The Challenge of New Psychoactive Substances (NPS)

A Presentation for CAD
by Dr Des Corrigan
October 2015
New Psychoactive Substances

• Any substance, natural or synthetic which can produce stimulation or depression of the Central Nervous System in humans resulting in hallucinations or a significant change in motor function, thinking, behaviour, perception, awareness or mood or which causes a state of psychological or physical addiction
New Psychoactive Substances

• Unregulated Psychoactive Substances
• “Designer” Drugs
• “Legal Highs”
• “Headshop” Drugs
• “Bath Salts/ Plant Food/Room Deodorisers”
• “Research Chemicals- Not for Human Consumption”
Why “New” doesn’t actually mean NEW!

- Mephedrone first synthesised 1929
- PMMA first synthesised 1938
- $\alpha$-PVP first synthesised 1960
- MDPV first synthesised 1967
- AH-7921 first synthesised 1970
- HU-210 first synthesised 1988
- JWH-018 first synthesised 1999

- “New” does not mean “Novel” but newly misused or available on the market
THE FUNKY SKUNK
Best Place in Cork for Herbal Highs, Pipes, Bongs and Smoking Accessories.

Headshop
Clothing
Wholesale
Body piercing
Market Orders
Contact

Indoor/Outdoor Gardening

Cosmic Closet

Hemptations
THE HEADSHOP LEGACY

- **New Psychoactive Substances**
- Mephedrone & other Synthetic Cathinones eg MDPV & PVP
- Synthetic Cannabinoids eg JWH-018 & MDMB-CHIMINACA
- Synthetic Cocaine Derivatives
- PMMA – Dr Death
- 4-MA- sold as “Speed”
- 5-IT- “Benzo Fury” - stimulant
- N-Bombs- Toxic Hallucinogens
- AH7921- Synthetic Opioid like Heroin
- Methoxetamine- “Mexxy”- Ketamine-like Hallucinogen
- DMAR- Stimulant -18 deaths in N. Ireland
- MT-45 – Synthetic Opioid like Heroin
Spice & Company

• Typical Synthetic Cannabinoids
  • JWH -018        HU-210
  • AM- 2201        UR 144
  • AB-001          5F-PB-22

• Typical Product names:
  • Spice, Black Mamba, Kronic, Jamaica Gold
CATHINONES
Cathinones

- Sold as Bath salts or Plant Food
- No known use as either!!!!!!

* Butylone or bkMBDB
* Methylone or bkMDMA

* Flephedrone
* Mephedrone
* Methedrone
* Banned May 2010/ March 2015

LIKE ECSTASY
LIKE COCAINE
EARLY WARNING NOTIFICATION

Authorities have linked two types of tablets to fatalities in Northern Ireland:

1. Tablet with “Cherry” logo
2. Tablet with “Cross” logo
Deaths linked to NPS

- Synthetic Cannabinoids – at least 6 deaths
- Mephedrone – 42 in UK; at least 4 from IRL
- MDPV – 108 in EU; incl 8 from IRL
- PMMA – 43 since 2001 incl at least 2 from IRL
- 25 I-NBOMe – 4 deaths
- AH7921- 15 deaths
- 4,4 DMAR – 18 deaths in N.IRL in 6 Mths; 12 in Hungary & Netherlands
- MT-45 – 11 deaths
- Methoxetamine- 20 deaths
- Alpha _PVP – 106 deaths incl 5 from IRL
Physical Complications with NPS

- Mexxy – Bladder damage but sold as “Bladder Friendly”.
- N-Bombs – Muscle breakdown & Kidney failure
- PMMA – Hyperthermia
- Mephedrone – Hyperthermia
- MDPV – Kidney Problems
Psychiatric Complications with NPS

• Agitation; Hallucinations; Panic attacks; Psychosis; Paranoia; self harm/mutilation
• Synthetic Cannabinoids
• MDPV
• Mephedrone
• Alpha –PVP
• N-Bombs
• 4,4 DMAR
• Mexxy
Cardiovascular Complications with NPS

- Palpitations; Chest pains; Heart attacks; Stroke
- Synthetic Cannabinoids – various
- MDPV
- Mephedrone – serious vasoconstriction
- N-Bombs
- 4,4 DMAR
- Mexxy
- Alpha-PVP
Injection of NPS

• Cannabinoids are usually smoked but others taken by mouth or snorted
• BUT some injected by Opiate users
• E.G. Mephedrone, MDPV; PVP
• More frequent injections – up to 15/day in some cases in Dublin
• Results in increased transmission of HIV
Six men held after garda raids on ‘drug laboratories’

Substance sold in head shops as ‘super coke’ targeted in searches in south east after two-year investigation

Conor Lally

Tue, Dec 16, 2014, 15:53

Gardaí are questioning six men after a series of coordinated raids in the south east linked to the discovery of back street laboratories where drugs were being manufactured.

The men in custody are suspected of manufacturing and trafficking MDPV, an ecstasy-style psychoactive drug once sold in headshops as ‘super coke’.

The same gang members are also suspected of producing and distributing phenazepam and zopiclone.

Phenazepam is used to treat a number of disorders including epilepsy, insomnia and anxiety but has become a popular relaxant recreational drug.

Zopiclone is also a sedative used to treat insomnia but has become available on the streets and is usually taken as a relaxant to combat the effects of other, illegal, drugs.

A number of facilities where gardaí believe all three drugs were being manufactured have been discovered over the past year in Tipperary, Limerick, Kilkenny, Galway and Roscommon.

The evidence found at those locations and intelligence about criminals gardaí believed are linked to the illicit drug production resulted in this morning’s operation and the arrests of the six suspects.

The men, who range in age from their 20s to 40s, were detained followed searches in Kilkenny city, Carlow town, Glenmore and Bennettsbridge in Co Kilkenny, Waterford city and Lismore in Co Waterford.
Phenazepam – Bonsai Super Sleep

• Designer Benzo developed in Russia as a medical sedative
• Not used medically in EU
• Claimed to be 5 x stronger than Diazepam
• Typical Benzo effects – loss of coordination, drowsiness, risk of overdose mixed with alcohol, driving impairment
• Deaths reported where Phenazepam detected post mortem
• Likely to result in Benzo-type dependence
Other Designer Benzos

- Etizolam
- Diclazepam
- Flubromazepam
- Pyrazolam

- All characterised by a lack of data on acute & long term side effects.
Alpha –PVP
“Flakka”, “Snow Blow”

• Potent Stimulant Synthetic Cathinone
• 1st made in 1963
• Sold in Dublin for injection as “Meth” & linked to steep rise in HIV cases
• Linked to 106 deaths in 7 MS incl 5 from Ireland.
• 34 Non-Fatal Intoxications EU-Wide incl 5 from IRL- Aggression, Hallucinations, Heart complications
• Controlled Drug in Ireland
• EU Risk Assessment Autumn 2015
• 101 New Psychoactive Substances reported in 2014
• 81 reported in 2013
• 74 reported in 2012
• 49 reported in 2011
• 41 reported in 2010
• Of the 101, 31 were synthetic Cathinones
• 30 were Synthetic Cannabinoids (134 in all since 2008)
• 9 were Phenethylamines
• 5 were Opioids- Fentanyl Derivatives eg 3-acetylfentanyl
• 4 were Benzos
• Offered for sale through 651 online Headshops.
Online Headshops offer for sale Drugs which mimic

- Cannabis Drugs - Spice & Bonsai
- LSD/Magic Mushrooms - Salvia/ N-Bombs
- Cocaine/Speed/Meth - Cathinones (Meow-Meow)
- Ecstasy - BZP/ Cathinones
- Heroin – MT-45/ AH7921
- Benzos- Phenazepam

The Drugs are “New” but not different to existing drugs.
The Legal Framework for NPS

• EU Level
Formal EU Risk Assessments

• 18 conducted since 1999 including Mephedrone, PMMA, GHB, Mexxy & N-Bombs.
• Alpha –PVP due this autumn
• No risk Assessment on any Synthetic Cannabinoid.
The Legal Framework for NPS

National
Misuse of Drugs Acts 1977 to 2015
Criminal Justice(Psychoactive Substances) Act 2010
Criminal Justice (Psychoactive Substances) Act 2010

- Gives Gardai power to close Headshops selling drugs & hydroponic equipment

- No. of Headshops in Q1 2010 = 102

- Post May 2010 – Misuse of Drugs Act changes No = 39

- Post August 2010 (Act in Force) – most closed or closing down

- Internet/black market sales likely to continue to some extent
### Use of NPS by YoDA Clients in past 3 Months

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<tr>
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<th>Pre-BAN</th>
<th>Post-BAN</th>
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<tbody>
<tr>
<td>Any NPS</td>
<td>82%</td>
<td>28%</td>
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<tr>
<td>Bath salts</td>
<td>50%</td>
<td>13%</td>
</tr>
<tr>
<td>Synthetic Cannabinoids</td>
<td>62%</td>
<td>17%</td>
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<tr>
<td>Party Pills (BZP)</td>
<td>20%</td>
<td>7%</td>
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“Our findings do not provide a rationale for Ireland to alter its prohibitionist approach to NPS at this time”

Smyth B et al  Int J Drug Policy 2015
A Level Playing field for Consumer Chemicals

- Medicines, Agro-chemicals, Food Additives even Hair Dyes
- Under EU law onus on manufacturer to prove product is safe
- Onus is NOT on State to prove product is harmful
- The same should apply to NPS
- If evidence of safety is not available then NPS must not be allowed on market
Balance Supply & Demand Reduction

• Supply Reduction is part of answer BUT
• We must also tackle the Demand through
  • Information
  • Education
  • Reduce Risk Factors
  • Strengthen & Reinforce Protective Factors
• Whole Community Approach
• Risk Factors
• SUBSTANCE USE BY OTHER FAMILY MEMBERS
• FRIENDS WHO USE DRUGS
• EARLY EXPERIMENTATION WITH ALCOHOL & TOBACCO
• LOW SELF-ESTEEM
• Protective Factors
• PARENTAL INVOLVEMENT & CONCERN
• INFORMATION ON SUBSTANCE USE FOR PARENTS
• FRIENDS WHO DON’T USE DRUGS
• POSITIVE SCHOOL EXPERIENCE
It Can’t be left to Schools on their own

• Schools can’t operate in a vacuum
• There needs to be consistent back up from home
• There must also be consistent back up from the community
• Community attitudes can & do undermine demand reduction efforts.
Tackling the Culture of Intoxication

The raves and ecstasy, oh how I miss you so...
Challenging Young People’s Hypocrisy about being risk averse to Chemical pollution of the environment but not to the most critical environment of all – the Human Brain
BUT Drug Addiction ie Drug Dependence means you ARE NOT Free!!
Finally – A Question

• Would this country be a happier, healthier, safer, wealthier place if several hundred New Psychoactive Substances along with the many other well-known drugs were made more available?