

## Fact file on new psychoactive substances

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### Key facts

- New psychoactive substances are types of synthetic drugs that mimic the effects of illicit drugs, but which are not scheduled under the international drug control conventions.
  - More than 500 different types of new psychoactive substances have been recorded to date.
  - The number of new psychoactive substances reported as of October 2015 was 602, 55 per cent higher than a year earlier.
  - The most reported category of new psychoactive substances is synthetic cannabinoids which mimic the effects of the main psychoactive substance of cannabis, tetrahydrocannabinol (THC).
  - Collecting information on new psychoactive substances is difficult due to the sheer number and speed with which they appear on the market, but they can be extremely harmful and fatal and were linked to 60 deaths in England and Wales in 2013.
  - The scale and constant evolution of new psychoactive substances is posing a challenge to drug control systems and public health authorities. A number of countries have adopted legislative controls of new psychoactive substances.
  - WHO has recommended a number of new psychoactive substances be controlled under the international drug control system, and recommends implementation of a comprehensive package of drug control measures that address the entire public health continuum, from primary prevention and risk reduction through to management of drug use disorders, rehabilitation and care.
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Under the United Nations' international drug control conventions, certain substances are 'scheduled' in order to protect public health. Countries party to the conventions agree to impose certain restrictions, including criminal penalties, to stem the trafficking and misuse of these substances. However, in recent years, new classes of synthetic drugs that do not belong to those controlled by the international conventions have begun emerging. This phenomenon of new psychoactive substances is posing a threat to health and a challenge to drug control systems. Drug control authorities may struggle to keep pace with the constant evolution in the substances' chemical structures. As a result, the substances are often sold in open markets as 'legal highs' or 'research chemicals' – with little recourse under criminal justice systems.

The UN Office on Drugs and Crime (UNODC), the lead agency in international drug control, has identified nine groups of new psychoactive substances. These include synthetic cannabinoids which mimic the effects of the main psychoactive substance of cannabis, THC; synthetic cathinones which have stimulant properties and induce feelings of empathy; and phentylamines which have stimulant and hallucinogenic properties. Of new psychoactive

substances reported in 2014, 39 per cent were synthetic cannabinoids; 18 per cent were phenethylamines and 15 per cent were synthetic cathinones.<sup>1</sup>

### **The size and growth of the market**

The number of new psychoactive substances reported as of October 2015 was 602, 55 per cent higher than a year earlier.<sup>2</sup> This is more than double the number of substances controlled under the international drug control treaties. Of the substances reported in 2014, 69 were reported for the first time. Reports of new psychoactive substances surged in the late 2000s, with a seven-fold increase in the number of seizures reported by law enforcement across Europe between 2008 and 2013.<sup>3</sup> The largest observed increase in reports of new psychotic substances in East and South-East Asia and Oceania was reported in 2010 to 2011, from 52 new reports to 91.<sup>4</sup>

The rapid increase in availability and type of new psychoactive substances is due to a combination of advances in communications and technologies, and access to the internet which has allowed their development, production and marketing at great speed. The growth in international trade, particularly to and from Asia, has increased the opportunities for suppliers to use the licit trade for illicit purposes. The spread and use of new psychoactive substances is not consistent globally, and while abuse of synthetic cannabinoids in the United States and mephedrone in the United Kingdom appears to be falling, in other parts of the world there have been reports of a broader range of new psychoactive substances and new methods of their administration, such as injection.<sup>5</sup>

### **The public health risks of new psychoactive substances**

Gauging the public health risks, prevalence and incidence of abuse of new psychoactive substances is extremely difficult, because of their number, and the rapid modifications in chemical structures. However, many so-called 'research chemicals' have been associated with death and serious toxic consequences for users, including respiratory depression, unconsciousness, nerve damage, balance and vision disturbances, and hearing loss. In England and Wales, the number of deaths involving new psychoactive substances are low compared with deaths involving opiates or cocaine, however, they have risen from 60 deaths

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<sup>1</sup> UNODC World Drug Report 2015. Vienna: UNODC, 2015 (see [https://www.unodc.org/documents/wdr2015/World\\_Drug\\_Report\\_2015.pdf](https://www.unodc.org/documents/wdr2015/World_Drug_Report_2015.pdf), accessed 2 March 2016).

<sup>2</sup> Report of the International Narcotics Control Board (INCB) for 2015. Vienna: INCB, 2016 (see <http://www.incb.org/incb/en/publications/annual-reports/annual-report-2015.html>, accessed 5 March 2016).

<sup>3</sup> New psychoactive substances in Europe. Luxembourg: European Monitoring Centre for Drugs and Drug Addiction, 2015 (see [http://www.emcdda.europa.eu/attachements.cfm/att\\_240278\\_EN\\_TD0215501ENN.pdf](http://www.emcdda.europa.eu/attachements.cfm/att_240278_EN_TD0215501ENN.pdf), accessed 2 March 2016).

<sup>4</sup> The Challenge of Synthetic Drugs in East and South-East Asia and Oceania Global SMART Programme 2015: Trends and Patterns of Amphetamine-type Stimulants and New Psychoactive Substances. Vienna: UNODC, 2015 (see [https://www.unodc.org/documents/southeastasiaandpacific/Publications/2015/drugs/ATS\\_2015\\_Report\\_web.pdf](https://www.unodc.org/documents/southeastasiaandpacific/Publications/2015/drugs/ATS_2015_Report_web.pdf), accessed 2 March 2016).

<sup>5</sup> UNODC (2015).

in 2013 to 67 in 2014.<sup>6</sup> These deaths were predominantly associated with methcathinones such as mephedrone.

Given the sheer scale and speed of evolution of the market, new psychoactive substances are posing a challenge to national drug control systems. There are cases of substances appearing on the market, then seemingly disappearing only to reemerge a few years later. The lack of evidence on their harms and composition can make it difficult to target particular substances and implement punitive control measures. Adding individual substances to national schedules requires significant technical and financial resources to conduct testing and monitoring. Further, the blanket prohibition of groups of new psychoactive substances may be so broad as to impede the ability of prosecutorial authorities to prove that such the trafficking of such substances is criminal.

### **WHO response**

Under the UN drug control conventions, WHO has a unique mandate to assess the dependence producing properties and potential harm to health of psychoactive substances. The WHO Expert Committee on Drug Dependence evaluates the potential harm to health and dependence-producing properties of these substances, and makes recommendations on which should be controlled. It also advises countries on which should be kept under surveillance.

It evaluated a number of new psychoactive substances in 2014, via its WHO Expert Committee on Drug Dependence. The committee has found a number of new psychoactive substances can cause serious harm, have no legitimate use and limited scientific or research use and has recommended their scheduling. After considering the WHO recommendations of 2014 the UNODC's governing body, the Commission on Narcotic Drugs, decided to place 10 new psychoactive substances under international control.

WHO is working to support more efficient collection of data on the dependence and abuse of new psychoactive substances, via poisons centres and networks like forensic toxicology units and hospitals.

In dealing with the problem of substance abuse, WHO advocates a drug policy that incorporates the prevention of drug use and reduction of vulnerability and risks; treatment and care of people with drug use disorders; prevention and management of the harms related to drug use; access to controlled medicines; and a monitoring and evaluation.

### **Further reading**

WHO Expert Committee on Drug Dependence  
<http://www.who.int/medicines/access/controlled-substances/ecdd/en/>

Substances under surveillance  
[http://www.who.int/medicines/access/controlled-substances/Substances\\_under\\_surveillance.pdf?ua=1](http://www.who.int/medicines/access/controlled-substances/Substances_under_surveillance.pdf?ua=1)

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<sup>6</sup> Statistical bulletin – Deaths Related to Drug Poisoning in England and Wales: 2014. London: Office for National Statistics, 2014 (see <http://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/bulletins/deathsrelatedtodrugpoisoninginenglandandwales/2015-09-03>, accessed 2 March 2016).

WHO controlled substances homepage

<http://www.who.int/medicines/access/controlled-substances/en/>

WHO Department of Mental Health and Substance Abuse

[http://www.who.int/substance\\_abuse/en/](http://www.who.int/substance_abuse/en/)