



EU MADNESS PROJECT

EUROPEAN-WIDE, MONITORING, ANALYSIS AND KNOWLEDGE
DISSEMINATION ON NOVEL/EMERGING PSYCHOACTIVES

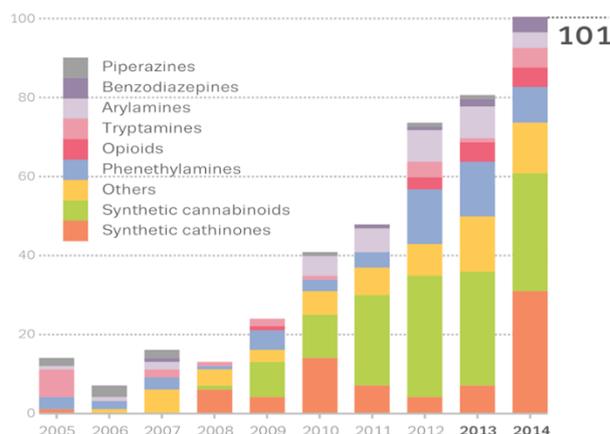
What are Novel Psychoactive Substances (NPS)

This fact sheet briefly describes emerging and re-emerging psychoactive drugs known as novel or new psychoactive substances (NPS), colloquially known as 'legal highs' and outlines the current situation regarding the production and use of these substances including the health risks posed.

What are NPS?

They are often called 'designer drugs' or 'legal highs' in the media, with specific variants known as 'herbal highs', 'bath salts', or 'research chemicals', and have been appearing in increasing numbers on the recreational drug scene in Europe and elsewhere in recent years. The European Monitoring Centre Drugs and Drug Addiction (EMCDDA) defines NPS as "a new narcotic or psychotropic drug, in pure form or in preparation, that is not controlled by the United Nations drug conventions, but which may pose a public health threat comparable to that posed by substances listed in these conventions". In 2014, the EMCDDA reported that a total of 101 new substances were identified: 31 cathinones, 30 cannabinoids, nine phenethylamines, five opioids, five tryptamines, four benzodiazepines, four arylalkylamines and 13 substances that do not conform to the aforementioned groups (EMCDDA, 2015) and suggests that the growth of the market for NPS poses a range of challenges for health professionals, and that there have been many reports of serious health harms from acute toxicity leading to hospitalisation and deaths.

Number of new psychoactive substances reported to the EU Early Warning System, 2005–14



From: EMCDDA (2015) New psychoactive substances in Europe.
An update from the EU Early Warning System (March 2015)
<http://www.emcdda.europa.eu/publications/2015/new-psychoactive-substances>

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University of Hertfordshire **UH**



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How are NPS produced and obtained?

Many newly-emerging psychoactive substances are synthesised by chemists who modify the structure of existing psychoactive substances controlled by UN conventions so that they remain legal. Unlike pharmaceuticals, NPS are not produced according to 'good manufacturing practices' and may contain illegal controlled drugs (e.g. MDMA (3,4-methylenedioxy-methamphetamine), popularly known as 'ecstasy'). These new generations of 'designer drugs' are marketed as 'legal highs' and 'research chemicals', and sold in 'head shops' and increasingly over the Internet. Purity levels are typically very high; they are laboratory-manufactured and sold, for example, as 'synthetic cocaine'. The use of the word 'legal' can make people think that these substances are safe, as they are not illegal, however most NPS have never been tested and some have been found to contain illegal drugs (Wood et 2011) The internet is a key player in the supply of NPS, with 651 NPS-vending websites identified in Europe in 2013 (EMCDDA, 2014).

What are the health risks?

Health professionals should be aware of the ever-changing nature of recreational drug use and the potential mental and physical health issues that may be caused by the consumption of NPS. There is a growing body of scientific evidence that NPS are dangerous. Physiological effects reported include haemorrhaging within muscles and internal organs, swelling of the brain, unconsciousness, overheating, breathing difficulties, and fitting with foaming at the mouth (Schifano, 2105). NPS have directly caused multiple deaths, and also have contributed to many others (Claridge and Goodair, 2015). Other effects identified include changes in mood, anxiety, perception, thinking, memory, and attention as well as agitation, distress, confusion, disorientation, and paranoid thoughts. It is possible for users to become addicted to NPS as they are made to mimic the effects of already-controlled psychoactive drugs and this can lead to dependency over time.

Prevention & Treatment

Education is a vital intervention and is needed not only for healthcare professionals but also drugs workers, counsellors, teachers and young people (D'Agnone, 2015). First line treatments will include stabilising the patient and benzodiazepines (Smith and Robert, 2014). Ramsey *et al.* (2010) advise caution is required when disseminating information to the public concerning NPS. It should cover both the risks and public health issues relating to the harm associated with their use, but also include relevant legal information.



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EU-MADNESS (EUropean-wide, **M**onitoring, **A**nalysis and knowledge **D**issemination on **N**ovel/**E**merging **p**Sychoactive**S**) is a European-funded project testing and monitoring novel psychoactive substances (NPS) for their potential health harms. This fact sheet is part of a series of educational resources developed by the EU-MADNESS project for use in health education settings to provide information on NPS.

For more information about EU-MADNESS, please visit:

<http://www.eumadness.eu/about-eu-madness>



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