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**GLOBAL  
DRUG  
SURVEY**

**2016**

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**What we learned from GDS2016**

**An overview of our key findings**

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**The GDS Core Research Team**



GLOBAL DRUG SURVEY

GLOBAL DRUG SURVEY

**WE RUN THE BIGGEST DRUG  
SURVEY IN THE WORLD**

[www.globaldrugsurvey.com](http://www.globaldrugsurvey.com)



- GDS 2012: 15,500
- GDS 2013: 22,000
- GDS 2014: 77,000
- GDS 2015: 100,000
- GDS 2016: 100,000
- GDS2017: target 250K

If you want to join e-mail us at  
[info@globaldrugsurvey.com](mailto:info@globaldrugsurvey.com)

**Global Drug Survey (GDS) runs the world's biggest annual drug survey.**

**A total of 101,313\* people from over 50 countries participated in GDS2016**

**\*Data analysis was conducted on out on 97,000 for these preliminary analyses.**

## About

GDS is an independent global drug use data exchange hub that conducts university ethics approved, anonymous on-line surveys. We collaborate with global media partners who act as hubs to promote our work.

GDS is comprised of experts from the fields of medicine, toxicology, public health, psychology, chemistry, public policy, criminology, sociology, harm reduction and addiction. We research key issues of relevance and importance to both people who use drugs and those who craft public health and drug policy.

## Using and reporting the data

In all copy related to the data provided the study should be referred to as **Global Drug Survey 2016 (GDS2016)**

## Mission

We aim to make drug use safer regardless of their legal status use by sharing information in a credible and meaningful way.

Our last 3 surveys, run at the end of 2013, 2014 & 2015 received almost 300,000 responses.

Over the last decade GDS has successfully supported the widespread dissemination of essential information both to people who use drugs through our media partners and to the medical profession through academic papers presentation at international conferences and, expert advisory meetings



## GDS FREE APPS AND ADVICE

[www.youtube.com/user/GlobalDrugSurvey](https://www.youtube.com/user/GlobalDrugSurvey)  
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[www.drugsmeter.com](http://www.drugsmeter.com)  
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[www.onetoomany.com](http://www.onetoomany.com)  
[www.globaldrugsurvey.com/brand/the-highway-code/](http://www.globaldrugsurvey.com/brand/the-highway-code/)

# Just how generous people were with their time?

We estimate that over the duration of the study (Nov 15 – Jan 16) over 100,000 people spent in excess of

3.5 million minutes OR

58,000 hours OR

2400 days OR

350 weeks OR

6.5 years sharing their drug use experiences with us. **So a HUGE thanks to you all.** GDS does not exist without you.

GDS is the world's biggest annual drug survey. Our last survey, GDS2016, ran for 6 weeks at the end of 2015, was translated into 10 languages and received > 100,000 responses from around the world. Over the last 3 years we have obtained data from almost 300,000 people. By the end of 2016 we estimate our global database will be in excess of 600,000.

GDS has expanded this year, with an increasing number of countries, groups and individuals joining our network. We acknowledge the overwhelming support and encouragement we continue to receive from our global media partners, academic network and many harm reduction groups around world.

## Thank you to everyone who took part

# Before reading our findings please understand our method and its limitations

It is important to understand what GDS can and cannot do when interpreting our findings. **Don't look to GDS for national estimates of drug use.** GDS is designed to answer comparison questions that are not dependent on probability samples. **GDS acknowledges that when compared with traditional epidemiological criteria for a good public health surveillance system, our approach has significant limitations.** GDS utilizes non-random, opportunistic sampling methods to recruit very large numbers of people who use drugs. The recruitment window is brief with the survey active for only 6 weeks. In 2016, there was an exception to this due to the saddening events in Paris, France that coincided with the recruitment period of GDS. The sample representativeness is limited by response bias, meaning there will be inherent differences between those who participate and those who do not. This survey is only available on-line and will therefore tend to miss those without easy online access and those with lower levels of literacy.

Throughout this report we provide some comparisons on some key areas that may be of interest to readers of your publications. Because the **samples we have obtained from different countries vary considerably** in size, demographics and other characteristics, such **comparisons have to be treated with caution.** The limitations in cross country comparisons will be more marked for some results than others, particularly in countries with small numbers.

The **GDS database is massive but its non-probability sample means analyses are suited to highlight differences among user populations.** **GDS is thus best suited to answer comparison questions that are not dependent on probability samples.** The GDS sample allows you to effectively compare population segments - young, old, males, females, gay, straight, clubbers, thin people, obese people, vegetarians, those with a current psychiatric symptoms and diagnoses, students, northerners, southerners..... GDS also explores the experience of particular drugs on users, such as seeking medical attention and/or the desire to change consumption patterns. **GDS can help add numbers and depth to the findings of more rigorous, though less detailed and smaller, survey findings.** GDS reaches hidden, sentinel and hard to reach populations. GDS puts you on top of emerging drug trends in your country and major cities

## WHAT GDS WON'T DO FOR YOU

- Don't look to GDS for national estimates of drug use prevalence .
- GDS is designed to answer comparison questions that are not dependent on probability samples.
- GDS database is huge but its non-probability sample means analyses are suited to highlight differences among user populations.

## WHAT GDS WILL DO FOR YOU

- GDS is an efficient approach to gain content rich data that explores diverse health outcomes associated with the use of drugs and alcohol across the population of your country.
- GDS recruits younger, more involved drug using populations.
- We spot emerging drug trends before they enter into the general population
- Our data is < 6 months old
- GDS helps you better understand the quantitative dynamics of personal decision-making about drug use, detects regional differences in patterns of drug use and related harm and informs novel interventions.
- Provides current data on the patterns of use, harms, health and well-being experienced by the full spectrum of users.

## WHERE IN THE WORLD

Germany	31% (29,866)
Switzerland	8.5% (8,174)
New Zealand	8% (7,633)
United Kingdom	6% (6,015)
United States	5.5% (5,367)
Netherlands	5.2% (5,058)
Australia	5% (4,931)
France	4% (3,858)
Italy	3% (3,189)
Hungary	3% (3,071)
Spain	3% (2,520)
Colombia	2% (2,095)
Austria	2% (2,055)

Norway	1.5% (1,461)
Canada	1.5% (1,297)
Mexico	1% (1,203)
Belgium	1% (1,027)
Brazil	1% (1,012)
Portugal	1% (1,008)
Sweden	1% (706)
Scotland	1% (647)
Republic of Ireland	1% (707)
Denmark	0.5% (296)

**“Probability based surveys tell you about the size of the drug use problem in your country. GDS tells you what to do about it”**  
**Dr Adam Winstock**

## GDS2016.5 A mini 5 minute launch survey

Following our global media report release on June 14th 2016 we will be running a 5 minute survey exploring 4 areas in depth as part of GDS2017. These are:

- 1) How have psychedelics changed your life?
- 2) What drugs have you ever 'vaped'?
- 3) Would you use drug checking facilities if you had them available?
- 4) What do you do when your mate collapses/passes out?
- 5) **Please promote this using your networks and we'll share the results with you in November 2016.**
- 6) **The link will go live on June 14<sup>th</sup> 2016 at [www.globaldrugsurvey.com/GDS2016.5](http://www.globaldrugsurvey.com/GDS2016.5)**

## GDS2017 areas of focus – launching November 2016

GDS has invested heavily this year in new design and technology. GDS2017 can be easily completed on phones and tablets; it will also allow continuous data submission. We will have a short core survey that will take 20 minutes to complete plus 4 specialist areas that people can opt into if they chose.

GDS2017 will focus on 4 areas:

- 1) **How psychedelics change people** and are used by people for different functions from micro-dosing LSD to the commercialization of Ayahuasca.
- 2) While **vape technology** may be a common way to use nicotine and increasingly cannabis, the interaction between this technology and drugs is only just beginning. GDS2017 will explore how 'vaping' changes the drug experience and what other drugs people are choosing to use this way
- 3) **How people use MDMA to maximize pleasure and minimize the risk of problems** and how this once archetypal dance drug has left the dance floor for people's living rooms and dinner parties
- 4) **Drug tourism** – people travel the world to take drugs – but does their consumption and risk vary when they leave their own backyard? GDS2017 will tell the real story of drug use abroad.



**2016**

Barratt, M.J., Ferris, J.A. and Winstock, A.R., 2016. Safer scoring? Cryptomarkets, social supply and drug market violence. *International Journal of Drug Policy*. [Barratt, M.J., Ferris, J.A. and Winstock, A.R., 2016. Safer scoring? Cryptomarkets, social supply and drug market violence. International Journal of Drug Policy.](#)

Kaar, S.J., Ferris, J., Waldron, J., Devaney, M., Ramsey, J. and Winstock, A.R., 2016. Up: The rise of nitrous oxide abuse. An international survey of contemporary nitrous oxide use. *Journal of Psychopharmacology*, 30(4), pp.395-401. <http://jop.sagepub.com/content/30/4/395.short>

Hindocha, C., Freeman, T.P., Winstock, A.R. and Lynskey, M.T., 2016. Vaping cannabis (marijuana) has the potential to reduce tobacco smoking in cannabis users. *Addiction*, 111(2), pp.375-375. <http://onlinelibrary.wiley.com/doi/10.1111/add.13190/abstract>

**2015**

Bellis, M.A., Quigg, Z., Hughes, K., Ashton, K., Ferris, J. and Winstock, A., 2015. Harms from other people's drinking: an international survey of their occurrence, impacts on feeling safe and legislation relating to their control. *BMJ open*, 5(12), p.e010112. <http://bmjopen.bmj.com/content/5/12/e010112.full>

Winstock, A., Lynskey, M., Borschmann, R. and Waldron, J., 2015. Risk of emergency medical treatment following consumption of cannabis or synthetic cannabinoids in a large global sample. *Journal of Psychopharmacology*, 29(6), pp.698-703. <http://jop.sagepub.com/content/29/6/698.short>

Morley, K.I., Lynskey, M.T., Moran, P., Borschmann, R. and Winstock, A.R., 2015. Polysubstance use, mental health and high-risk behaviours: Results from the 2012 Global Drug Survey. *Drug and alcohol review*, 34(4), pp.427-437. <http://onlinelibrary.wiley.com/doi/10.1111/dar.12263/abstract;jsessionid=26703382FC120FE8E46B14946950E57C.f04t04?userIsAuthenticated=false&deniedAccessCustomisedMessage=>

Winstock, A., 2015. New health promotion for chemsex and  $\gamma$ -hydroxybutyrate (GHB). *BMJ*, 351, p.h6281. <http://www.bmj.com/content/351/bmj.h6281.abstract>

Uosukainen, H., Tacke, U. and Winstock, A.R., 2015. Self-reported prevalence of dependence of MDMA compared to cocaine, mephedrone and ketamine among a sample of recreational poly-drug users. *International Journal of Drug Policy*, 26(1), pp.78-83. <http://www.sciencedirect.com/science/article/pii/S0955395914001728>

Stevens, A., Barratt, M., Lenton, S., Ridout, M. and Winstock, A., 2015. Social Bias in the Policing of Illicit Drug Users in the UK and Australia: Findings from a Self-Report Study. *Available at SSRN 2618393*. [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2618393](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2618393)

Garnett, C., Crane, D., West, R., Michie, S., Brown, J. and Winstock, A., 2015. Normative misperceptions about alcohol use in the general population of drinkers: A cross-sectional survey. *Addictive behaviors*, 42, pp.203-206. <http://www.sciencedirect.com/science/article/pii/S0306460314003827>

Shiner, M. and Winstock, A., 2015. Drug use and social control: The negotiation of moral ambivalence. *Social Science & Medicine*, 138, pp.248-256. [Shiner, M. and Winstock, A., 2015. Drug use and social control: The negotiation of moral ambivalence. Social Science & Medicine, 138, pp.248-256.](#)

Freeman, T.P. and Winstock, A.R., 2015. Examining the profile of high-potency cannabis and its association with severity of cannabis dependence. *Psychological medicine*, 45(15), pp.3181-3189. [http://journals.cambridge.org/download.php?file=%2FPSM%2FPSM45\\_15%2FS0033291715001178a.pdf&code=ae3a71a70fa59432968140bc4db80943](http://journals.cambridge.org/download.php?file=%2FPSM%2FPSM45_15%2FS0033291715001178a.pdf&code=ae3a71a70fa59432968140bc4db80943)

Winstock, A.R., Lawn, W., Deluca, P. and Borschmann, R., 2015. Methoxetamine: An early report on the motivations for use, effect profile and prevalence of use in a UK clubbing sample. *Drug and alcohol review*. <http://onlinelibrary.wiley.com/doi/10.1111/dar.12259/full>

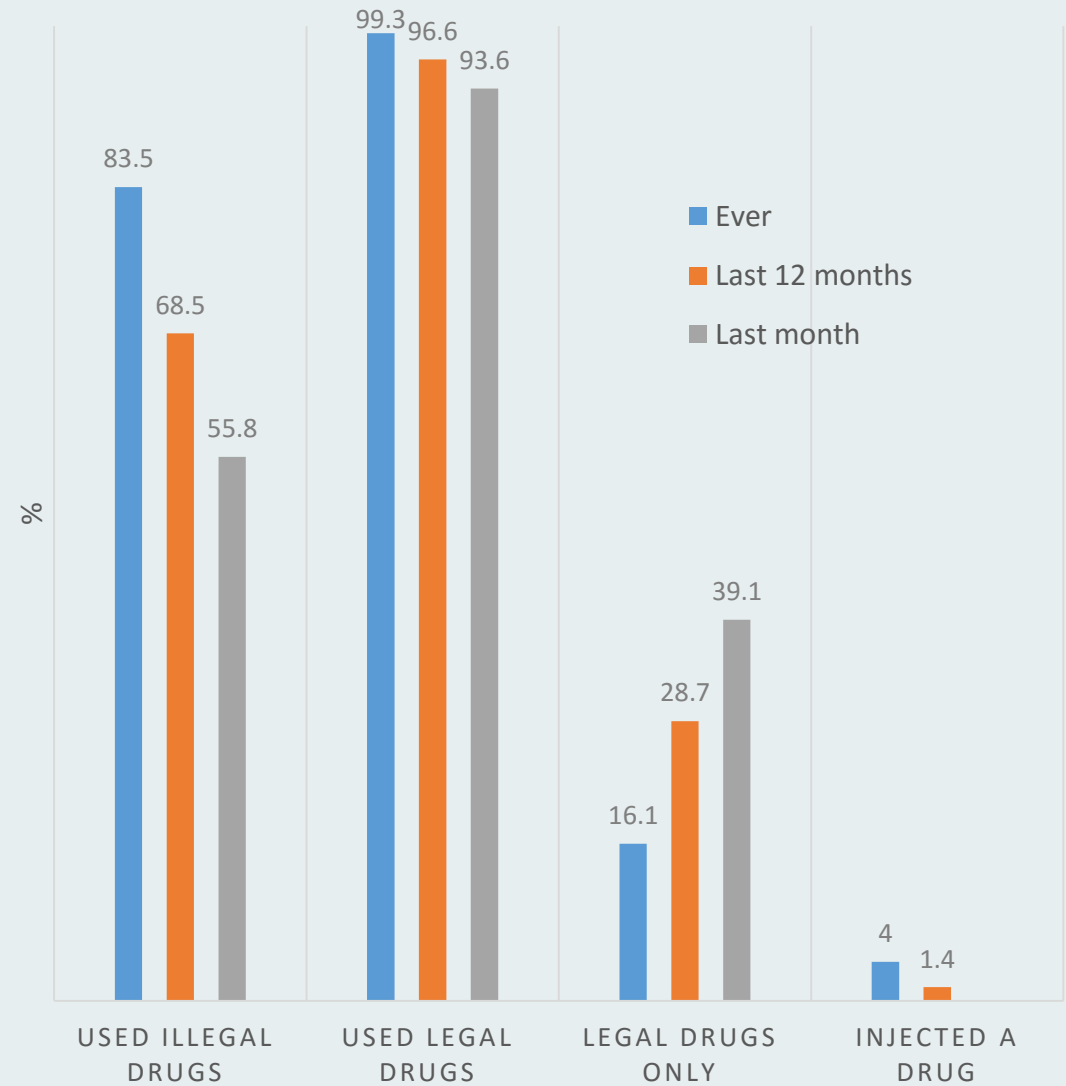


DEMOGRAPHICS

## Who took part?

- Two thirds were male, mean age 28.7 years, 47% 24 or younger, 23% > 35 years
- In terms of education just over 1/3 had a degree, 2/3 paid employment ,with 40% in full or part time education
- 89% white
- 83% heterosexual, 10% bisexual, 5% homosexual.
- 10% vegetarian.
- The mean BMI of participants was 24.2
- 1/3 live with their partners, 25% with their parents,
- 75% from city/urban areas, 21% regional and 4% from remote areas
- 60% exercised at least weekly, 62% clubbing at least every 3 months,

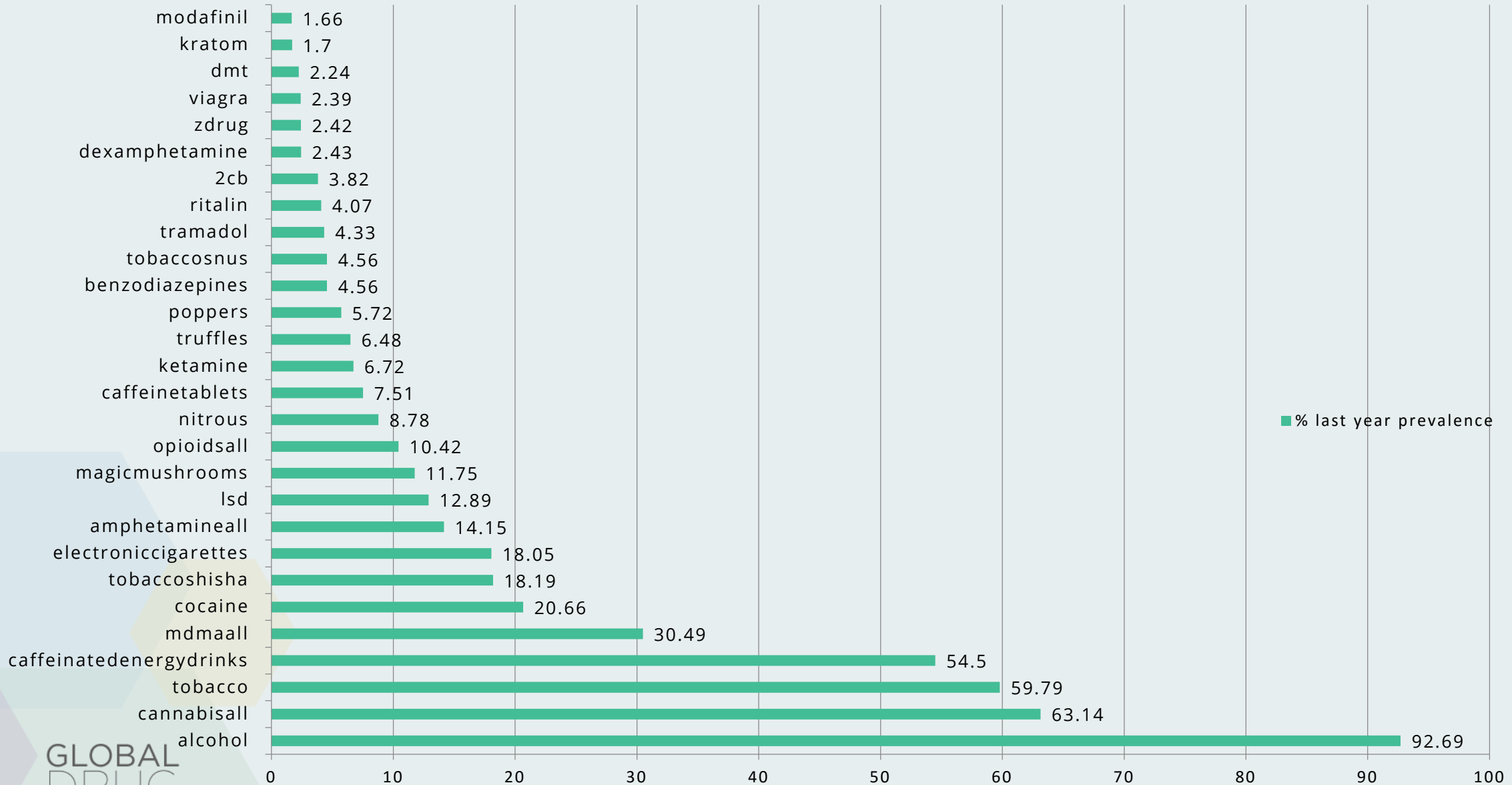
## Summary of ever and last year drug experience by legal status and IV use (global sample M+F)



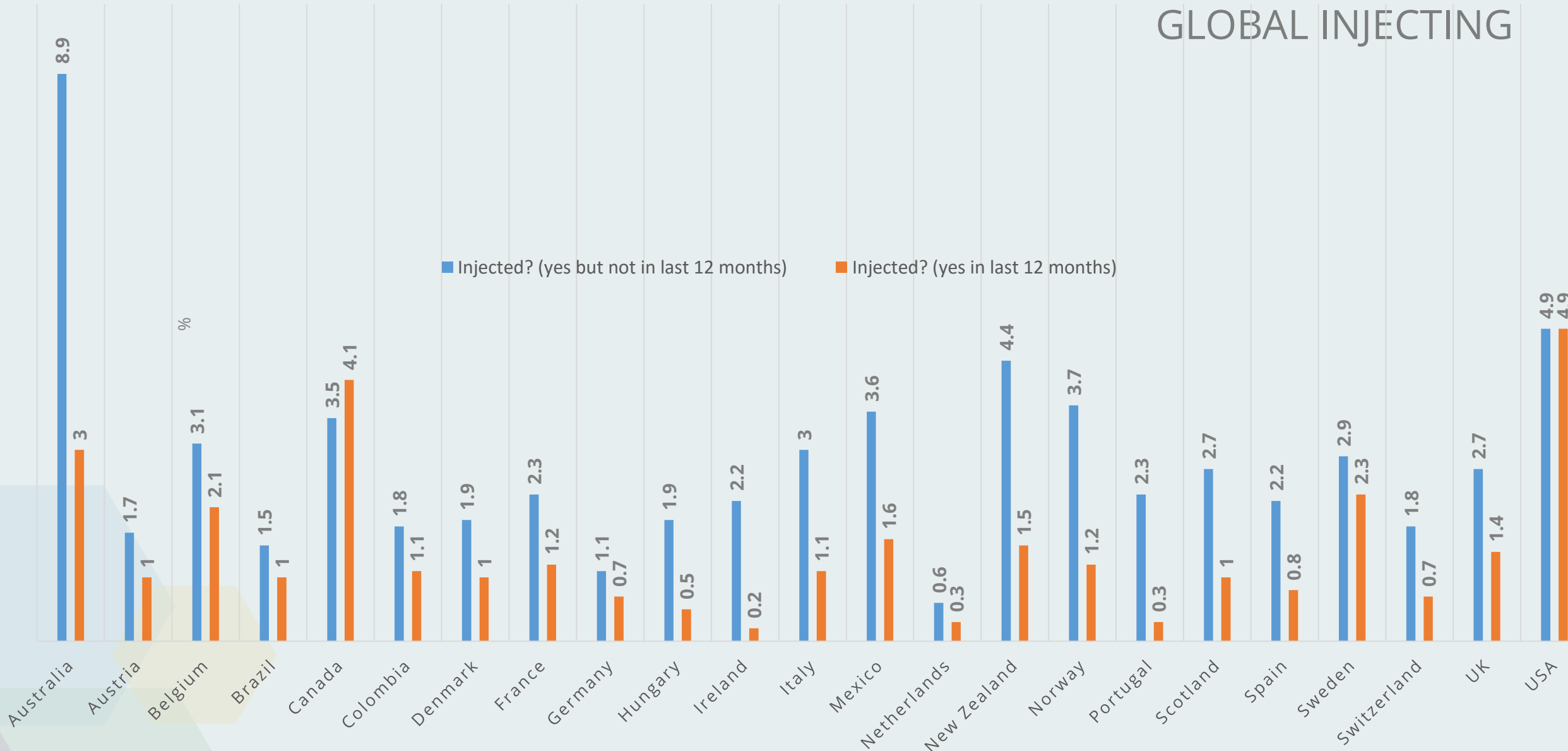


# DRUG USE PREVALENCE

# % of GDS global sample reporting use of different drugs in last 12 months

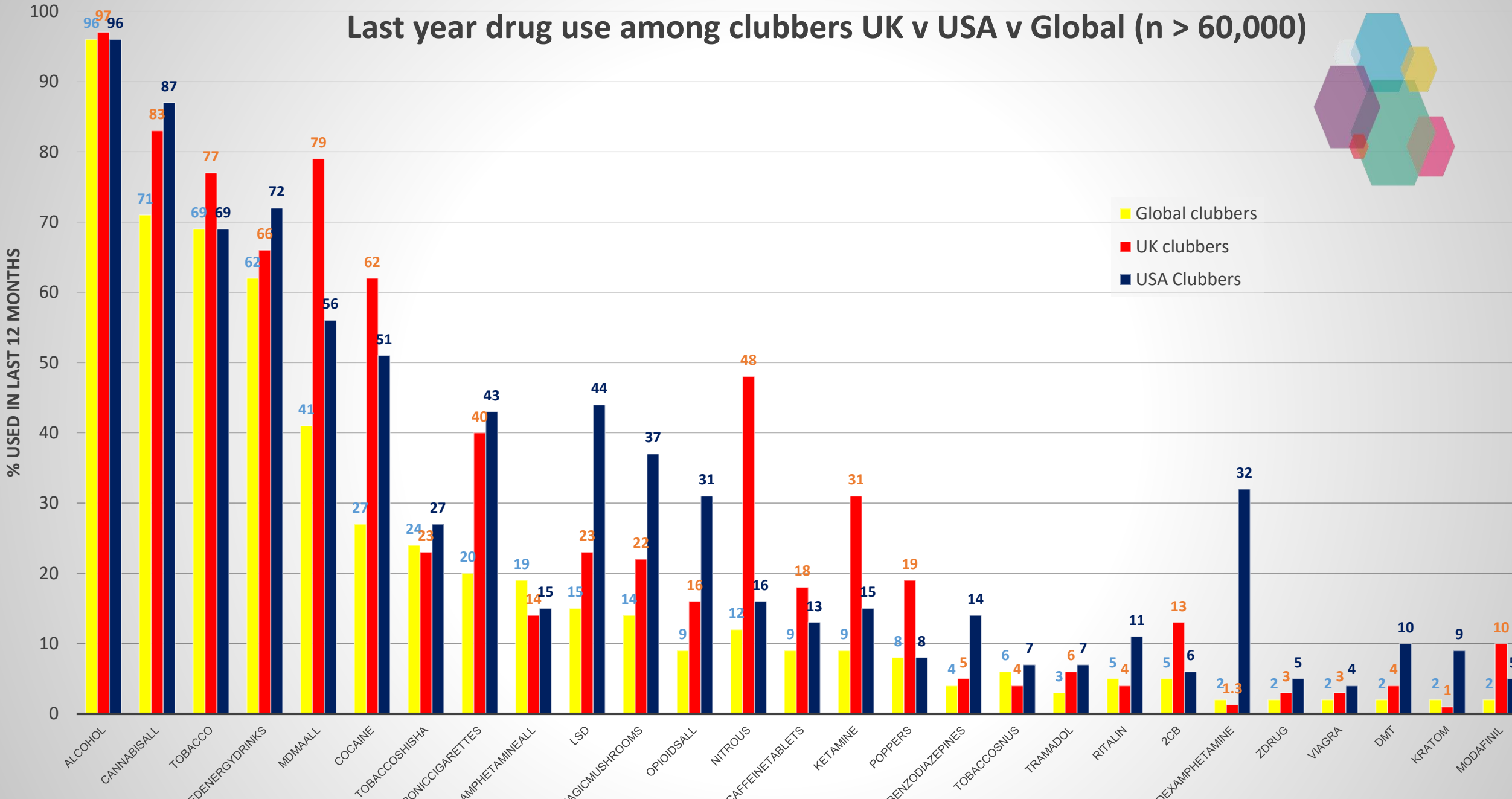
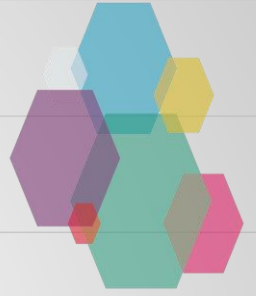


# GLOBAL INJECTING

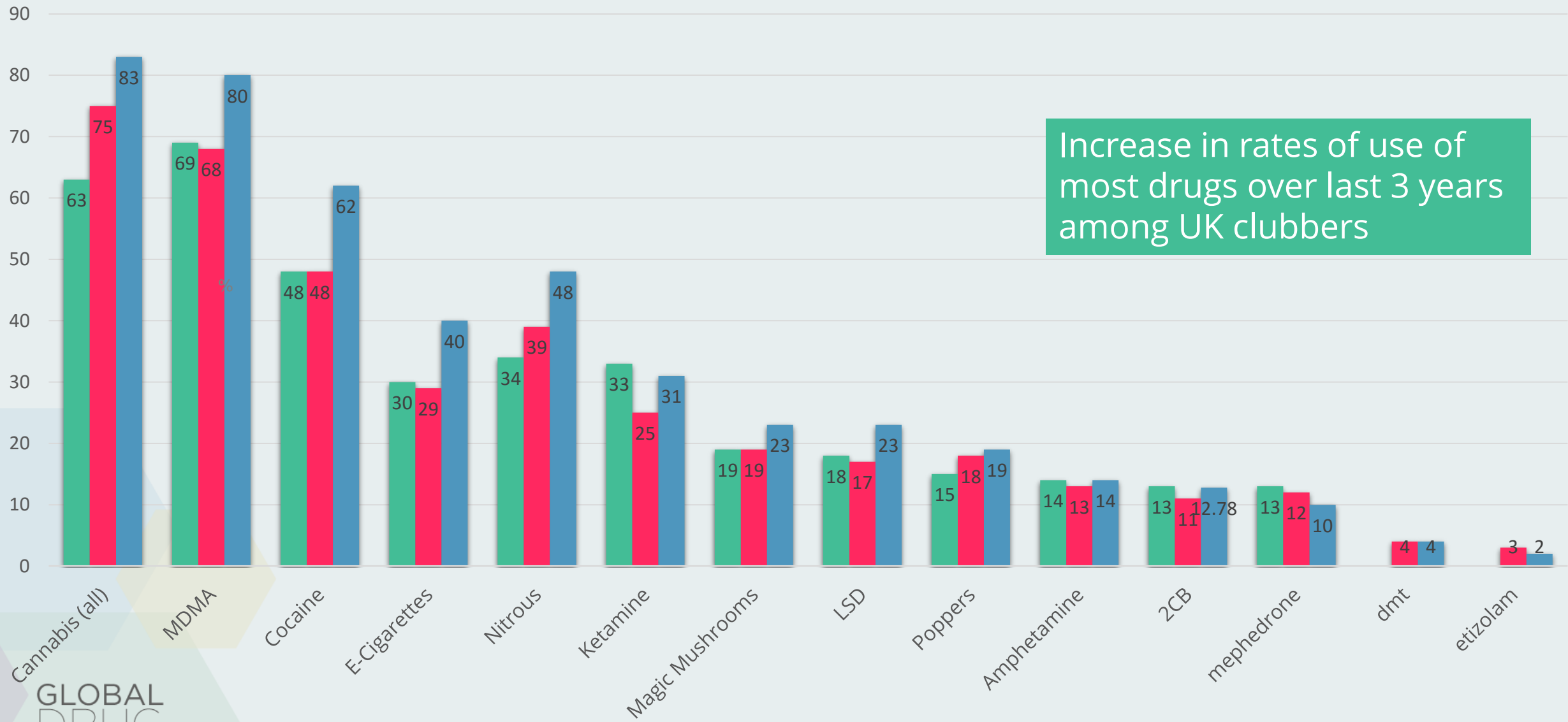


# GDS2016

## Last year drug use among clubbers UK v USA v Global (n > 60,000)



# GDS2016 UK Last 12 month Drug Prevalence (clubbers only) – 3 year trends (n =10,000)



Increase in rates of use of most drugs over last 3 years among UK clubbers





CACTUS JAIL £6.99  
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# ALCOHOL

buckfast

HOUSE OF CAMPBELL  
SCOTCH WHISKY

GLEN'S  
VODKA

SMIRNOFF  
Triple Distilled VODKA

ROLOV  
Mild Imperial Spirit

GROSVENOR

MARTELL  
V.S.

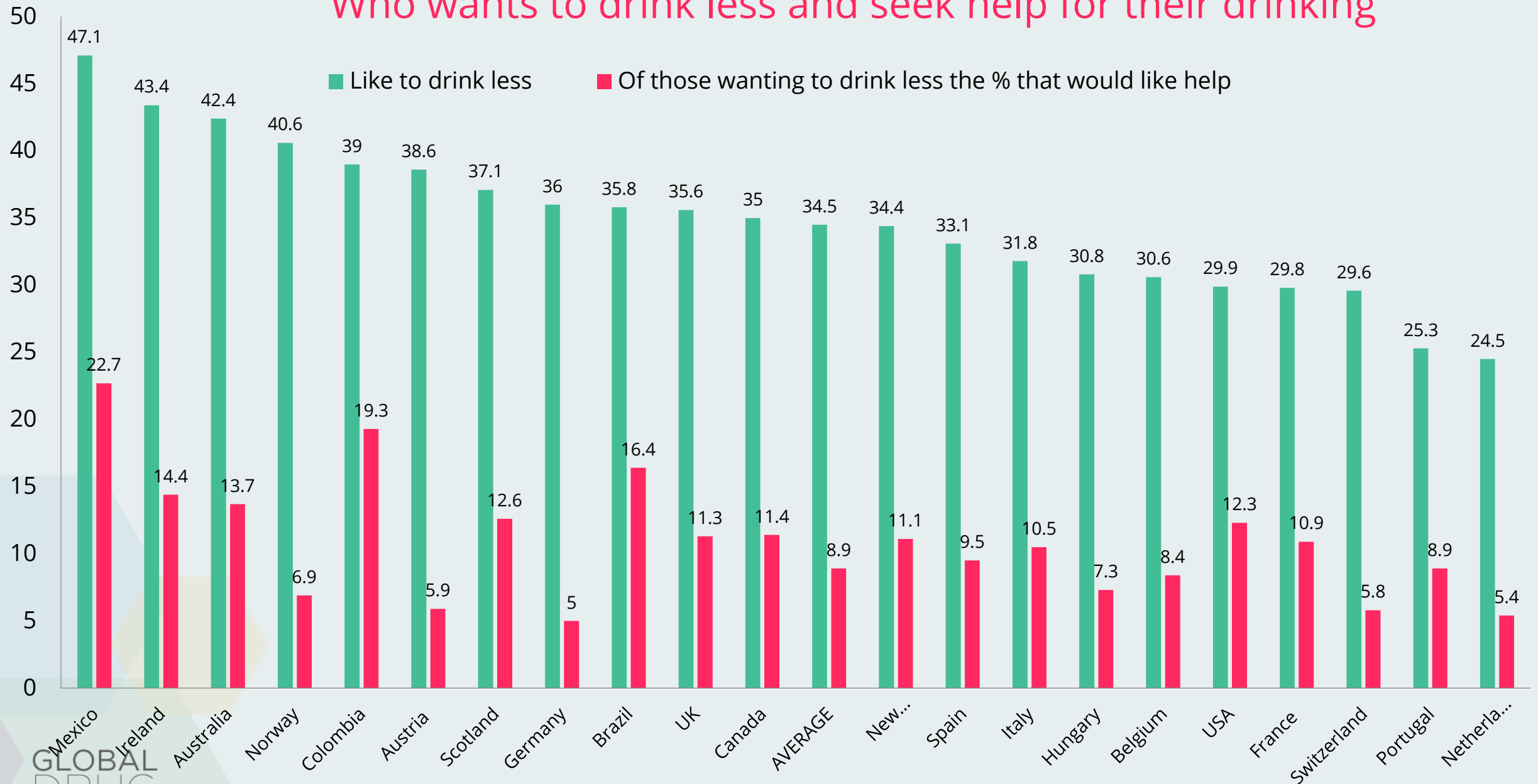
buckfast  
TONIC WINE

SOUTHERN  
COMFORT

BLACK HEART  
IMPORTED RUM

HIGH COMMISSIONER  
1856

# Who wants to drink less and seek help for their drinking



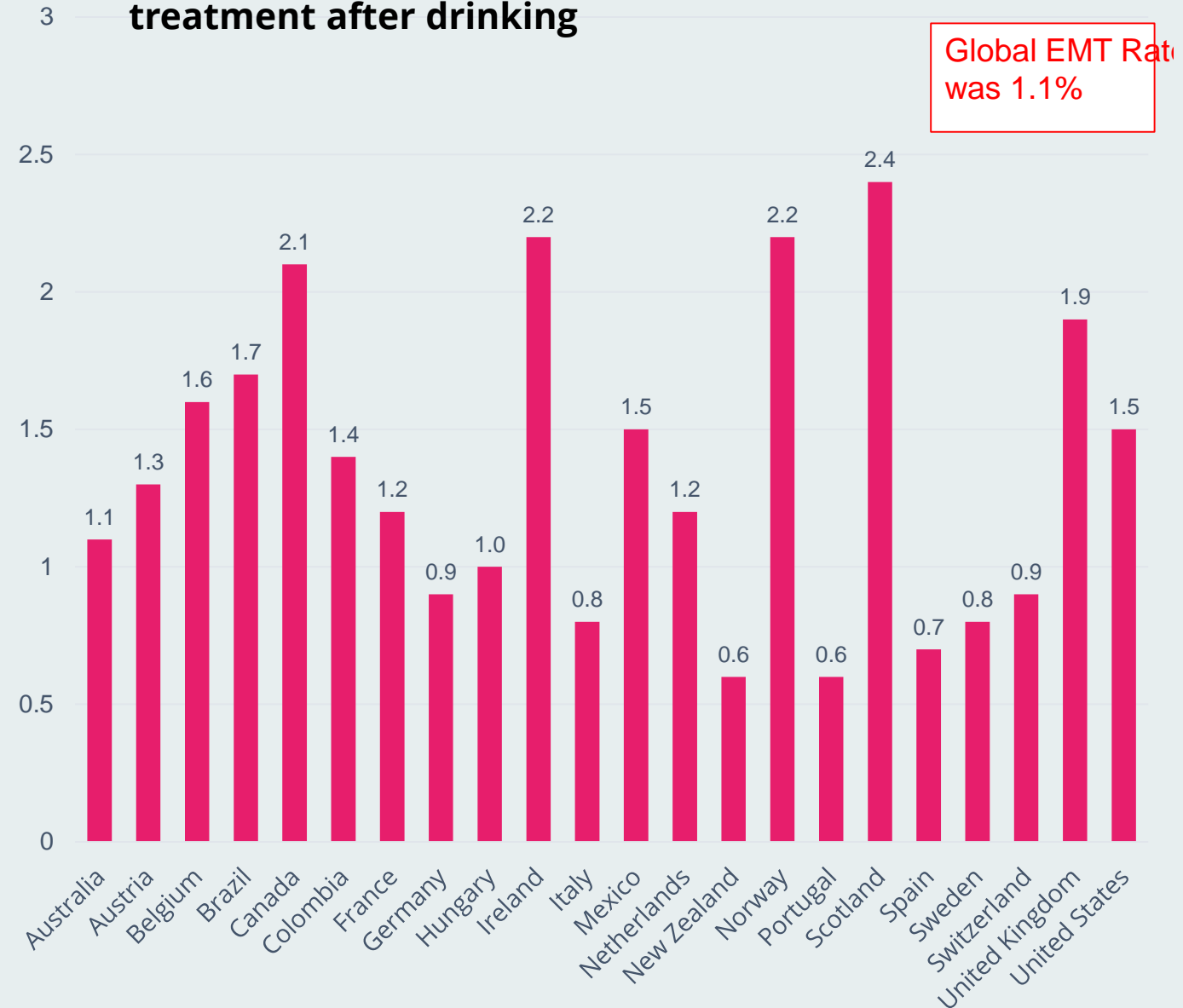
## Alcohol

Ireland got stiff competition this year, when it came to which country has the highest proportion of people who want to drink less. It was pipped to the post by Mexico (see next slide), where just under half of all drinkers said they would like to drink less next year. Third and fourth place went to Australia and Norway respectively, where over 40% reported a desire to drink less.

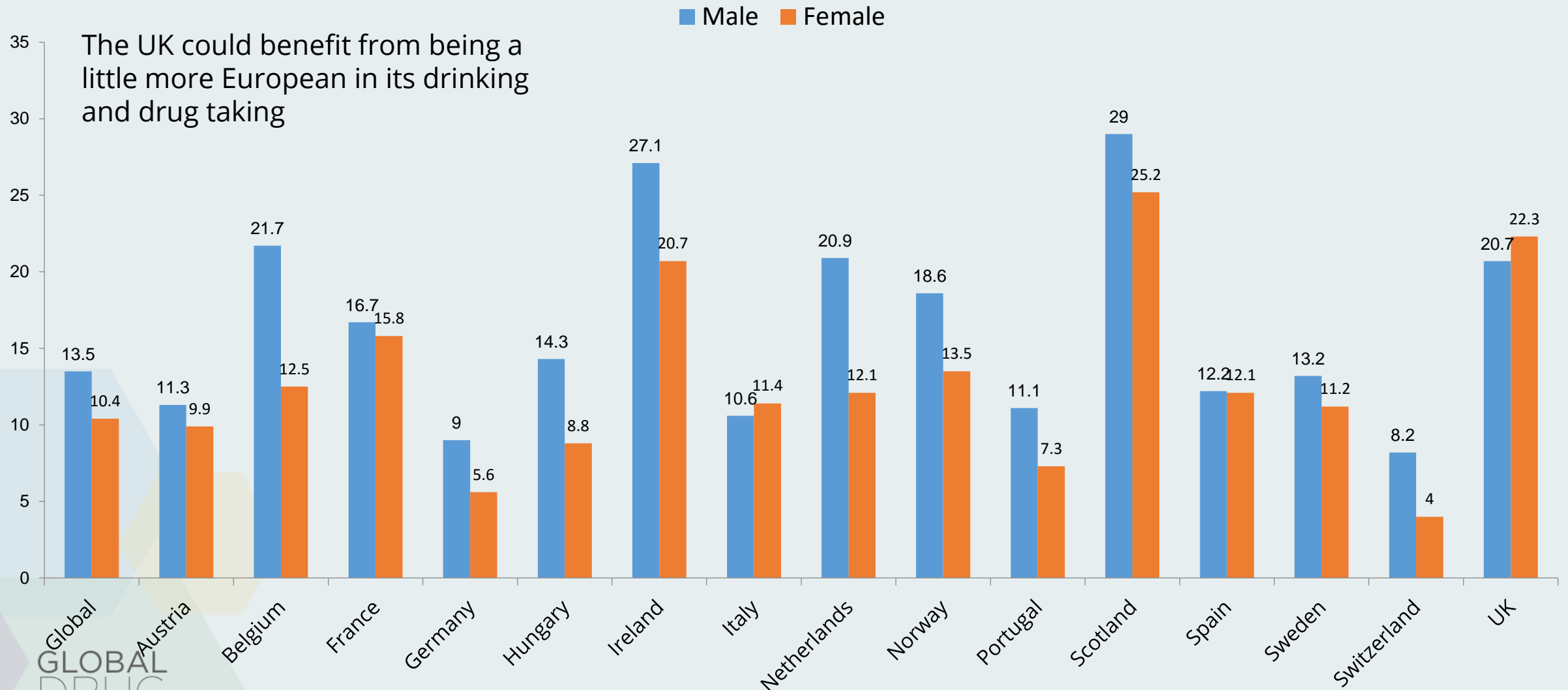
The Dutch and the Portuguese seemed least interested in cutting down, with only one in four indicating they'd like to do so.

In terms of acute harms, Ireland and Norway came in joint second to Scotland, where 2.4% of drinkers reported seeking emergency medical treatment following drinking.

## % of drinkers reported seeking emergency medical treatment after drinking



# AUDIT Score of 16 or more by Gender and European country where n>500



## Are all alcoholic beverages the same?

Many countries have beverage mythologies right at their cultural core. These myths have little basis in scientific fact. From a chemist's perspective alcohol is a naturally occurring group of organic compounds, predominantly in the form of ethyl alcohol or ethanol. Ethanol increases the influence of a chemical transmitter in the brain called GABA that slows or quietens brain activity, hence we call alcohol a depressant. While alcohol also has a host of other subtle effects on the brain, the active ingredient is always ethyl alcohol. So no matter how you make your alcohol, it is always ethyl alcohol that gets you drunk. While the choice of source product and the difference between fermentation and distillation determine whether you make beer, cider, wine or spirits, the variation in taste and smell is largely due to the contribution of various congeners - chemicals which include acetone, acetaldehyde, esters, fusel alcohols and aldehydes.

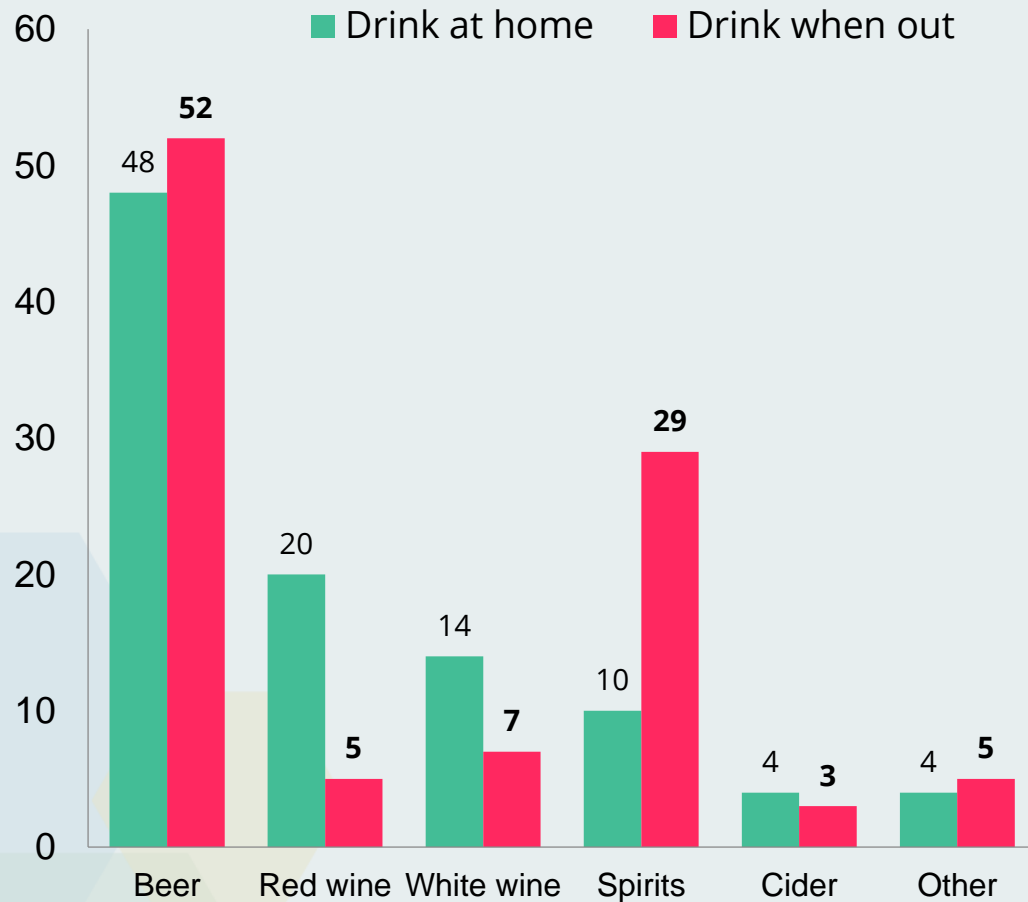
These congeners may contribute to the difference in possible effects. Acetaldehyde is a breakdown product of alcohol that contributes to hangovers. Darker beverages such as red wine, scotch and brandy contain a higher percentage of congeners. Studies are inconsistent, but many report that the darker the drink, the worse the hangover.

GDS2016 aimed to find out whether different drinks affect people differently in a consistent manner around the world. Before we take a look at the results let's quickly review the possible scientific explanations for what we might find.

- It might be that certain drinks tend to get drunk in different ways, meaning that it's easier to drink more alcohol in some forms than others.
- It might be that some drinks are more likely to be drunk in certain environments or on different occasions
- It might be that some people drink certain drinks when they are feeling in particular moods
- It might be that certain drinks are more likely to be drunk by certain people
- It might be that some drinks are drunk with certain mixers that alter mood or behavior (e.g. energy drinks)
- It might be that people try to make sense of what has happened after the event (known as 'effort after meaning') For example 'I ended up with that turd in my pocket because of the brandy, you know what it does to me...'), i.e. it's an excuse that people can pull out that might avoid them admitting they just drank too much
- It might be all be nonsense

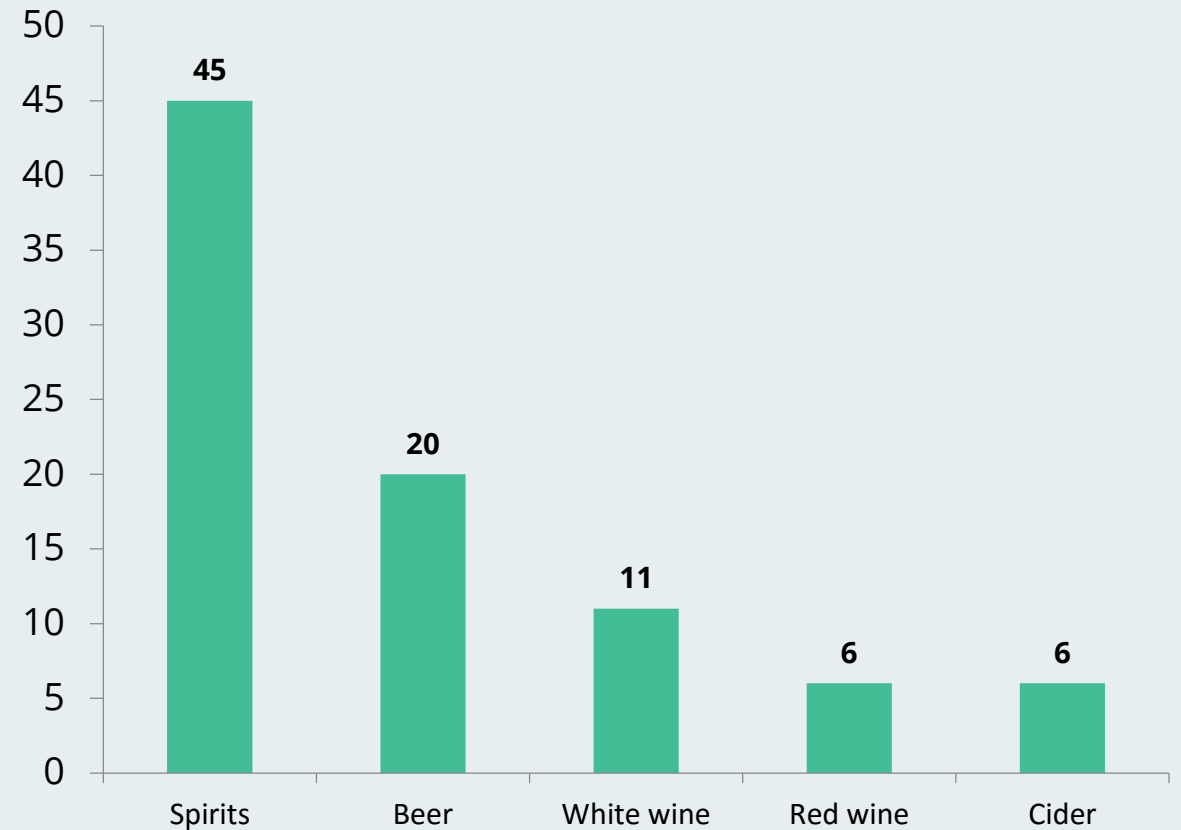


## Type of alcohol most likely to be drunk on a night out or at home : Global (%)

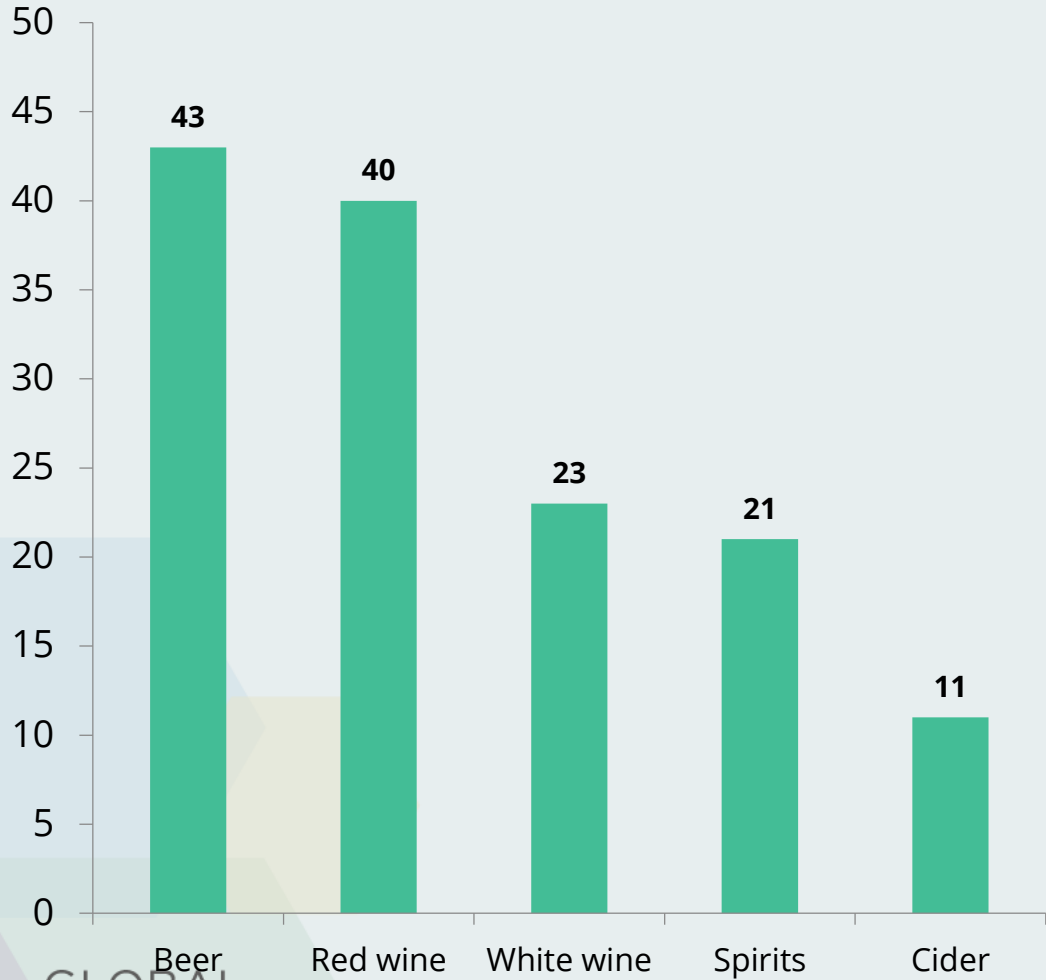


## Type of drink/s most likely to make you feel energised : Global (%)

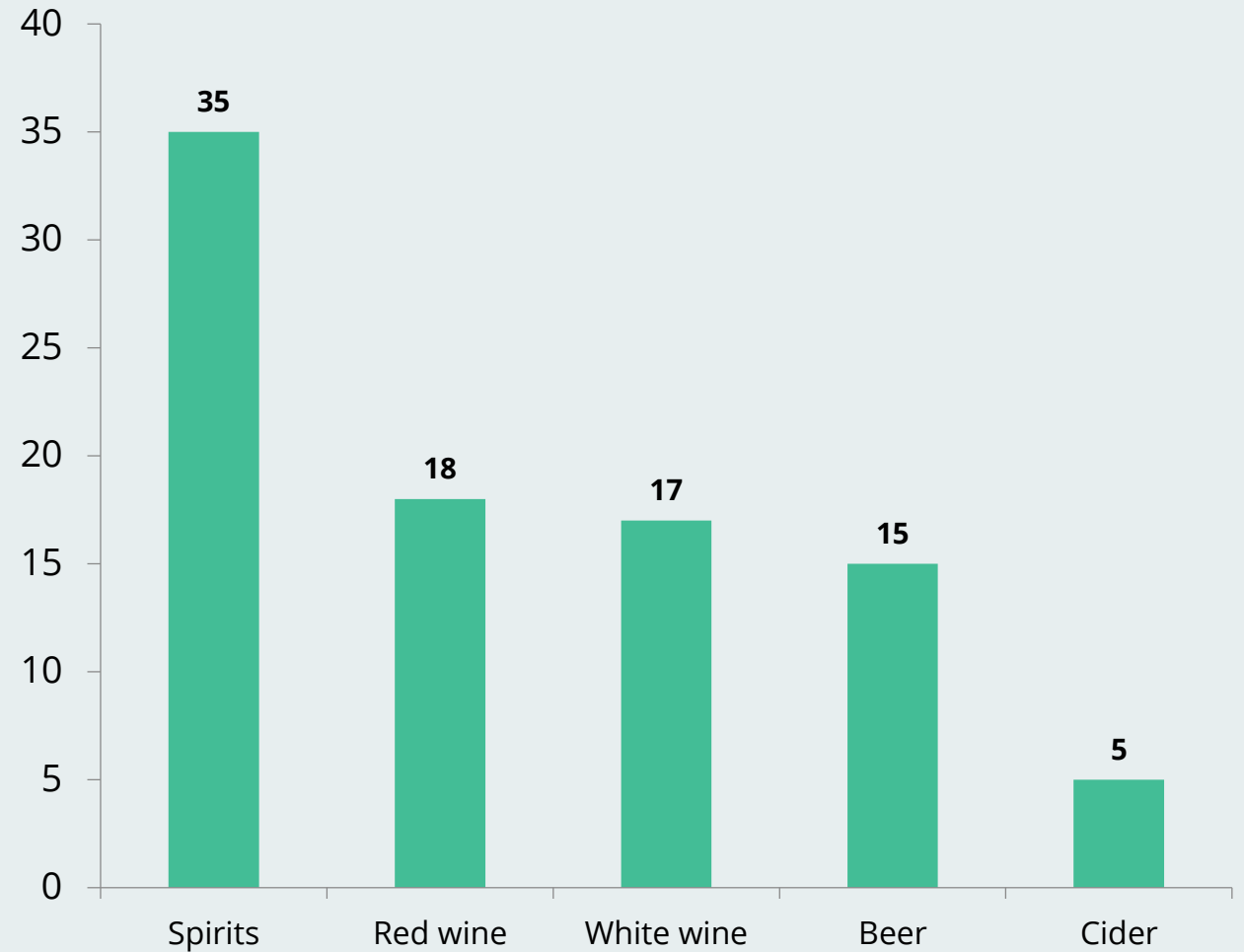
\*could chose more than one



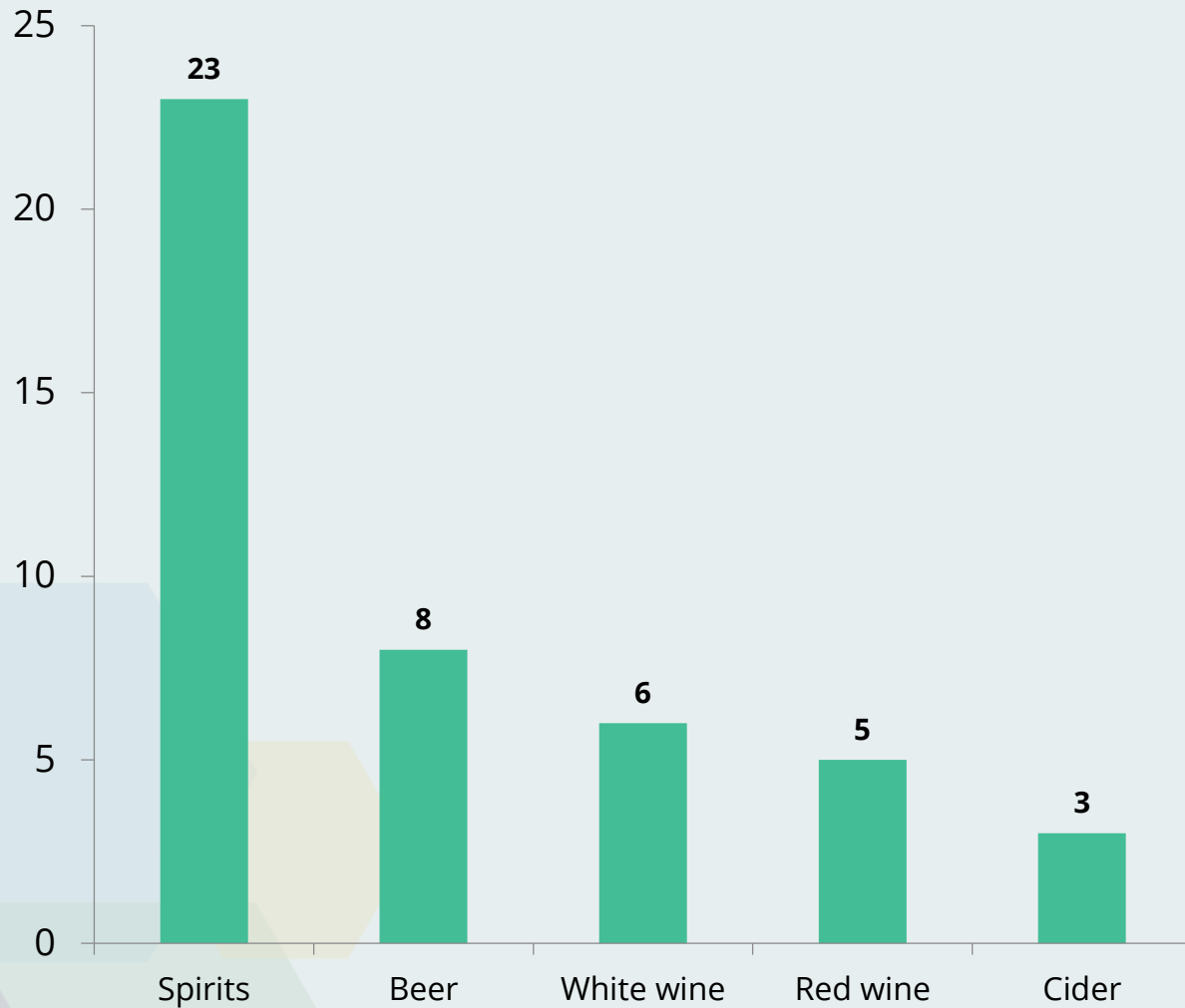
Type of drink/s most likely to make you feel relaxed : Global (%) \*could chose more than one



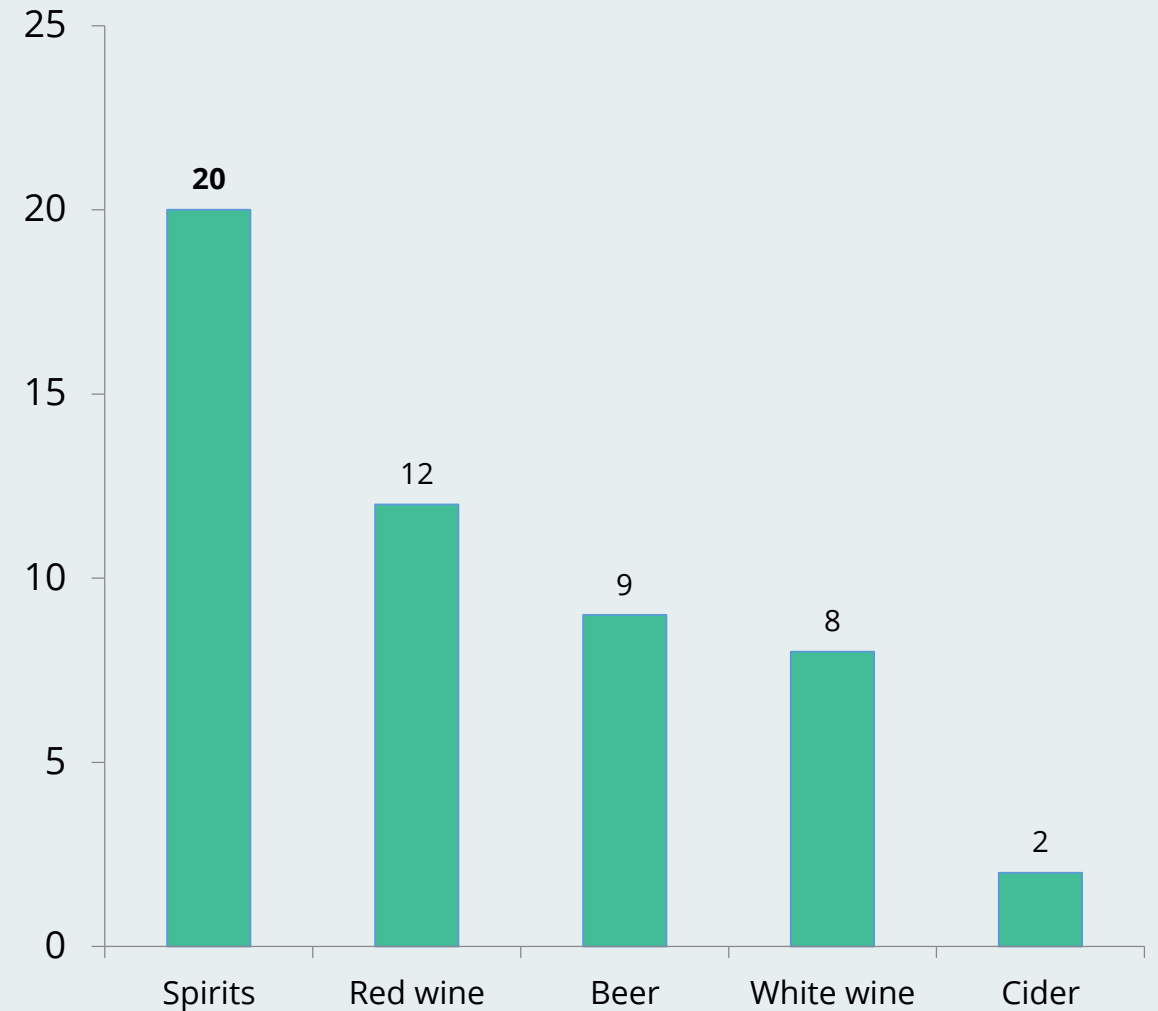
Type of drink/s most likely to make you feel sexy : Global (%) \*could chose more than one



Type of drink/s most likely to make you feel restless :  
Global (%) \*could chose more than one

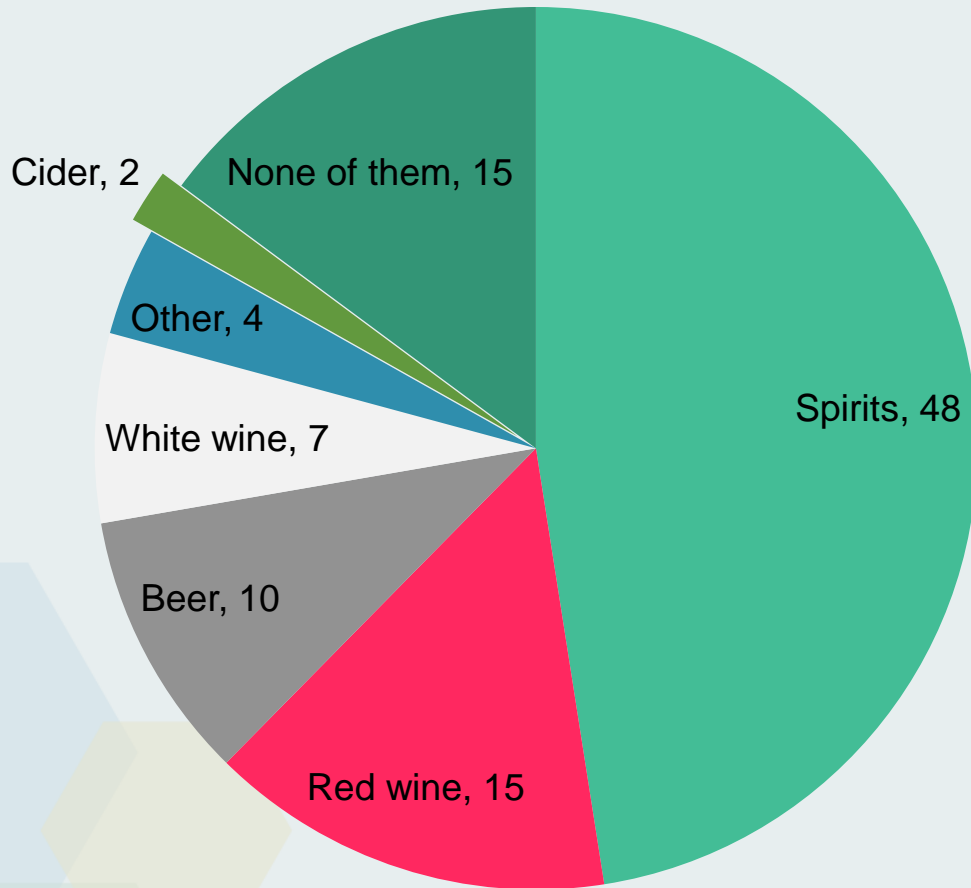


Type of drink/s most likely to make you feel tearful :  
Global (%) \*could chose more than one





## Type of drink that gives the worst hangover (%) (GLOBAL)



With a third of all drinkers on average saying they would like to think less and others who probably need to, GDS is pleased to remind you of our **fabulous Drinks Meter app**, free on the app stores or at [www.drinksmeter.com](http://www.drinksmeter.com). V3 is out this summer and we are now offering health region and local service versions to deliver IBA on tablets and on-line in multiple languages .



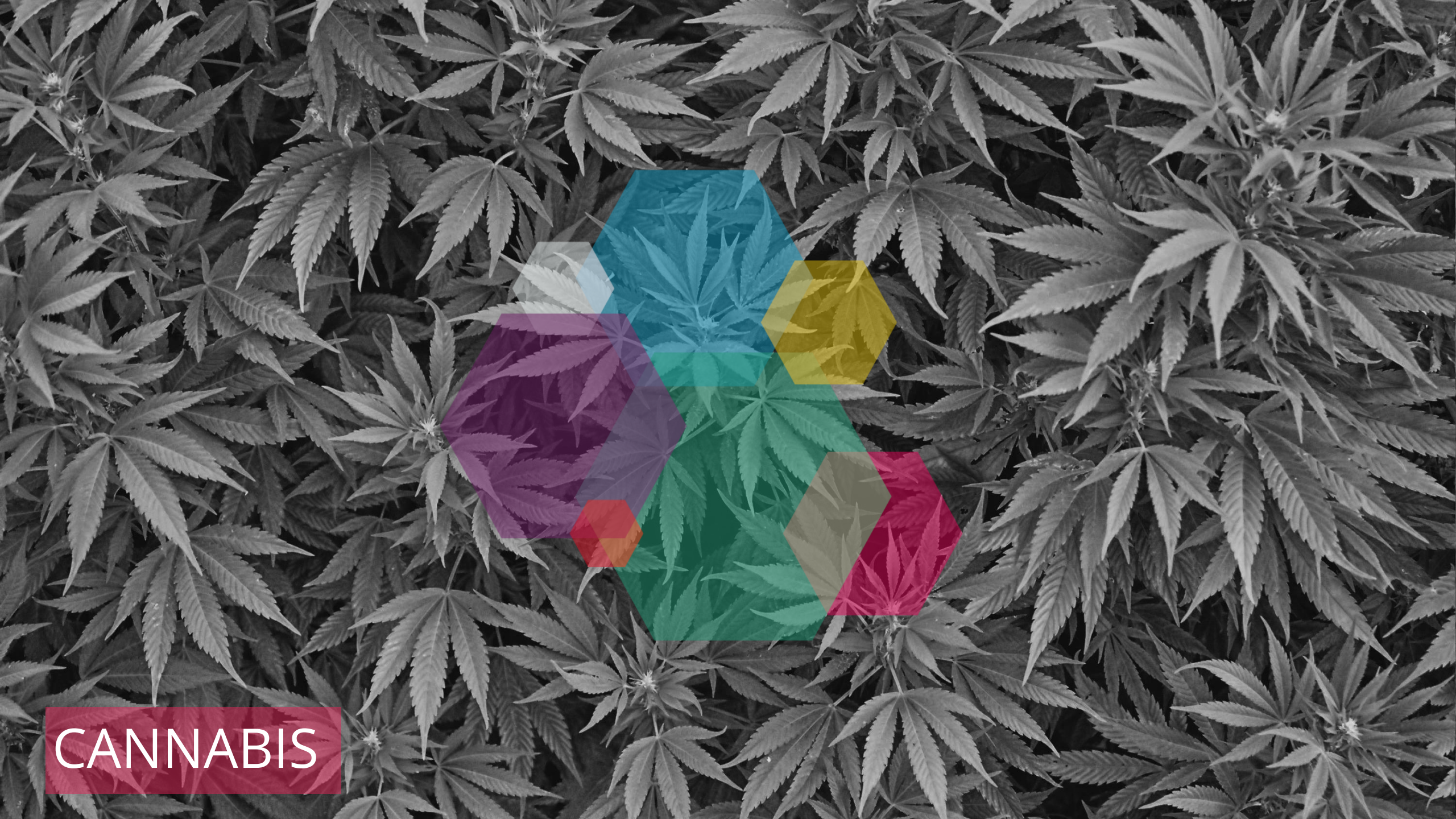
## Beverage type

Despite some considerable national variation, it seems that spirits are the type of alcohol most commonly drunk when away from home and also rated most likely to make you feel energised, confident and sexy. Inconsistently, spirits were also rated as most likely to make you feel restless, tearful and ill (including most likely to give you a hangover). Beer was voted as most likely to make you feel relaxed and red wine topped the list for making you feel sleepy. The polarizing effects of spirits are most likely to be a consequence of dose. Low levels of alcohol can cause disinhibition and reduce mild anxiety making people feel more confident and outgoing. Low levels of alcohol might also be felt as stimulating by some users, though in other cases the stimulation will come from the caffeinated mixers commonly used to dilute spirits (colas and energy drinks). Higher doses of alcohol can result in nausea, dizziness, excessive sweating, emotional dysregulation people become inexplicably angry, sad, hostile, tearful etc.) and of course the more you drink the worse your hangover.

So a lot of the problems caused by spirits might come down to the fact that they are more difficult to titrate (drinking to a level that gets the effect you want without over shooting it) than beer or wine.

Titration with spirits is difficult for three main reasons. Firstly, since they are the most potent form of alcohol, you can consume more alcohol more quickly when drinking spirits than other types of beverage. It's easy to get drunk too quickly on spirits and once you're drunk making smart decisions about everything becomes difficult. Secondly, spirits with alcohol content above 20% ABV are difficult to absorb and at 40% ABV your stomach stops emptying. What this means is that despite having drunk as much as you need to, you might not yet feel the full effects of what you have drunk. People then carry on drinking thinking 'I'm fine', until 'boom' the alcohol that has been sitting in your stomach gets absorbed and you end up way more drunk than you planned. The third reason that spirits are difficult to titrate is because of the wide variation in serving size from shots, to doubles in mixers to cocktails. It can be almost impossible to keep track of how much you have had.

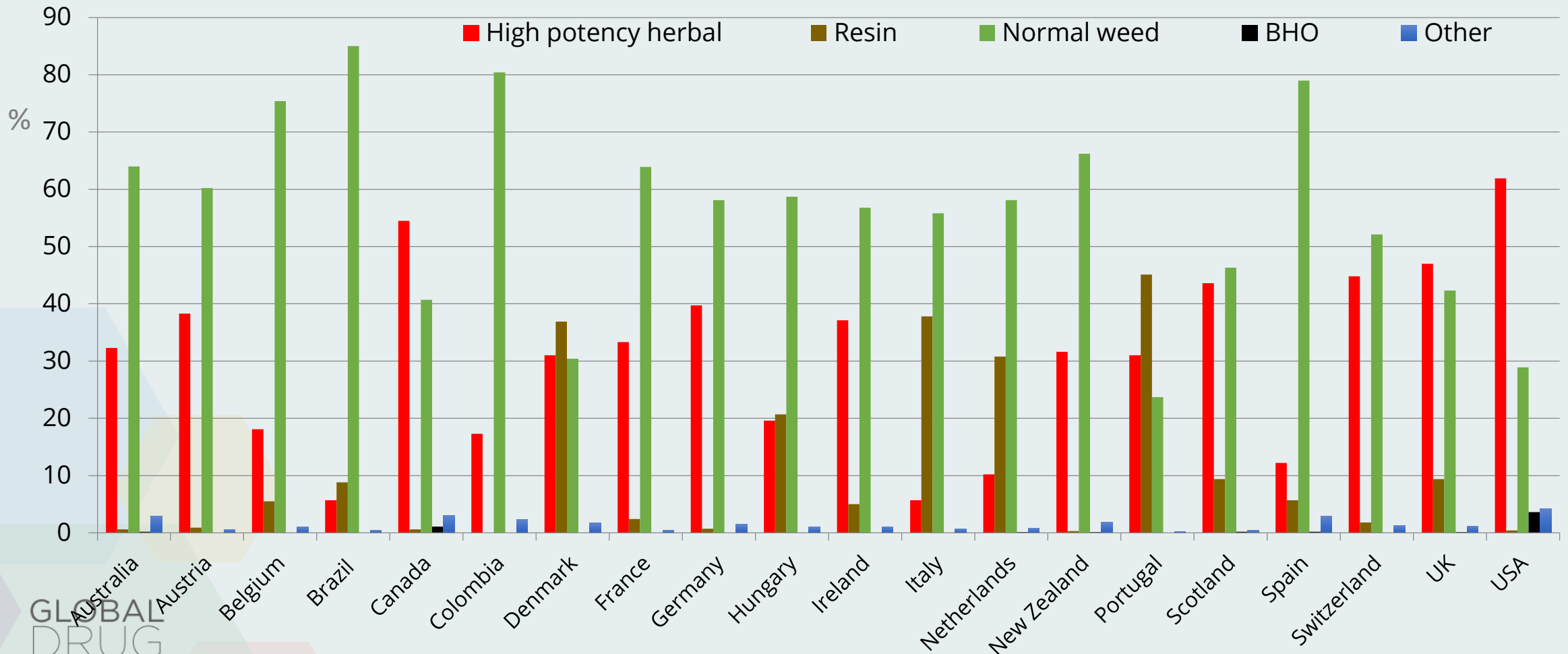
You can end up cool and sexy or pathetic and passed out on any form of alcohol. If all the above is true, there appear to be advantages to avoiding spirits. This is not because of the 'alcohol' necessarily having different effects, but because spirits are highly concentrated, hard to titrate and keep track of, and they can fool your body into thinking you have not yet drunk 'enough', all of which GDS would consider good reasons to avoid spirits.



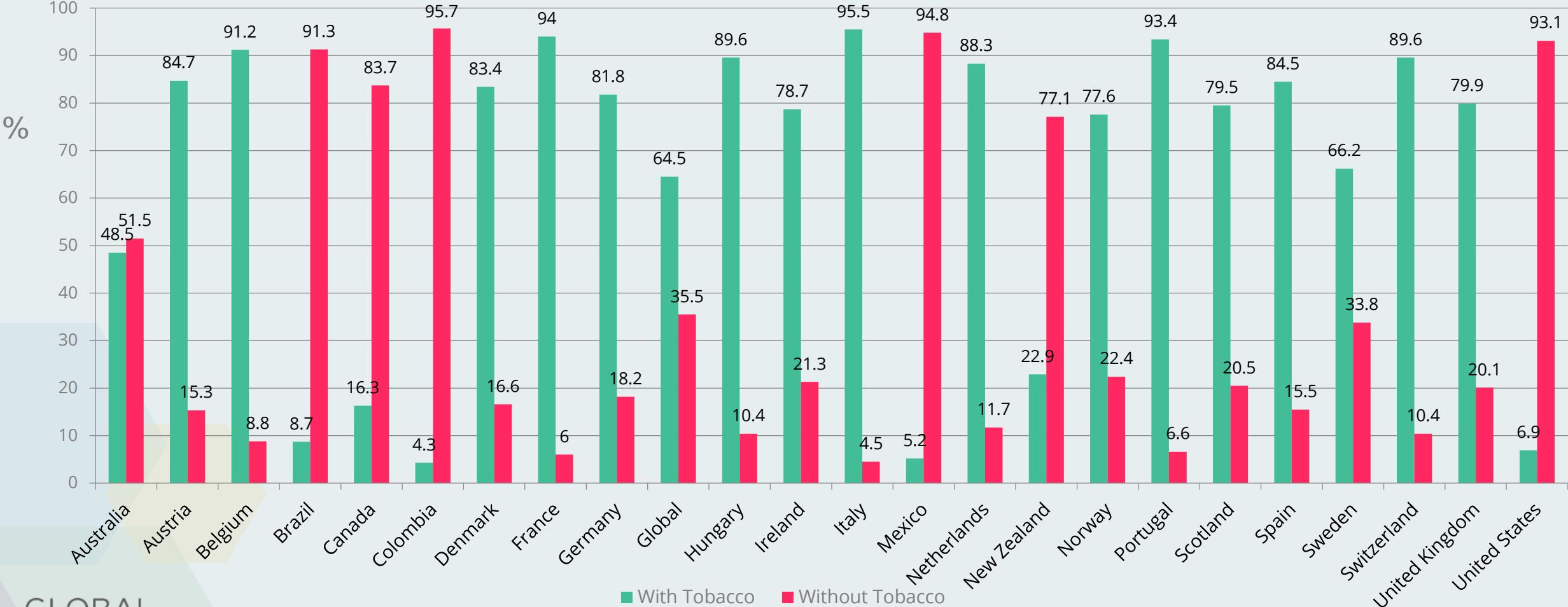
CANNABIS

# Global comparison of preferred cannabis preparations around the world

We think things are changing, possibly for the better in some respects. First, GDS data seem to suggest that high potency herbal cannabis is no longer the default or preferred preparation around the world.



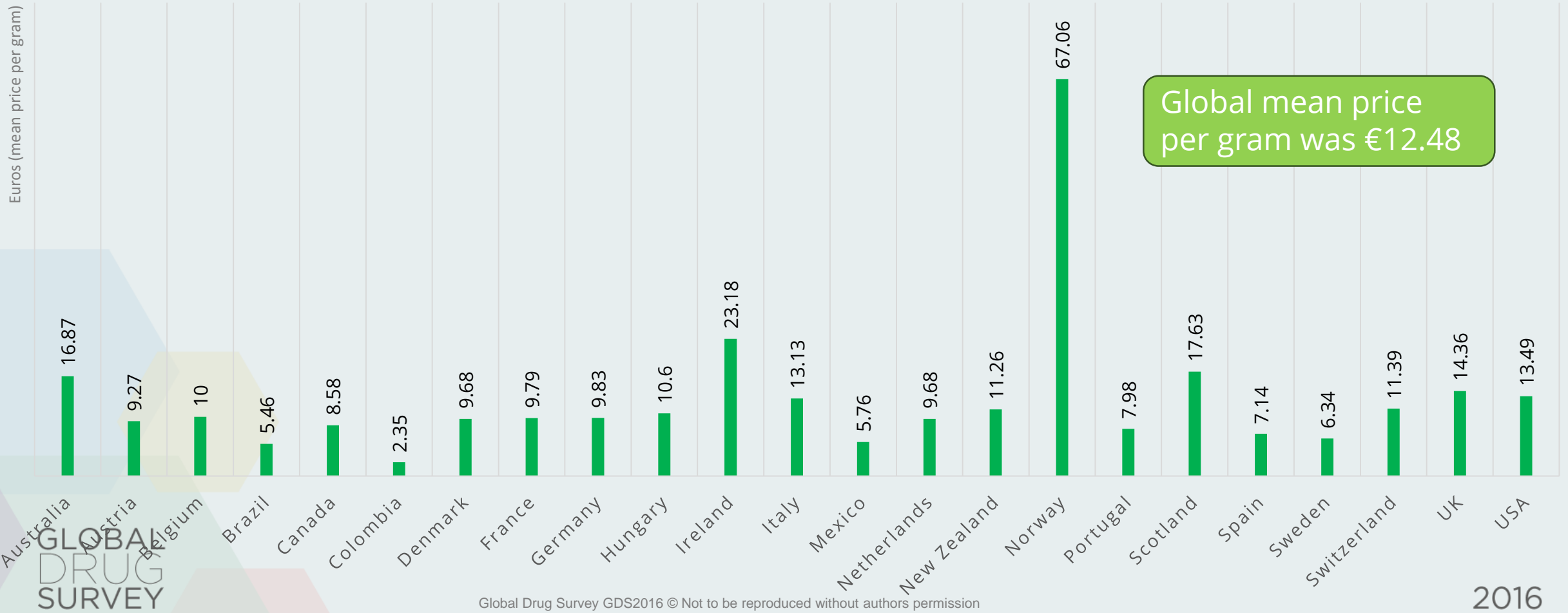
Second, it seems that in many countries, the proportion of **people using tobacco when they smoke cannabis is falling** (see graph below). The high rates of vaping use in the USA are strongly linked to the rise of cannabis concentrates and the medicalization of marijuana. In fact, **in the US, 40% of over 3500 cannabis users reported that they used cannabis, at least some of the time, for medical reasons.**



And while buying cannabis in Ireland is still pretty pricey – the most expensive gram of high potency herbal cannabis is to be ‘found’ (well obtained with the help of a small mortgage we think) in **Norway**, where a gram costs over €65.

### High potency herbal cannabis mean price per gram (single gram purchase)

■ Cannabis (Skunk) mean price per gram

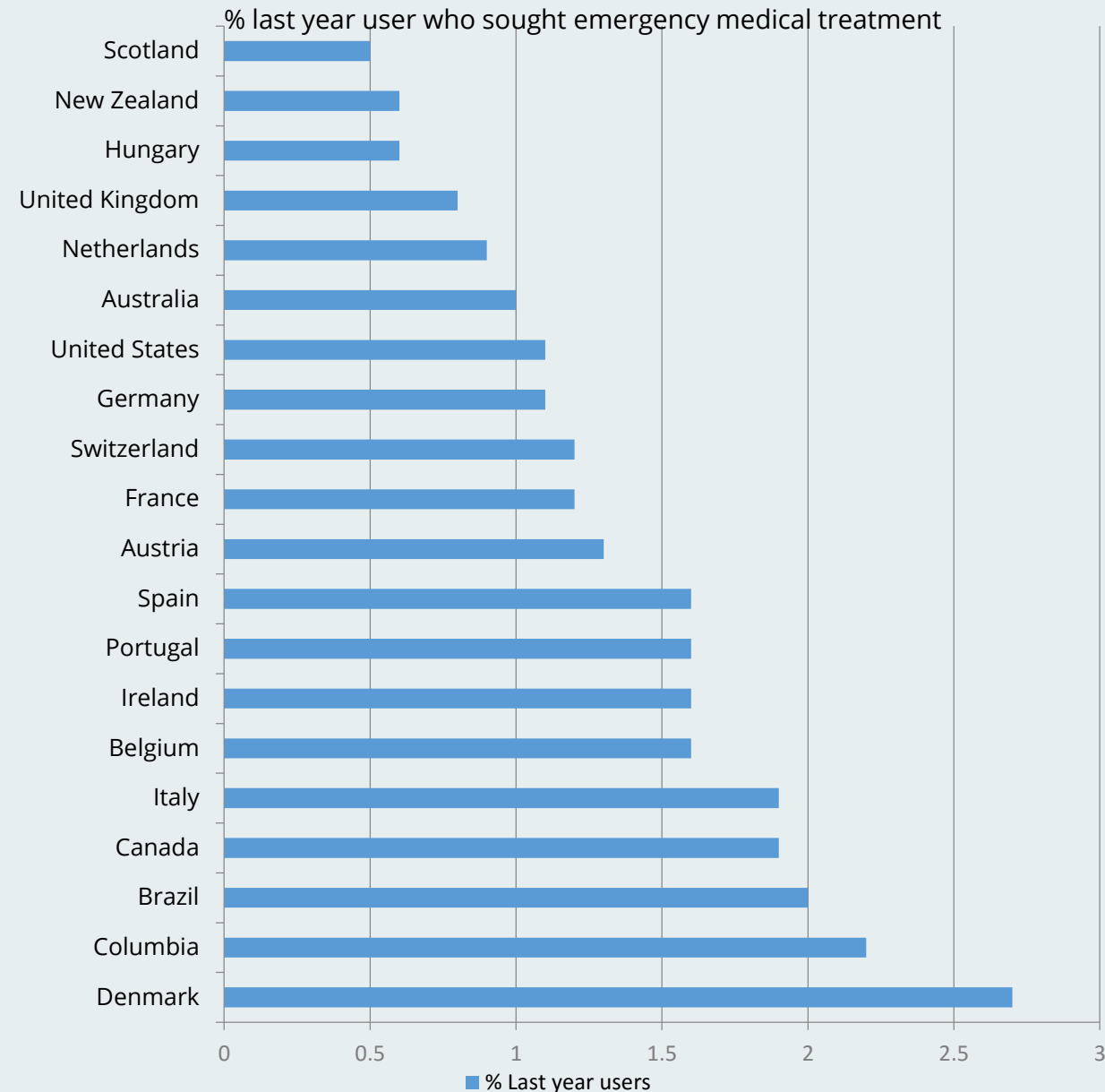


We remain surprised at just how many cannabis users report seeking emergency medical treatment (EMT) in the previous 12 months. 1.2% of over 45,000 cannabis users who took part in GDS2016 reported such an episode. Although seeking emergency medical treatment is not the same as having a bad time on a drug, or even needing serious medical intervention, it does give an indication of the prevalence and nature of acute problems following the use of cannabis.

The most commonly implicated was high potency cannabis, though every type was represented.

The rates of seeking EMT varied widely between countries. It was surprising that Portugal where resin predominates and Colombia and Brazil where natural weed is most common, reported such high rates. GDS will be looking at just who was most at risk of seeking acute treatment in the coming months (e.g. less experienced users, heavier users, those with mental illness etc.)

## Overall 1.2% of cannabis users – sought Emergency Medical Treatment (EMT) in the last 12 Months



## LETTER

Cannabis regulation

# Cannabis regulation: the need to develop guidelines on use

1 in 3 users wants to use less, 10% are dependent and 1% need to visit the emergency room each year. This means a lot of people who are using a drug that we might think of as not that risky, are experiencing difficulties. Whilst [www.drugsmter.com](http://www.drugsmter.com) can be a great source of feedback, we thought some guidelines might help so we created them at [www.saferuselimits.co](http://www.saferuselimits.co)

## Cannabis WON'T harm your health as long as you stick to one small joint a week, scientists claim

By Madlen Davies for MailOnline  
13:00 18 Jun 2015, updated 14:04 18 Jun 2015



GLOBAL DRUG  
SURVEY 2015

### Global Drug Survey launches world's first Safer Use Limits Guidelines for Cannabis

*The Hot Press Newsdesk*

It's Ireland's illegal drug of choice, but how is cannabis impacting on your health?



# ✓ Safer use limits

## How safe is your drug use?

The world's first safer drug use limit guide\*

GET STARTED

TELL ME MORE FIRST

Brought to you by



GLOBAL DRUG SURVEY



DONATE

# ✓ Safer use limits

## Why create this guide?

Nobody takes recreational drugs to have a bad time. People take drugs to have fun and many people do. But sometimes they don't and people can end up in all sorts of messed up places – sometimes for a night, very rarely for life.

Global Drug Survey is interested in helping people use drugs more safely, regardless of their legal status. We do this by sharing what we learn from the hundreds of thousands of people who take part the world's biggest drug survey the annual Global Drug Survey. As part of our way of saying thank you, to every one of the 102,000 people who took part in GDS2015

# 1. Young brains and drugs are not a good mix

There's a huge amount of evidence that alcohol and drug use before the age of 18 can cause long-lasting impairments in your cognitive and emotional ability. Kids don't screw up your brains. "Grow your brain before you start expanding it" Our guidelines are strictly for those over 18 years of age.

# 2. Guidelines don't make drugs safe

By developing safer drug using limit guidelines for illicit drugs GDS is not suggesting that drugs are safe. Quite the contrary in fact. Drugs can be very dangerous. And GDS is not suggesting guidelines will be a panacea to society's drug problems. But as governments are starting to embrace population based strategies to improve health and think more rationally about drug policy, having some common sense guidelines that allow people to reflect upon their drug use is a sensible thing.

# Cannabis

How often do you use Cannabis?

- 3-4 times a year
- Once a month
- Twice a month
- 1-2 times a week
- 3-4 times a week

On a typical day of use, how much cannabis do you use?

- Very low (0.25gm or less)
- Low (0.25-0.5gm)
- Moderate (0.8-1.0gm per day)
- High (2gm or more per day)

*Please note for daily use amount above 2gm per day just increase your risk . . . a lot!*

GET MY SCORE

## Your score

	INFREQUENT			FREQUENT		
LESS	1	1	1	2	3	4
	1	1	1	2	3	4
	1	1	2	3	4	5
MORE	2	2	3	4	5	7

4-6 High risk  
Average use daily

**Associated risks:** Risks associated with lower scores + risks of dependence, broader health effects especially if you smoke with tobacco (including cancer)

Based on the **feedback and expertise of 40,000 cannabis users** from around the world, this 3 minute free, anonymous tool provides accurate, credible feedback and advice on a persons cannabis sue and then offers them strategies to reduce the risk of harm, cut down or stop, with the help of a unique Doctors Guide to Cutting Down. Over 20,000 people have used the site to date.

## 4-6 High risk

Average use daily

**Associated risks:** Risks associated with lower scores + risks of dependence, broader health effects especially if you smoke with tobacco (including cancer)

WHAT SORT OF USER AM I? +

THE RISKS? +

HOW TO DECREASE YOUR RISK? +

Further reading

CANNABIS BASICS AND HEALTHIER USE >



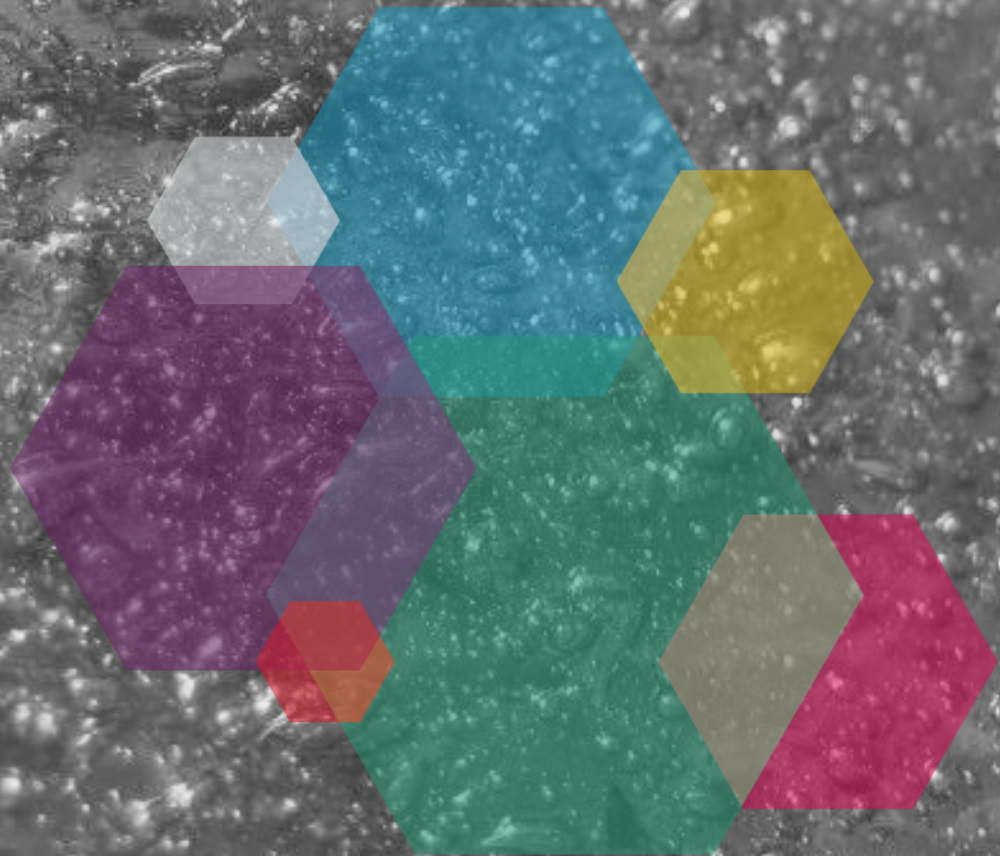
## Safer use limits

### A Doctor's Guide to Cutting Down

Why cut down?

**GDS2014 suggested about 1 in 3 cannabis smokers wanted to use less in the coming year.** Most are motivated to reduce their by health concerns (over their mood, memory, motivation, respiratory health), while others report issues to do with work, their ability to study, the impact upon relationships or money worries. Cutting down is also a good thing to do if you are planning on stopping altogether since any withdrawal will less severe if you cut down first.

[www.saferuselimits.co](http://www.saferuselimits.co)



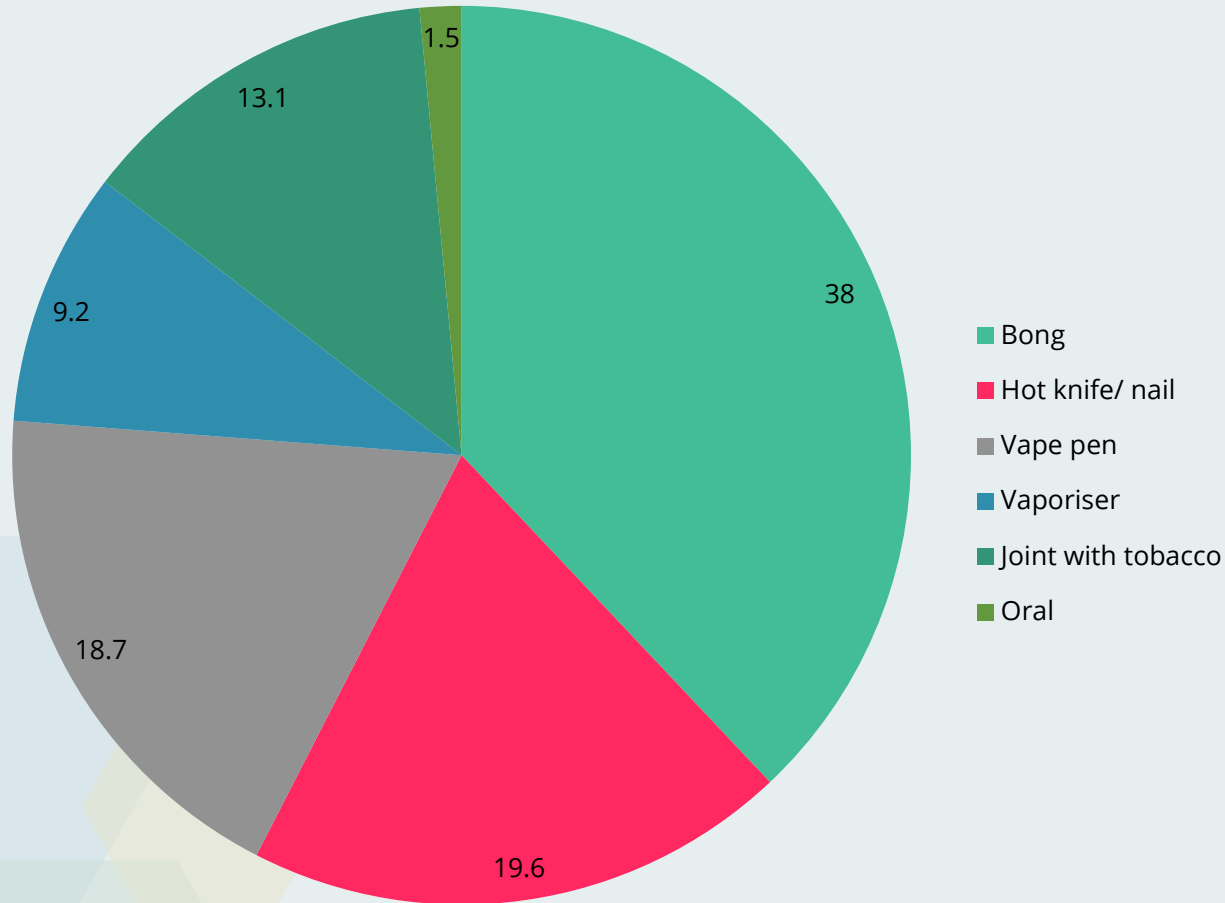
CANNABIS, VAPING, E-CIG & BUTANE HASH OIL

# Cannabis concentrates

BHO continued to show its rising popularity in the US (where just over a third of cannabis users reported use of BHO) and Canada. The most striking changes compared to last year's findings were the **increase in the recent cannabis users reporting the use of BHO** (6.4% up from 4.2% last year) and the significant drop in people using it with joints in tobacco and the marked rise in people using bongos to use BHO. **Overall the data from GDS2015 and GDS2016 suggests BHO typically gets people more stoned, more quickly and for longer than high potency herbal cannabis.** The worry is that people also build up tolerance more quickly and may be more at risk of acute unwanted experiences. These issues will need to be balanced against the potential health benefits of promoting non-tobacco routes of administration. GDS repeats its request to manufacturers made last year to produce and promote more balanced BHO oils (THC / CBD ratio closer to 2 or 3:1) and for public health agencies to encourage the use of vape pens and other non-tobacco related routes of use.

With over a third of our last year users reporting use on 100 days or more in the last year and too many people smoking it and mixing it with tobacco, GDS wants to remind people about our free cannabis tools, the drugs meter (free on google play and [www.drugsmeter.com](http://www.drugsmeter.com)) and the world's first ever safer use limits guide at [www.saferuselimits.co](http://www.saferuselimits.co) . We have data to produce these safer use limit guides for MDMA, cocaine and ketamine – so if anyone wants to fund these please let us know!

## How do you use BHO?



## Using BHO is dominated by bong

Only 13% use joint with tobacco – compared to 61% for cannabis in general

23% of users make their own BHO

High potency resins are also appearing with THC percentages of over 35%



# BHO commentary – extracts from Blog for Huff Post I wrote in November 2015

[http://www.huffingtonpost.com/adam-winstock/cannabis-concentrates-gre\\_b\\_8589722.html](http://www.huffingtonpost.com/adam-winstock/cannabis-concentrates-gre_b_8589722.html)

As cannabis regulatory change wafts through major American states and budding entrepreneurs hungry for profit high jack everything green I thought it was time to share the results of the biggest study of Butane Hash Oil (BHO, cannabis concentrates) ever conducted. It was undertaken as part of Global Drug Survey (GDS) 2015. A blog piece published here a year ago was met by a fair bit of moral grandstanding (although I learned quite a bit from the comments). It was suggested that as an addiction specialist anything I had to say was tarnished by the fact that I made money from addiction. I thought that was rather unfair - my interest is to help people use drugs more safely and if they never need to seek help beyond good quality information that is great. I think the accusation reflected the usual polarised nature of the drug debate and cannabis in particular. This unhelpful polarisation remains one of the last taboos that need to be dismantled before drug law reform can proceed. Cannabis is not without risk, dependence is a reality, for the young and those with mental illness it can be seriously problematic and it's not the panacea for every ill. I can say that and in the same breath say getting stoned can be fun, it's not the road to ruin, does not lead people to become heroin users, has huge medicinal potential and drug laws that ruin a person's life for being caught smoking a joint are a joke. No conflict, no mutual exclusion, just the reality of cannabis use in a large population of users. Anyway I digress so back to the point of this piece.

When a game changer of a preparation like BHO comes along, conveniently supported by a flourishing and uber cool vaping industry you have to evaluate what the impact is. And that is what GDS is trying to do with your help. While our study results from last years are currently being prepared for publication there are key findings I can share today that might help inform the trajectory of commercial BHO development and evaluation.

Most BHO is just highly concentrated THC but it does not need to be. Last year we asked 2500 people to compare the stone from high potency herbal cannabis and their most common BHO preparation. The ratings suggested that they were very similar in effect profile, suggesting most current BHO products are predominantly THC. Based on our previous work ([http://youtu.be/m6df\\_F\\_ON6Q](http://youtu.be/m6df_F_ON6Q)) manufactures and especially regulated ones should be promoting preparations with CBD to offset negative aspects of high THC preparation (memory impairment, anxiety and paranoia). Potency is not the same as preference. And higher potency drug products usually carry higher risks of dependence. Our data from GDS2015 and GDS2016 suggests this might be the case with BHO. BHO gets people more stoned, more quickly and for longer than high potency herbal. The worry is that people also build up tolerance more quickly and are more at risk of acute unwanted experiences.

But it's not all bad and from a public health perspective the possibility that BHO might help the world dissociate cannabis from tobacco is a wonder. Our findings from GDS2016 once again show the vast majority of those in the US enjoy cannabis without tobacco, whilst for most other countries that figure is > 80%. The fact that BHO clearly lends itself to non tobacco routes of administration is hugely important from a public health perspective. Our finding from GDS2015 and again from GDS2016 suggested that over 70% of those using BHO used non tobacco routes of use with just under 50% using some sort of vaping device. With cannabis being the gateway drug to tobacco and combined use being associated with poorer quit rates, worse lung health and higher rates of dependence the opportunity that BHO offers in dissociating cannabis from tobacco globally is hugely important (Winstock et al 2010). With American cannabis users already being the most 'lung smart' in the world and the biggest BHO consumers it's too early to decide if the the rest of the world will follow suit.

With 1% of 80,000 cannabis users who took part in GDS2015 and GDS2016 reporting seeking emergency medical treatment in the previous 12 months (way higher than I would have guessed and not much higher than the rate for drinkers) more research is needed to quantify whether the use of more potent forms are associated with greater risks of acute harm and dependence. It is not a case on saying one type is safer than the other but sharing the relative pros and cons of each type and route of administration and sharing that data with users so they can make informed decisions.



## E-cigarettes no longer just for nicotine

We don't want to make too much fuss about this at the moment. We will be exploring the whole issue of drugs and vaping devices in the GDS mini (live now) and GDS2017 launching in November 2016.

As a teaser we will share the following:

16.5% of over 20,000 recent tobacco smokers who reported using an e-cig indicated they has used their device for consuming some type of cannabis (including in 1.5% who has used it for synthetic cannabinoids).

Of the >4/500 people using an e-cig in the last month, 24% had ever used their device for consuming cannabis. The devices most commonly used were modular in 47%, commercial refillable in 27%, 5% commercial pre filled kits, 5% disposable with 16% did not know.

Vaping is going to change the world of drugs...this is just the beginning.....

BHO is not the most worrying cannabinoid product we need to consider in 2016, that privilege goes to the drugs we look a

EMERGENCY DEPARTMENT



SEEKING EMERGENCY MEDICAL TREATMENT (EMT)

## Why look at rates of seeking emergency medical treatment ?

- Seeking emergency medical treatment can be taken as a proxy measure for the acute harms experienced following the use of alcohol and other drugs
- Emergency medical attendance and admission also represent significant economic burden upon acute medical services
- While the press often highlights attendance at A+E departments as a frequent occurrence among those who drink and take drugs, there is little data on the actual prevalence of such treatment seeking among people in the general population
- This year we asked last year users of the most commonly taken substances whether they had sought emergency medical treatment

## What this section covers

- Whether participants had needed to seek emergency medical treatment in the last 12 months as a result of using a number of drugs

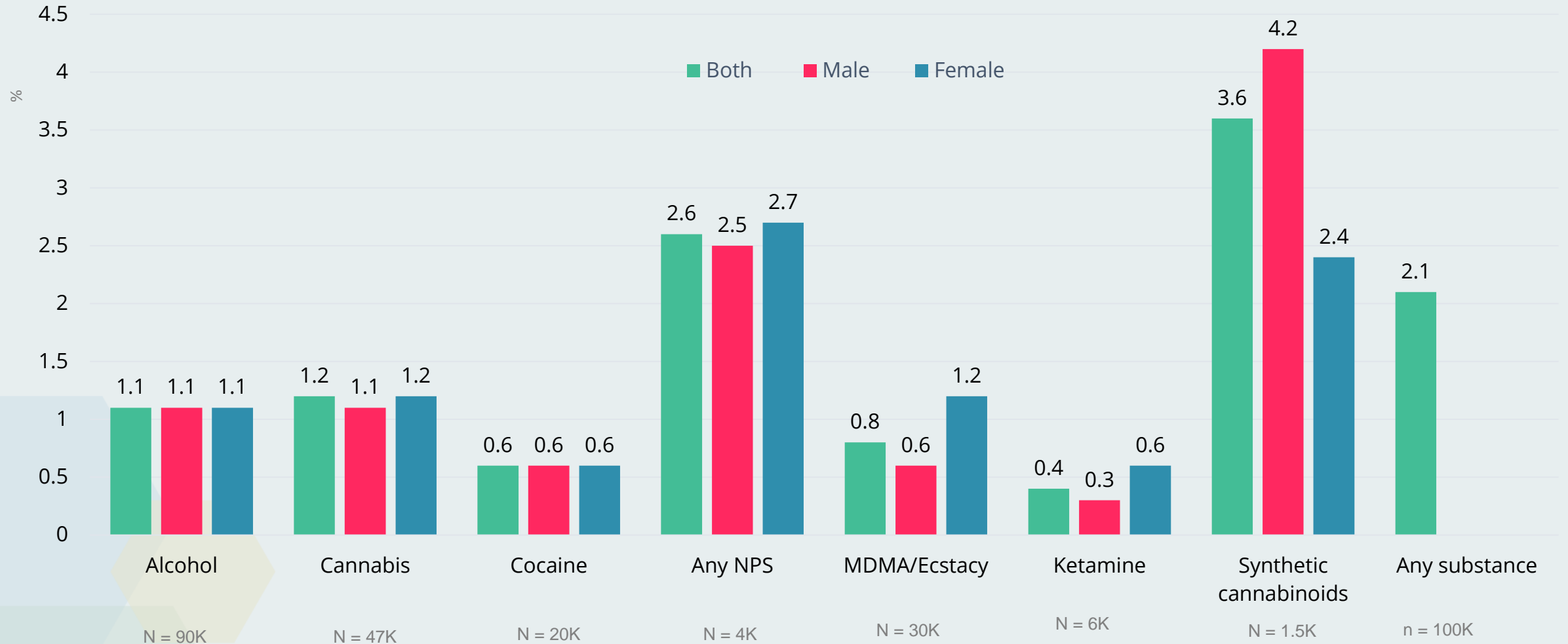
Overall it is clear that that substances that carry the highest risk for needing emergency medical treatment are NPS – one suspects this because of their varied potency and effect profile and the fact there is little guidance on how to minimize the risk associated with their use other than ‘Don’t take them’.

## GDS advice on taking a new drug for the first time

The biggest risk is starting off taking lots of an unknown drug before you know how long it takes to come on, peak and starting coming down – so easy does it. Test drive it before putting your foot down.

- Wait for at least 90-120 minutes before re-dosing
- Choose your time – don’t be coming down or experiment on the back of a bender
- Don’t have anything else on board/including prescribed medications
- Don’t be on your own
- Plan ahead before you’re too off your head
- Make sure others know what you have taken and that at least one of them is not intoxicated
- If you feel unwell let someone know and ask them to seek help
- Be in a safe, familiar place
- First dose should be at least a quarter of what you think a tiny dose is (or a maximum quarter of a pill)
- Avoid taking other drugs/alcohol after dosing
- Don’t drive/bath/play with knives
- Accept that many drugs won’t be very good/effective or nice

# % of last year users of each substance who sought Emergency Medical Treatment following the use of that substance





SYNTHETIC CANNABINOIDS/CANNABIS

Over the last 4 years GDS has conducted the largest studies in the world on synthetic cannabis products and published some of the most highly cited papers on the topic.

- Winstock AR et al Risk of seeking emergency medical treatment following consumption of cannabis or synthetic cannabinoids in a large global sample. J Psychopharmacology 2015 **this highlighted that the risk of seeking emergency medical treatment was 30 times higher in users of SCs than high potency cannabis**

- Winstock AR et al A comparison of patterns of use and effect profile with natural cannabis in a large global sample. Drug and Alcohol Dependence. 2013 **this highlighted that 93% of users preferred natural cannabis and that SCs had a much less pleasant effect profile than natural cannabis**

- Winstock AR et al The 12-month prevalence and nature of adverse experiences resulting in emergency medical presentations associated with the use of synthetic cannabinoid products. Human Psychopharmacology: Clinical and Experimental 2013 **this highlighted that almost 1 in 40 last years users had sought emergency medical treatment in the previous 12 months**



"I smoke it because it's cheaper than real pot," said Favian Martierra. Vaughn Wallace / Al Jazeera America

## The Most Dangerous Drug This Year Might Surprise You

LIZABETH PAULAT · JUNE 10, 2015 2:30 PM



The Most Dangerous Drug This Year Might Surprise You

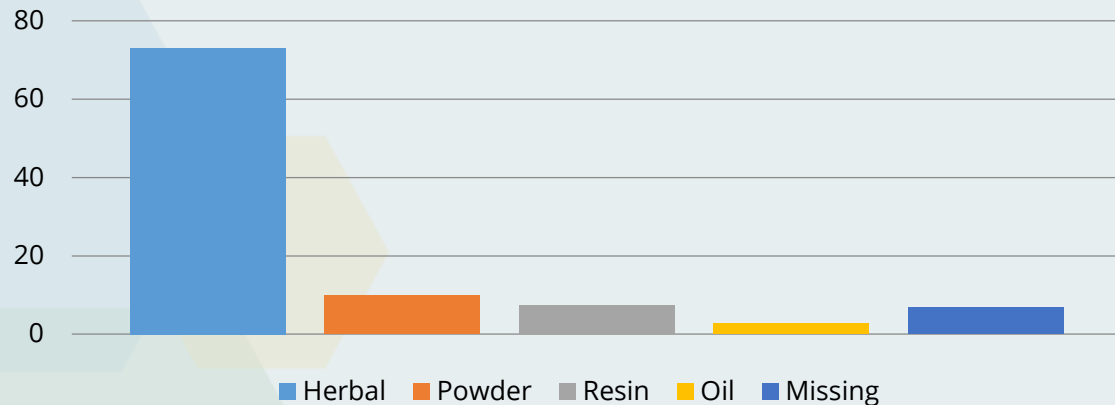
It's beaten out cocaine, ketamine, ecstasy and even alcohol in sending users to the ER. What is this drug? Synthetic

# Synthetic cannabinoids (SCs)

For the fourth year running these drugs were more likely to leave people needing emergency medical treatment than any other group we explored. 3.6% of last year users reported having sought EMT in the last year a (similar to the 3.5% reported in GDS2015., Men were more at risk than women (4% v 2.5%). The risk increased to over one in 8 users who reported use weekly or more often (50 times or more in the last year). The figure on the next slide shows just how much frequent users increase their risk of experiencing acute harm.

While the rates of SC use pale in comparison to that of natural cannabis they remain a group of evolving and increasingly concerning drugs. My experience of working within prisons suggests that the huge profit that can be accrued from their sale and avoidance of screening positive for drugs, drives use, typically amongst those who already have considerable personal, social and drug use problems.

Preparations tried last year



Of the global sample

- 8.9% (n=8600) has ever used SC;
- 1.5% (n=1450) used in the last year
- 0.5% (n=450) used last month



**The risk of seeking emergency  
medical treatment is at least  
30 x times greater after taking  
synthetic cannabinoids  
products than natural  
cannabis**

(Winstock et al J Psychopharmacology 2015)



# The more often used SC the more likely you were you seek EMT (based on feedback from >2000 last year users)

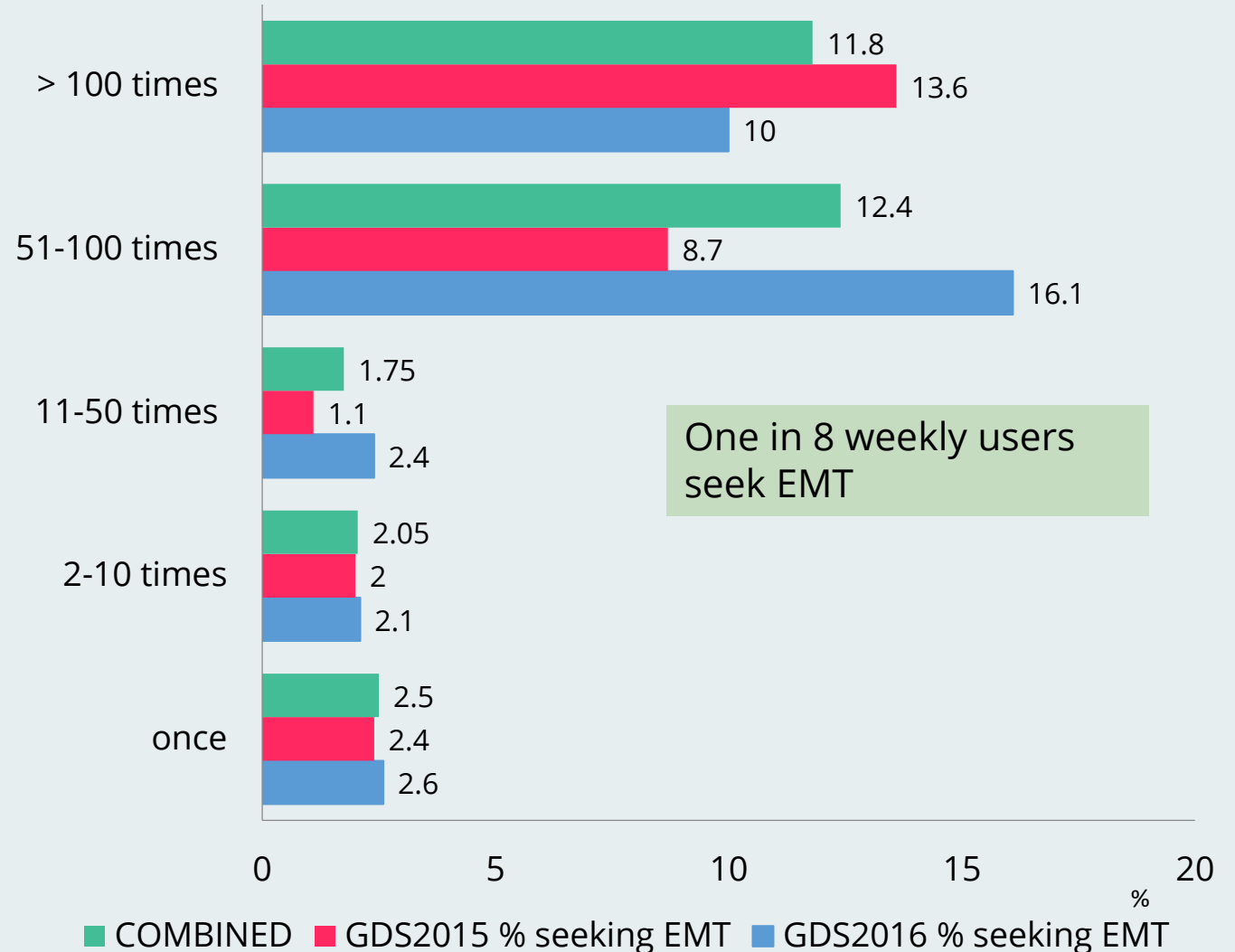
## Who uses SCs?

Compared to cannabis users, SC users tend to be male, younger and less well educated.

## Who is most at risk of seeking EMT?

While the ratio of men to women seeking EMT for natural cannabis is pretty equal, it seems even accounting for the fact that most SC users are male (4:1) males SC users seek EMT more often than women (4% of last year male users v 2.5% of women) with men over the age of 25 y old being more at risk than their younger counterparts.

There is a huge dose response relationship - exactly the same as we see with a drug like methamphetamine - more drug, more often = more risk of running into serious problems



## “We should no longer consider synthetic cannabinoids as a single group of drugs”

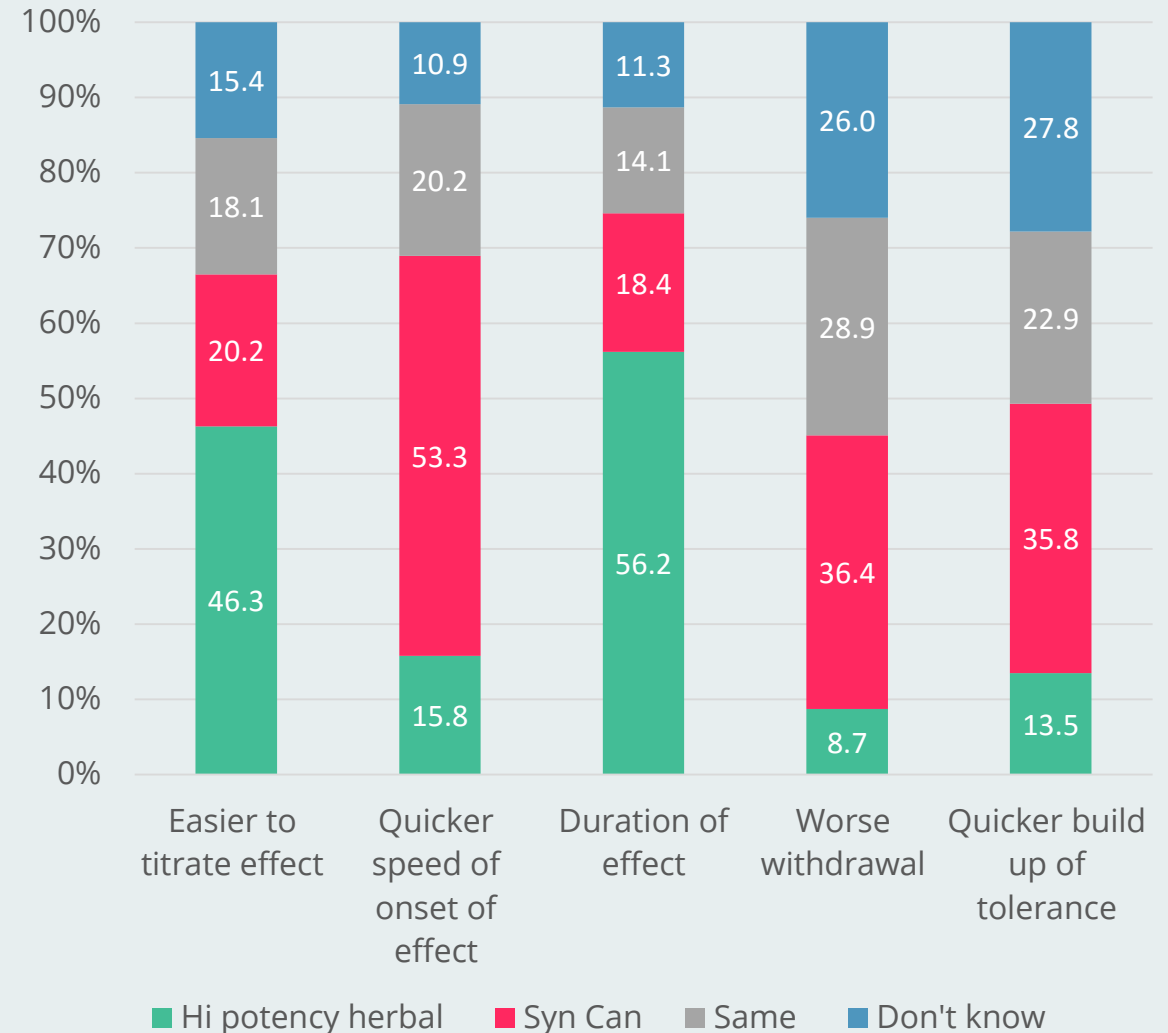
However, of real interest was how the rate of seeking emergency treatment varied widely between countries. When we looked at the rates among those countries with more than 50 last year users, while Australia and the US reported rates of 8-9%, the rates in Austria, Mexico and France were zero. The wide variation in the risk of seeking EMT between countries is of note and means that we should no longer consider synthetic cannabinoids as a single group of drugs but respect that their diverse potency and effect profiles carry different risks. It is likely that the high rates of harm in the USA and Australia reflect changes in regulation that may have removed relatively more safe SCs from the market only to be replaced by more dangerous (more potent) but uncontrolled ones. Of course it is not only what SC compounds (or mix of compounds) are being used but how much of them find their way into each packet and joint. The varied composition between same branded products means that for most users there is no reliable of knowing how much active product they are consuming. While new formulations for vaporizers may allow volumetric dosing of some products and this might potentially reduce related dose risk it is too early to determine whether they can make what appear to be inherently risky compounds anywhere near safe.

At present the best thing to do is avoid them. If you want to get stoned, use natural cannabis.

It might be that synthetic cannabinoids are the best argument for change in cannabis legalisation many countries will have to counter in the coming years

# Comparing synthetic cannabis to high potency herbal cannabis

Overall synthetic cannabinoids (SCs) can be considered to have a profile that increases the risk of developing both short term and long term problems including dependence. Although at some level it is no longer appropriate to consider SCs as a homogenous class of drugs broadly compared to natural cannabis, those using SCs report the more rapid onset of effects, shorter duration of effects, more rapid development of tolerance and longer, more physical withdrawal, which appears to be occurring at lower levels of use than that seen with natural cannabis. The more pronounced withdrawal is probably due to a combination of the SC products being more potent agonists at the THC receptor than THC (the active ingredient in cannabis) and the absence of a synthetic CBD like molecule which we know balances/reduces both the adverse, acute effects of THC as well as reducing the severity of withdrawal. The addition of synthetic CBD analogues might be one way to ameliorate these unwanted and potentially dangerous risks. More research will need to be done to see if our approaches to managing cannabis withdrawal are sufficient / effective to manage these more aroused states.





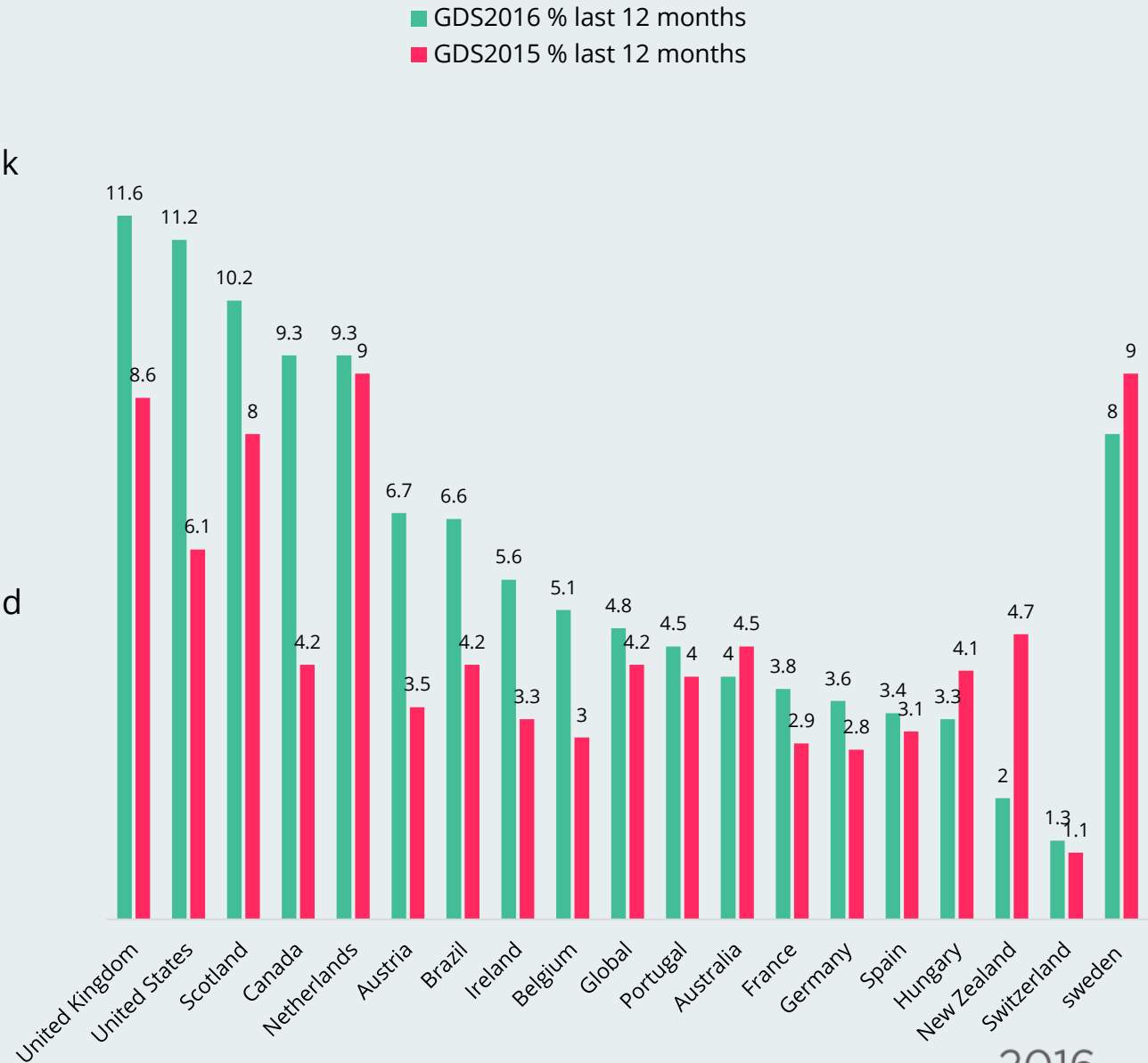
## NOVEL PSYCHOACTIVE SUBSTANCES

Overall rates of NPS use in our sample remained pretty static (4.8% compared to 4.2% last year) there was marked variation between countries in both trends as absolute rates as shown in the next few slides.

## Background

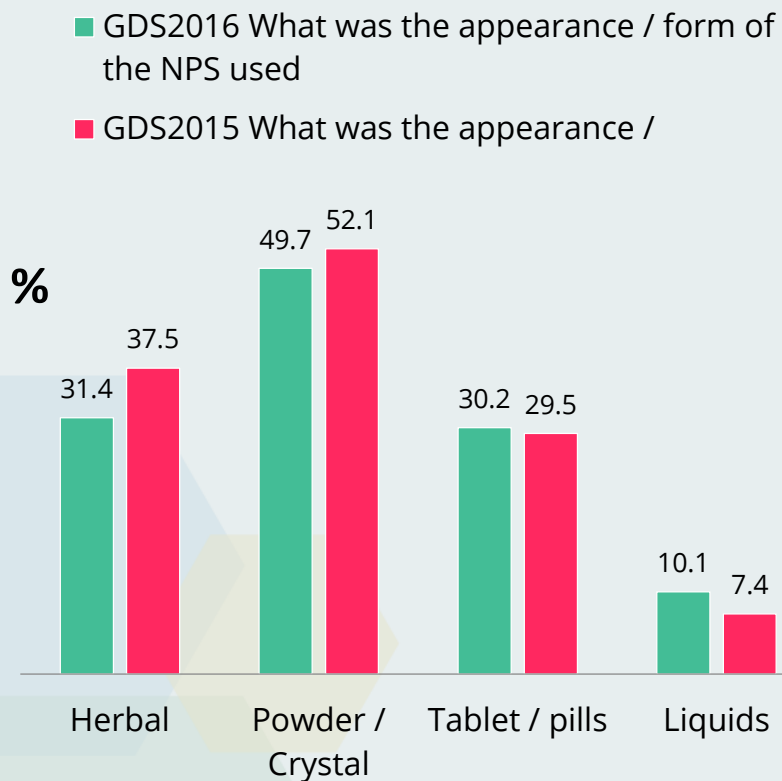
- GDS has been tracking the use of 'Novel Psychoactive Substances' legal highs', 'research chemicals' for the last 5 years.
- While there may be many new substances identified each week just because drugs are available on line or in 'head shops' it does mean they are being used.
- Overall there was increase in the percentage of Global GDS respondents who reported purchasing NPS in the last 12 months from 4.2% to 4.8%, with many countries seeing a notable increase in use.
- GDS thinks where people have good access to good quality traditional drugs the interest in NPS is generally low (for example in Switzerland). The Desert Island Drugs section and motivations for use will expand on this hypothesis
- The reduction in last year use in countries such as New Zealand suggests closing 'head shops' might lead to reduced sales a point that is of importance given that there appears to have been an increase in the proportion of GDS respondents globally of people buying from shops – though this show marked regional variation.
- There also seems to have been an increase in the use of pills and powders compared to smoking mixtures though again there are marked regional variations.

% of GDS participants who had bought NPS in the last year?

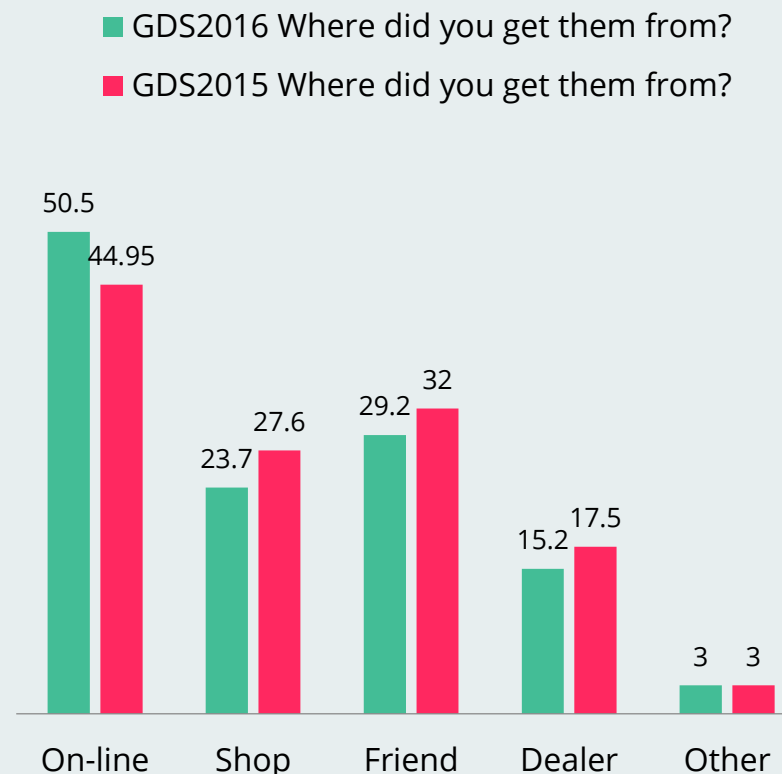


# 4.8% of the global GDS2016 sample reported the purchase of NPS in the last 12 month (compared to 4.2% in GDS2015) (n = > 9000 for combined years)

## What was the appearance / form of the NPS purchased?



## Where did you source them from

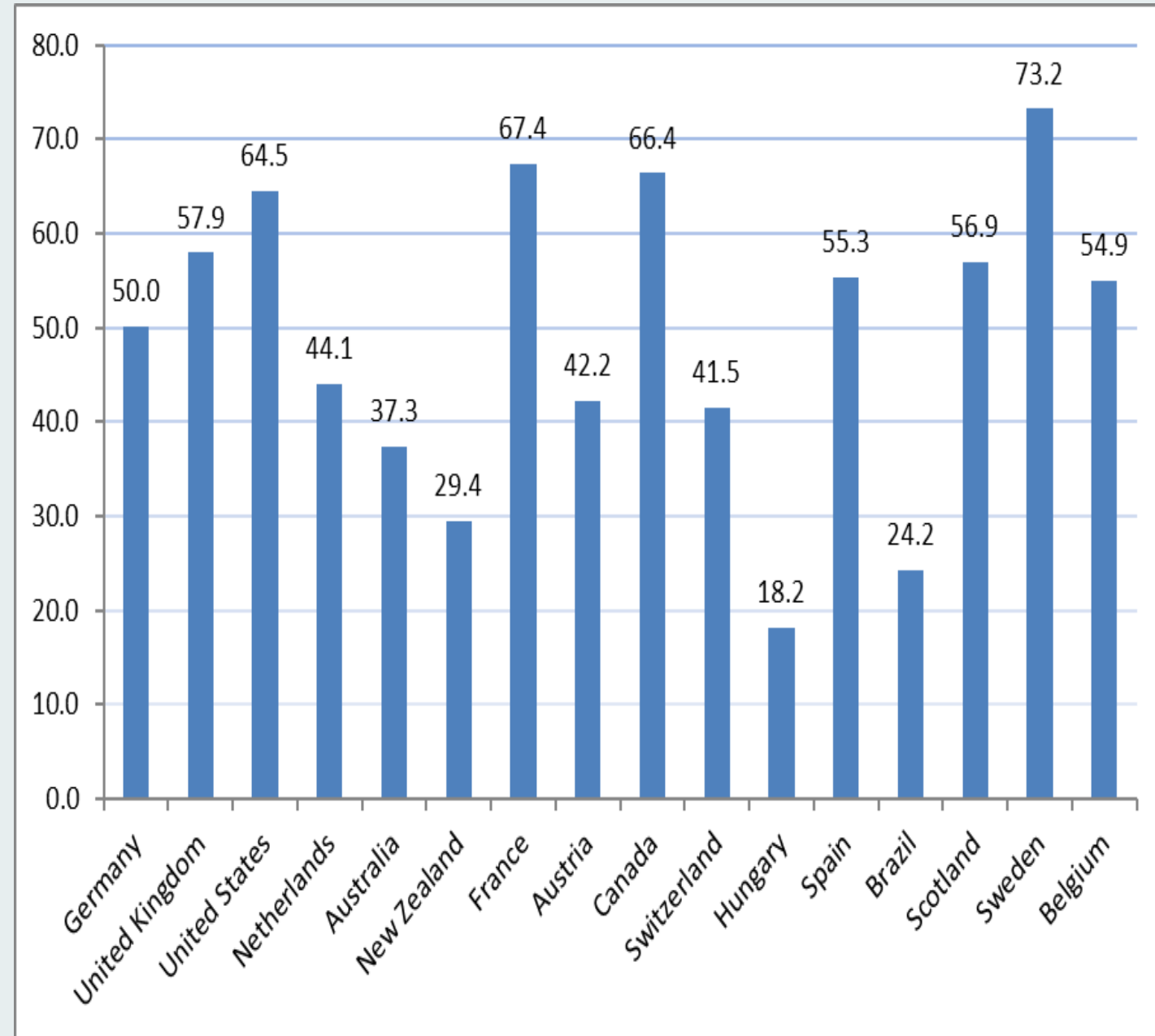


As countries like the UK attempt to ban these new drugs with blanket ban GDS2016 sheds light on what drives the appeal of typically less pleasant drugs and how markets respond to changes in regulation and existing street drugs markets.

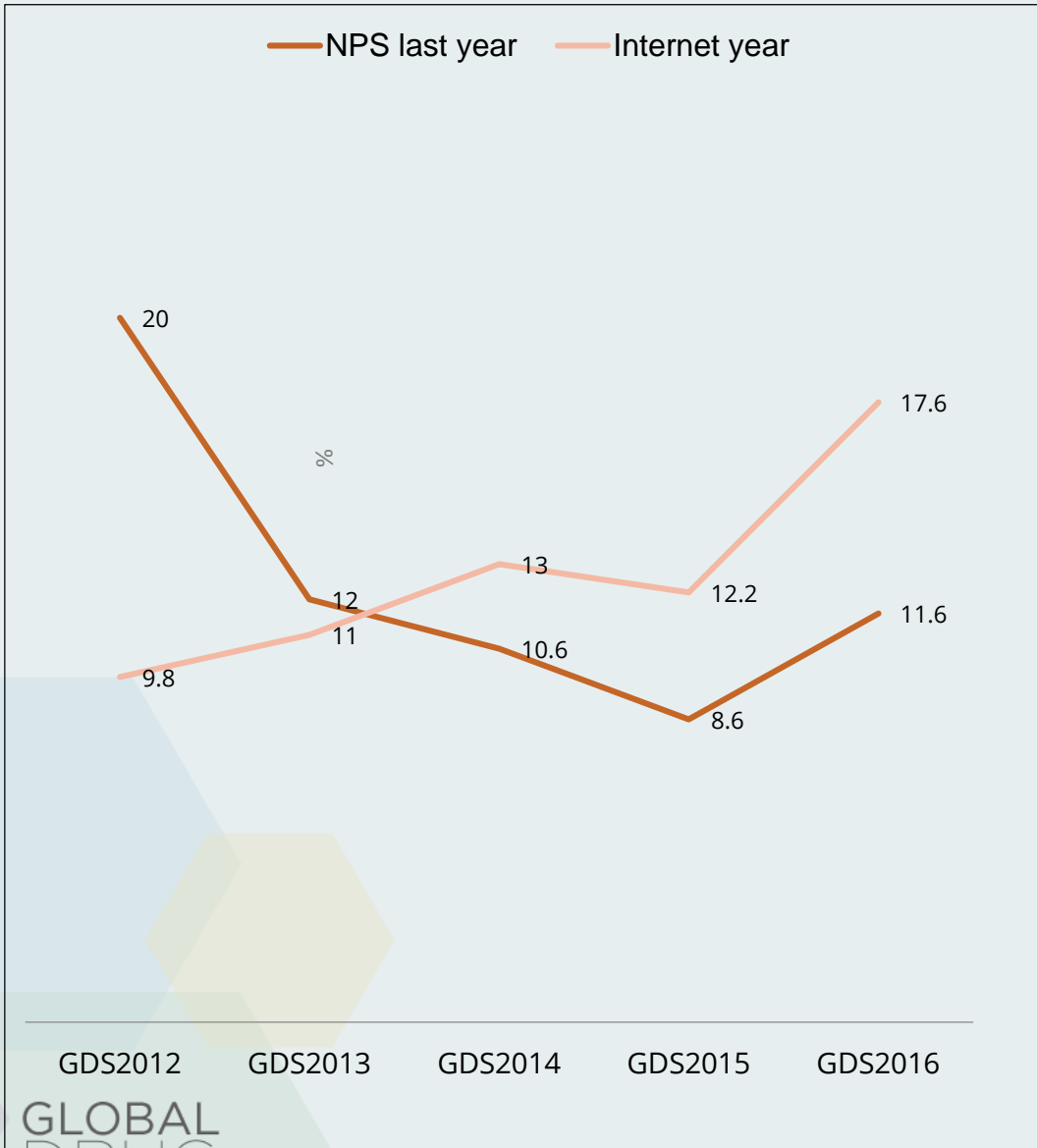
The first thing to note is that while national legislation might reduce access on the high-street, globally and indeed in most countries the most common place where people purchase NPS is on-line.

Now of course source varies by country and this is a dynamic market as our individual country reports for the UK, Sweden, Ireland and New Zealand show. In the table below the variation in on-line sourcing for NPS is shown. This graph does not differentiate between open and dark net but does show that while local street level supply (over the counter, under the counter or through dealing networks) is an area that can be reduced through local regulation, the internet has already laid claim as the major source of NPS in most countries.

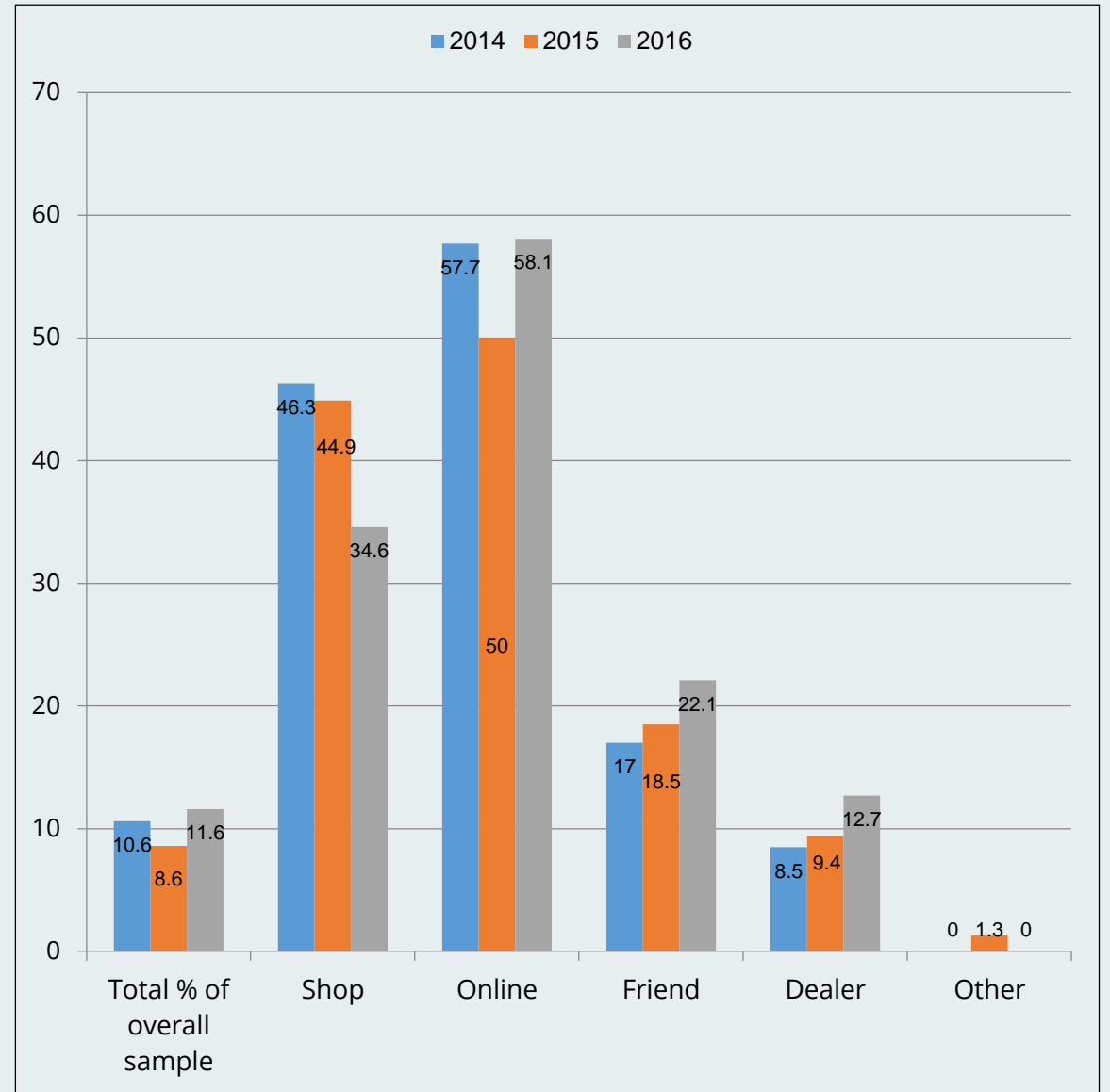
This graph shows the percentage of those who purchased NPS/legal highs / research chemicals in the last 12 months that did so via the internet (For countries with n=50 or more people who purchased NPS/legal highs / research chemicals



## 5 YEAR UNITED KINGDOM NPS PURCHASE TRENDS



## UNITED KINGDOM NPS SOURCE OF PURCHASE TRENDS







# NPS MOTIVATIONS FOR USE

## The Novel Psychoactive Market / Research Chemical market appeared in the late 2000s on the back of a decline in purity of traditional stimulants (MDMA in particular).

4 years ago when we asked about motivations for their use – the non-availability of other drugs and their poor quality was cited as the major factor. As the quality of traditional drugs has improved in recent years the motivators have changed and now perhaps there is greater importance on perceived value for money and ease of access on line.

What is clear from all the GDS surveys and publications is that NPS generally do not have an effect profile that is preferred to traditional drugs by the vast majority of users and very importantly they are not seen as safer than traditional drugs. So the media narrative suggesting that most people think just because drugs are legal they are safe – is not true – it is not supported by the evidence.

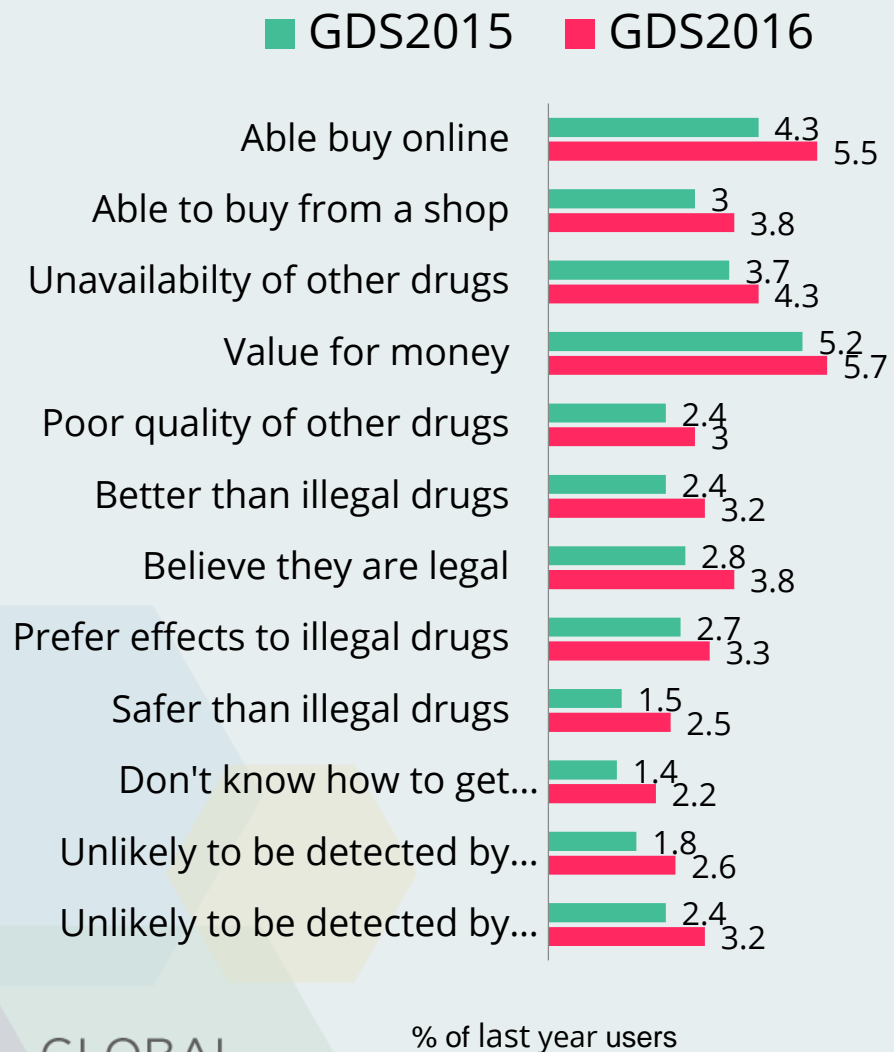
This year we asked over 4500 people who had used a variety of NPS in the 12 months prior to the survey how important various factors were in motivating their decision to use what their main motivations for using these drugs were. Alongside findings from GDS2016 we also provide the results from GDS2015.



Why would people buy drugs that are more dangerous and have a less nice effect profile?

## Mean scores from global last year users

(GDS2016 n > 4500, GDS2015 n > 4000)



## Research chemicals – motivation for use

Given that most NPS are either riskier than their traditional counterparts and / or give a less desirable effect (see GDS work on synthetic cannabinoids - Winstock et 2013) and NBOME drugs -Lawn et al 2014) the question remains why would people use them at all. GDS2016 explored this question using 7 questions we used to determine the importance of different motivations for using NPS among recent purchasers. Although motivation vary across country the pooled global data from the last 2 years from almost 10,000 people is revealing.

Last year users of NPS were asked to rank each motivation for use on a scale of 1-10 (1 = completely disagree, 10 = totally agree). The mean scores for each motivation are presented here.

**People use NPS because they are cheap and accessible on line – not because they think they 're safe.**

## The drugs that carry the greatest risk have migrated to those most vulnerable to drug-related harm.

While the drivers of use will be influenced by local drug markets and drug laws, the overall message is clear. Across both GDS2015 and GDS2016 value for money was rated as the most important motivator for people using NPS as well as their ability to purchase them on line. What is very importantly highlighted however is that these drugs are not seen as safer compared to traditional drugs.

The increase in mean ratings for the avoidance of drug tests and sniffer dogs raises the concern that people may be using more dangerous drugs as the result of law enforcement in the community and the workplace. People who use drugs are, for the most part, not idiots. For new drugs to become successful they will need to attract naïve drug users or offer something to displace existing users from an old product.

Given the choice, most people will opt for a drug (or form of a drug) with the nicest effects and the smallest risk of harm. Not having much money limits that choice. Where the variety of drugs are limited, cost will influence the quality or type of preparation that one uses: think crack versus cocaine, or cask wine versus a posh bottle. Or, for that matter, natural cannabis versus synthetic cannabinoid products.

There's nothing like poverty to make a serious drug problem harder to deal with. Poverty hampers access to better quality drugs, healthcare and, when needed, expert legal advice.

The findings from GDS and our experience within UK prisons suggests that novel psychoactive drugs might find their long term relationships with those already marginalized in our society. The drugs that carry the greatest risk have migrated to those most vulnerable to drug-related harm. Continued use will lead them to the emergency room agitated, sweaty, paranoid and psychotic. The solution is not blunt regulation but smarter more honest education.

Given the choice, most people will opt for a drug (or form of a drug) with the nicest effects and the smallest risk of harm



# DESERT ISLAND DRUGS

**This section focuses on answers of 79,040 study participants who reported illegal drug use and who answered at least one of the four “desert island drugs” questions.**

Recent discussions about the motivations for the use of new psychoactive substances (NPS) and increasing NPS use in certain countries who participated in previous Global Drug Surveys made us carry out a thought experience. What would be the preference of recreational drug users if all commonly used drugs were freely available? Would they still be interested in the use of NPS or would they be satisfied with the commonly used drugs? We designed a hypothetical situation and asked the following questions:

*Imagine you are shipwrecked on a desert island. Cannabis grows wild and magic mushrooms (not poisonous ones) cover the island. By chance there is also a plentiful supply of high purity MDMA and powder cocaine. Alcohol is easily accessible too.*

*A genie comes along and says you can exchange any of these for any new synthetic version of these drugs in the world.*

**Can any NPS compete with traditional illicit ?**



***The genie asks if they would exchange?***

*Cannabis for synthetic cannabis*

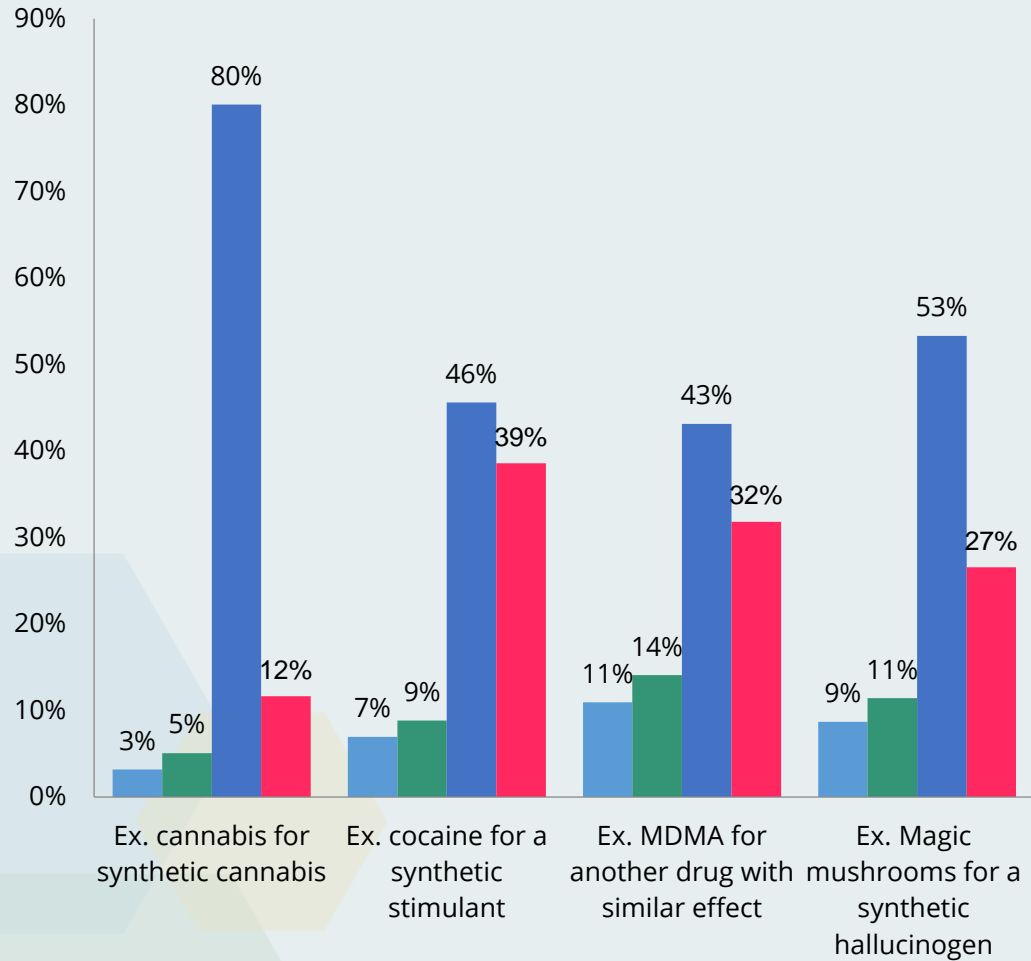
*Cocaine for a synthetic stimulant*

*MDMA for a another synthetic drug with similar effect*

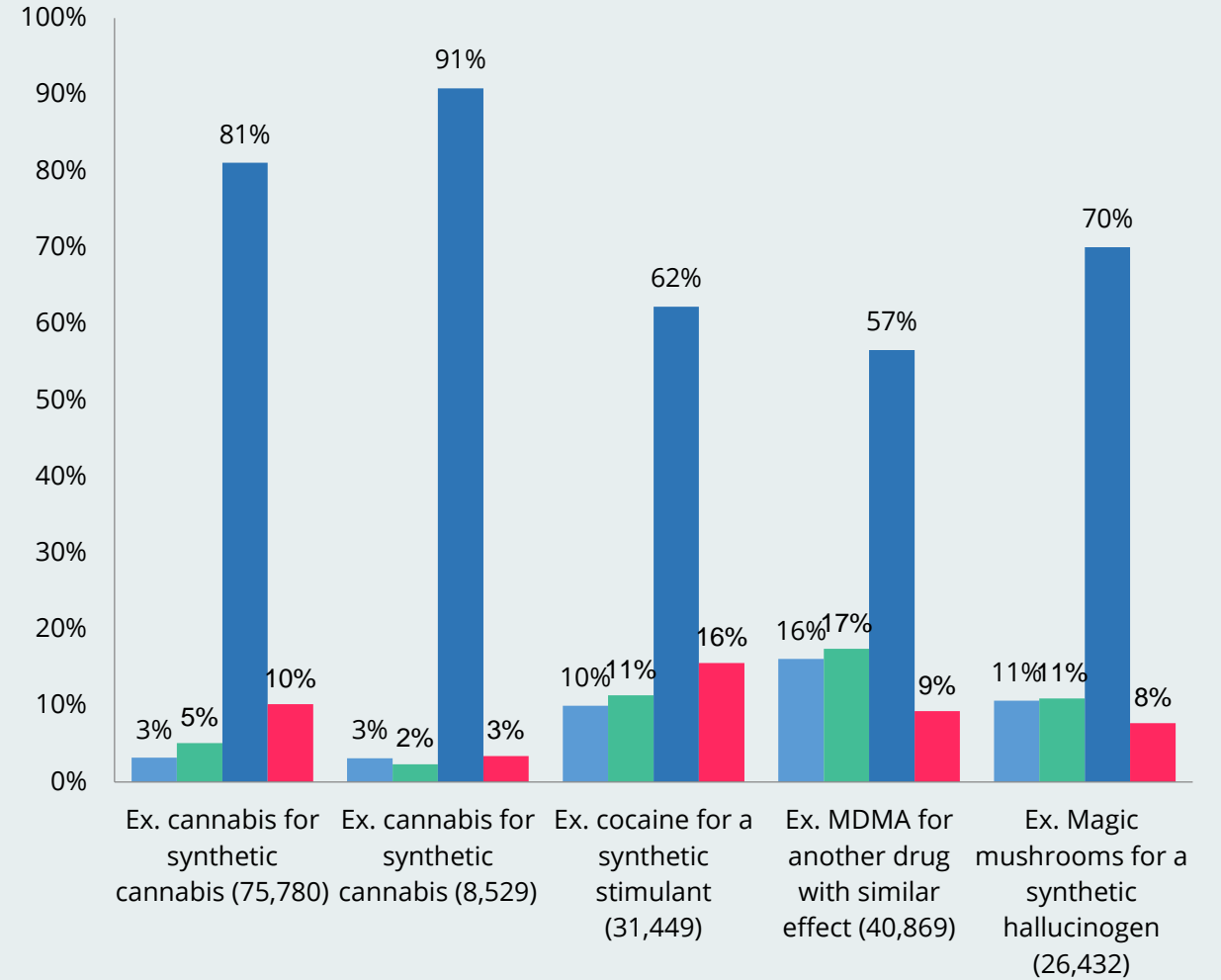
*Magic mushrooms (excluding LSD) for a synthetic hallucinogenics*

***Options:*** yes / no / unsure / don't care /not interested in this drug

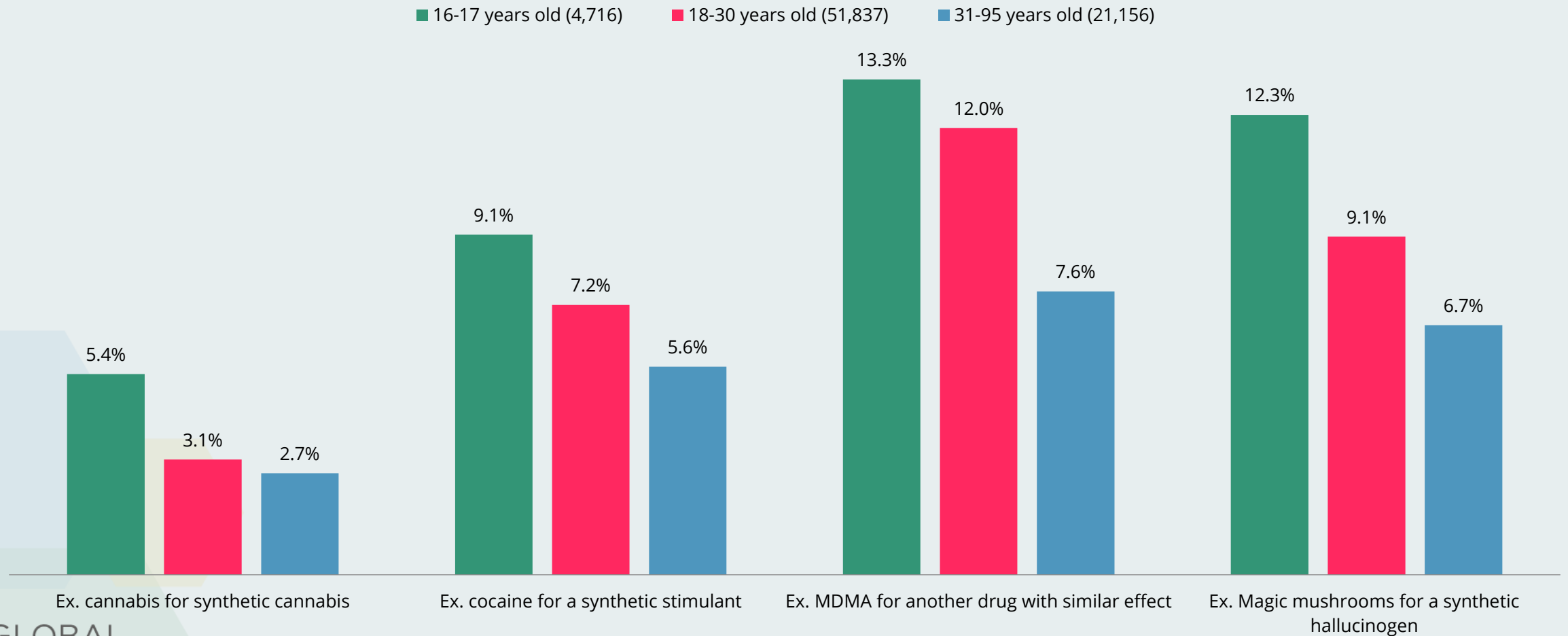
## Preference to exchange available illicit drugs with new synthetic forms by those with any illicit drug use experience (n=79,040)



## Preference to exchange available illicit drugs with new synthetic forms (answered only by those who had ever used cannabis, synthetic cannabis, cocaine, MDMA or magic mushrooms from left to right)



# Preference to exchange available illicit drugs with new synthetic forms by age





## Reflecting the response behaviours of GDS participants on the desert island drugs question.

### Headline result summary

- Only 20.5% (n=16,147) could imagine exchanging at least one available traditional drug for a (new) synthetic drug with similar effects
- No noteworthy gender differences were found globally
- Adolescents and young adults were more likely to exchange the available illicit drugs for new synthetic versions of these drugs
- People who were experienced with NPS use were less likely to prefer the synthetic variants of drugs if they had the choice
- Young people and people who never used NPS before were most likely to exchange the commonly used drugs with new synthetic versions of these drugs
- Whether or not this is because they have been put off the 'risks' or illicit drugs and consider NPS to be a safer choice is something we will look into in the coming months

## Explaining the findings that young people may be more likely to exchange old for new drugs

It may be that higher risk-taking behaviours and limited experience with and access to traditional illegal drugs is another reason why younger users may be more likely to select new drugs over old. The fact that these drugs carry more risk, compounds the risks of inexperience when using any type of drug.

### Implications for policy and health promotion

Governments need to focus on educating younger people about the elevated risks of using NPS and will need to accept that this may mean they need to engage in a more honest discussion of the risks associated with traditional drugs as part of that discussion.

GDS thinks this more honest narrative will be more effective in engaging younger users and can sit alongside health promotion seeking to delay the onset of illicit use by young people.

Exaggerating the risks of traditional drugs for the casual / infrequent user may lead drug naïve people to experiment with potentially more harmful and less predictable NPS

The image features a dark background with a glowing network of nodes and edges. The nodes are represented by semi-transparent, multi-colored hexagons in shades of blue, purple, red, green, and yellow. The edges are thin, glowing lines in various colors, creating a dense web of connections. In the background, a faint world map is visible, with some regions highlighted in bright colors like yellow and red. The overall aesthetic is futuristic and data-driven.

**DRUGS AND INTERNET, INCLUDING  
DARKNET MARKETS**

**Darknet markets or cryptomarkets have now been operating for 5 years** (since the launch of Silk Road in February 2011). In the deep web, site owners, vendors and buyers are able to remain relatively anonymous as their IP addresses are masked. Purchases are made using the decentralised virtual currency Bitcoin, which can also be used relatively anonymously.

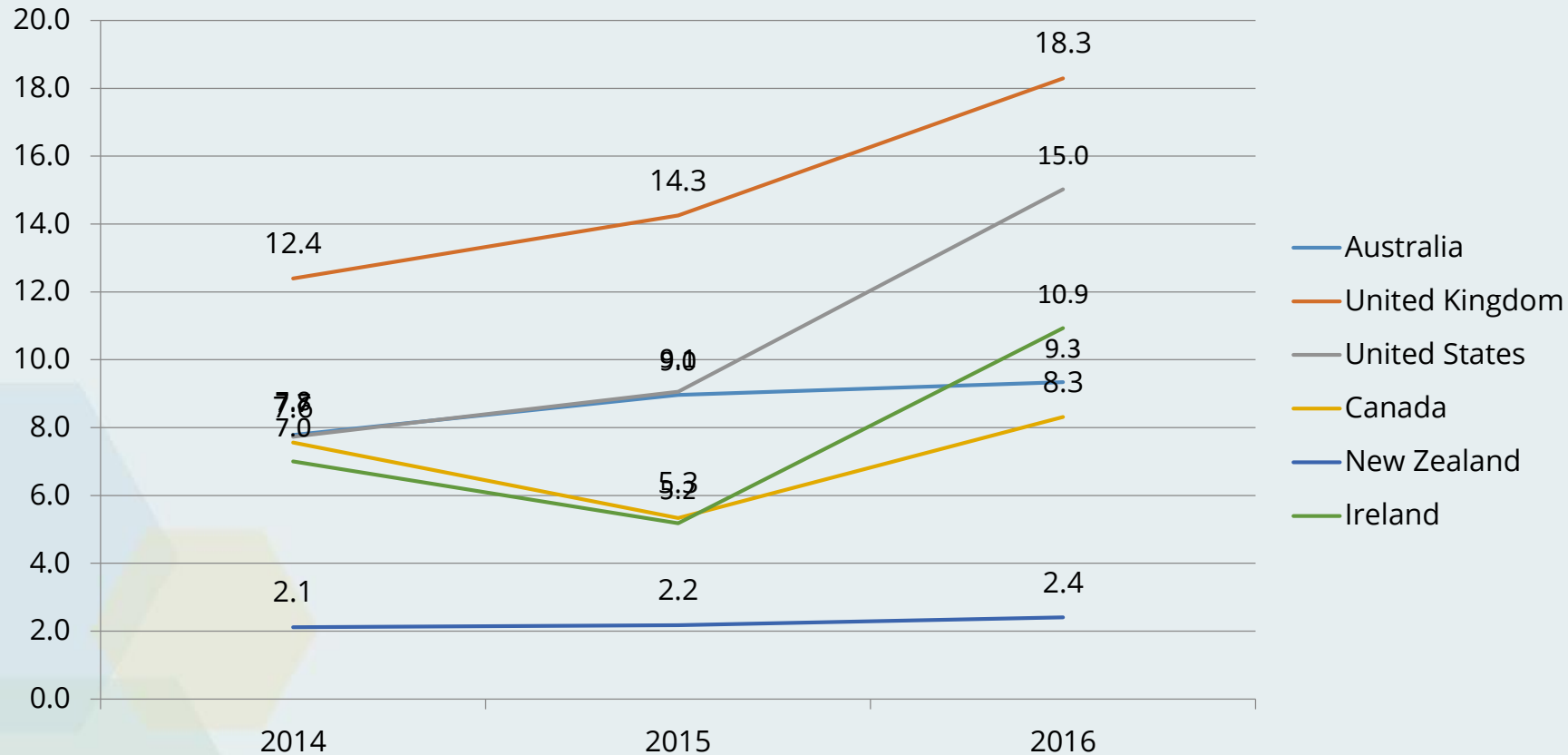
Our work on dark-net markets or crypto-markets is already some of the most cited in the world and working with leading researchers in the field like GDS's own **Dr Monica Barratt** we've continued to tell the story of the biggest challenge to drug laws and their enforcement in a century.

GDS2016 occurred 2 years after the demise of the original Silk Road and 1 year after Operation Onymous which brought down a number of cryptomarkets that had arisen as replacements. Exit scams, where market owners close the market unexpectedly and steal the funds, have become commonplace. Despite these disruptions, we have obtained a record sample of darknet drug buyers in GDS2016 (n=8058).

Drugs have also increasingly been bought through the internet more generally, including 'normal' websites and through social media, as reflected in our annual question about internet drug buying. GDS has once again conducted the biggest survey of dark-net involvement ever done and our findings suggest that like other areas of e-commerce it is here to stay. And our findings show that year on year more and more people are shopping on the dark-net. The following two graphs show how samples from most countries where we have the largest number of respondents reported greater rates of dark-net buying compared to previous years, with the highest rates in the UK, US and Ireland.

# Three year trends: recent darknet market use

Recent darknet market use includes purchasing their own and getting someone to purchase on their behalf in the last 12 months.  
Base: respondents reporting use of illicit/NPS/prescription drugs in the last 12 months.  
Only countries with N=500+ in all 3 years are included.

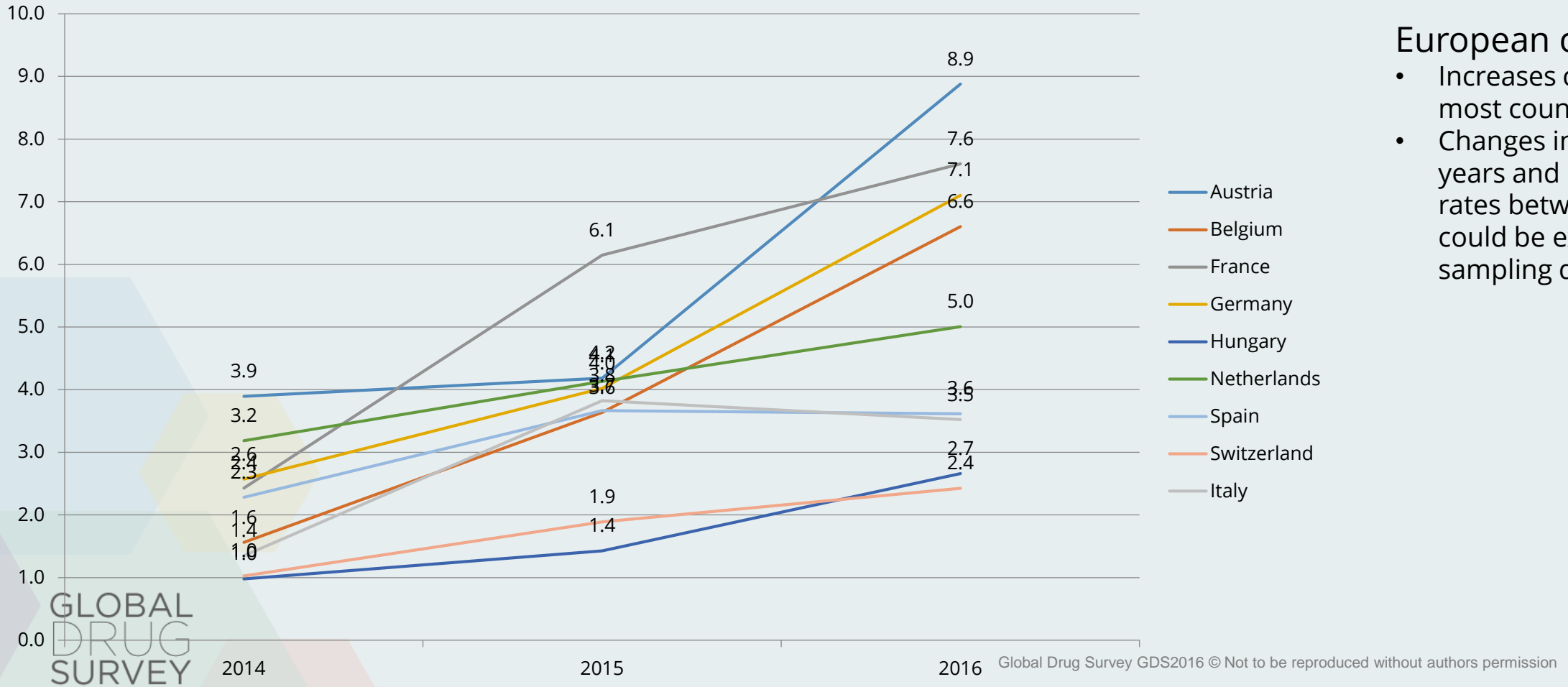


## English-speaking countries:

- Increases can be seen between 2015 and 2016 in UK, Ireland, US, Canada.
- Stable in Australia and New Zealand
- Changes in rates across years and differences in rates between countries could be explained by sampling differences

# Three year trends: recent darknet market use

Recent darknet market use includes purchasing their own and getting someone to purchase on their behalf in the last 12 months.  
Base: respondents reporting use of illicit/NPS/prescription drugs in the last 12 months.  
Only countries with N=500+ in all 3 years are included (except Italy which had <500 in 2014 and 2015)

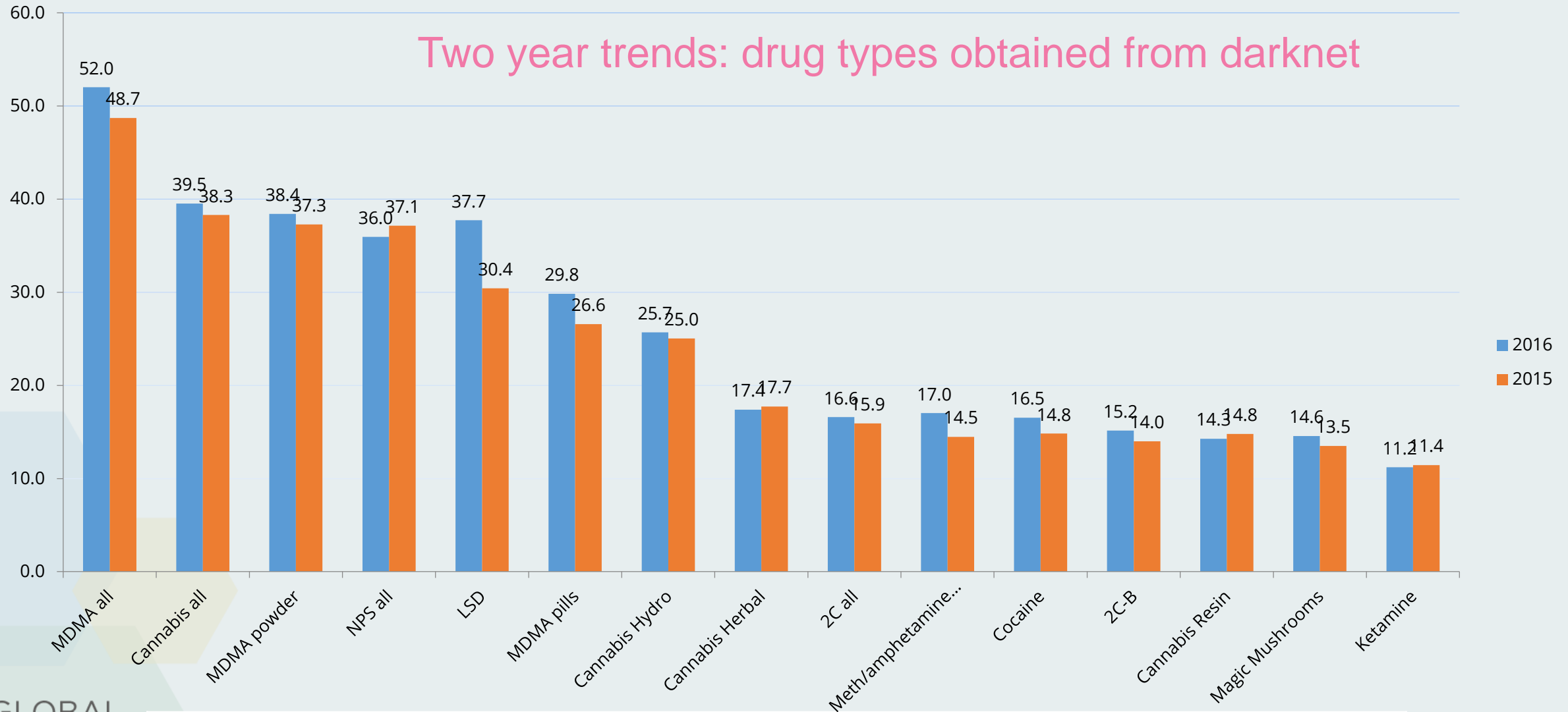


## European countries:

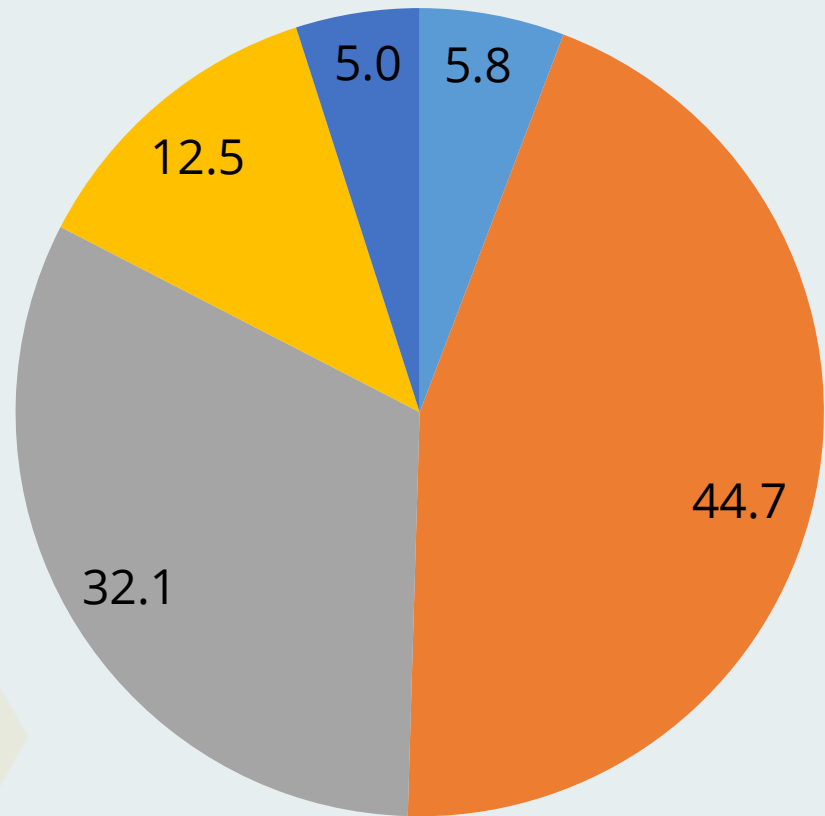
- Increases can be seen for most countries.
- Changes in rates across years and differences in rates between countries could be explained by sampling differences

This year we on report trends in which drugs were bought through the darknet. The results from 2016 were similar to 2015: MDMA, cannabis, new or novel substances (including 2C-B & DMT) and LSD topping the list.

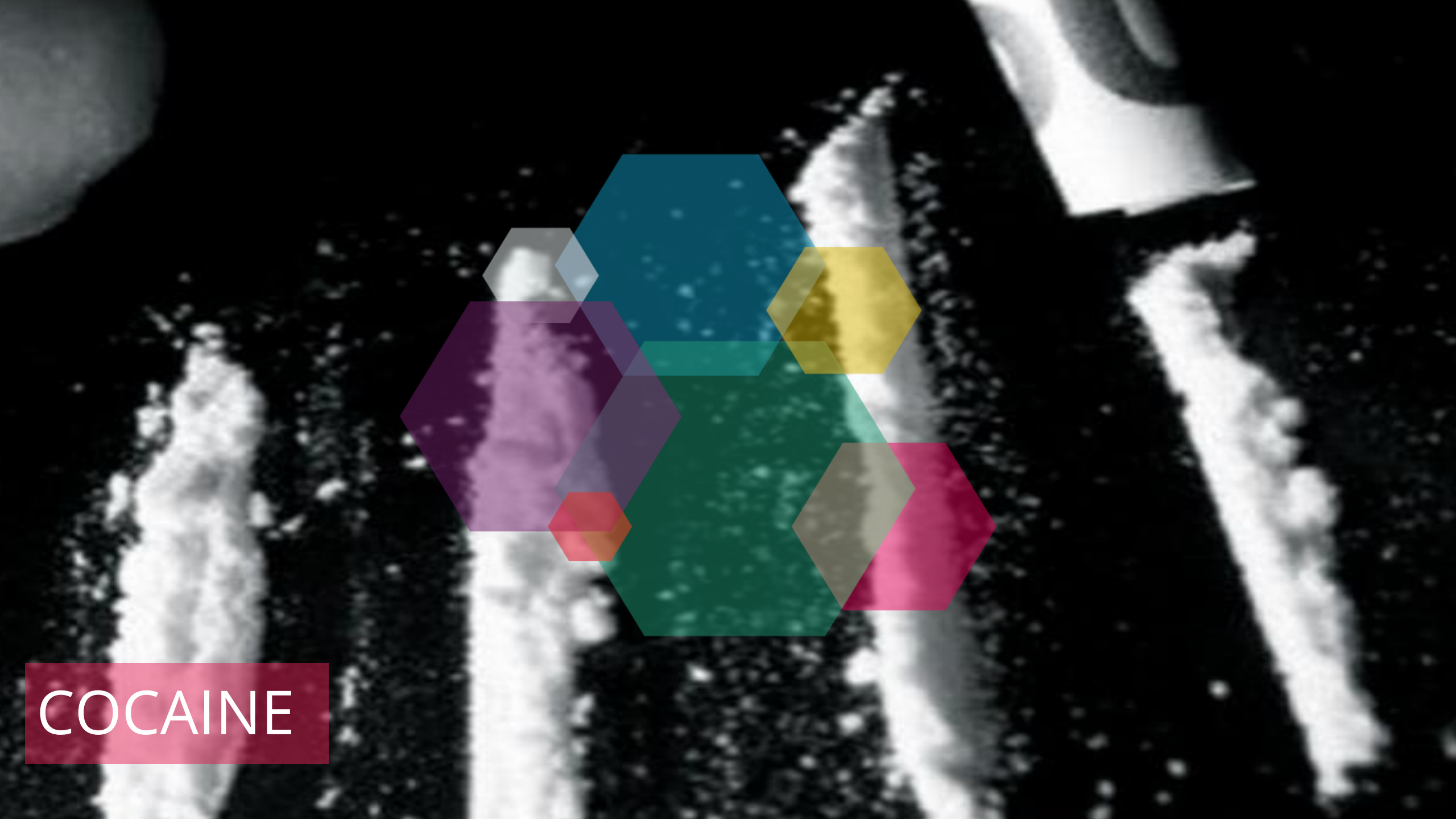
## Two year trends: drug types obtained from darknet



As in previous years, while many people claimed that the range of drugs they used remained the same, around a third of dark-net drug buyers reported that they consumed a wider range than previously. This year, 5% of respondents stated that they did not consume drugs prior to accessing them through dark-net markets.



- I have consumed a smaller range of drugs than previously
- I have consumed the same range of drugs as previously
- I have consumed a wider range of drugs than previously
- I have consumed a different class of drugs than previously
- I did not consume drugs prior to accessing them through darknet markets



COCAINE



**Cocaine remains the worst value for money drugs in the world**, though its score of 4/10 is an improvement on the 3/10 it was given 3 years ago as part of GDS2013. Cocaine is also still the most expensive drug per gram in the world, with mean prices for economy (66) and premium (99) per gram staying much the same as last year. **Once again over 80% users in most countries reported using less than 10 times in the last 12 months.**

The **average amount of cocaine used in a session is about of 1/2gm**, which equates to about 5-7 lines. These GDS results from over 30,000 last year cocaine users means that in most countries if you do a gram of cocaine once a week you are probably in the top 5-10% of cocaine users in your country (you can check this out personally and anonymously at [www.drugsmeter.com](http://www.drugsmeter.com) or on the free cocaine drugs meter app on Google Play

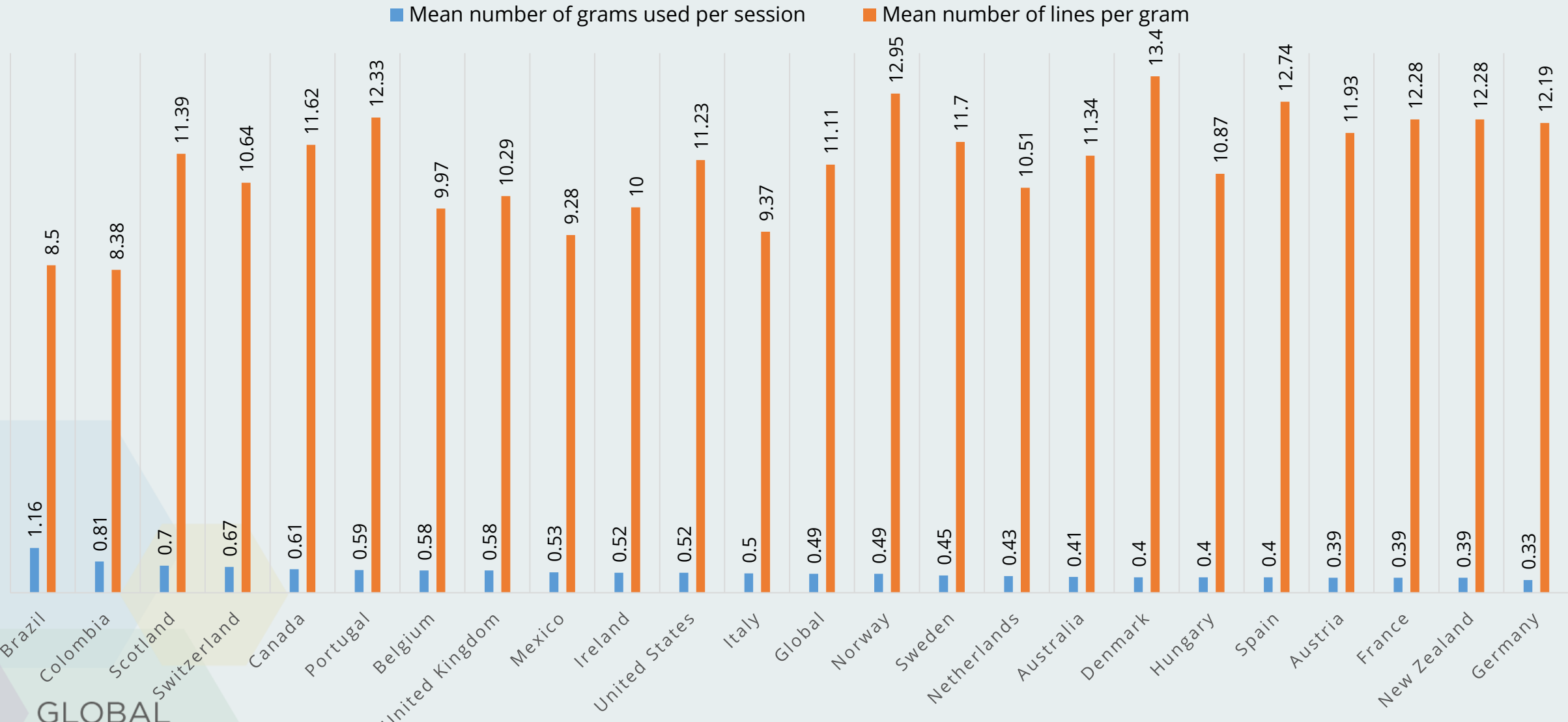
That only about 0.5% of last year users reported seeking emergency medical treatment after the use of cocaine does not mean cocaine is a safe drug, more that low dose irregular use carries a relatively low incidence of acute harm.

**Most acute presentations are a reflection of higher doses being taken**, with cardiac symptoms (racing heart and chest pain) and psychological symptoms including anxiety, panic, paranoia and confusion predominating). In those countries with higher average consumption patterns (such as Brazil), the rates of seeking emergency medical help are much higher.

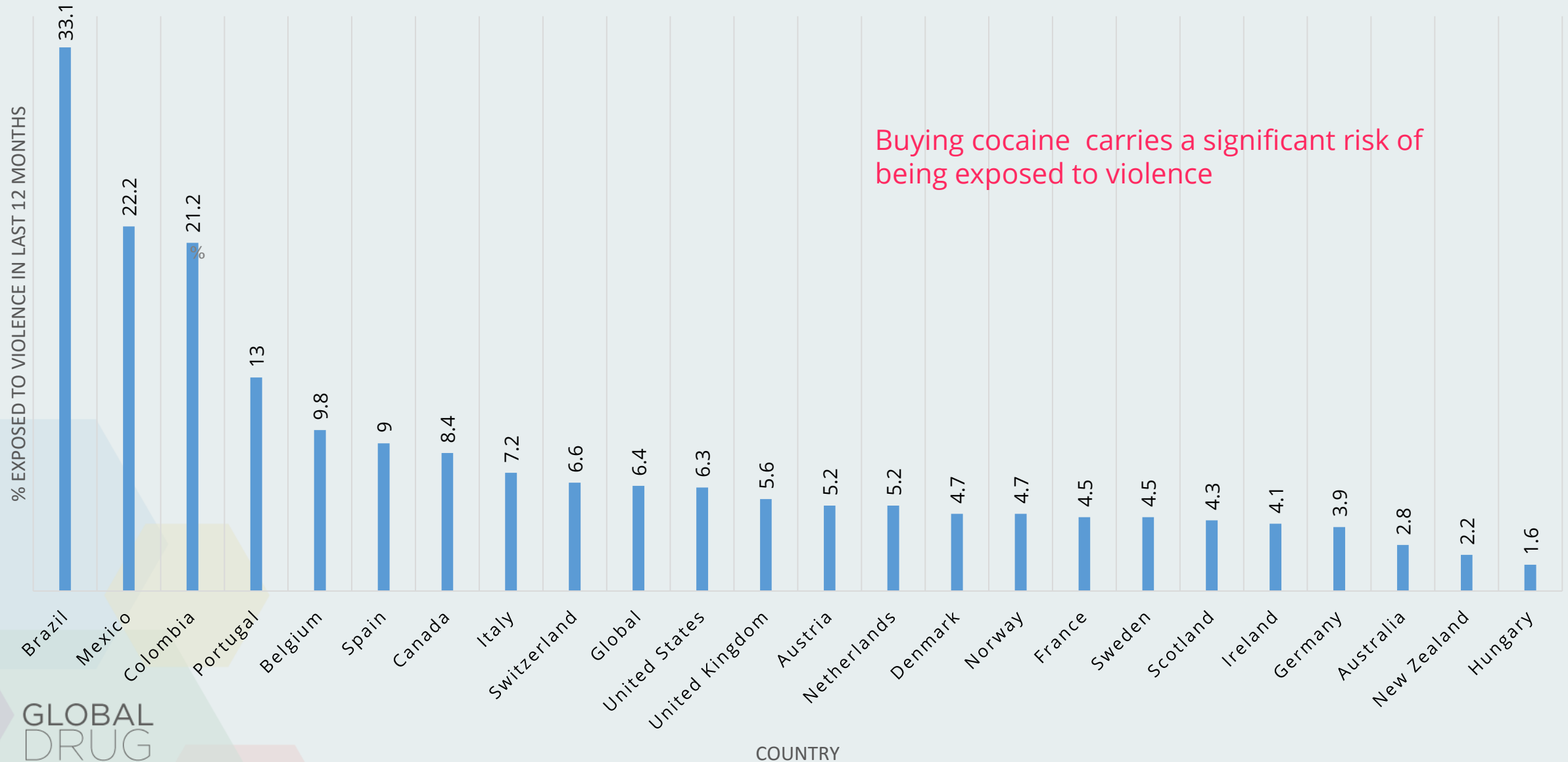
Price may be one of the most effective harm reduction strategies for cocaine that we know. So well done New Zealand and Australia which remain the priciest place to buy cocaine in the world.

**If you do a gram of cocaine once a week you are probably in the top 5-10% of cocaine users in your country**

# How much: How many : Amount of cocaine used in a session & mean number of lines / gram

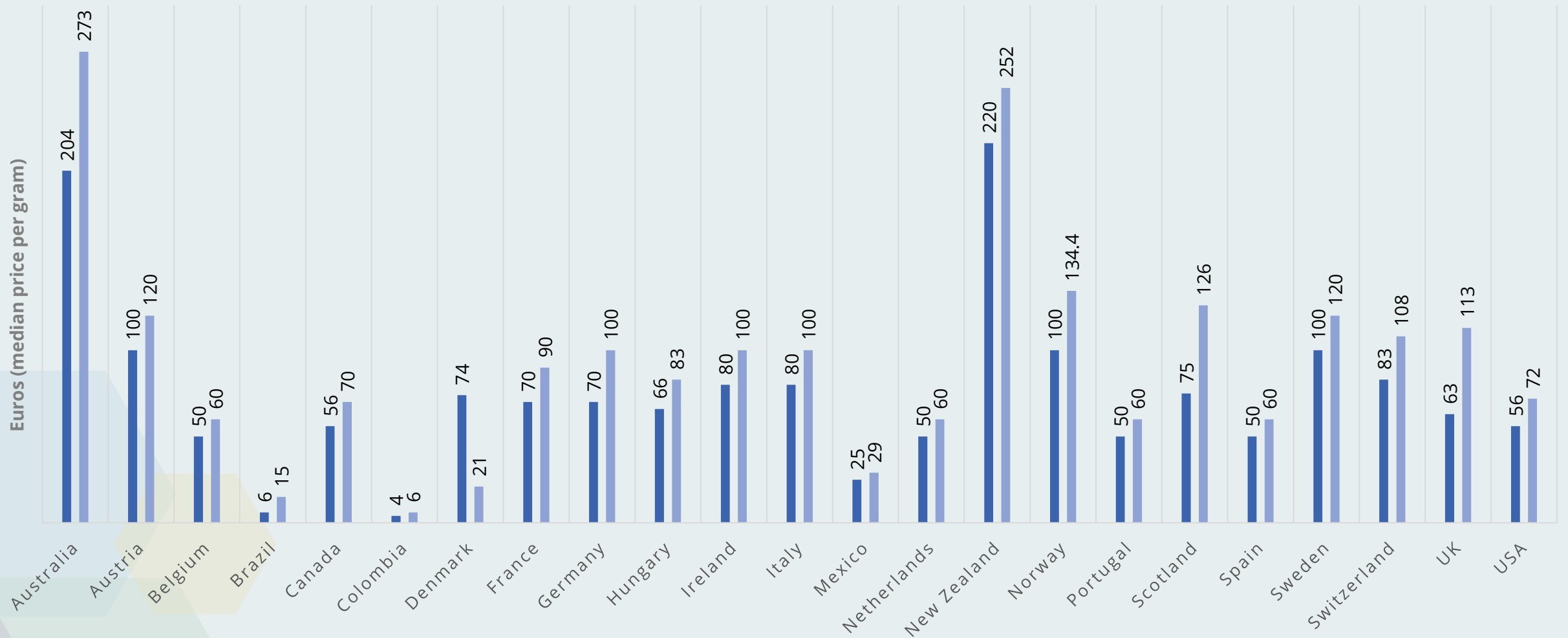


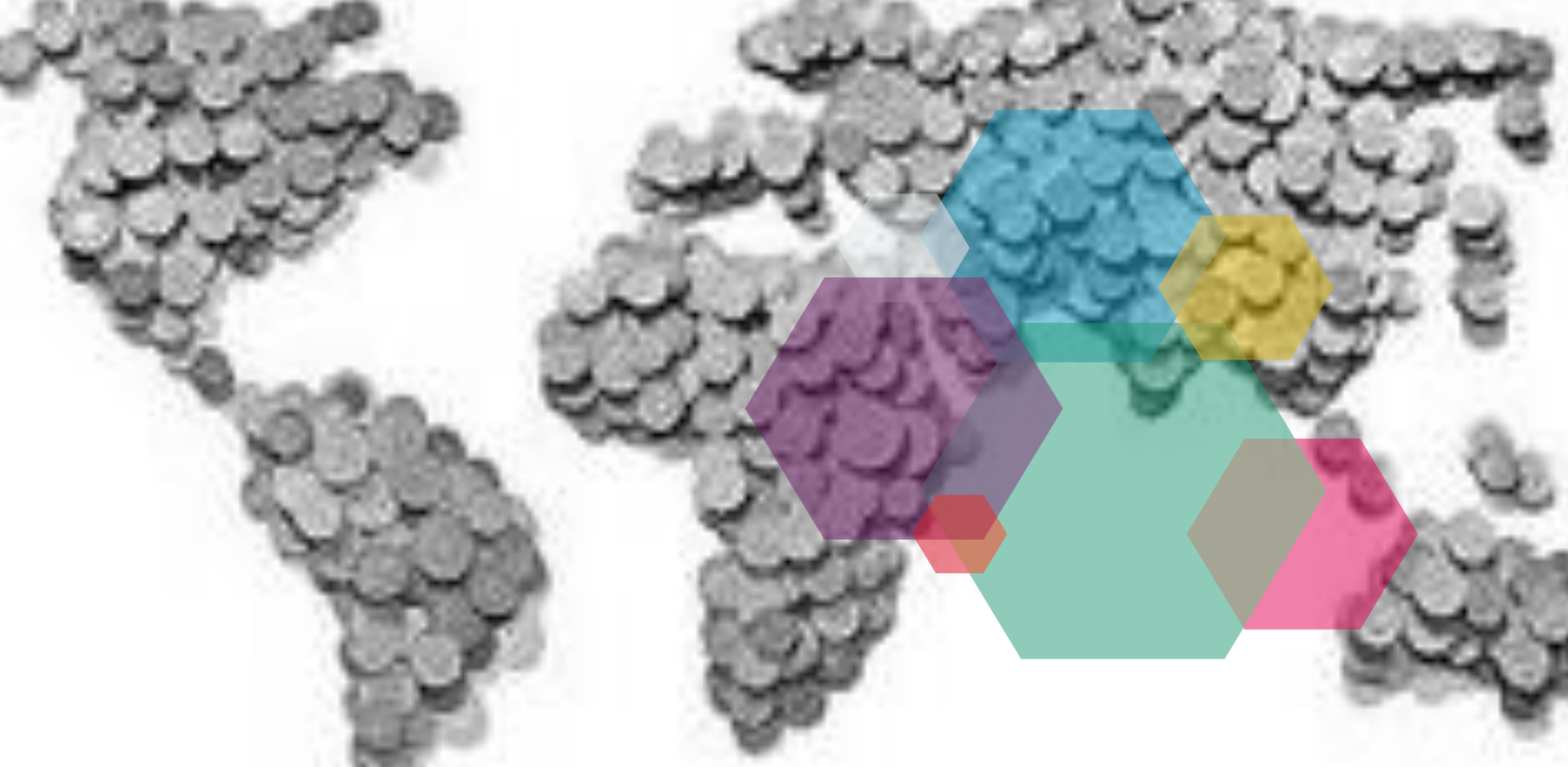
# Users were asked if they had been exposed to violence when acquiring cocaine in the last 12 months.



# Global average price for normal cocaine was €66.00, for 'luxury' (maybe better) cocaine was €100

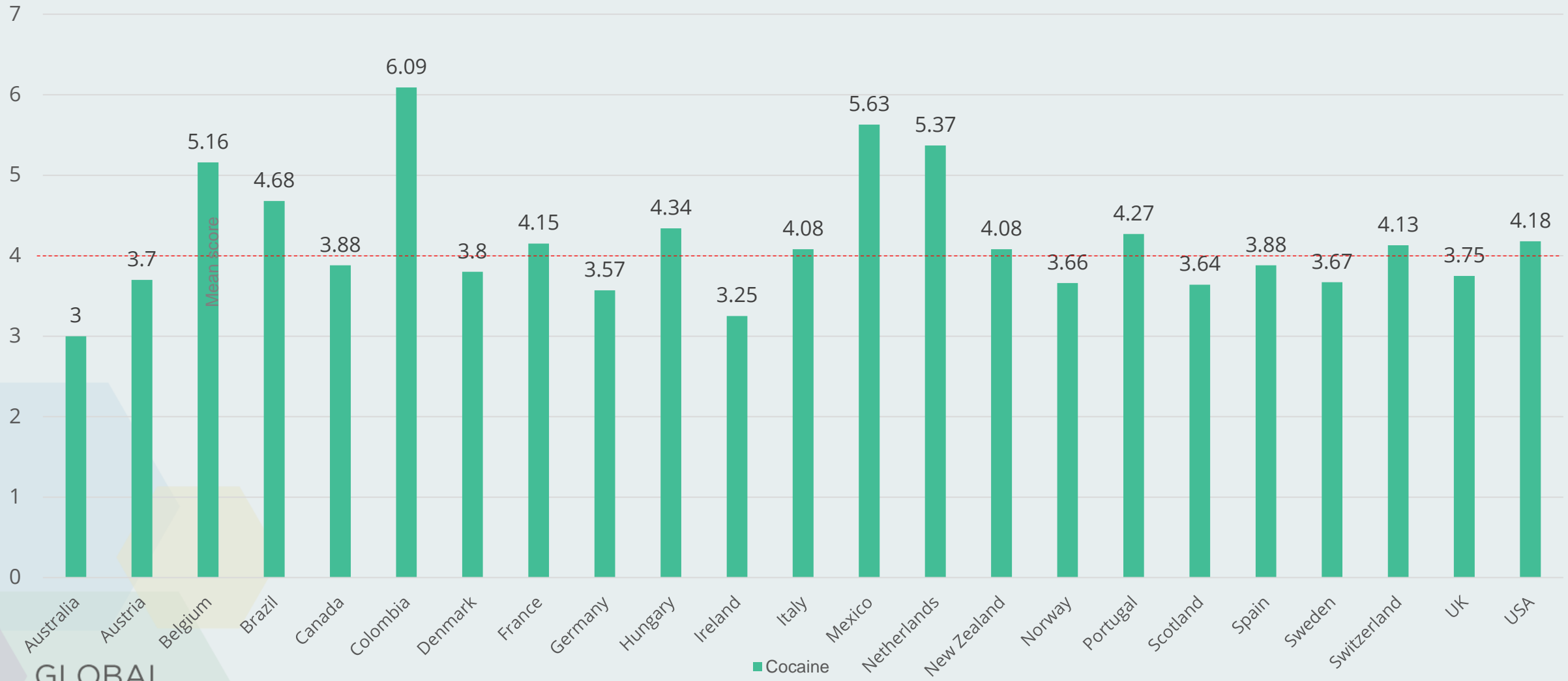
■ Normal Cocaine - Price Per gram    ■ Luxury Cocaine - Price per gram



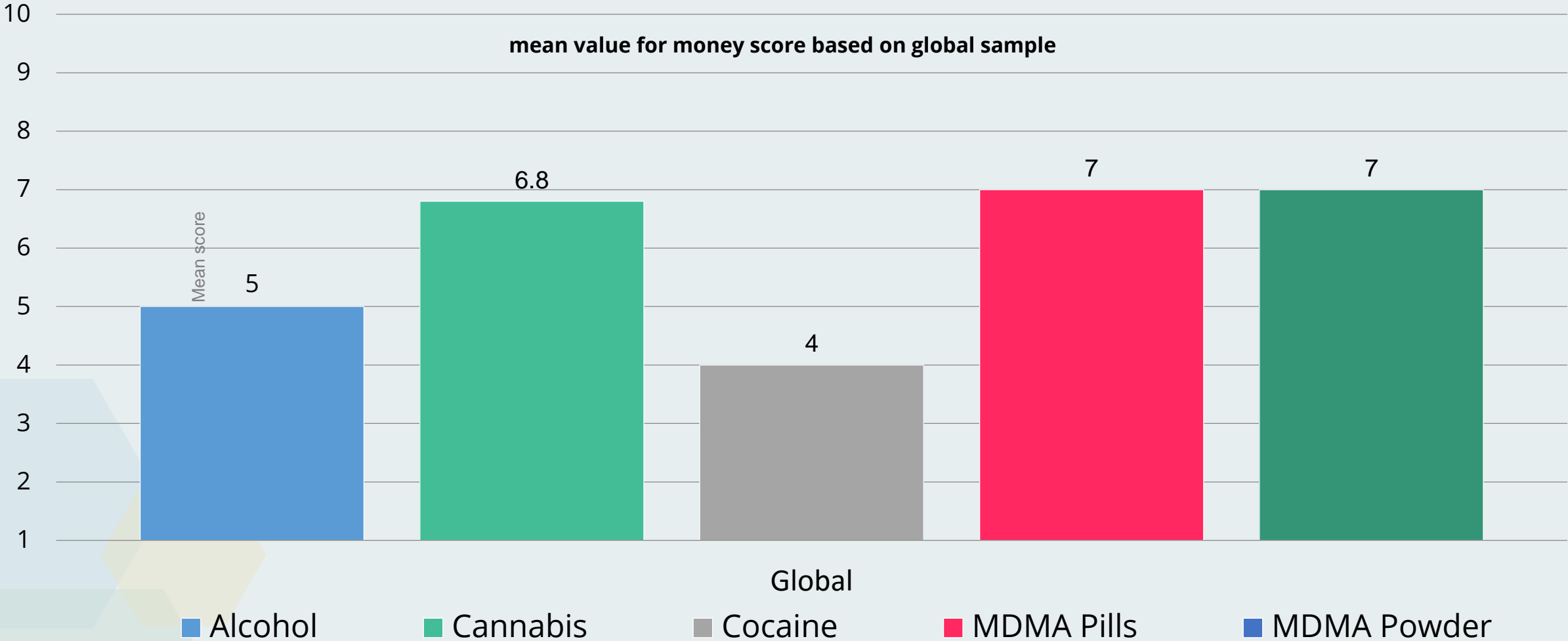


VALUE FOR MONEY

GDS2016 asked participants to cocaine based on its value for money from 1-10  
(1=poor value for money 10=excellent).  
mean scores for each country are shown below

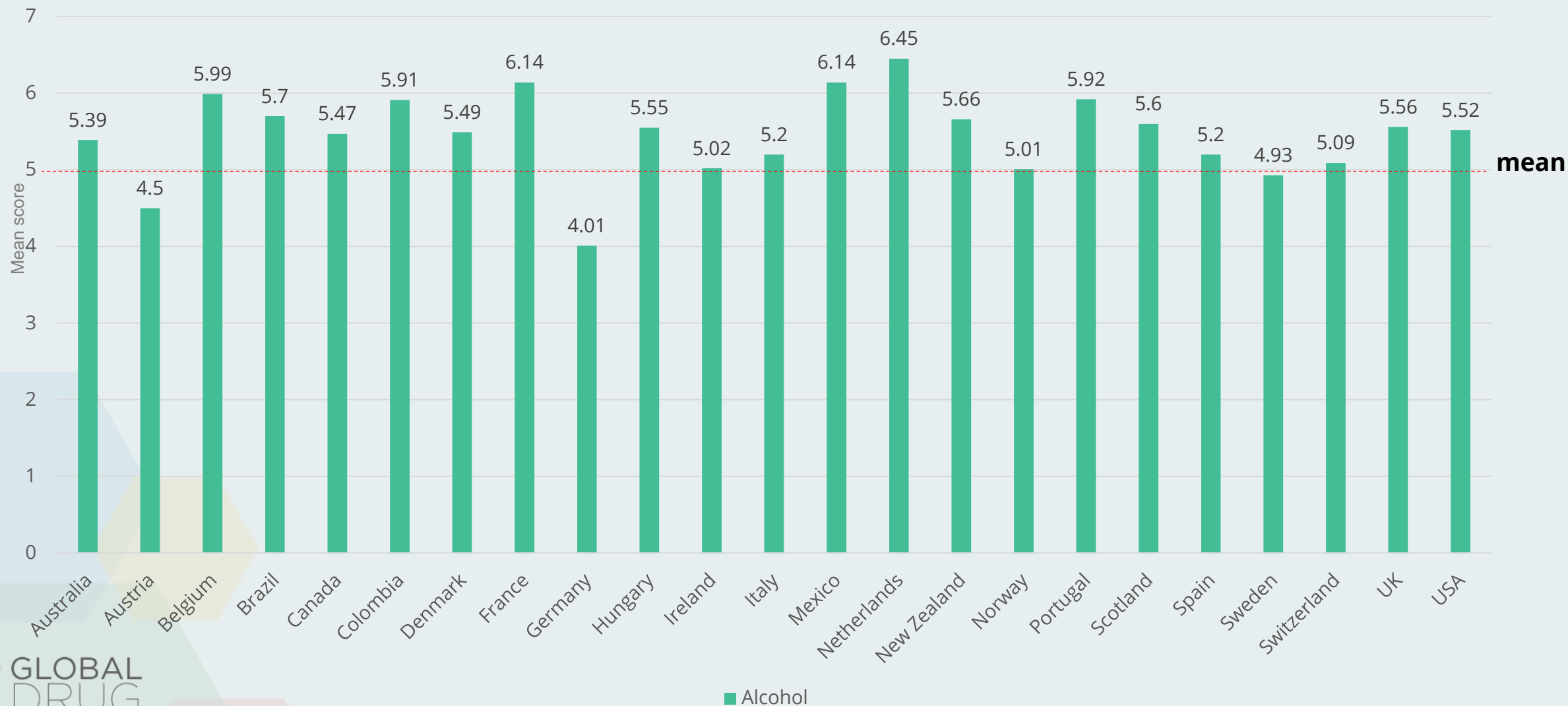


**GDS2016 asked participants to rate drugs based on their value for money from 1-10 (1=poor value for money 10=excellent value for money).**



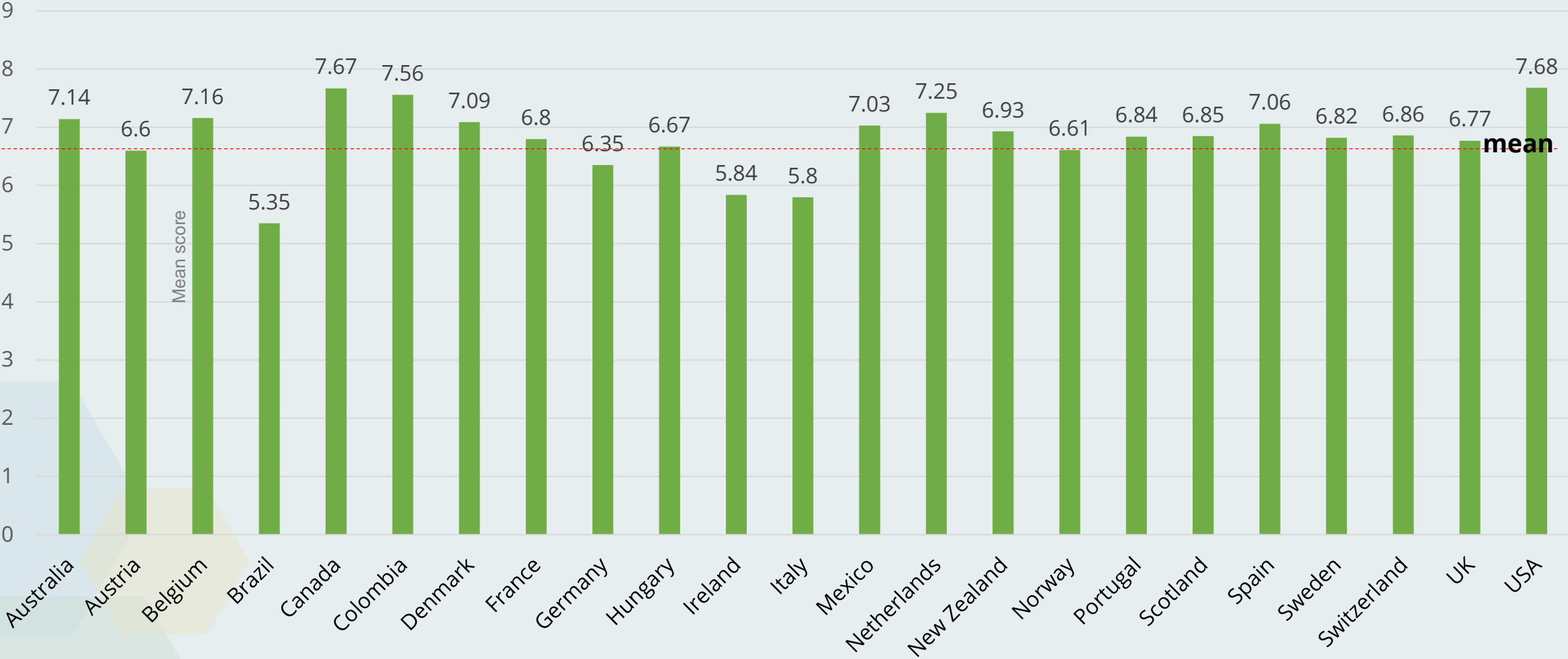
**Cocaine – probably the worst value for money drug in the world**

GDS2016 asked participants to alcohol based on its value for money from 1-10 (1=poor value for money 10=excellent). The mean scores for each country are shown below





GDS2016 asked participants to rate **cannabis** based on its value for money from 1-10 (1=poor value for money 10=excellent value for money). The mean scores for each top country are shown below.



■ Cannabis



MDMA

**PILLS CONTAIN  
MORE MDMA  
THAN EVER BEFORE**



**2016 might be the worst time to start taking MDMA in a generation.** MDMA has never been so plentiful and as GDS trend data shows, more and more people are using it. The rising popularity of EDM and dispersion of MDMA from the dance floor to mainstream drug culture has coincided with resurgence of MDMA availability. In many countries high purity MDMA crystal now competes with high dose MDMA pills (in many parts of Europe the average dose of MDMA found in ecstasy pills is now 100-150mg/pill with doses over 300mg having been reported). But odd as it might seem better quality drugs are not necessarily safer for users (especially if you don't know what you're taking). Higher dose preparations and high purity powders can make it more difficult to dose safely and it can be easy to take too much.

Data from over 50,000 ecstasy users collected as part of GDS2015 and GDS2016 suggest that just under 1% of ecstasy users sought emergency treatment following the use of pills and powders sold as MDMA in the previous 12 months. Young women seem more likely to present than men (unrelated to body size or consumption patterns) with a rate 2-3 times higher than men. At the time of writing in mid-2016, the drug that causes the most issues in things sold as MDMA or ecstasy is still, in most cases, MDMA itself. While drug checking has a role to play, just knowing what's in your pill or powder does not make it safe.

In the wake of the UK Government's ban on everything that gets you high, one consequence might be more people returning to traditional drugs. It seems to GDS that better quality drugs need better quality drugs education (actually rubbish drugs need better education as well).

**better quality drugs are not necessarily safer for users**

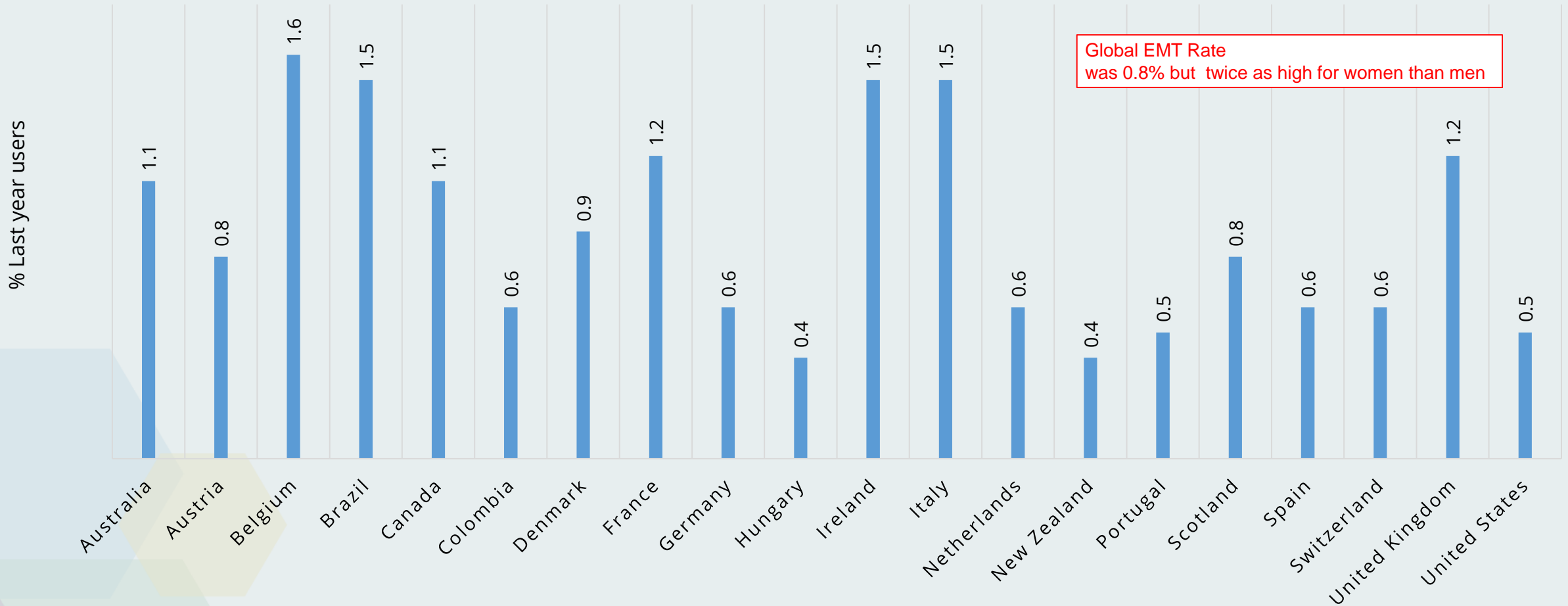
**TAKING TOO MUCH  
HAS NEVER BEEN  
SO EASY**



# GDS2016 % of individuals who had sought emergency treatment after consuming MDMA\*

n = 30,000

(\*not just clubbers)



# GDS2016 % of last year users of each substance who sought Emergency Medical Treatment following the use of \*MDMA

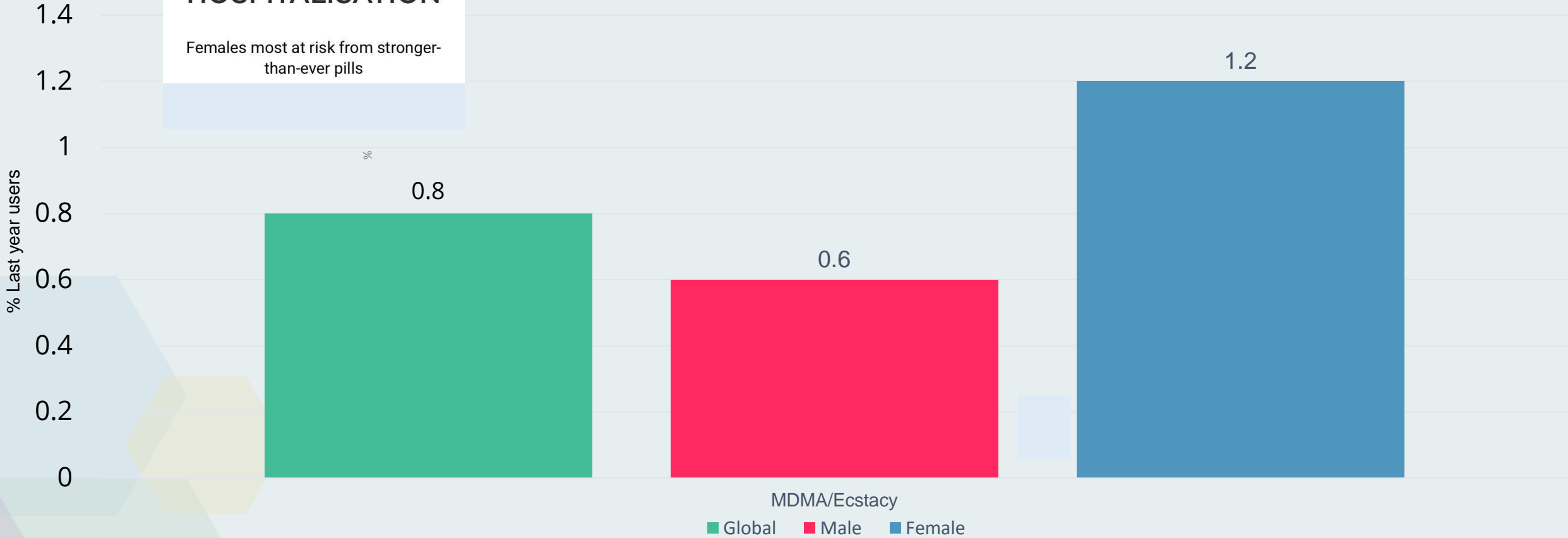
(n= 30,000)

\*not just clubbers

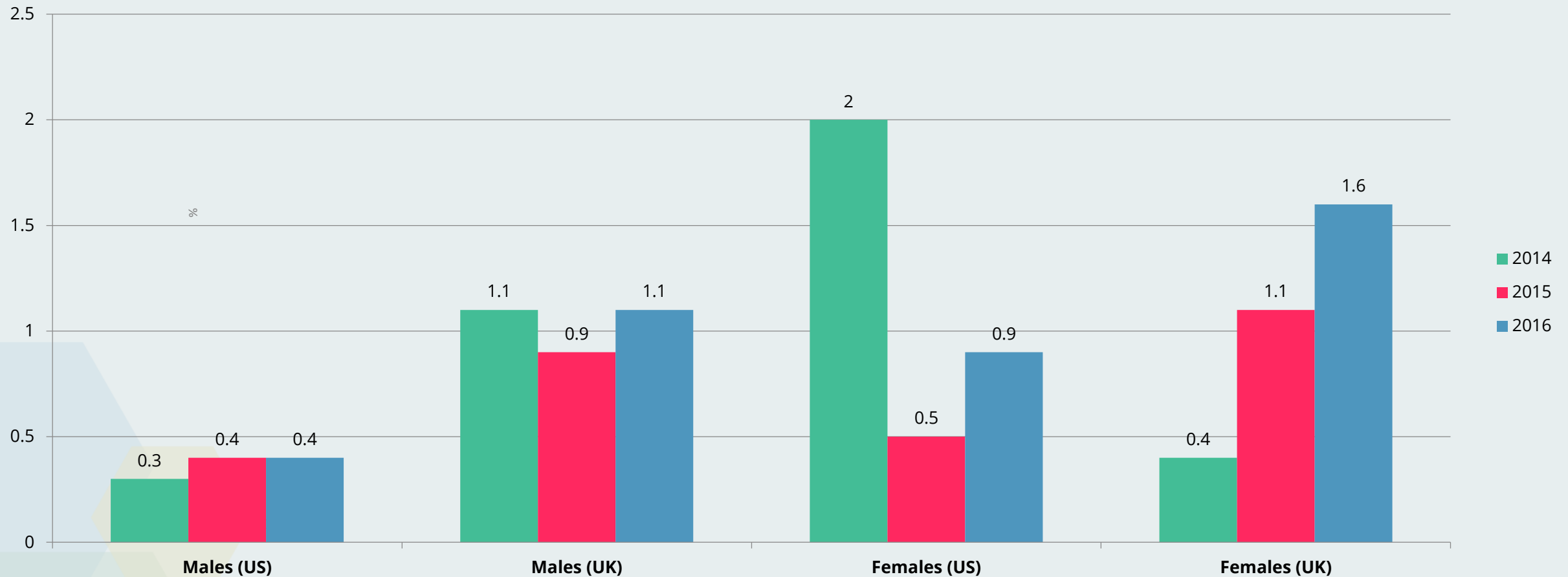
NEWS

**YOUNG WOMEN MOST AT RISK FROM ECSTASY HOSPITALISATION**

Females most at risk from stronger-than-ever pills



# % of last year users of MDMA among US and UK clubbers who sought Emergency Medical Treatment

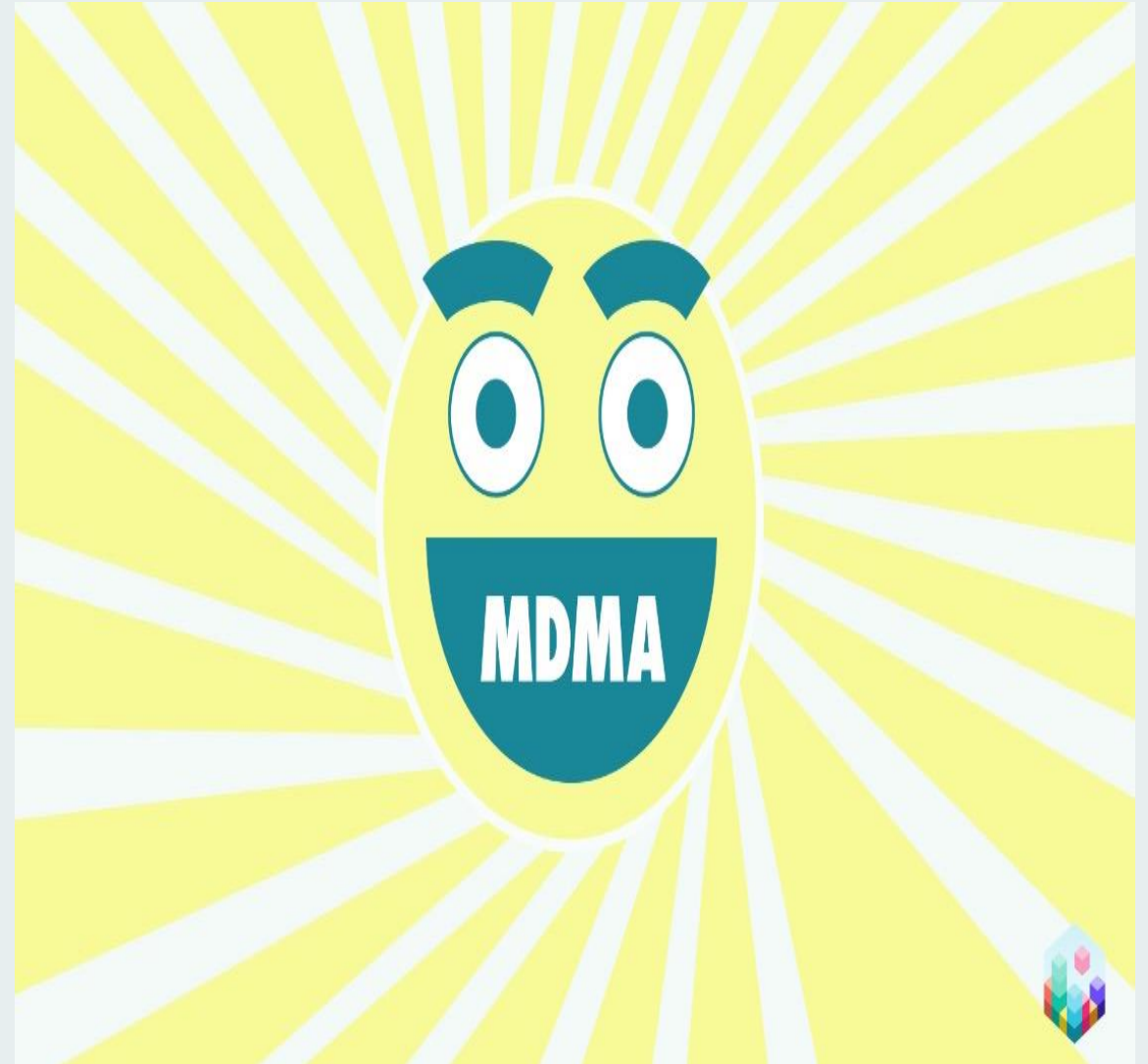




## Dosing for pleasure and why 'less' is often more

'safer drug use is more enjoyable drug use and accepting that pleasure drives drug use not the avoidance of harm might help us to start having healthier and more useful conversations with people who choose to use drugs'

I believe we are missing a huge opportunity and one that is easier to start implementing than changing drugs laws. In fact, the recent failure of UNGASS to significantly shift from zero tolerance to one of adult acceptance that drugs can enhance people lives and that there are other approaches in addition to regulation that might help reduce drug related harm, means we have to change the conversation now.



Let me stay with MDMA as an example. Data from over 50,000 ecstasy users collected as part of GDS2015 and GDS2016 suggest that just under 1% of ecstasy users sought emergency treatment following the use of pills and powders sold as MDMA in the previous 12 months. Young women seem more likely to present than men (unrelated to body size or consumption patterns) with a rate 2-3 times higher than men. At the time of writing in mid-2016, the drug that causes the most issues in things sold as MDMA or ecstasy is still, in most cases, MDMA itself. While drug checking has a role to play, just knowing what's in your pill or powder does not make it safe.

**What moderates the risk of drug related harm more than anything else is the way the drug is used.** If governments don't provide people with the right information in a credible and authentic way, then they only have themselves to blame if they use in a reckless and risky fashion.

## **Its easy too take too much MDMA**

You never know just how much MDMA (if its MDMA at all) you might be taking in a pill or when you dab your finger into a baggie of powder.

*Start low*

*Go slow*

*Until you know*

## Purity, potency, dose, strength, quality (and bioavailability).

These words often get confused with each-other. Purity is the percentage of a powder that contains the drug you are interested in. If you buy one gram of MDMA crystal and it has 870mg in it, then it is 87% pure. It is inappropriate to talk about the purity of pills/tablets since by necessity you have to add binders and fillers to make your tablet (the important thing in a pill is how much active ingredient there is). Potency is to do with the dose (amount) of a drug you need to take to get an effect. Potency helps you understand how many doses you might get from a given amount of a drug. A drug like LSD is very potent. A dose of 100 micrograms (a microgram is a millionth of a gram) would be a usual dose so you get 10,000 doses from a gram. Compare than to MDMA where you might get 10 doses from a gram. Strength does not mean very much apart from suggesting that a usual dose packs a heavy punch. A better term for 'strong pills' (referring to the high dose pills in circulation at the moment across much of Europe) would simply be 'high dose pills'. Quality comes down to bang for buck for most people – a quality drug is one that produces the desired effect at the dose you planned on taking without too much unwanted stuff. To this end for me at least a pill containing 300mg of MDMA is not a quality pill. It's got too much drug in it.

### **Bioavailability**

From a manufacturing chemists point of view quality might also need to take into account the quality of the 'build' of the tablet. And this has real importance to the end user in terms of how quickly you come up after swallowing a pill. How quickly the effects come on with MDMA is all do with how quickly you absorb the drug into your blood stream. Hard tablets come on slowly (they take longer to breakdown and release the drug), whereas crumbly/ moist tablets or crystals probably come on much more quickly, particularly if crystal is dissolved in a drink. Of course there are other things that determine how quickly you come up apart from whether your pill is hard or crumbly. Bigger dose pills will come on more quickly and more intensely, if you have food in your stomach it will take longer for the drug to come on and of course more toxic contaminants like PMMA come on very slowly. So when you test dose remember there are more things at work than just what is in the pill.

## Less, is often more

Of course giving advice on illicit drug dosing is complicated. And dosing is easier with some drugs (cocaine and cannabis) than others (LSD for example). Currently one of the issues facing users is that higher dose pills and high purity MDMA powers can make safer dosing more difficult and it very easy to inadvertently take too much. But some universal truths still hold most importantly the more you take the greater the effects. For most drugs there is an optimum dose at which the balance of positives and negatives is about as good as it gets.

A dose of about 80mg of MDMA (not necessarily all at once) for most people (without tolerance and assuming average body weight) gives them the pleasurable effects of **e**nergy, **e**uphoria and **e**mpathy, which outweigh the negative effects that become more common with bigger doses such as nausea, panic, paranoia, agitation and gurning. Higher doses tend to leave people feeling too wasted for too long and being less able to enjoy the people around them and their environment. More MDMA is not more fun.

The current average dose of MDMA used in a session across many countries is over 200mg. GDS thinks for most people this too much. While people who die from MDMA tend not to take huge doses, bigger doses of MDMA can make you more vulnerable to MDMA related harms like overheating and cardiovascular problems. Using less MDMA less often for most people might actually be a way to a better time.



# 10 good reason to use less MDMA less often

Other than having an enhanced experience there are other benefits of keeping your dose down and using less frequently. These include a less intense and prolonged comedown and the avoidance of tolerance. It might surprise you that most users of MDMA use 10 times or less per year. Using less than monthly gives your brain (especially serotonin levels) and body time to recover and return to baseline

- 1) More enjoyable experience
- 2) Better value for money
- 3) Less risk of unwanted effects
- 4) Less severe comedown
- 5) Less risk of seeking emergency medical treatment
- 6) Less development of tolerance so less need to mix drugs
- 7) Saves you money
- 8) Less risk of overheating and dehydrating
- 9) Quicker recovery
- 10) Less likely to be a burden on your mates if they have to take care of you

There are lots of ways to have fun

Using drugs is not common. And not always fun.

Most people have never used an illicit drug and have lots of fun in their lives.

People who use illicit drugs should not think everyone else uses drugs and that drug use is typical behaviour for most people.

But then neither is mountain biking, rock-climbing or surfing.

# HAVE MORE FUN!



## Some questions

**Is it OK to acknowledge that taking drugs can be fun when you are trying to inform people of the risks?** Yes. People who take drugs know they can be fun – if you can't be honest about that why should they listen to anything you have to say?

**Is it OK to say 'have more fun'?** If it means people think about using drugs in a safer fashion and are less likely to end up in A&E or dead, then yes. And GDS is very clear that drugs are not always fun, they can ruin lives and you can never be sure when you take drugs whether your night will be fun or a nightmare.

**Does this not encourage drug use?** Our advice and output is for people who have already chosen to use drugs. We would never encourage anyone to start using drugs.

Although it would be nice if all MDMA manufacturers agreed to produce standard pills of 100mg with a cross allowing easy breaking into 4 equal doses this is 'planet earth' in 2016. Other than keeping a close eye on your mates and getting help if you are worried, 3 things would make a huge difference to most people. It isn't rocket science - harm reduction rarely is!

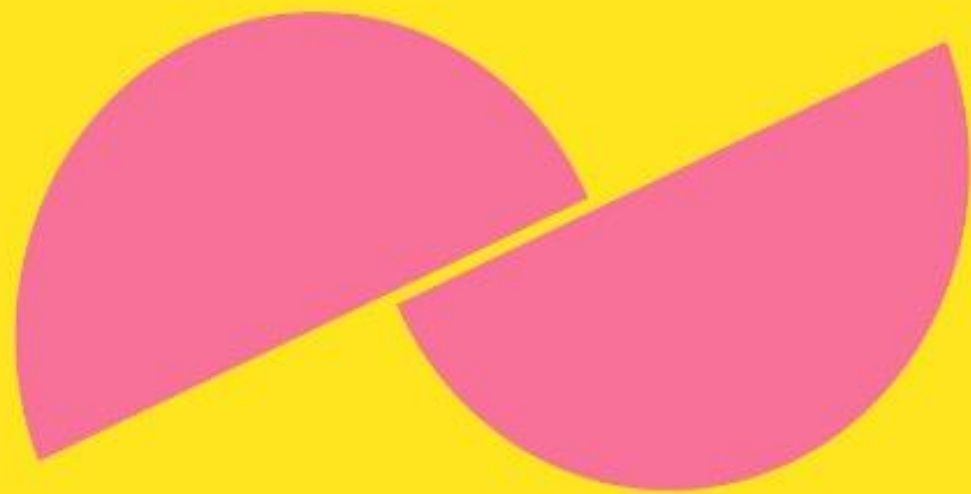
- 1) Aim to use less MDMA (typically <150mg in a session in 2-3 divided doses) and use it more smartly (stay cool and hydrated). If you are using pills try half or a quarter first. If you are using powder or crystal the Loop's advice of #crushdabwait is good to follow.*
- 2) Try not to use more often than once every month (or 2 or 3 months - saving it for special occasions can really help to magnify the enjoyment).*
- 3) Try to avoid / minimise mixing with other drugs and / or alcohol. 90% of those seeking emergency medical treatment had used alcohol and / or other drugs.*

**More MDMA is not more fun. #dontbedaftstartwithhalf**

Please make sure you understand I am not saying that lower doses of MDMA are safe, but generally moderation reduces the risk of harm. **Nothing you read here and nothing you do when you take drugs can reduce the risk of harm to zero. The only way to avoid drug related harm is not to use drugs.** But to any critics of my advice I say this. It doesn't matter how you get there, as long as people who choose to use drugs adopt safer use strategies and reduce their risk of ending up in the emergency department (or worse). GDS does not want people to start using drugs but we respect the decision of those that do. We want people to know that taking drugs is risky and what they do when they take drugs matters. People need to take responsibility, We want just want to help them stay safe.

Most people who use drugs are not idiots and don't want to ruin their night or their lives. So the next time you get some MDMA be mindful of the fact that more MDMA might not be more fun. **Less is more.**

**DON'T BE DAFT  
START WITH HALF**





If you found this report interesting and want to know what else we can offer please e-mail us at [info@globaldrugsurvey.com](mailto:info@globaldrugsurvey.com)

Please also **take just 5 minutes** to take part in the first ever GDS mini survey at [www.globaldrugsurvey.com/GDS2016.5](http://www.globaldrugsurvey.com/GDS2016.5) where we will explore drug-vaping, drug checking, what to do if your mate passes out and the use of psychedelics.

**GDS2017 launches in November 2016** if you would like to take part or help promote it in your country please contact us.

Until then have a safe happy summer

Dr Adam R Winstock  
On behalf of the Global Drug Survey team everywhere  
[adam@globaldrugsurvey.com](mailto:adam@globaldrugsurvey.com)

