Submission No 10

INQUIRY INTO LAW REFORM ISSUES REGARDING SYNTHETIC DRUGS

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Submission to the enquiry on synthetic psychoactive substances

Summary

Synthetic psychoactive substances are not new, but the scale of production and the mode of distribution globally has become a key issue for both policy makers and regulators. The type and range of new drugs is growing and the capacity of producers to play cat and mouse with existing regulations is considerable.

The issues related to Spice (aka Kronic) and mephedrone have attracted the attention of media in Australia and resulted in legislative change in some jurisdictions. Overall however the problem in Australia remains modest. Data to date suggests that use of synthetic psychoactive substances appears more prevalent among drug using samples in Europe and the UK compared to drug using samples in Australia.

Data also suggest that purchasing patterns among Australian and UK users are more likely through networks of friends or dealers rather than the Internet. However, it is essential to understand the role of the Internet in the dynamics of drug markets, as these substances are increasingly marketed and sold globally via the Internet.

Research from the US, UK and Australia suggests that people using these substances also report experience with other illicit drugs.

Short term harms associated with mephedrone and Spice use have been documented, however the long term harms are not known at this stage. Available data suggest that mortality related to mephedrone in the UK is relatively low.

There is currently no data collected on general population use of these substances in Australia. A proposal has been submitted to the Australian Institute of Health and Welfare (AIHW) to include these substances in the 2013 National Drug Strategy Household Survey (NDSHS), a population survey on drug use among Australians. Use of these substances among the general population is relatively low in the UK.

Continued monitoring of the use and harms related to synthetic psychoactive substances in Australia is essential in order to effectively inform Australian policy. There is a need for vigilance and good data gathering if we are to respond sensibly and appropriately to this new and emerging phenomena. There is also the capacity to link with International colleagues to share experience and knowledge.

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Synthetic psychoactive substances – the Australian context

Illicit drug use occurs within a different context in Australia, in part due to its geographic isolation. Data from Europe and the US on the prevalence and harms related to synthetic psychoactive substances are informative but it is important to deal with Australian data and to consider or assess the local impact of these drugs with reference to available information, in order to more accurately inform Australian policy. It is noteworthy, internationally, that most countries have been forced to take significant and important policy decisions at fairly short notice with very little substantial information to help in the decision making process, because of the new and rapidly changing nature of substances becoming available on the market.

There have been a range of legislative changes in Australia relating to synthetic cannabis products (e.g. Spice) and synthetic cathinones (e.g. mephedrone) in response to concerns around the harms associated with their use.

Prevalence of use

An important source of information on the prevalence and use patterns of synthetic psychoactive substances in Australia is the Ecstasy and related Drugs Reporting System (EDRS). The EDRS is an Australian survey of regular ecstasy users that is conducted by the National Drug and Alcohol Research Centre each year (1). This group are asked about their ecstasy and other drug use. In the 2011 EDRS survey, approximately one quarter (23%) of the sample reported life time mephedrone use and 14% reported past 6 month use. Data collected to date from the EDRS shows that the more common method of obtaining mephedrone among this group is via friends (53%) or dealers (35%) rather than the Internet (8%) (1).

This group of regular ecstasy users is recruited because they use a range of other drugs as well as ecstasy, and have good knowledge of drugs markets and new and emerging trends in substances.

Relatively low proportions of the 2011 EDRS participants reported life time (1%) and past 6 month (<1%) use of Spice. These substances were predominantly obtained via friends or dealers (1). A slightly larger proportion of participants (5%) believed that they had used another form of synthetic cannabinoid in the past 6 months (1).

More detailed analyses of patterns of synthetic psychoactive substance use among participants from the 2010 EDRS survey suggest that these substances are used among a minority of regular ecstasy users in Australia, and that patterns of use are infrequent (2).

To date there are no data on the population prevalence of the use of synthetic psychoactive substances. However, there have been proposals submitted to the Australian Institute of Health and Welfare to commence collecting data on the use of synthetic cannabinoids and other psychoactive substances (e.g. mephedrone) as part of the 2013 National Drug Strategy Household Survey.

There are several research projects underway in Australia to recruit targeted samples of people using synthetic cannabis products and synthetic cathinones such as mephedrone, in order to increase our understanding within the Australian context of patterns of use, harms associated with this use, and how this intersects with current legislation. As with the European context, the purity of MDMA is also declining in Australia (1), however we are yet to see if this translates to an increase in use of other synthetic substances locally (2).

Harms associated with synthetic psychoactive substances

The harms related to these drugs in Australia are hard to monitor given the way much of the routine data collections (hospital records and deaths data) are coded. There is no provision under the current International Classification of Diseases coding system – ICD10 - to code for hospital presentations or deaths that relate to these substances. Monitoring in these data collections is essential for a better understanding of the profile of harms associated with synthetic psychoactive substances within the Australian context.

An example of effective monitoring is collaborative work undertaken in the United Kingdom (UK) where a hospital with forensic testing facilities linked in with clinicians in the accident and emergency department to profile patterns and harms associated with these substances (3).

Other market indicators

The Australian Customs and Border Protection Service have reported the following seizures of synthetic psychoactive substances:

- October 2010 - 4kg of mephedrone seized in the Northern Territory. The mephedrone was purchased over the internet (http://customs.gov.au/webdata/resources/files/LegalHighsFactSheet.pdf) accessed 28th March 2012.
- April 2011 – 1kg of Methylenedioxypyrovalerone (MDPV) intercepted in a mail parcel originating from China (http://customs.gov.au/site/mediaRelease20110507.asp) accessed 28th March 2012.
- February through May 2011 – 5kg of mephedrone intercepted in mail parcels originating from China (http://customs.gov.au/site/mediaRelease20110609_1.asp) accessed 28th

March 2012.

- August 2011 – 1kg of 5-iodo-aminoindane (5IAI), a substitute for MDMA, 800g of MDPV and 10kg of BZP intercepted in a shipment (http://customs.gov.au/site/mediaRelease20110914.asp) accessed 28th March 2012.
- April through July 2011 – 2.6kg total of methamphetamine, amphetamine and methcathinone analogues intercepted in parcels originating from China (http://customs.gov.au/site/mediaRelease20111123.asp) accessed 28th March 2012.

These are the seizures reported in Customs media releases. There may be more seizures that have not been reported. There were no mentions of border seizures of synthetic psychoactive substances in either the 2009/10 or 2010/11 Australian Customs and Border Protection Service Annual Reports (4, 5). There were no mentions of local police seizures of synthetic psychoactive substances in the 2009/10 Illicit Drug Data Report prepared by the Australian Crime Commission (6).

The National Cannabis Prevention and Information Centre (NCPIC) have recently published a bulletin on synthetic cannabinoids within the Australian context. Please refer to NCPIC's submission to the Committee for this material.

International Experience

In 1997, the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) developed an early warning system to monitor synthetic psychoactive substances (7). Since this time more than 150 new psychoactive substances have been documented in Europe across each of the classes – synthetic cannabinoids (e.g. 'Spice' or 'Kronic'), synthetic phenethylamines (e.g. the 2C family of drugs), synthetic cathinones (e.g. mephedrone, methylone, and MDPV), synthetic piperazines (e.g. BZP) and synthetic tryptamines (e.g. DMT). Record numbers of these substances have been identified by the EMCDDA in the last two years, 24 in 2009 and 41 in 2010 (8), with the majority of those identified in 2010 belonging to the cathinone and cannabinoid classes.

Prevalence of mephedrone use in Europe

Mephedrone has had the greatest impact on European drug markets to date. Research conducted among a sample of polydrug users in the UK found that 41.3% of 2,295 respondents reported lifetime use of mephedrone, and 38.7% reported past 12 month use (9). Mephedrone was the sixth most common drug used in the last month, following alcohol, cannabis, tobacco, ecstasy and cocaine. Smaller proportions reported lifetime use of other synthetic substances including BZP (25.9%), 2CB (17.6%), Spice (12.6%), methylone (10.8%) and MDPV (1.9%) (9). A survey of college students in the UK found that 20% had ever used mephedrone, and that the predominant pattern of use was occasional (10).

For the first time in 2011, the British Crime Survey (BCS), a general population survey of illicit drug use in England and Wales, asked about the use of mephedrone. Past 12 month prevalence of mephedrone use was relatively low at 1.4% (11).

The impact of legislative changes relating to mephedrone

In April 2010, increasing public health concerns about the harms associated with mephedrone use led to the introduction of legislation in the UK to re-classify mephedrone as a controlled substance. Research was conducted pre and post April 2010 among mephedrone users in the UK to assess the impact. Approximately two-thirds (63%) of those surveyed in June 2010 reported that they had continued using mephedrone after the legislative change (12). An increase in price was also documented, along with an increase in proportions buying mephedrone from a dealer after the change (12). In another study of mephedrone users in Northern Ireland (13), researchers found that the majority of respondents continued to use mephedrone after the legislative change. None of the respondents perceived that mephedrone was safe to use before it's classification as a controlled substance.

Harms associated with mephedrone use

Evidence on the acute harms associated with mephedrone use is primarily sourced from self-report and poisons data. Winstock et al (9) conducted a cross-sectional study into self-reported harms experienced by mephedrone users and found relatively low incidence of adverse effects. However, 30% of the group reported experiencing three or more of the criteria for DSM-IV substance dependence. In particular, the urge to continue using was reported among many participants, and is most likely related to the short acting nature of mephedrone (9). There have been case series reporting more serious adverse effects including cardiovascular dysregulation, agitation and seizures (3, 14). Long term harms associated with mephedrone use are unknown at this stage. The profile of long term harms is likely to be complicated by the fact that many people reporting mephedrone use also report using a wide range of other illicit drugs. It is not yet known how the consumption of other drugs (including alcohol) may modify the effects of mephedrone, and whether concomitant consumption of other drugs increases toxicity (9).

Fatal overdose has received substantial attention in the UK media, and accurate reporting of mephedrone-related fatalities has been confused by media misinterpretations of the drug responsible for the death (e.g. the UK reporting of two mephedrone deaths in March 2010 that were actually alcohol and methadone-related deaths http://www.bbc.co.uk/news/10184803 accessed 27th March 2012). Another factor complicating accurate figures on drug-related mortality is the reporting of the number of deaths in which mephedrone is found to be one of the drugs present in toxicology testing. This does not imply causality, and is possibly more reflective of the polydrug using profile of this sub-population. In 2010, according to figures from the Office of National Statistics, there were six

mephedrone-related deaths (it should be noted that there may have been other drugs involved) recorded in England and Wales, a relatively low number compared to opioid-related deaths in the same year (1,278 - including deaths due to heroin, morphine, methadone and tramadol)(http://www.ons.gov.uk/ons/rel/subnational-health3/deaths-related-to-drug-poisoning/2010/stb-deaths-related-to-drug-poisoning-2010.html#tab-Results accessed 27th March 2012).

Prevalence of synthetic cannabinoid use in Europe and the United States

In 2009, the EMCDDA identified nine new synthetic cannabinoids available in European drug markets. According to their early warning system, the number of online shops selling these substances dropped dramatically from 55 in 2009 to 21 in 2010 (15). Research from the UK shows small proportions of polydrug users reported life time use (12.6%) of Spice (16). Research conducted among adults in the United States (US) reporting Spice use on at least one occasion (17) found that participants reported a diverse profile of use patterns. The majority of the sample had also engaged in cannabis use (84%), and substantial minorities reported other illicit drug use including hallucinogens (37%), MDMA (29%), amphetamines (22%), and cocaine (17%). One quarter of the sample reported no plans for future Spice use.

The prevalence of Spice use among the general population in England and Wales is relatively low, with 0.4% of adults reporting past 12 month use in the 2010 British Crime Survey (18).

Impact of legislative changes relating to synthetic cannabinoids

In December 2009, the UK re-classified the synthetic cannabinoid agonist receptor constituents of Spice as controlled substances (19). In a study assessing the impact of legislative change, researchers purchased Spice products before and after December 2009. Analysis found that products containing the re-classified substances were still being sold despite the legislative change. Results also showed that new compounds, not covered by the legislation, appeared in some of the products (19).

Harms associated with synthetic cannabinoid use

Some of the acute harms that have been documented (primarily from poison centre data) in association with synthetic cannabinoid use include tachycardia, vomiting, drowsiness, anxiety and agitation (20, 21). Self-reported adverse effects among a group of Spice users in the US include paranoia, increased heart rate, anxiety and nausea (17). Among this group, 37% met DSMIV criteria for abuse and several of the DSMIV substance dependence criteria were also endorsed by this group (17). In the US calls to American Poison Centres relating to Spice increased from 13 calls in 2009 to approximately 3,000 in 2010, to almost 7,000 in 2011 according to the American Association of Poison Control Centers

(http://www.aapcc.org/dnn/Portals/0/Synthetic%20Marijuana%20Data%20for%20Website%202.8.2012.pdf) accessed 29th March 2012.

The large number and variety of synthetic cannabinoids poses challenges to toxicological identification as well as the pharmacological effects and harms associated with their use (15). There is very little known as yet about the effects of synthetic cannabinoids on humans (22).

Supporting documentation

Please find attached a paper detailing use of synthetic psychoactive substances among regular ecstasy users in Australia:
Bruno R, Matthews, A.J., Dunn, M., Alati, R., McIlwraith, F., Hickey, S., Burns, L., and Sindicich, N.,. Emerging psychoactive substance use among regular ecstasy users in Australia. Drug and Alcohol Dependence. 2011.

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