Cannabis – and the waft of change

*Glasgow June 2016*

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Honorary Reader University College London
Founder & Director Global Drug Survey
Lots of this stuff & data is on our website www.globaldrugsurvey.com and GDS YouTube Channel
We run the biggest drug survey in the world

- GDS 2012 : 15,500
- GDS 2013 : 22,000
- GDS 2014 : 77,000
- GDS 2015 : 100,000
- GDS 2016 : 100,000
- GDS2 2017 : target 250,000

If you want to join...ask
Some recent publication derived from GDS research


10. Winstock AR, Barratt MJ Synthetic cannabis comparison of patterns of use an effect profiles with natural cannabis Drug and Alcohol Dependence 2013

GDS wants to make drug use safer regardless of the legal status of the drug
Cannabis in Scotland – GDS2015 (n > 450 users)

Days used in the last 12 months

- 2.3
- 19.9
- 19.3
- 17.8

Method of use

- Joint
- Pipe
- Vapouriser
- Bong
- Food
- Bucket bong
- Blunt

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Global Drug Survey GDS2015©
Most used 0.5-1gm /day; 3-4 joints /gm
Global EMT rate was 1.0%
Cannabis – Global Emergency Medical Treatment Seekers (N=434)

Preparation of cannabis used (%)
- High-potency / hydroponic: 50.9%
- Herbal: 34.4%
- Resin / hash: 13.4%
- Butane hash oil: 1.2%

Symptoms presented with
- Anxiety
- Feeling scared
- Paranoia
- Breathing difficulties
- Agitation
- Chest pains
- Mood problems
- Extreme sweating
- Nausea
- Visual hallucinations
- Auditory hallucinations
- Accident
- Inability to talk
- Seizures / fits
- Aggression
- Bladder / kidney problems

Dr Adam R Winstock 2015

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1) So most people who use cannabis are pretty OK with their cannabis – though most could use more safely
2) Quite a few cannabis users would like to use less, reduce their risk of harm and would benefit from a little support
3) 10-15% are probably dependent and would probably be better off using less / stopping though they might need a nudge to see this
4) 5-10% might benefit from a medically assisted detox
5) 10-20% may need some psychiatric/psychological support
6) Almost all could do with stopping smoking tobacco
7) For a minority can cause serious mental health harms
Those with mental illness/young are different - vulnerable
Harm reduction

• Safer use strategies – most acceptable where minimal impact on pleasure/cost
Harm reduction

- Safer use strategies – most acceptable where minimal impact on pleasure/cost

Reducing use

- Cutting down/reducing use – amount/frequency/time stoned/increase non drug activities

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tobacco / vaporizer

amount/frequency

‘t break’

hours/day not stoned
Harm reduction

- Safer use strategies – most acceptable where minimal impact on pleasure/cost

Reducing use

- Cutting down/reducing use – amount/frequency/time stoned/increase non drug activities

Stopping use

- Preparing for cessation/withdrawal management/maintaining abstinence/assessing /treating co-morbid conditions
The waft of change
Does what you smoke make a difference?

• The impact of higher potency cannabis will depend in part on the THC/CBD ratio and whether users are able and willing to titrate their consumption as they might alcohol.

• Evidence suggest users will use less and inhale less deeply but overall stronger preparations lead to higher THC consumption....and problems?
Examining the profile of high-potency cannabis and its association with severity of cannabis dependence

T. P. Freeman1* and A. R. Winstock2

1 Clinical Psychopharmacology Unit, University College London, London, UK
2 Institute of Psychiatry, King's College London, Camberwell, UK

Background. Cannabis use is decreasing in England and Wales, while demand for cannabis treatment in addiction services continues to rise. This could be partly due to an increased availability of high-potency cannabis.

Method. Adults residing in the UK were questioned about their drug use, including three types of cannabis (high potency: skunk; low potency: other grass, resin). Cannabis types were profiled and examined for possible associations between frequency of use and (i) cannabis dependence, (ii) cannabis dependency.

Results. Frequent use of high-potency cannabis predicted a greater severity of dependence. [Days of skunk use per month: $b = 0.254, 95\%$ confidence interval (CI) 0.161–0.357, $p < 0.001$]. and this effect became stronger as age increased ($b = 0.006, 95\%$ CI $0.010$ to $0.002$, $p = 0.004$). By contrast, use of low-potency cannabis was not associated with dependence. [Days of other grass, resin use per month: $b = 0.025, 95\%$ CI $0.019$ to $0.067$, $p = 0.245$]. Frequency of cannabis use (all types) did not predict severity of cannabis-related concerns. High-potency cannabis was clearly distinct from low-potency varieties by its marked effects on memory and paranoia. It also produced, and more available.

Conclusions. High-potency cannabis use is associated with an increased severity of dependence, especially in young people. Its profile is strongly defined by negative effects (memory, paranoia), but also positive characteristics (best high-preferred type), which may be important when considering clinical or public health interventions focusing on cannabis potency.

Received 9 January 2015; Revised 18 May 2015; Accepted 19 May 2015; First published online 27 July 2015

Key words: Addiction, cannabinoid, cannabis, delta-9-tetrahydrocannabinol, dependence, marijuana.

Introduction

There is huge variation in the types of cannabis (marijuana) available worldwide (UNODC, 2014). This is evident in illicit markets and also legal ones. For example, an unprecedented number of cannabis products and preparations are now available in Colorado (Coombes, 2014). By contrast, sales in Uruguay may be restricted to five strains only, with an upper limit on potency (Coombes, 2014).

Cannabis potency is typically judged according to concentrations of delta-9-tetrahydrocannabinol (THC), the primary psychoactive cannabinoid. However, the cannabis plant contains many other cannabinoids, most notably cannabidiol (CBD). These other cannabinoids (and possibly other plant chemicals known as terpenoids; Russo, 2011) contribute to potency by moderating the effects of THC. For example, CBD can block or dampen the effects of THC across a range of domains (Zuardi et al., 1982; Morgan & Curran, 2008; Morgan et al., 2010a,b; 2012; Englund et al., 2012; Hindocha et al., 2015). These findings concur with users’ ratings of cannabis potency, which are positively correlated with THC and negatively with CBD (Freeman et al., 2014).

Natural cannabinoid synthesis (and therefore cannabis potency) is influenced by a range of factors including genetics, growing conditions (especially light), harvest time, and part of the plant used, drying, storing, and processing (Potter, 2014). Most products can be classified into three broad types: (1) high potency – indoor-grown flowering material of unfertilized plants, whereby energy is diverted from seed production to cannabinoid synthesis (‘skunk’, ‘sinsemilla’ meaning ‘without seeds’); (2) low potency – outdoor-grown imported floral material (‘herbal’, ‘grass’, ‘weed’); and (3) compressed blocks of plant material (‘resin’, ‘hashish’). Skunk is characterized by the highest THC content (~15%), followed by imported herbal/grass (~9%) and then resin (~5%), although there is considerable variation within these categories (Hardwick & King, 2008). Concentrations of CBD are
• ROUTE

• Route of use modifies many things
• Speed of onset of effect
• Duration of effect – ability to titrate dose
• Bioavailability/waste
• Oral v smoking
• Oral – no waste but leads to production of secondary active metabolites and a two phase sequence of intoxication
• Passage through water cools smoke but removes THC
Cannabis is the gateway drug

- Cannabis appears to increase tobacco use
- Cannabis use associated with poorer outcomes for tobacco smoking interventions
- Tobacco use associated with poorer substance abusing treatment outcomes*
- Worse withdrawal from both either alone
- Function, culture and economy – hard to challenge

Water pipes and bongs are not safer

- The use of water pipes or bongs which some believe are safer because they cool and filter smoke of toxins may be erroneous since they filter out more THC than they do tar resulting in greater tar delivery to the lungs (Gieringer 2001).

- If a person smokes the safest methods are either using a **unfiltered joint without tobacco or a vapouriser** which heats the plant material releasing the THC as a vapour but avoiding combustion (EMCDDA monograph 2008).
The Observer

Let's be honest about the risks and the pleasures for drug users

Britain's drug policy focuses on abusers already receiving treatment, rather than recreational users
Starting point- getting stoned can be nice

• Effective harm reduction approaches that lead to change in the real world need to occur through a dialogue – and exchange of ideas and knowledge that starts with respect for the choices of individuals – some of whom choose to get high.

• For those who get high, enjoy getting high and continue to live a life they/others are content with our aim is to minimize risk of acute and longer term health harms and prevent the loss of control that leads happy use to dependent / problematic use

• For those for whom cannabis is a major problems or problem in one part of their life we need to focus more broadly on the ultimate form of risk reduction – cessation
DOWNLOAD: FREE GLOBAL DRUG SURVEY HARM REDUCTION GUIDES

The new issue of Hot Press, out today with Damon Albarn on the cover, contains the exclusive Irish findings from the Global Drug Survey.

The Hot Press Newsdesk, 17 Apr 2014

GLOBAL DRUG SURVEY

The data from the almost 80,000 respondents worldwide has lead to the compilation of The High-Way Code: A Guide To Safer, More Enjoyable Drug Use.
ALREADY DOWNLOADED **OVER 10,000 TIMES**
INTRODUCING THE GDS HIGHWAY CODE

GDS knows pleasure drives drug use, not the avoidance of harm. As far as we know, no guide has ever outlined the impact of harm reduction strategies on the pleasure users obtain from drugs... until now...

GLOBAL DRUG SURVEY

Ours is a simple premise: as with driving, there are things you need to know and 'rules' you should observe in order to get you to your destination safely. Being aware of these makes you much more likely to get to your planned destination in one piece and much less likely to cause harm to anyone around you.

Please share these findings, they really are important.

www.globaldrugsurvey.com
HOW TO READ THE HIGH-WAY CODE

This number indicates the percentage of people who told GDS they usually follow the strategy.

Users who usually do

This dial tells you how important users thought this strategy was in reducing the risk of harm.

Reducing risk from 0–10

Here you can check how many users thought this strategy increased, decreased or didn’t affect their pleasure.
There are many forms of cannabis. Regardless of whether you use herbal, oil or resin the things that increase the risks of harm most are smoking and mixing with tobacco. Work done by GDS suggests that most people would prefer a stronger but more balanced weed than the high THC potency forms that seem to dominate the market.

**Usual dose**: 50-250 mg
**Time to onset**: 2-10 min
**Time to peak**: 20-60 min
**Duration of action**: 2-8 hrs
**1** DON’T MIX WITH TOBACCO

- **33%** Users who usually don’t mix with tobacco
- **75%** Users who mix with tobacco but would consider not doing so

*as ranked by GDS panel of experts on cannabis and tobacco

Importance in reducing risk

**1** USE VAPORISER

- **8%** Users who usually do
- **80%** Impact on cannabis-related pleasure

Importance in reducing risk

---

**1** DON’T MIX WITH TOBACCO

- Do not mix tobacco with your cannabis

Smoking cannabis and tobacco together results in greater health risks than smoking either alone. Both cannabis and tobacco smoke cause respiratory problems and can increase the risk of cancer. Not mixing cannabis with tobacco reduces the risk to your health. Importantly, it also reduces your chances of becoming a regular tobacco smoker.

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**1** USE VAPORISER

- Use a vaporiser instead of smoking

Smoking cannabis is the most dangerous way of using it. Burning cannabis is the thing that releases tar and cancer causing chemicals. Unlike a joint or bong, a vaporiser heats cannabis to below its combustion temperature to produce a vapour. This means that the THC is released but the smoke containing tar and toxins is significantly reduced. Whilst the evidence is not conclusive, it is likely that vaporisers reduce the risk to your lungs. It is also likely that some types of vaporisers are better than others in protecting your health.
2. Avoid driving and cycling

Cannabis

68% Users who usually do

7.7 Importance in reducing risk

14% 68% 18% Impact on cannabis-related pleasure
Avoid using during the day.

79% of users who usually do cannabis-related activities.

7.0: Importance in reducing risk.

Impact on cannabis-related pleasure:
- 9% Unhappy
- 54% Neutral
- 37% Happy
6 | HAVE 3–4 WEEK BREAKS

59% Users who usually do

Importance in reducing risk

Impact on cannabis-related pleasure
9 | AVOID INHALING DEEPLY

Users who usually do

30%

Importance in reducing risk

5.3

Impact on cannabis-related pleasure

16% 58% 26%
Harm Reduction: suggestions

* Don’t mix with tobacco
* Don’t hold smoke in lungs – don’t get more stoned but will increase tar and carcinogens in contact with lungs
* Don’t inhale too deeply – sucking on a bong or using a bucket may cool smoke but will also force smoke deeper into lungs
* Remove stalks, leaves etc
* Don’t use a cigarette filter – will reduce cannabis/tar ratio 30% less cannabis; 60% more tar
* Don’t use too many papers (hemp v tree?)
* Clean bong/pipes thoroughly
* Don’t use plastic bottles/pipes/aluminium foil etc as can increase toxic fumes.
* Buy a vapouriser

*taken from rom the drugs meter*
QUIT ATTEMPTS/DETOX

preparation

Diary
Cut down
Reduce tobacco NRT
Psych-education
Dealers/mates/$$
Family

withdrawal

Night sedation
Anxiolytics?
Sleep hygiene
Tobacco – NRT

relapse prevention

Group
1:1
Diary
Sleep hygiene
Tobacco – NRT
Mood/psych disorders

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First step cut down

• Smaller spliffs – smaller skins
• Less cannabis / spliff
• Put the spiff out
• Less caffeine top compensate for sedation
• Limit access/ time to smoke – non smoking activities
• Delay first time to first spliff

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Until we have an evidence base and access to meds ..what do we do to help?

- Does it matter......?
- Psycho education and CBT/MI first line
- Consider abuse liability if meds are used
- Timing and duration of treatment
- Consequences of cessation on other diseases / prescribed medications efficacy/toxicity
- Situational factors
- The role of in patient

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Typical regime

• 4-7 days
• Diazepam 5mg t.i.d
• or
• Zopiclone 7.5mg o.d
• +/- NSIADs/paracetamol/anti-emetic
• Caffeine avoidance
• **Sleep hygiene**
• NRT
Sleep

• Sleep hygiene
• Rebound REM
• Dreams
• Caffeine
• Alcohol substitution
• Sleep management advice
### Withdrawal management summary

<table>
<thead>
<tr>
<th>Advice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advise gradual reduction in amount used prior to cessation.</td>
</tr>
<tr>
<td>Suggest delaying first use till later in the day</td>
</tr>
<tr>
<td>Suggest patient considers use of NRT if planning to stop independent tobacco use at same time.</td>
</tr>
<tr>
<td>Advice on good sleep hygiene with avoidance of caffeine that may exacerbate irritability, restlessness and insomnia.</td>
</tr>
<tr>
<td>Relaxation, progressive muscular relaxation, distraction</td>
</tr>
<tr>
<td>Psycho-education for user and family members as to nature, duration and severity of withdrawal.</td>
</tr>
<tr>
<td>Cue and trigger avoidance</td>
</tr>
<tr>
<td>Symptomatic short term medication provision of analgesia and sedation if required.</td>
</tr>
<tr>
<td>If irritability and restlessness marked consider limited provision of very low dose diazepam for 3-4 days</td>
</tr>
</tbody>
</table>

Dr Adam R Winstock 2015
ACUTE HARMs

EASY TO UNDERSTAND AND QUITE POSSIBLE TO AVOID FOR MOST
What % of people had sought emergency medical treatment following the use of drugs/alcohol in the last 12 months? (global)

<table>
<thead>
<tr>
<th>Drug</th>
<th>EMT last 12 months</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol</td>
<td>1.2</td>
<td>1.0</td>
<td>0.6</td>
</tr>
<tr>
<td>Cannabis</td>
<td>3.5</td>
<td>2.2</td>
<td>0.9</td>
</tr>
<tr>
<td>Synthetic Cannabis</td>
<td>0.6</td>
<td>0.5</td>
<td>1.8</td>
</tr>
<tr>
<td>Cocaine</td>
<td>3.5</td>
<td>1.1</td>
<td>1.8</td>
</tr>
<tr>
<td>Research chemical</td>
<td>0.6</td>
<td>0.5</td>
<td>1.8</td>
</tr>
<tr>
<td>MDMA / Ecstasy</td>
<td>2.3</td>
<td>2.2</td>
<td>2.3</td>
</tr>
<tr>
<td>Ketamine</td>
<td>0.5</td>
<td>0.5</td>
<td>2.2</td>
</tr>
<tr>
<td>Any drug</td>
<td>1.8</td>
<td>1.8</td>
<td>1.3</td>
</tr>
</tbody>
</table>

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Potency

• Most many times more potent full receptor agonist at CB1 receptors – may modulate other systems e.g. opioid/serotonergic

• Some 100s times more potent than THC

• Impact upon activity include psychoactivity, analgesia, anti-seizure, weight-loss, anti-inflammatory, and anti-cancer growth effects.

• Variable product composition means one joint can vary from the next from the braded batch by a factor of 10 or more
FIGURE. Number of telephone calls to poison centers reporting adverse health effects related to synthetic cannabinoid use, by week — National Poison Data System, United States, January–May 2014 and 2015

3,572 calls related to synthetic cannabinoid use, a 229% increase from the 1,085 calls

M>>F
Mid 20s
Severity greater with increasing age
Poly use

20% by ingestion

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What % of people had sought emergency medical treatment following the use of drugs/alcohol in the last 12 months? (global)

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<td>1</td>
<td>1</td>
<td>1.1</td>
</tr>
<tr>
<td>Synthetic Cannabis</td>
<td>3.5</td>
<td>3.2</td>
<td>3.4</td>
</tr>
<tr>
<td>Cocaine</td>
<td>0.6</td>
<td>0.6</td>
<td>0.7</td>
</tr>
<tr>
<td>Research chemical</td>
<td>2.2</td>
<td>2.3</td>
<td>2.0</td>
</tr>
<tr>
<td>MDMA / ecstasy</td>
<td>0.9</td>
<td>0.7</td>
<td>1.3</td>
</tr>
<tr>
<td>Ketamine</td>
<td>0.5</td>
<td>0.3</td>
<td>1.0</td>
</tr>
<tr>
<td>Any drug</td>
<td>1.8</td>
<td>1.8</td>
<td>1.9</td>
</tr>
</tbody>
</table>

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Symptom profile in emergency treatments seekers
Winstock et al 2015

SC users also reported a greater number of symptoms than cannabis users, suggesting increased symptom-clustering.
<table>
<thead>
<tr>
<th></th>
<th>CANNABIS</th>
<th>SC</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Hospitalised</td>
<td>18</td>
<td>48.7</td>
</tr>
<tr>
<td>Time to Recovery</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 hours</td>
<td>15</td>
<td>40.5</td>
</tr>
<tr>
<td>12 hours</td>
<td>5</td>
<td>13.5</td>
</tr>
<tr>
<td>24 hours</td>
<td>6</td>
<td>16.2</td>
</tr>
<tr>
<td>48 hours</td>
<td>2</td>
<td>5.4</td>
</tr>
<tr>
<td>72 hours</td>
<td>1</td>
<td>2.7</td>
</tr>
<tr>
<td>96 hours</td>
<td>1</td>
<td>2.7</td>
</tr>
<tr>
<td>1-2 weeks</td>
<td>2</td>
<td>5.4</td>
</tr>
<tr>
<td>2-4 weeks</td>
<td>1</td>
<td>2.7</td>
</tr>
<tr>
<td>&gt;4 weeks</td>
<td>3</td>
<td>8.1</td>
</tr>
<tr>
<td>Not yet</td>
<td>1</td>
<td>2.7</td>
</tr>
<tr>
<td>TOTAL</td>
<td>37</td>
<td>100</td>
</tr>
</tbody>
</table>

ODDLY

For both cannabis and SCs no difference in the prevalence of EMT among those who had a mental health diagnosis (0.95%) and those who did not (and no difference was observed in EMT prevalence according to being in current receipt of a mental health prescription or not.

Winstock et al 2015
The risk of seeking emergency medical treatment is at least 30 x times greater after taking synthetic cannabis products than natural cannabis.

(Winstock et al J Psychopharmacology 2015)
Common acute medical presentations

Agitation
Anxiety / panic
Tachycardia / increase BP
Chest pain
Shortness of breath / depressed breathing
Drowsiness or lethargy
Nausea & vomiting
Muscle twitches
Hallucinations / paranoia
Seizures
Suicidal ideation
Violence aggression

10% severe / life-threatening
50% require some sort of treatment
40% mild transient
Acute management - control and minimize the risk

• Symptomatic management with medications / behavioral control
  • Seizures
  • Violence – risk of harm to self and others
  • Labile blood pressure
  • Overheating / vomiting & dehydration
  • Consider synthetic cannabinoid withdrawal and managing it in those admitted

• Consider other underlying medical / psychiatric conditions and other substances

• Investigations – sample of the drug for future analysis, blood samples for renal and liver function

• Psychiatric admission and assessment where required

• Follow up – medication review, relapse prevention, behavioral sensation

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Fatalities
Cardiac
Liver
Kidney
Trauma
"The reality is if you put most people on a desert island, and they have access to good quality cocaine, MDMA or cannabis, very few research chemicals would get a look in."

Biggest motivation for their use is PRICE (GDS2015)
NEW FORMS,
NEW RISKS
THE GROWTH IN POTENT CANNABINOID USE
Drugs Meter

From the photos below please select the type of cannabis/marijuana you used most in the last month.
Each shows a gram of each:

- Normal grass or other types of grass
- High potency grass, e.g. skunk or hydro
- Resin or hash
Drugs Meter

Which of the following photos is closest to the typical amount you use in a joint?

On a typical day of use, how many of the above joints would you smoke?

On a typical day of use, how much do you spend on cannabis?
Drugs Meter

Comparison to all:
You thought you were average. Compared to all users your drug use is in fact high average.

Top 5%: 160 grams
Top 15%: 90 grams
Extremely high: 60 grams
Very high: 30 grams
High: 40 grams
High average: 32 grams
Average or low: 0-30 grams
Drugs Meter

You told us that on a typical day of use, the amount you use is:

0.4 grams

2 joints

Usage: Yearly

You told us that you use cannabis daily. This would average at a yearly drug use of:

6 grams

60 joints
Drugs Meter

Spend
You told us that on a typical day of use you spend £10 on cannabis.

Based on your frequency of use you spend on average:

- A weekly spend of: £70
- A monthly spend of: £280
- A yearly spend of: £3,360

Information
- Drugs basics

Next
LETTER

Cannabis regulation

Cannabis regulation: the need to develop guidelines on use  Winstock A 2014

Dr Adam R Winstock 2015
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
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

Dr Adam R Winstock 2015
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.
DISCLAIMER

Given the huge evidence that drug and alcohol use before the age of 18 can cause long lasting impairments in your cognitive and emotional ability, GDS stresses that this site is strictly for those over 18 years of age.
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 (selected)
- Twice a month
- 1–2 times a week
- 3–4 times a week
DOES IT MATTER WHAT TYPE OF CANNABIS I AM USING?

Probably yes. In short, high potency herbal cannabis (skunk/hydro) which is high in THC and low in CBD is associated with more memory problems, paranoia and is more likely to trigger serious mental health problems in young people with an underlying vulnerability to developing psychotic illness. Work done by GDS also suggests that ‘skunk’ is associated with higher rate of dependence and people wanting to use less (seems to end abruptly).
On a typical day of use, how much cannabis do you use?

- Very low (0.25gm or less)
- Low (0.25–0.5gm) [selected]
- 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 ← 2 ← FREQUENT

1 2 3 4
1 2 3 4
1 2 3 4
2 3 5 6

2 Low
Low use once a month

Summary: Accidents, short lived unwanted psychological and physical effects, increased risk of nausea/impairment if you drink.
### Your score

<table>
<thead>
<tr>
<th></th>
<th>INFREQUENT</th>
<th>FREQUENT</th>
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**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)

Dr Adam R Winstock 2015
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WHAT SORT OF USER AM I? +

THE RISKS? +

HOW TO DECREASE YOUR RISK? +

Further reading

CANNABIS BASICS AND HEALTHIER USE >
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.