Early results of the headline findings from Colombia P2

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MYSTERY WHITE POWDERS

GLOBAL PATTERNS OF USE & COUNTRY PREVALENCE
Background

• With the rise in myriad novel psychoactive substances many of them crystalline white powders whose composition gives little or no clue as to their composition, the possibility that people will be ingesting a substance which is totally unknown to them is reality.

• The risks consequent upon taking unknown drugs, with widely varying effect profiles, potencies and time to onset are potentially serious.

• Over the last 2 years Global Drug Survey has spotted that between 5-15% of GDS respondents admit to having taken a mystery white powder in the preceding 12 months.

• This year we repeated that question and present comparison and the global picture of what state people are in when they take a mystery white powder and what happens.

• The important message is don’t take unknown pills/powders when you are intoxicated and be aware of the risk of taking drugs from strangers – the issues of sexual assault whilst under the influence is something GDS highlighted 3 years ago.

What we asked and what is presented here

• We asked “In the last twelve months, have you snorted or ingested any powder without knowing what it was, or what it was originally sold as?”

• We compare the percentage of respondents who had consumed a powder without knowing what it was or what it was sold as in the last year from GDS2016 countries.

• We report on the use of drugs / alcohol prior to consumption of the MWP and what the effect was among the 5000+ GDS2016 respondents who took a MWP.
Of all respondents to the survey, 10.7% (N=2059) stated that they had used a mystery white powder within the last 12 months.

Those intoxicated had used:
- Other drugs: 37%
- Alcohol: 22%
- Other drugs and alcohol: 42%

Intoxicated at time of use?
- Yes: 22%
- No: 78%

Overall effect
- Good buzz: 57.3%
- Felt sick: 14.5%
- No effect: 28.2%
- Sought emergency medical treatment: 0%
LAST YEAR PREVALENCE OF MYSTERY WHITE POWDER ACROSS GDS2015 COUNTRIES

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GDS has been tracking the use of MDMA (ecstasy, Molly, Mandy, E) for over a decade. While patterns of use, typical consumption patterns and cost vary widely across the world, it is clear that over the last 30 years MDMA has sustained its mass appeal by consistently remaining a staple in most illicit drug markets. Significant changes since its first appearance in the 1980s include a rise in its use in combination with other drugs especially alcohol, which increase the risks of unwanted effects (as well as diminishing the desirable effects of the drug) and an expansion in its use beyond the dance music / rave scene.

After a 3-year period of dissatisfaction in MDMA (from 2007/8) and restricted access to precursors led to a decline in use due to poor quality and uncertain composition, MDMA is confidently back thanks to new precursors and synthetic pathways for production. The current dominance of MDMA crystal over pills represents smart remarketing and is yet another example of an old drug finding new life with a new preparation. That users prefer powder to pills because of the ease of titration and flexibility over route of use may also have other benefits including supporting ‘test dosing’ a small amount of new batch to avoid inadvertent overdose or ingestion of a large amount of a dangerous contaminant such as PMMA. It also may open the way for injecting which of course would not be so good.
While data from GDS2012 however showed that almost **1 in 3 users** of MDMA could be experiencing significant problems with their use, GDS2013 showed MDMA as the highest ranked drug using the Net Pleasure Index. Thus, it would seem that the overall pleasure and positive experiences associated with the use of the drug, lead few to seek treatment for their use. In line with other expert reviews that tend to suggest that historical fears over long-term use may not be as robust as once thought.

One marked change in the MDMA market has been the rise in popularity of MDMA crystal / powder and the general increase in the quality of the drug due to new precursor availability and routes of synthesis. But better quality MDMA is not without its risks. GDS2015 reported that 0.9% of last year users had sought emergency medical treatment, with rates being being almost twice as high in women (0.7%M v 1.3%F), with young women being most at risk (2.1%) (from 0.3% in Switzerland to 0.9% in the USA). We estimated that the risk of seeking emergency medical treatment per episode of use was as high as 1 in 575 but may be much much lower. While many users adopt sensible harm reduction strategies we could reduce further by better education. One reason may be the the high purity of MDMA powder available in many countries and the gradually escalating amount of MDMA in a pill (100-150mg range would not be uncommon with some pills having a much as 330mg in them. Whether pill testing would make a difference will be explored in GDS2017.
What this section covers:

- The price paid per pill and per gram.
- The most common route of use.
- The mean dose consumed on a day of use.
- Its value for money, changes in quality and ease of access.
- The frequency of use combined with alcohol and cocaine.
- The risk of violence when you get MDMA and the exposure to violence over the last year.
- Finally, the percentage of last year users who sought emergency medical treatment after using MDMA.
Last year use of MDMA types
31% (n=644) of the sample had used MDMA in their lifetime with 504 (24%) having used in the last year.

Thus 78.3% over ever users of MDMA had used within the last 12 month.

Of those using MDMA in last year 86% had used MDMA pills 51% had used MDMA powder.

Price and mean dose
71.5% buy their own Ecstasy
Mean price $7.78 per pill
Mean dose 1.24 pills

58.3% buy own MDMA powder
86.6% buy 1 gram or less
Mean price $33.82 per gram

Average number of lines per gram was 7.65 Average dose 0.25g / session

Route of use
96.8% oral
2.2% snort
0.2% rectal
0.6% smoke

0.2% stated they had ever injected MDMA

Alcohol
4% always drink alcohol,
6.6% drink 50% or 75% of the time,
39.6% never drink alcohol

Seeking emergency medical treatment
Prevalence 0.6% (n=497) of those reporting the use of MDMA in the last 12 month had sought EMT
Global average ecstasy price was €9.00 per pill.

Global average powder price was €45.01 per gram.
Global mean number of ecstasy pills used per session was 1.60

Global mean grams of MDMA powder used per session was 0.28
Over the last 12 months do you think the quality of MDMA has:

- Gone up
- Gone down
- Stayed the same
- Don't know

MDMA & Violence

5% stated that they had been exposed to violence in the last year when attempting to buy MDMA.

4.5% on one occasion and 0.5% more than twice

This indicates that a small proportion of those buying MDMA are placing themselves in risky situations.
MDMA users who sought EMT in the last 12 months

Global EMT Rate was 0.8%

MDMA - SOUGHT EMERGENCY MEDICAL TREATMENT IN LAST 12 MONTHS (MIN NUMBER OF USERS IS 100/COUNTRY)
COCAINE
Cocaine remains popular as the stimulant drug of choice for those with money. Available in widely different purities, it also varies widely in price across the world from less than €20/gram in South America, €50/gram in parts of Europe to over €400/gram in Australia. Crack cocaine although less commonly used causes significantly more harm due to both its route of use (smoked or injected) and its overwhelming association with deprivation, criminality and with heroin use especially in the UK and Europe.

In GDS2013 and GDS2014 cocaine was voted the worst value drug for money in the world with an average score of 2.5/10. This year GDS continues to track the use of cocaine and its impact on users health and bank balance and to see if the existence of two and even 3 tier market is leading users to once again invest in a white powder than for many years has been delivering little while costing lots.

What this section covers:

- The price paid per gram
- The most common routes of use
- The mean dose consumed on a day of use
- Its value for money, changes in quality over the last year and ease of access
- The frequency of use combined with MDMA and cocaine
- Whether or not there is a premium and economy market and whether paying more for your cocaine is worth it
- The risk of violence when you get cocaine and the exposure to violence over the last year
- The % of last year users who have sought emergency medical treatment after using cocaine
Global average price for normal cocaine was €66.00

Global average price for luxury cocaine was €99.74

Global average price for normal cocaine was €66.00

Normal Cocaine - Price Per gram

Luxury Cocaine - Price per gram

GLOBAL PRICE PER GRAM – COCAINE IN EUROS

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Cocaine — Typical number of grams used per session (mean amount)

<table>
<thead>
<tr>
<th>Country</th>
<th>Typical number of grams (mean amount)</th>
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<tbody>
<tr>
<td>Australia</td>
<td>0.41</td>
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<tr>
<td>Austria</td>
<td>0.39</td>
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<tr>
<td>Belgium</td>
<td>0.58</td>
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<td>Brazil</td>
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<td>Canada</td>
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<td>Colombia</td>
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<td>Denmark</td>
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<td>Denmark</td>
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<tr>
<td>Germany</td>
<td>0.33</td>
</tr>
<tr>
<td>Hungary</td>
<td>0.4</td>
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<td>Ireland</td>
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<tr>
<td>Italy</td>
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<td>Mexico</td>
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<td>Portugal</td>
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<td>Scotland</td>
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<tr>
<td>Spain</td>
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<td>Sweden</td>
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<td>Switzerland</td>
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<td>United Kingdom</td>
<td>0.58</td>
</tr>
<tr>
<td>United States</td>
<td>0.52</td>
</tr>
</tbody>
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Last year use of cocaine

72.7% (n=546) had used cocaine last year
61.4% had used on 10 or less occasions
13.4% had used 50 or more times

48.8% always / nearly always drink alcohol when they use cocaine

Price and mean dose

50.2% purchase their own cocaine at the mean price of € 4 /gram

How much in a typical session?

4.4% used 0.5gm or less in a session
48.8% use 2gm or more in a session
Mean amount used on typical days use was 0.8gm (this is about 2 x more than most other countries but less than Brazil)

Mean of 8.38 lines per gram was reported

Route of use

91.6% snort it
5.3% orally
0.6% smoke
0.6% inject
1.9% other

Most used in a session

58.7 % have used 1 gram or more
36.7% have used 2 grams or more
17.3% have used 4 grams or more

Seeking emergency medical treatment

0.4% reported seeking emergency medical treatment in the previous 12 month

Luxury Cocaine

Of those who bought their own cocaine, 44.7% offered cocaine at higher price with promise that it is better quality in the last 12 months

Mean price € 5.60 per gram
61.7% bought it
31.7% thought it was much better

Those presenting to emergency medical departments complained of
Sweating
Palpitations
Anxiety
Confusion
Agitation
Difficulty breathing
Visual hallucinations
Aggression
Paranoia
% of individuals who had sought emergency treatment after consuming cocaine

Global EMT Rate was 0.6%
Has the quality of cocaine changed?

21.2% had been exposed to personal violence in last 12 months at least once when buying cocaine.
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 paper on the topic in the world.

• 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.

Last year we highlighted that the risk of seeking Emergency Medical Treatment was higher following the use of synthetic cannabinoid products than any drug we looked at with over 1 in 30 users seeking EMT in the last year with that figure rising to 1 in 8 of those using more than 50 times. We also identified many users reporting withdrawal symptoms on cessation of use.

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

1) What forms of synthetic cannabinoids people are using

1) What the risk is of seeking emergency medical treatment following use and which countries have the highest rates

2) Who gets withdrawal symptoms when they try to stop and what they experience

The following slides are based on the responses from the 1500 or so last year users of synthetic cannabinoids who took part in GDS2016
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

Of those that used SC in the last 12 months they had tried the following preparations:
- 73.3% herbal
- 10% powder
- 7.5% (n=109) resin
- 3% (n=41) oil
Among our sample the prevalence of use was low except in Mexico, Hungary and Scotland.
Comparing synthetic cannabis to high potency herbal cannabis

We asked last year users of SCs to compare its effect profile with the most common form of cannabis used across the world – high potency herbal cannabis.

The 5 parameters were:
- Ease of titration to desired effect
- Speed of onset of effect after administration
- Duration of Effect
- Time to build up tolerance
- Length of withdrawal

Overall synthetic cannabis can be considered to have a profile that suggest an increased abuse liability compared to natural cannabis with users reporting:

- More rapid onset of effects
- Shorter duration of effects
- More rapid development of tolerance
- Longer withdrawal

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Seeking Emergency Medical Treatment on Synthetic Cannabis

In research published in 2015 GDS has already shown the risk of seeking EMT is at least 30 times greater with SC than high potency herbal cannabis (Winstock et al J Psychopharmacology 2015).

3.6% (n=39) of those reporting the use of synthetic cannabis in the last 12 month had sought EMT (4.2 % of males v 2.4% of females)

32 had used a herbal preparation and 7 had used a powder preparation

How long before you felt back to normal?

17 people (56.7%) within 6 hours
2 (5.1%) not yet back to normal

How did this effect your use subsequently?

23 (59.0%) reduced synthetic cannabis use
6 (15.4%) cut down on other drugs
2 (5.1%) increased other drug use

<table>
<thead>
<tr>
<th>What they presented with</th>
<th>Percentage</th>
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</thead>
<tbody>
<tr>
<td>Panic</td>
<td>59.0%</td>
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<tr>
<td>Scared</td>
<td>53.8%</td>
</tr>
<tr>
<td>Nausea</td>
<td>53.8%</td>
</tr>
<tr>
<td>Fits</td>
<td>53.8%</td>
</tr>
<tr>
<td>Seeing things</td>
<td>53.8%</td>
</tr>
<tr>
<td>Paranoia</td>
<td>51.3%</td>
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<tr>
<td>Breathing difficulties</td>
<td>48.7%</td>
</tr>
<tr>
<td>Low mood</td>
<td>48.7%</td>
</tr>
<tr>
<td>Unable to talk</td>
<td>48.7%</td>
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<tr>
<td>Agitation</td>
<td>46.2%</td>
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<tr>
<td>Hearing things</td>
<td>46.2%</td>
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<tr>
<td>Sweating</td>
<td>43.2%</td>
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<tr>
<td>Overheat</td>
<td>38.5%</td>
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<tr>
<td>Chest pain</td>
<td>30.8%</td>
</tr>
<tr>
<td>Accident</td>
<td>30.8%</td>
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<tr>
<td>Bladder problems</td>
<td>28.2%</td>
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<tr>
<td>Aggression</td>
<td>20.5%</td>
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<td>Nausea</td>
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<tr>
<td>Aggression</td>
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<tr>
<td>Other</td>
<td>17.9%</td>
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Over one in 30 last year users sought emergency medical treatment – the highest of any drug studied by GDS this year
The more often used SC the more likely you were you seek EMT
(based on feedback from around 1000 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 cannabis is pretty equal (1.3 % F v 1.1% M) it seems even accounting for the fact that most SC users are male (4:1) men are more at risk of seeking EMT than women (4.2% of last year male users v 2.4% 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.
Our data from the largest studies of synthetic cannabinoid use in the world suggest that despite numerous attempts at regulating / removing these products from the market there remains a very small group of users for whom they hold some attraction. My experience working within prisons suggests that the huge profit that can be accrued from their sale (2500-5000% mark up) and avoidance of screening positive for drugs drives use among some users. This current GDS data suggests younger, less well educated males may be more at risk of using these drugs. GDS2016 reaffirms the acute risks associated with the use of these products and the diverse range of preparations that are now available

With over in 1 in 7 users reporting use on 50 or more occasions in the 12 months prior to competing the survey seeking EMT, for the third year running these potent cannabinoid agonists remain the most dangerous of all recreational drugs. 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 market only to be replaced by more dangerous (more potent) but uncontrolled ones. Of course it is not only what compound is being used but how much of it and to date there is no reliable way for users to know how much active product they are consuming. While vaporizers may allow volumetric dosing of some products and this might potentially reduce dose risk related it is too early to determine whether they can make what appear to be an inherently risky groups of compounds anywhere near safe. At present the best thing to do is avoid them.

The findings also suggest that synthetic cannabinoid products carry a significant and probably greater risk of dependence and withdrawal than natural cannabis products. The patterns of withdrawal symptoms whilst broadly similar to that seen with natural cannabis occurs at lower levels of exposure with more pronounced physical symptoms including sweaty, palpitations and shaking.

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 reducing the severity of withdrawal.

More research will need to be done to see if our approaches to managing cannabis withdraw are sufficient / effective to manage these more aroused states.

Our data confirms that natural cannabis products although not safe and free from the risk of any harm carry a significantly lower risk of acute harm, dependence and withdrawal.
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.

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 darknet involvement ever done and our findings suggest that like other areas of e-commerce it is here to stay.
Have you ever bought drugs off the dark net*? (%)

Base sample: Ever used illicit drugs, new psychoactive substances and/or prescription drugs
* Includes those who report personally purchasing drugs, arranging for others to purchase drugs OR purchasing on behalf of others from dark net markets.
Only countries with over N=500 are shown.
Have you ever bought drugs off the internet*? (%)

Base sample: All respondents excluding those who reported use of only alcohol/tobacco/caffeine.
* While not specified, the internet includes the dark net.
Only countries with over N=500 are shown.
Which drugs were bought through darknet markets? (%)

The median number of drug types obtained through darknet markets was 2 (IQR 1-5; range 1-50).

37% reported accessing only one drug type.

Note: these figures exclude composite drug categories.

Which drugs have you, or someone on your behalf, purchased through darknet markets?

Valid 7310 of total N 8056

Only the 20 most commonly reported drug types/composites are shown.