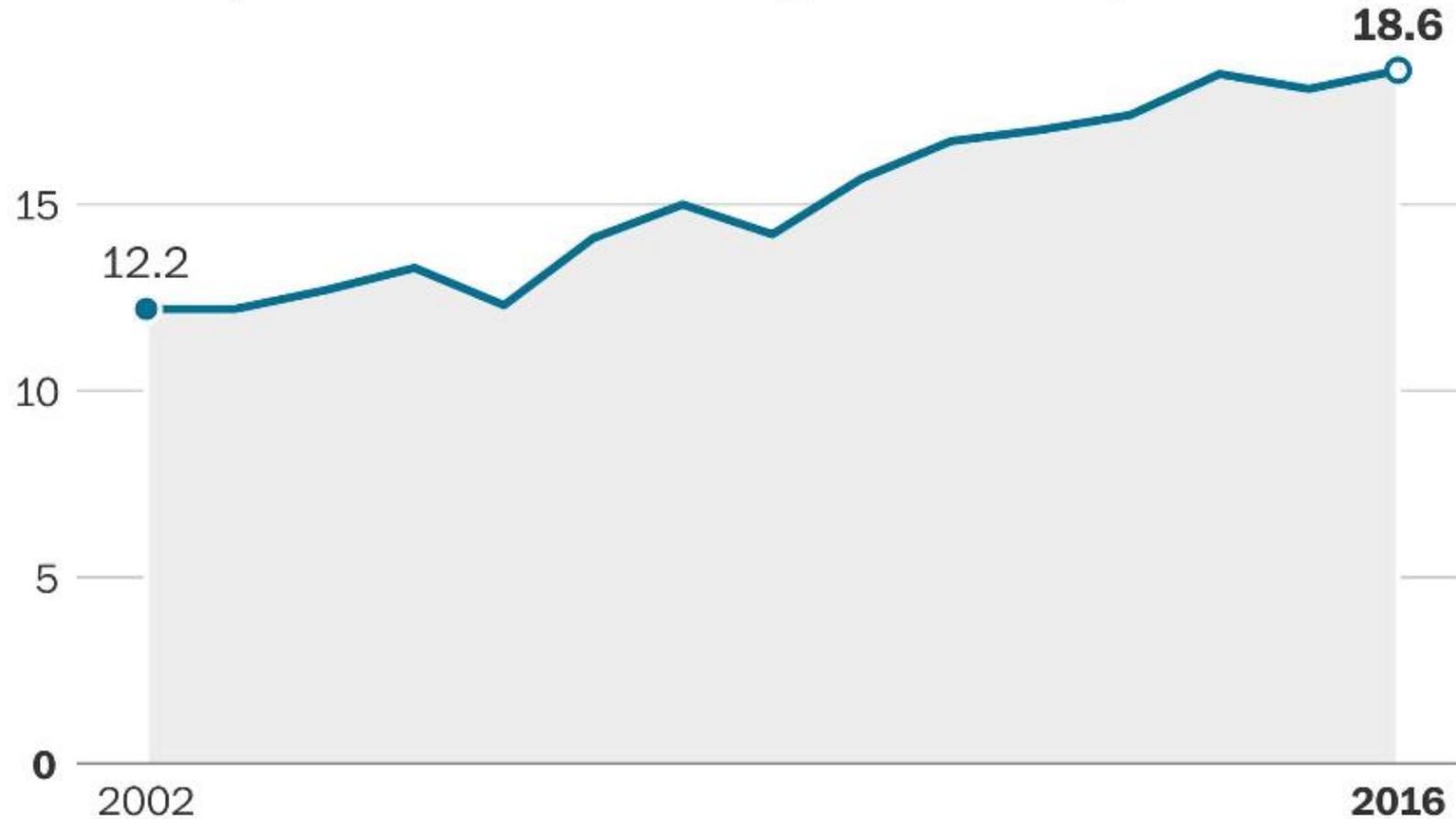
adults cannabis use has increased

increase of cannabis-related adverse  
health and psychosocial consequences  
by increasing the population of users



## Daily marijuana use rises sharply

Percent of marijuana users who use the drug at least 300 days out of the year.



Source: National Survey on Drug Use and Health

[WAP0.ST/WONKBLOG](http://WAP0.ST/WONKBLOG)

Scand J Trauma Resusc Emerg Med.  
Presentations to an urban emergency department in Bern,  
Switzerland associated with acute recreational drug toxicity.  
Liakoni et al., 2017

<b>cocaine</b>	(29%)
cannabis	(26%)
heroin	(20%)
benzodiazepines/sedatives	(18%).

- central nervous system depression
- sympathomimetic toxicity
- psychiatric disorders

**prescription drugs** were after classical recreational drugs the substances most commonly reported.



**Marijuana Admissions to Substance Abuse Treatment Aged 18 to 30:  
Early vs. Adult Initiation.**

Strashny, 2013

Report findings show that  
over **one tenth** of marijuana  
admissions reporting early initiation  
began using **at age 11 or younger**

Early initiation shows

- a complicated drug use history
- longer durations of marijuana use,
- the abuse of more substances
- more reported prior treatment episodes



Addiction.

**The epidemiology of substance use among street children in resource-constrained settings:  
a systematic review and meta-analysis.**

Embleton et al., 2013 College of Health Sciences, Department of Medicine, Moi University, Eldoret, Kenya.

- inhalants
- tobacco
- alcohol
- marijuana



Lancet Glob Health. 2014

**Prevalence of drug and alcohol use in urban Afghanistan: epidemiological data from the Afghanistan National Urban Drug Use Study (ANUDUS).**

Cottler et al., 2014



**Children exposed  
to opioid drugs  
in elementary  
school age**

J Addict Dis.

**Predictors of early relapse among adolescent crack users.**

Lopes-Rosa et al., 2017

early relapse among  
**adolescent crack users**  
discharged from inpatient treatment.

psychiatric inpatients aged  
**12-17 years** from two different hospitals  
in southern Brazil

**there were extremely high rates  
of relapse in the first and third months,  
65.9 and 86.4%**



The drug control system:  
**CND, UNODC, INCB, WHA, WHO**

The medical use of narcotic/psychotropic drugs  
is indispensable for the relief of pain and suffering

... to ensure the availability for medical purposes...



Addiction to drugs/non-medical use of drugs  
constitutes a serious evil for the individual...  
a social and economic danger to mankind



3 GOOD HEALTH  
AND WELL-BEING



UN Conventions

6 Areas:

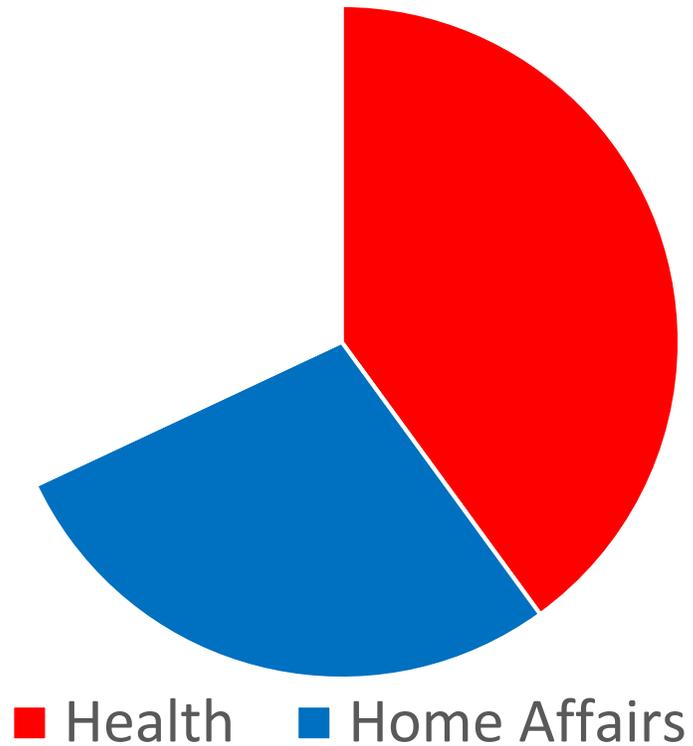
- 1) Prevention of drug use and treatment of drug dependence
- 2) HIV-Hepatitis prevention/treatment
- 3) Access to controlled drugs for medical purposes
- 4) NPS and scheduling
- 5) Violence consequences on health
- 6) Data collection

## WHO – UNODC MoU, February 24, 2017



# Ministries in charge for drug use disorders

Low/middle  
Income Countries

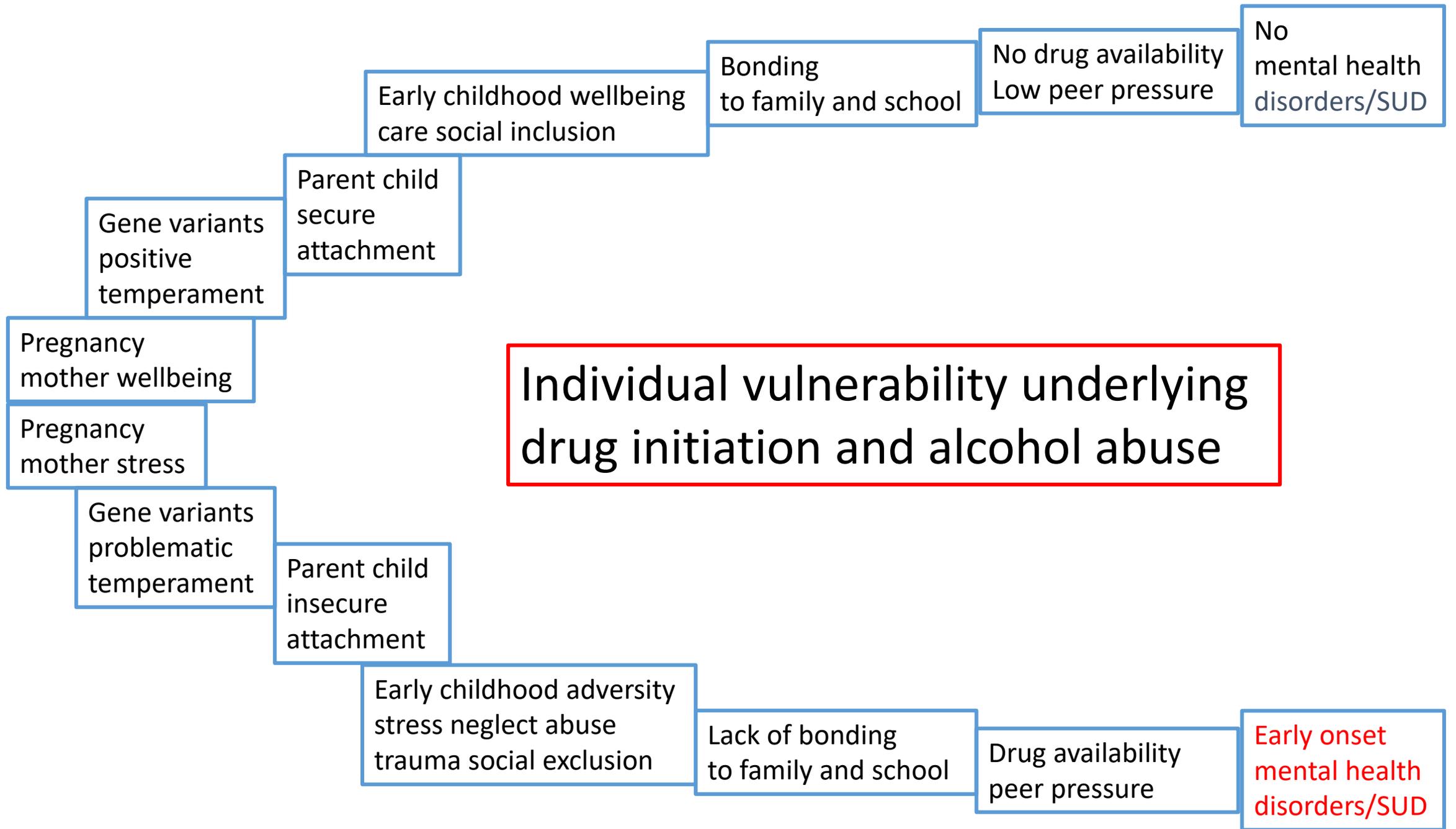




They never met before...  
Living on  
two different planets



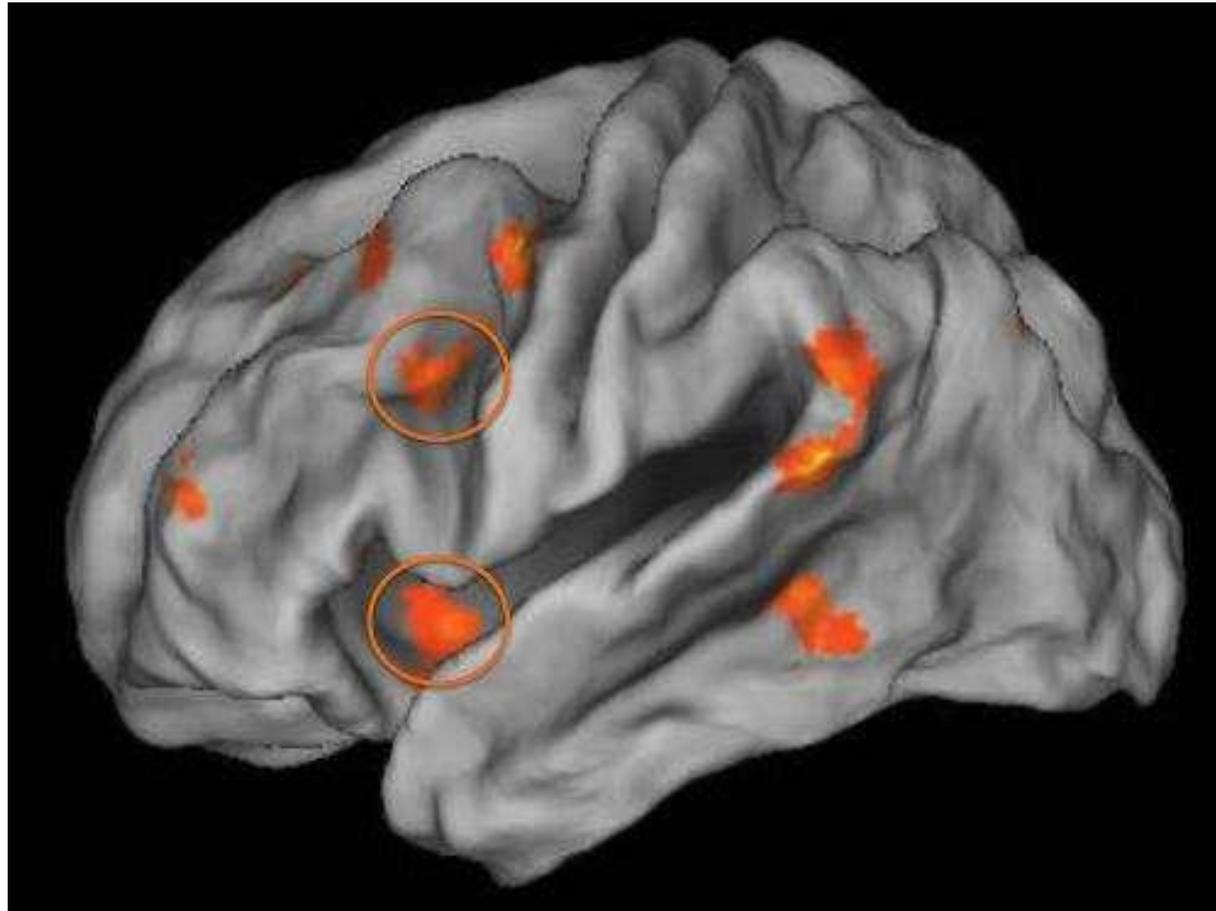
Treatment of  
substance use disorders  
in the university curricula



Using drugs to cope with social exclusion and extreme poverty



Using drugs for recreational purposes

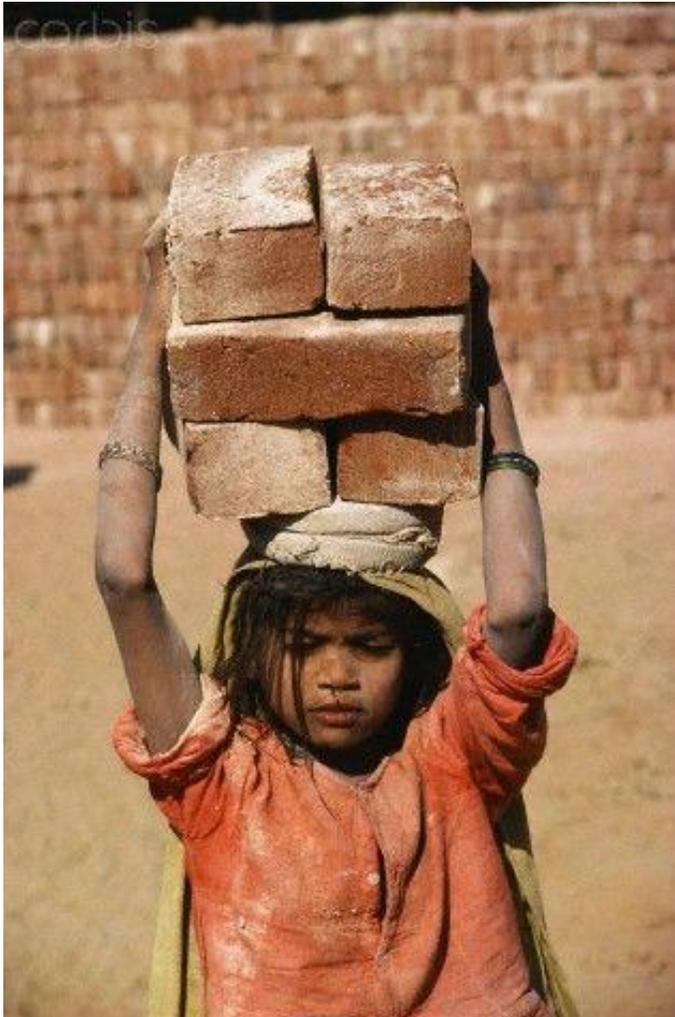


## Poverty and stress during childhood:



- hyperactive amygdala (emotions store)
- hypoactive prefrontal cortex (**behavioural regulation**)

Blair, C. (2010), Stress and the Development of Self-Regulation.  
Child Development Perspectives



*early stress in the context of poverty  
affects the functioning  
of neural networks  
that underlie executive functions  
and **self-regulation***



Addict Biol.

**Polygenic risk for alcohol dependence associates with alcohol consumption, cognitive function and **social deprivation** in a population-based cohort.**

Clarke et al., 2015

Individuals living in socially deprived regions were found to carry more alcohol dependence risk alleles which may contribute to the increased prevalence of problem drinking.



Invest in prevention programs  
that have been found effective  
by science and are based  
on the correct view  
of substance use disorders

**LOVE**

**YOURSELF.**

**BE DRUG  
FREE.**

RED RIBBON WEEK - OCT 23-31





BURY THEM OR THEY WILL SOON BURY YOU!!  
CHOICE IS YOURS.



**Run, do not walk!**



# Programs for children social protection



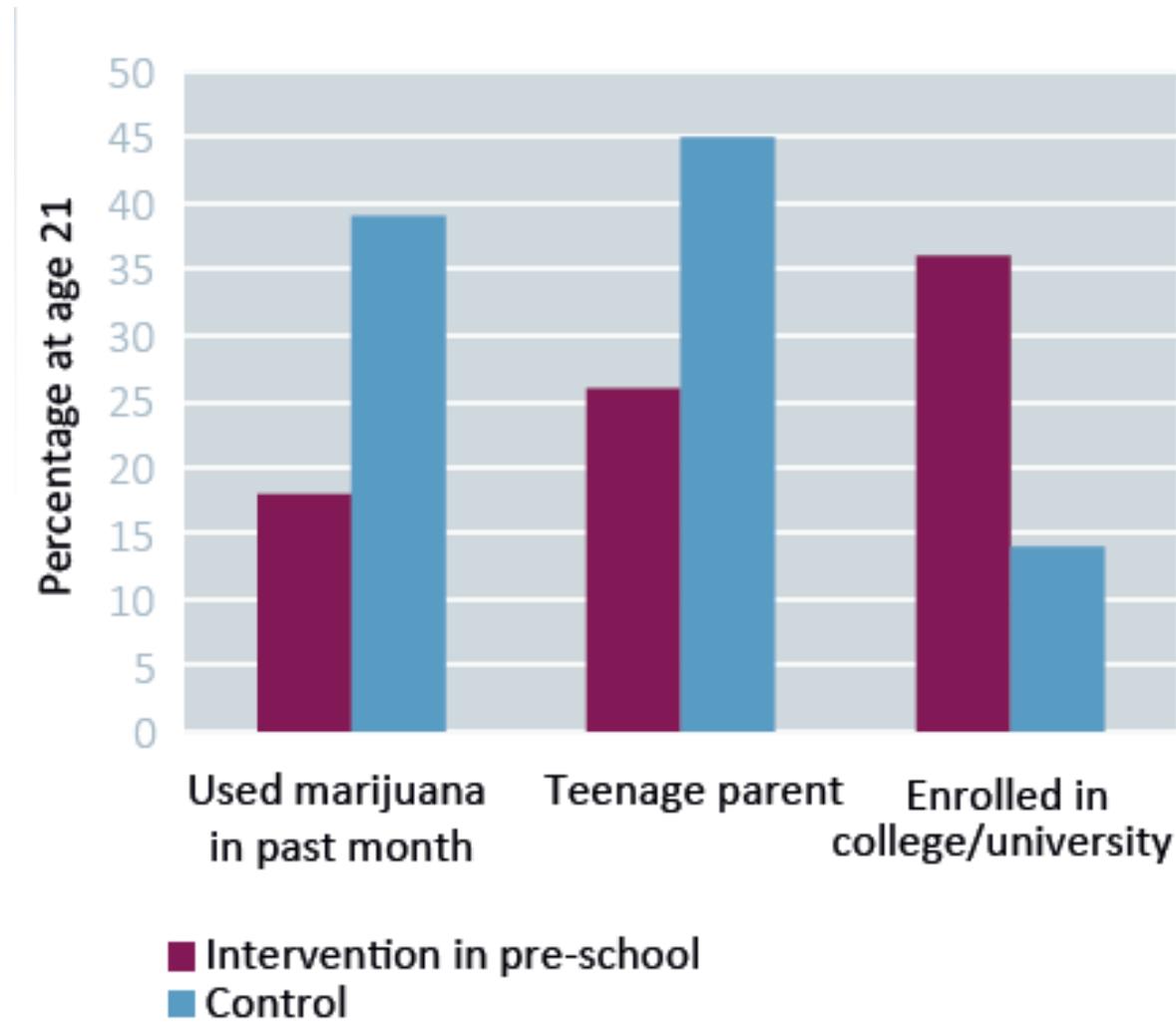
11 SUSTAINABLE CITIES  
AND COMMUNITIES



# Programs to reduce school drop out



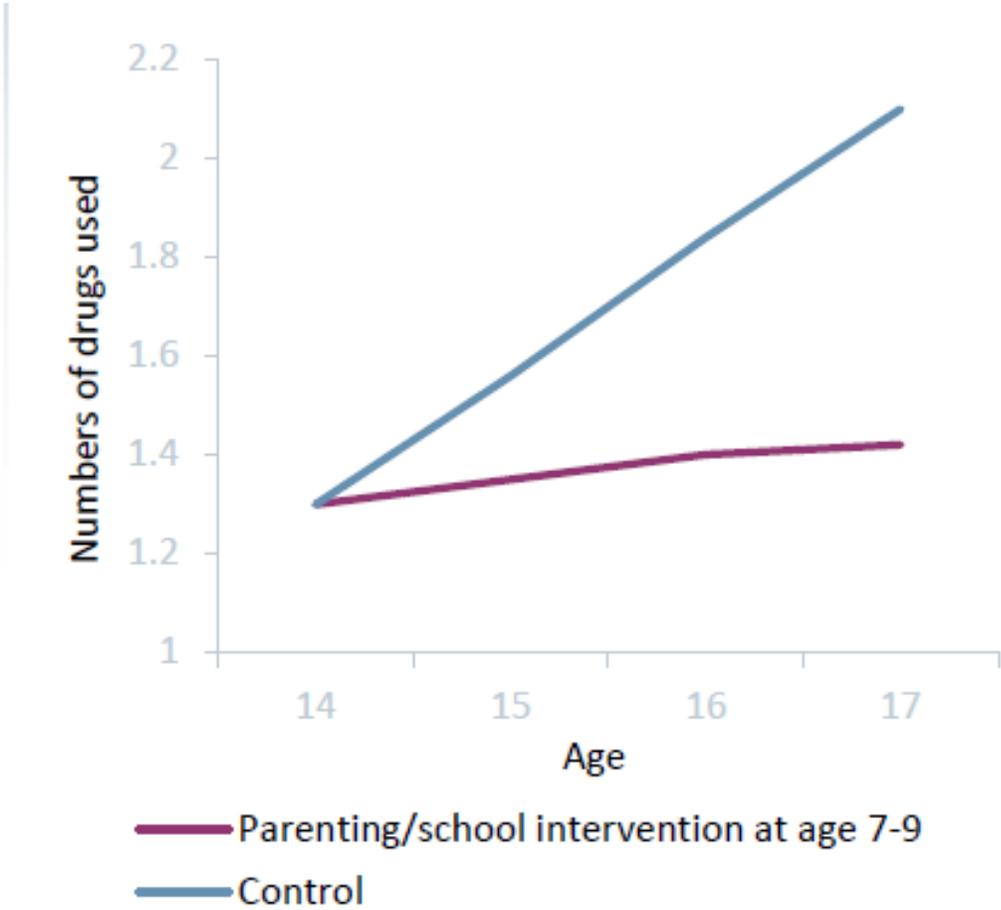
# Pre-school intervention



Source: Campbell and others, "Early childhood education" (2002).



# Skills training programmes for students and parents

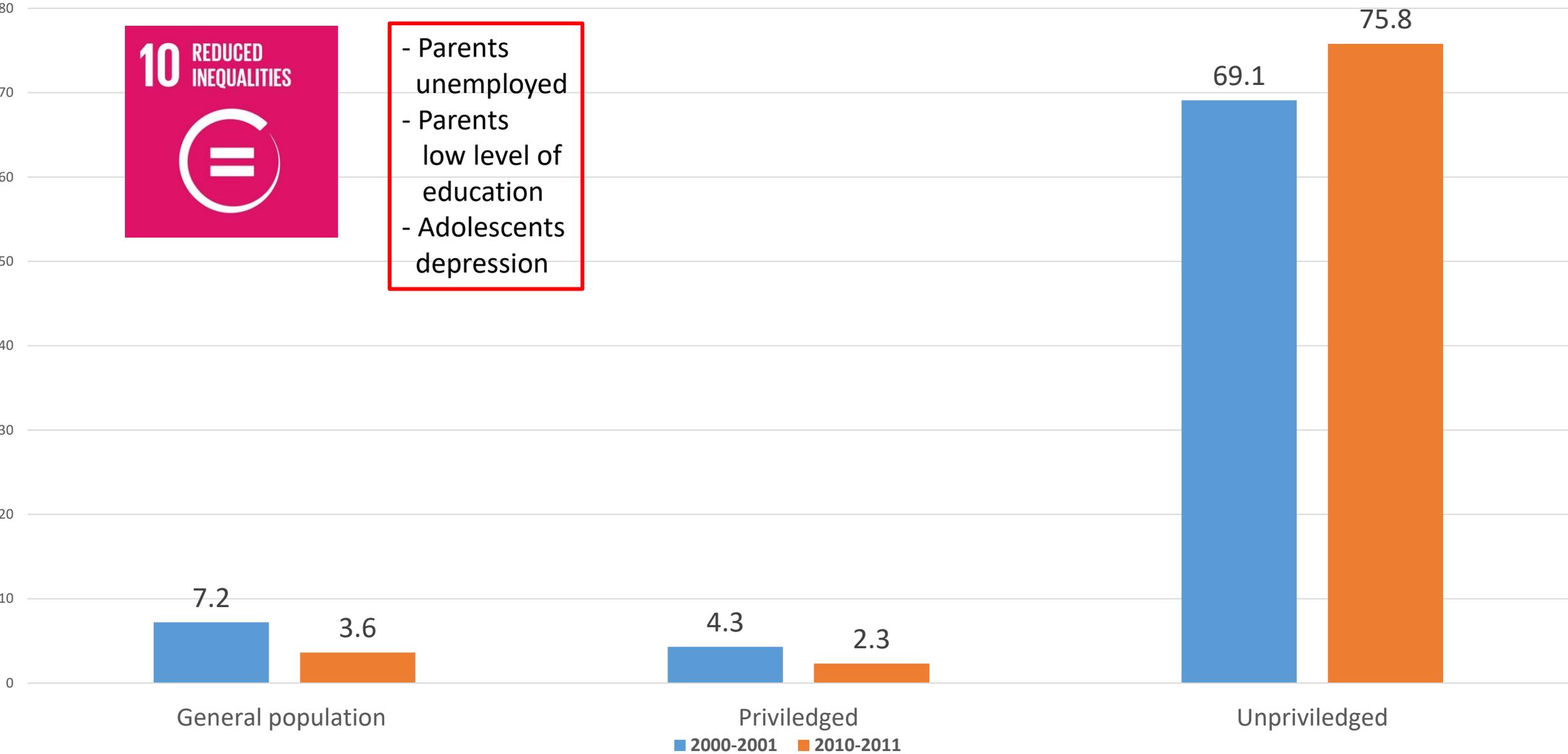


Source: N. Castellanos-Ryan and others, "Impact of a 2-year multimodal intervention for disruptive 6-year-olds on substance use in adolescence: randomised controlled trial", *The British Journal of Psychiatry*, vol. 203, No. 3 (2013), pp. 188-195.

Changing trends of frequent drunkenness amongst Finish adolescents BOYS by study year contrasting:  
privileged (non depressed boys with highly educated and employed parents)  
to unprivileged (depressed boys with low education and unemployed parents)



- Parents unemployed
- Parents low level of education
- Adolescents depression



Invest in treatment programs  
that have been found effective  
by science and are based  
on the correct view  
of substance use disorders

A blue sky with white clouds. A metal chain is broken, with several links floating in the air. The text "Breaking the Chains of ADDICTION" is overlaid on the image.

Breaking the  
Chains  
*of*  
**ADDICTION**

I choose

# RECOVERY

I CHOOSE HAPPINESS

I CHOOSE POSITIVITY

I CHOOSE TO LOVE WHO I AM

writtenliving.tumblr



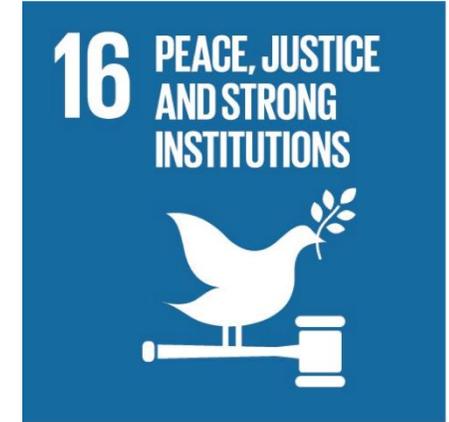








Drug users and former drugs users shared their experiences at a community meeting in Banteay Meanchey



## Social cohesion

Outpatient  
treatment for  
substance use  
disorders in the  
community



A mother spoke about her drug-using son at a community meeting in Banteay Meanchey



Treatment for substance use disorders for women

Oncotarget.

Evaluation of a community-based integrated heroin addiction treatment model in Chinese patients.

Zhang et al., 2017

## Psychosocial and pharmacological treatment:

retention at 12-months: **91.9%**, at 24-months: **88.1%**

morphine-positive subjects:

from **61.4%** at baseline to **36.2%** and **30.5%**

crime rate: from **32.4%** at baseline to **2.2%** and **1.6%**

employed: from **24.3%** at baseline to **37.8%** and **50.8%**

Addiction-related issues and **mental health status** improved



J Clin Nurs.

**Effect of cognitive behavioural interventions on the quality of life in Chinese heroin-dependent individuals in detoxification: a randomised controlled trial.**

Zhuang et al., 2014

Appropriate nurse-managed cognitive behavioral intervention for heroin addicts can improve their quality of life and promote their health.



Drug Alcohol Depend.

**Effectiveness and cost-effectiveness of unsupervised buprenorphine-naloxone for the treatment of heroin dependence in a randomized waitlist controlled trial.**

Brown et al., 2017

---

Patients with heroin dependence dispensed **buprenorphine-naloxone** weekly (mean dose,  $22.7 \pm 5.7$ mg).

Waitlist controls received no clinical intervention.

Heroin use was on average **19.02 days less/month (heroin free days)**

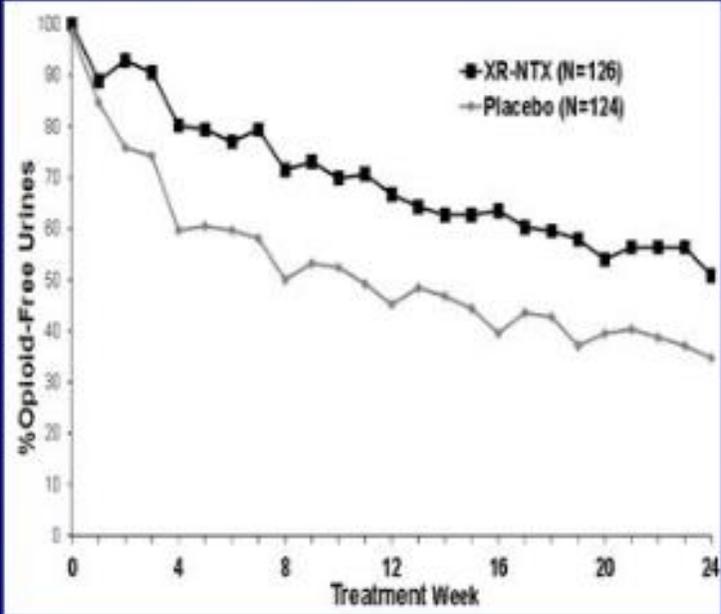
A total 12-week **reduction in adjusted costs including crime of \$A 5,722**

Excluding crime, incremental **cost per heroin-free-day gained from treatment was \$A18.24**

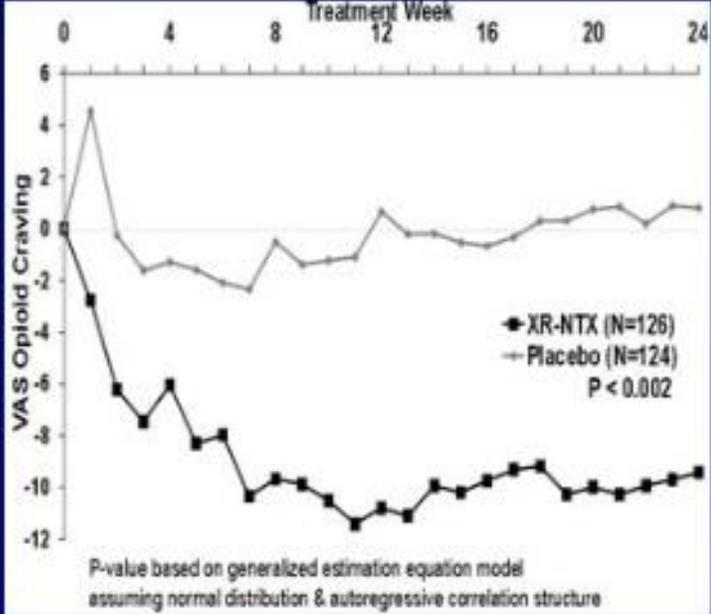


# Naltrexone slow-release: Vivitrol

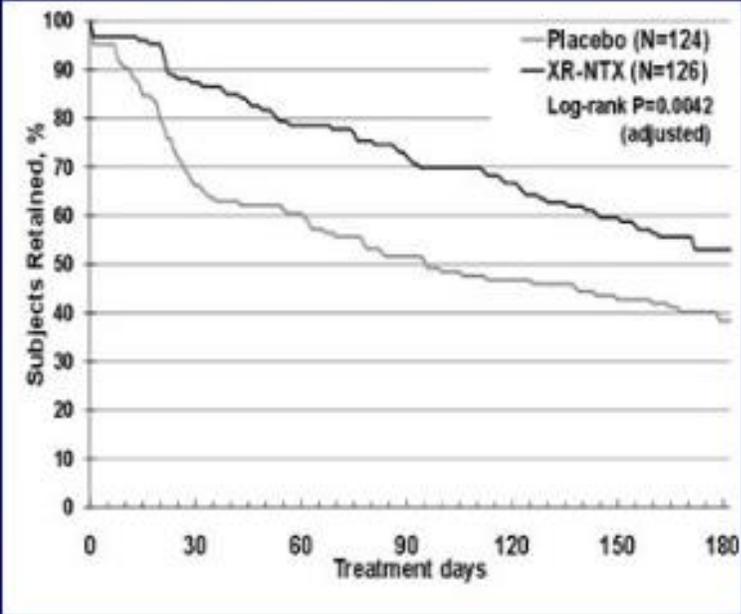
3A. % Opioid-Free Urines by Week



3B. Mean Change From Baseline in Craving



3C. Time-to-Discontinuation (Kaplan-Meier)



## Expert Opinion on Investigational Drugs

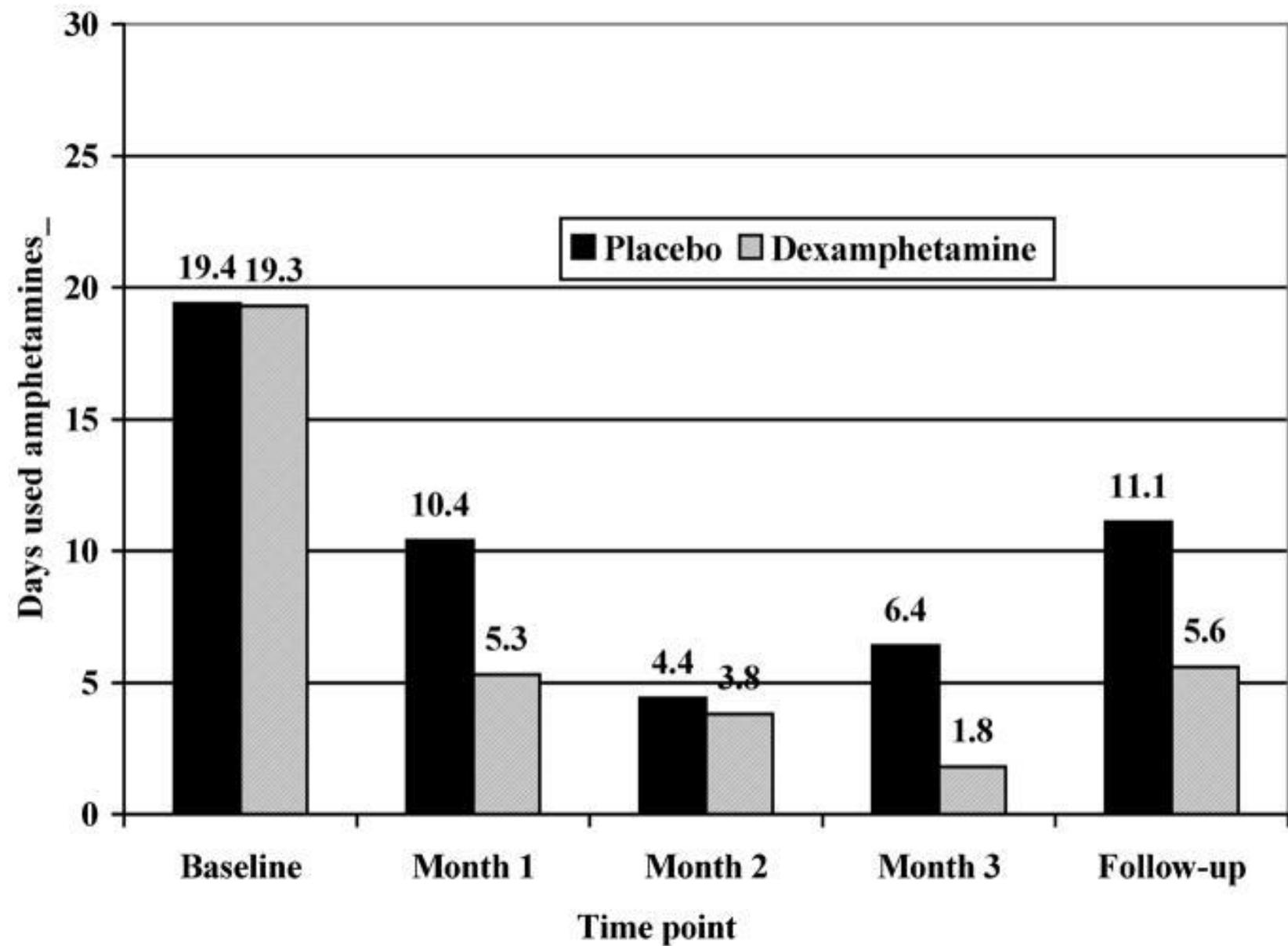
Pharmacotherapeutic agents in the treatment of methamphetamine dependence

Morley et al., 2017

Aripiprazole	anti-psychotic
Topiramate	anti-convulsant
Varenicline	nicotinic receptors agonist
Perindopril	ACE inhibitor
Dextro-amphetamine	sympathomimetic
Methylphenidate SR	sympathomimetic
Modafinil	monoaminergic stimulating
Bupropion	antidepressant
Mirtazapine	antidepressant
Naltrexone	opioid antagonist
Ibudilast	anti-inflammatory
Mixed amphetamines salt	amphetamine replacement



Karila et al., 2010



# Therapeutic Community (UNODC-WHO Standards)

The **intensive and supportive caregiving** represents an appropriate response to the personal history often characterized by poor parental care, emotional neglect, physical or sexual abuse, trauma, interpersonal violence and social exclusion



**A new family?**

Int J Environ Res Public Health.

**Therapeutic Community Treatment of an Inmate Population with Substance Use Disorders:  
Post-Release Trends in Re-Arrest, Re-Incarceration, and Drug Misuse Relapse.**

Galassi et al., 2015

75% of the studies reported TCI effective  
in reducing rates of re-incarceration

70% of studies found TCI effective in reducing  
rates of drug misuse/relapse

TCI reduced re-arrests events in 55% of the studies



## Outreach: unconditioned help

Food  
Shelter  
Hygienic measures  
Needles  
Pharmacological interventions  
Condoms  
Education  
Referral to health care  
Dignity  
Interpersonal relationships



BMC Public Health.

**Effectiveness of needle and syringe Programmes in people who inject drugs - An overview of systematic reviews.**

Fernandes et al., 2017

NSP was effective  
in reducing HIV transmission and  
Injecting Risky Behavior among PWID.

Mixed results regarding  
a reduction of HCV infection

**Multi-component programs,**  
as well as high level of coverage,  
were more beneficial.



J Int AIDS Soc. 2016

**Beyond the 90-90-90: refocusing HIV prevention as part of the global HIV response.**

Baggaley et al., 2016

Pre-exposure prophylaxis interventions have the potential to prevent HIV acquisition among populations at substantial risk averting treatment costs in coming years.

## Pre-Exposure Prophylaxis



- FDA approves Truvada for the prevention of HIV infection among individuals at high risk of HIV infection and who may engage in sexual activity with HIV-infected partners (July 16 2012)



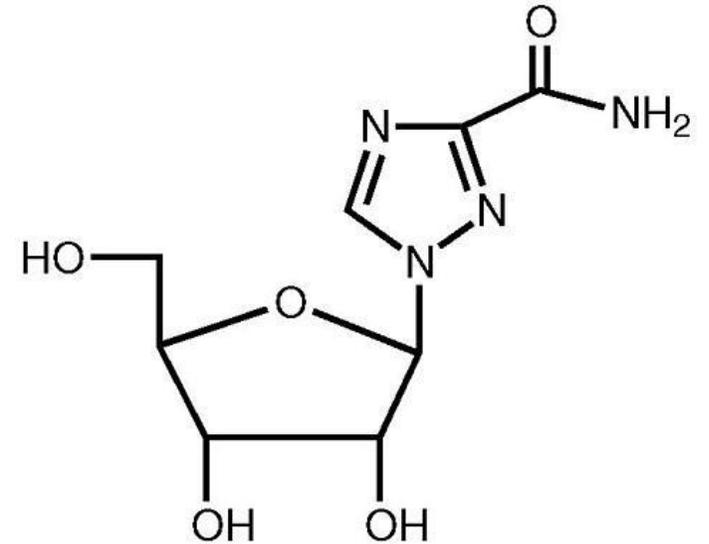
World J Gastroenterol.

**Eligibility of persons who inject drugs for treatment of hepatitis C virus infection.**

Arain and Robaeys, 2014

The viral clearance in people who inject drugs after HCV antiviral treatment with interferon or **pegylated interferon combined with ribavirin** is comparable to the viral clearance in non-substance users.

In combination with needle exchange programs and substitution therapy



# Opioid overdose prevention

Educational package

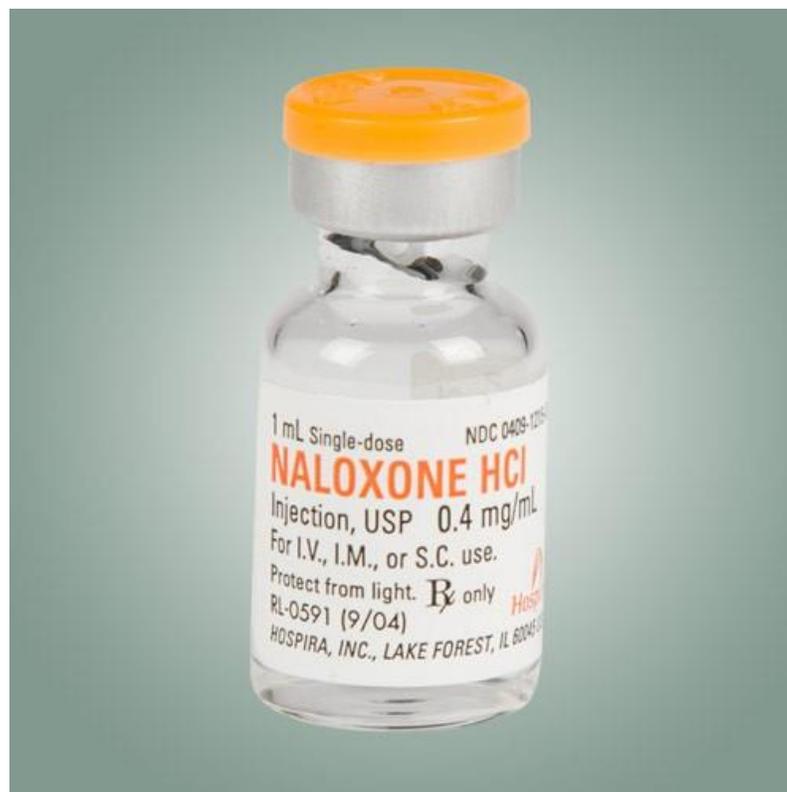
Take home naloxone

Being in treatment

Depression treated

Social support

Coordinate release from prison



***Take-home emergency naloxone to prevent deaths from heroin overdose***

*BMJ 2014; 349 (Published 04 November 2014)*

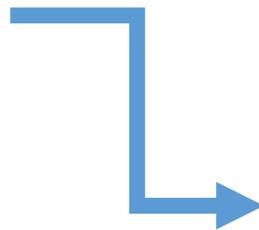
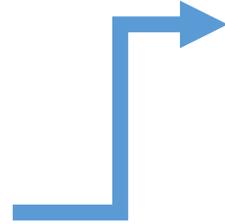
Strang J, Bird SM, Dietze P, Gerra G, McLellan AT.

# The core objectives of treatment:

the **extinction** of the conditioned compulsive behaviour

the motivational system starts to **focus again on ordinary life salient stimuli.**

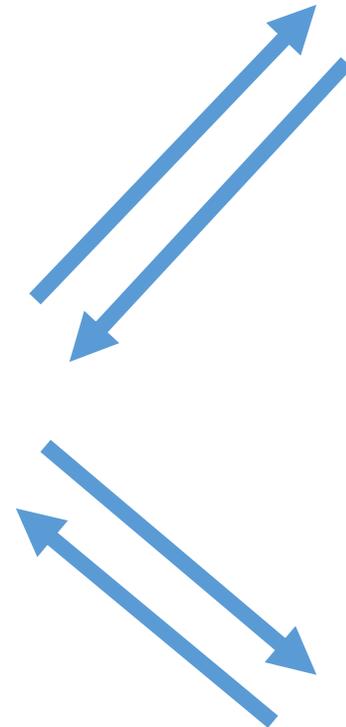
dealing with **psychological, behavioural and medical problems**



# “Chronic Health Disorders” does not mean: no recovery

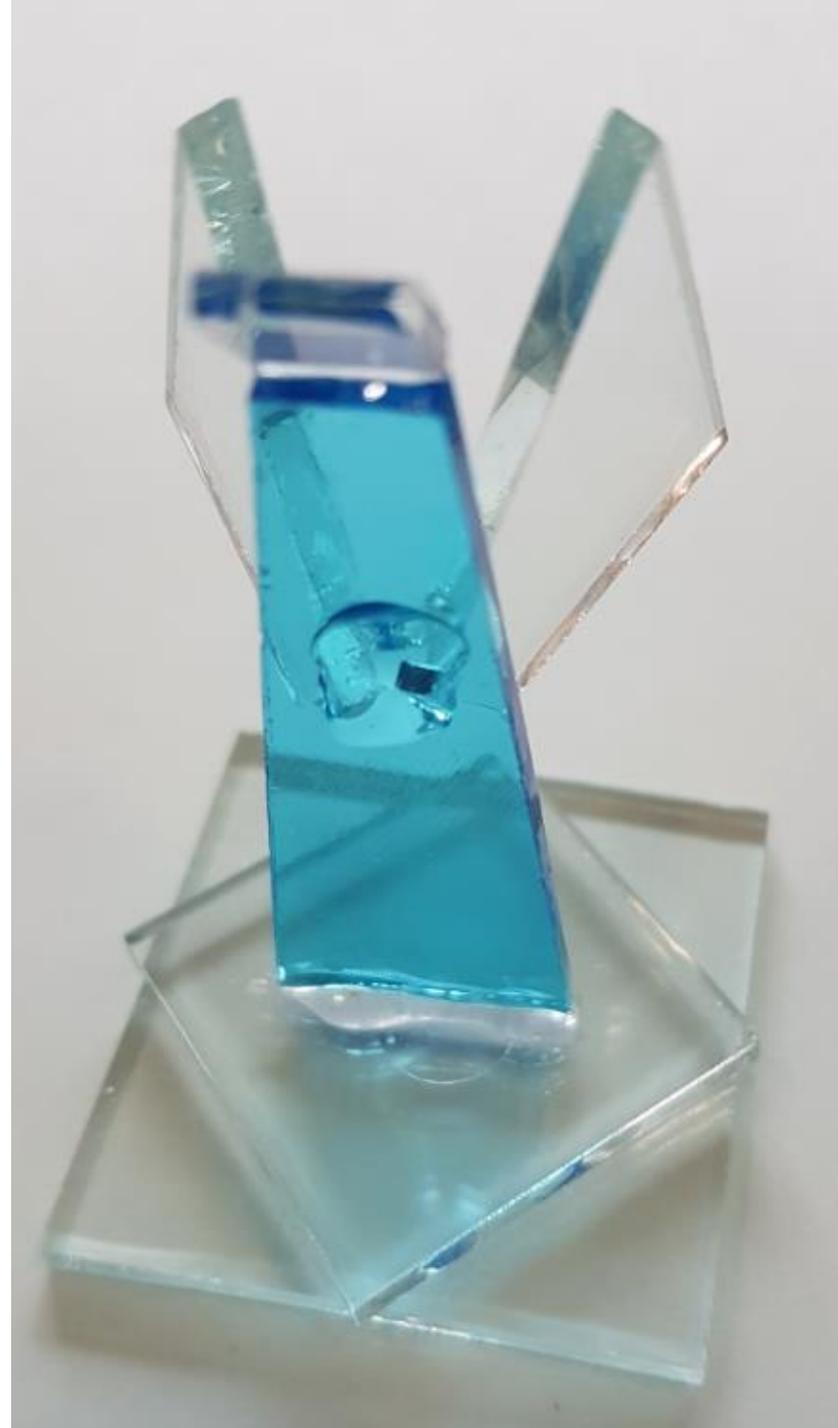
## Long term recovery management

Reduced intensity and frequency of treatment interventions, but remaining in contact with treatment centre



**Broken glasses  
should not be put  
in the garbage.**

**From broken glasses  
something extraordinary  
can come out...**



Norway, 2017