New Psychoactive Substances:
The Local Picture

A Research Study and Needs Assessment for
Blackburn with Darwen Borough Council

Michael Linnell; Linnell Communications
Professor Fiona Measham; Durham University
Dr. Russell Newcombe; 3D Research

Exec summary section **June 2015**

[ ] linnell communications

Executive Summary

1. Background.

Blackburn with Darwen Borough Council commissioned a research study and needs assessment on New Psychoactive Substances (NPS) to *"provide a robust evidence base regarding the local picture and extent of the challenge posed by NPS for Blackburn with Darwen, taking into account wider regional and national evidence and intelligence",* in order to *"inform and support the development and agreement of local multi agency strategies, action plans, service delivery and front line practice" (Service Specification).*

2. Overview of research.

The study was conducted from November 2014 to May 2015 using a Rapid Assessment and Response (RAR) methodology which included collecting both new and existing evidence from multiple sources utilising a variety of data collection and analysis methods including:

- a comprehensive review of the relevant literature on NPS issues;
- an assessment of the available evidence on the use of NPS and established drugs in Blackburn with Darwen, covering official statistics, previous research and press reports;
- gathering new evidence about NPS use and problems in Blackburn with Darwen, including: unstructured and semi-structured interviews with a wide range of individuals and groups who were knowledgeable about the local situation, notably professionals and young adults; focus groups with local NPS users; and a self report questionnaire survey of Blackburn Further Education College students.

Literature review

3. Overview.

A comprehensive review of the relevant UK and international literature on NPS issues was conducted, covering definitions and classification of NPS; prevalence and patterns of NPS use; and trends in the NPS market, including production, supply, prevalence and consumption.

4. Definition.

The ambiguities of the everyday term 'legal highs' was noted. Instead, a broad definition of NPS was proposed that focused on legal or illegal drugs that have been recently discovered and used, contrasted with those 'established' drugs available and/or consumed for many years. The more precise operational definition of NPS that guided the review was any psychoactive drug newly available and/or used since 2008, thereby excluding drugs already used for many years in the UK yet included in some NPS definitions (such as GHB, ketamine, poppers and nitrous oxide).

5. Classification.

This study developed an original two dimensional 'psycho-chemical' taxonomy of NPS which classifies NPS at four levels. First, NPS can be organized according to three classes of general psychoactive effect: depressant, stimulant and hallucinogenic. Next, NPS can be divided into nine families based on more specific

psychoactive effects, with three families in each class, namely: inebriant, sedative and analgesic families of depressants; euphoriant, eugeroic and entactogen families of stimulants; and psychedelic, dissociative and deliriant families of hallucinogens. The third level categorizes NPS into 36 chemical groups, ranging from one to nine per family. The fourth level lists salient examples of NPS in each chemical group. Though classifications are inevitably subjective, this NPS taxonomy provides a useful framework for organizing research findings and evidence about NPS.

6. NPS products.

The NPS taxonomy also proved useful in reviewing recent research on NPS products. For instance: one UK study found that most products were described as either stimulants, sedatives or hallucinogens; other UK research identified several different NPS in ecstasy tablets, including NBOMe, 4-MTA and methylone; and the UK Forensic Early Warning System reported that eight in ten NPS samples in 2012/13 contained two or three drugs and that products with the same brand name often contained different mixtures of drugs (both legal and illegal).

7. The global NPS market.

The World Drug Report 2014 concluded that NPS use is now "a truly global phenomenon". The total number of NPS on the global market more than doubled from 166 in 2009 to 348 at the end of 2013, with the main five types being cannabinoids, phenethlyamines, cathinones, tryptamines and plant based drugs. The USA identified a record 158 new synthetic drugs in 2012 and EMCDDA reported that 299 different NPS were detected in the EU in 2013. The 'Flash Eurobarometer' survey of 13,000 15-24 year olds in 28 EU states found that lifetime use of NPS climbed from 5% in 2011 to 8% in 2014. The UK, which had the sixth highest level of NPS use, exhibited the largest rate of increase (from 2% to 10%).

8. The UK NPS market.

Research on NPS use in the UK is limited and patchy. It was estimated that there were over 250 headshops selling NPS in the UK in 2013. Another study found that the number of incidents involving 'legal highs' reported by 16 police force areas climbed from just 75 in 2011 to 2,459 in 2014. Of seven types of NPS assessed by the CSEW, three were fairly popular compared with controlled drugs, while use of the other four had dropped below 0.2%. Nitrous oxide, used by one in 15 young adults over the last year in 2013/14, was the second most popular drug after cannabis, while mephedrone and salvia were the fifth and sixth most popular drugs among young adults . Available figures showed that last year use of mephedrone, 'spice' and BZP had fallen, while last year use of nitrous oxide and salvia had each climbed. Surveys of UK club-goers and festival-goers suggest that whilst NPS uptake is generally low amongst recreational users (who tend to favour 'established' street drugs like ecstasy, cocaine and ketamine), subgroups such as some gay and MSM club-goers have continued using mephedrone after legislative control. A recent Opinium survey (2014) of UK adults found that one in ten reported use of 'legal highs', notably synthetic cannabinoids (one in 25).

9. NPS-related harms.

A 2014 review of the effects of synthetic cannabinoids and cathinones concluded that "high doses or chronic exposure often leads to dangerous medical consequences, including psychosis, violent behaviours, tachycardia, hyperthermia, and even death." Similarly, the UK Home Office NPS evidence review (2014) noted that "the pattern of toxicity seen with NPS is significant and similar to that previously described in association with classical stimulant recreational drugs such as cocaine, MDMA and amphetamine. The clinical features seen in patients

with acute toxicity associated with NPS include agitation, psychosis, delirium, tachycardia, hypertension, chest pain and seizures." The largest annual increase in telephone inquiries about NPS to the UK National Poisons Unit in 2013/14 involved synthetic cannabinoids – over 1300% - which ranked second after cocaine, with unspecified 'legal highs' ranking third. In addition, NPS injecting, notably the stimulants mephedrone and ethylphenidate, have been shown to carry risks of vein/tissue damage, wound and soft tissue infections, psychosis and dependence. Yet UK health statistics for 2013/14 show that, excluding mephedrone and GHB, just 0.1% of drug treatment clients were primary users of NPS (144 people).

10. NPS-related deaths.

EMCDDA reported 206 deaths in the EU in 2014 associated with six NPS, namely MDPV (almost half), two opioids and methoxetamine. Based on a broad list of drugs counted as NPS, the latest NPSAD report on drug-related deaths in the UK reported that numbers climbed steadily from 10 in 2009 to 68 in 2012, with two thirds of these deaths involving cathinones (notably mephedrone) and amphetamines (notably PMA/PMMA). Government statistics on drug-related deaths, based on a more plausible list of specific NPS, show that the number of NPS-related deaths climbed from 25 in 2008 to 120 in 2013 (5% of drug-related deaths) - including 60 in England & Wales (3%, mainly cathinones and GHB/GBL) and 57 in Scotland (11%, mainly benzodiazepines). Lastly, the majority of NPS-related deaths were multi-drug fatalities involving controlled drugs. In conclusion, although it appears that NPS-related deaths are rising in the UK, the assessment of relevant statistics is hampered by problems of definition and classification.

Assessment of the existing local evidence

11. Official statistics on drug use/problems.

Blackburn with Darwen was among the top areas of the country on several indicators of drug use and drug problems and these indicators generally showed rising levels over the past decade. The Glasgow University research programme reported that across the three year period 2009/10 to 2011/12 the estimated number of **opiate and/or crack users** (OCU) in Blackburn with Darwen dropped before reaching a peak of 1,417 while the number of opiate-only users climbed steadily from 1,179 to 1,409 although the number of injecting users fell from 411 to 347. Out of 153 English DAAT areas, Blackburn with Darwen ranked 7th on opiate use, 13th on OCU use and 29th for injecting.

12. Criminal justice system.

Annual **drug seizures** in the Lancashire police force area have fallen, climbed and fallen again over the last decade, from 3,311 in 2004 to 2,850 in 2013/14. The number of seizures of 'other Class B drugs' climbed from zero across 2005 to 2007/08, up to 170 in 2011/12, most likely based on increased seizures of recently banned NPS (given that most NPS banned between 2010 and 2013 became Class B controlled drugs). In 2013/14 about one in eight police stop and searches in Lancashire resulted in an arrest for drugs offences, compared with a national rate of about one in 11. The annual number of **drugs offences** in Blackburn local authority area peaked in 2009/10 at 589 before falling steadily to 378 in 2013/14. Statistics on prison drug finds involved nine types of drugs in six **prisons** serving the Blackburn with Darwen population, from 2010/11 to 2013/14, with incidents involving 'other drugs' overall the most common, comprising six in ten of all 720 drug finds in 2013/14. Again 'other drugs' can be assumed to include new psychoactive substances (NPS) which were banned during this four year period.

13. Social indicators.

One of the main demographic characteristics of problem drug users is social disadvantage such as **homelessness**. Blackburn with Darwen was ranked fifth among all British local authorities for residents in homeless shelters or hostels in 2011: 26 per 10,000 working adults, compared with a national rate of six.

14. Drug Treatment.

In Blackburn with Darwen there were notable rises in both the numbers of drug users in effective **treatment** (since 2007/08) and the numbers of successful completions (since 2010/11), though the total numbers in treatment rose only slightly between 2005/06 (936) and 2012/13 (1014). By 2012/13, over nine in ten local drug treatment clients were in effective treatment, the annual rate of successful completions peaked at almost one in four, and over nine in ten clients waited less than three weeks for treatment. Over the same period, the number of younger (25-34 years) clients in treatment steadily halved, while the number of older clients (35-59 years) doubled. The most common primary drug group among drug treatment clients in Blackburn with Darwen was opiates, notably heroin, followed by crack and cannabis. The proportion of 'other primary drug users' (which includes NPS users) remained at around 4% to 5% across the eight year period. About seven in ten users of 'other drugs' were young adults (18-34 years), which is consistent with the main age range of NPS users in some other research.

15. Hospital episodes.

Blackburn with Darwen rates of drug poisonings and drug-related MBDS are each about three times as high as the national rates.

16. Drug-related deaths.

NPSAD statistics for 2012 show that the number of drug-related deaths in Blackburn, Hyndburn & Ribble Valley (BHRV) coroner's jurisdiction climbed steadily from six in 2004 to 30 in 2011, with a corresponding fivefold increase in the mortality rate per 100,000 population (from under three in 2004 to over 13 in 2011). The national ranking of the BHRV jurisdiction on drug-related deaths also climbed significantly from 59th in 2004 to third position in both 2008 and 2011 (after Manchester and London) and BHRV has remained among the top dozen coroners' jurisdictions on this indicator since 2007. Out of 127 DAATs, Blackburn with Darwen DAAT area was ranked fourth for NPSAD death rates by area of residence, second for NPSAD death rates by place of death, and second for both drug misuse death rates. The latest ONS statistics indicate that Blackburn with Darwen is among the top 3% of English PCTS for drug-related mortality rates.

Press reports.

17. Press reports

A content analysis was carried on newspaper reports relating to 'established' street drugs and NPS in Blackburn with Darwen in the 20 year period ending 2015. Only reports about drug use and drug-related problems in or concerning Blackburn or Darwen were included in the analysis and the majority of the 171 relevant reports identified were published in two local newspapers, the Lancashire Telegraph and the Blackburn Citizen. The number of press reports about drug use/problems in Blackburn with Darwen climbed from an average of about three a year in the 15 years to 2009 to an average of about 14 per year from 2010 to 2013, before more

than doubling to over 30 a year in both 2014 and the first part of 2015. The number of press reports about NPS use/problems in Blackburn with Darwen also peaked between 2010 and 2013 - representing a third to half of all drug-related press reports - before halving in 2014, and then picking up again in the first part of 2015. Almost all of the press reports about NPS during the peak period were focused on mephedrone, though only a minority were in 2014 and 2015. Synthetic cannabinoids were the only other notable NPS group in the drug-related press reports. This analysis of media content highlighted a range of NPS concerns including local authority policies and practices regarding NPS, drug supply offences, and the experiences of users and their families in the community, including NPS-related deaths.

New evidence

Interviews with professionals

18. The etiology of NPS use in Blackburn with Darwen.

85 professionals were interviewed between October 2015 and March 2015. None of the professionals interviewed used the term NPS (in full or acronym) with service users, largely because users referred to them as 'legal highs' or more commonly as 'legals'. With few exceptions, the majority of professionals interviewed had trouble identifying what substances NPS users were taking, and often referred to NPS as if they were one substance or one type of drug. They seemed to find the sheer number of branded products overwhelming and some felt increasingly 'de-skilled'. Service users were also believed to have little knowledge about the substances in 'legals' and were said to usually refer to them by brand name. Alongside 'legals', young people in contact with services often used 'bubble', a term originally referring to mephedrone and other synthetic cathinones but more recently used locally to refer to stimulant drugs more generally. Compulsive 'bubble' use was reported to have caused major problems for a number of young people, though it was believed that 'bubble' use had died down in the last two years. Lastly, no professionals reported any use of nitrous oxide among their clients with the exception of Asian youth and community workers, who reported that nitrous oxide had become popular mainly with young people in the Asian community.

19. Use of synthetic cannabinoids.

There was unanimity that the use of 'bubble' and other white powders had faded to be replaced by synthetic cannabinoid smoking mixtures. These dominated the Blackburn with Darwen NPS market at the time of the research and were seen as the cause of most major problems encountered by services. Professionals often first became aware of synthetic cannabinoid use when their clients exhibited a heavily intoxicated state distinct from cannabis and accompanied by unpredictable behaviour. Professionals reported synthetic cannabinoid users experiencing palpitations, anxiety, trouble sleeping, profuse sweating, breathing difficulties and mood swings and for some, getting into debt or committing crimes to pay for synthetic cannabinoids. Blackburn's hospital-based police unit had dealt with about 20 NPS-related hospital admissions in the previous six months, mostly involving synthetic cannabinoids. Several professionals - including police, A&E liaison officers and hostel staff - also reported that violence associated with synthetic cannabinoids was the norm rather than the exception.

20. Synthetic cannabinoid dependence.

Most of the professionals and users interviewed for this study commented on what they saw as the serious dependence potential of synthetic cannabinoids, both physical and psychological. In addition to craving and tolerance, several interviewees also described a synthetic cannabinoid withdrawal syndrome that included physical and mental symptoms such as insomnia, fatigue, depression, hot sweats, shakes, nausea, nightmares, hearing voices and extreme paranoia. Indeed, some users described it as being similar to or worse than heroin withdrawals. In addition, several professionals commented that regular use of synthetic cannabinoids led to mental health problems in some users, including anxiety and panic attacks.

21. NPS-related problems.

Professionals at young people's services reported that synthetic cannabinoid use was 'infectious', spreading from a few 'initiators' to wider friendship groups. Staff at a five bedded children's home reported during the first interview that use of synthetic cannabinoids was the most severe drug problem they had ever faced, although by the time of the second interview the trend had passed. Professionals in young people's hostels and supported accommodation also reported young people becoming confused or heavily sedated after using synthetic cannabinoids. Regular and heavier synthetic cannabinoid users were described as being 'at risk' or 'vulnerable' to a variety of psycho-social problems and likely to have problems with whatever drugs were available and used. Contrary to the views of white professionals, all Asian youth and community workers interviewed felt that NPS use was as common in Asian communities as in White communities. A number of professionals expressed concern that synthetic cannabinoid use was increasing the risk of sexual exploitation due to several factors including young people's night time trips to buy NPS, their use of synthetic cannabinoids in older adults' houses and the heavily intoxicated state that synthetic cannabinoids could produce. Some professionals also commented on the problems caused by young people consuming NPS in public places around Blackburn town centre (notably the shopping mall car park), although others felt that these problems had been exaggerated by media and business interests. Synthetic cannabinoid use in prison had also reportedly increased over the last year and was now regarded as the number one drug problem in prison – and it was therefore unsurprising to find that synthetic cannabinoid use was also widely reported in adult hostels and Houses of Multiple Occupancy (HMOs) housing ex offenders. By contrast, some professional groups, notably GPs, schools, and local adult treatment and recovery services reported very few NPS-related problems. This is partly because NPS use is far more prevalent in young people and young adults than it is in older people, and partly because NPS users view treatment services as exclusively for 'old heroin addicts'. Mental health services also reported little evidence of NPS use, though some mental health professionals reported frequent incidents of patients being admitted while extremely psychotic, which they felt was associated with use of NPS, probably synthetic cannabinoids.

22. Buying and selling NPS.

By the time the fieldwork began, Trading Standards had begun actions against NPS retailers in Blackburn with Darwen, which partly explains why no retailers would agree to participate in this study. Professionals were asked for their views on the situation before and after the Trading Standards action. There was a unanimous view among professionals that the ease of availability and cheapness of NPS were crucial factors in the prevalence of use. Professionals felt that few service users bought NPS from commercial internet sites and instead they bought NPS from local shops, local street dealers and also private houses. A number of professionals and users interviewed for this study described how young people acquired clothes from

a range of sources in order to exchange for NPS at local 'cash for clothes' outlets. A number of professionals also reported young people getting into debt or getting involved in petty acquisitive crime to pay for NPS.

23. Trading Standards action.

The 2014 Action Plan was formulated between Trading Standards and the police to tackle the local NPS trade, in which Trading Standards attempted to designate NPS as *'dangerous products for the purpose of labelling Regulations'*. Using a one-off Home Office grant, ten NPS samples were bought and tested; none were found to contain controlled drugs. 'Head-shops' were given advice sheets on retail safety legislation and 'served notice' to cease trading in products contravening this legislation and given 28 days to appeal. Retailers would be committing an offence in failing to respond to this notice rather than against the original legislation outlined in the letter, in order to disrupt NPS supplies whilst minimizing the risk of lengthy legal appeals and associated legal costs for Trading Standards. After a rapid 'fire sale' of NPS stock, all but one Blackburn headshop ceased openly trading in NPS although some 'under the counter' sales were reported to have continued. Some professionals commented that the action had an initial albeit temporary effect and for a while use of synthetic cannabinoids reduced. However, young people started going further afield to buy NPS and very soon the diversification of the local market meant that legitimate retail sales were rapidly replaced by street sales. A number of people began more 'traditional' dealing operations in 'legal' NPS, with reports of trading taking place on the street, in pubs and in the shopping mall. Facebook sites arose offering to deliver NPS to any address in Blackburn. Consequently, as confirmed by many professionals and users interviewed, NPS could be ordered by phone or social media and delivered just about any time of the day or night across Blackburn town centre.

24. Existing drug service models and NPS use.

Some interviewees felt adult services had little to offer NPS users; others felt that the adult recovery model did not fit the experience of younger clients; and many felt that services should look at how to attract NPS user into treatment. Some respondents felt that services had not responded well to the emergent NPS problem such as maintaining existing service models rather than adapting services to fit the issue. By far the most common request from professionals around perceived needs was a desire to receive regularly updated information and briefings. A number of respondents expressed a desire for NPS educational/ prevention resources and others for a more integrated local plan and clarity about who was leading it. There was an informal local system in place relating to new drugs encountered by professionals and those professionals who regularly worked with drug users felt that the system worked. There was no local system in place for the forensic testing or identification of 'new' drugs, however, and testing at regional level (at Lancashire Constabulary HQ) was rare and usually only occurred if there was a fatality or high purity heroin in circulation.

Blackburn College

25. NPS Prevalence of Use.

In March 2015, 58 students at Blackburn College self completed a questionnaire about their use of and attitudes to NPS. Three in ten of the college students indicated that they had used NPS, including three in ten who had used synthetic cannabinoids. The other five types of NPS were reported to have been used by between a fifth and seventh of respondents, with one in five using nitrous oxide

and plant extracts, one in six using stimulants and poppers and one in seven using research chemicals. Last year use was reported by about a quarter for synthetic cannabinoids, one in eight for nitrous oxide and one in 20 for research chemicals, with one in ten reporting last year use of the other three types of NPS. Last month use was reported for four of the six types of NPS, with the highest rate of one in 25 for nitrous oxide, compared with around one in 50 each for synthetic cannabinoids, stimulants and research chemicals. In short, the most popular type of NPS was synthetic cannabinoids (notably Exodus products), followed by nitrous oxide, plant extracts (notably salvia), stimulants (various), poppers, and, lastly, research chemicals (mainly hallucinogens).

26. Mean age of first drug use.

The mean age of first drug use (invariably cannabis) was about 14 years and the mean age of first NPS use was about 15 years (typically synthetic cannabinoids). These two variables were significantly positively correlated suggesting that the onset of the two types of drug use may be linked, at least for this cohort of students (aged 16-22 years), with first NPS use following on about one year after first use of 'established' illegal drugs. This raises the question of whether 'established' illegal drug use will still precede NPS use amongst the next cohort of young people aged 12-15, or whether the increased availability of NPS over the last five years has led to NPS initiation before or alongside initiation with 'established' illegal drugs.

27. NPS consumption, problems and attitudes.

Seven in ten students who had tried NPS had purchased NPS, though typically only once or twice only. Half of the 'NPS purchasers' stated that they had bought them in 'headshops', a quarter from 'dealers' and a quarter from 'friends'. One in three students who had tried NPS reported that it had led to problems, typically negative effects or health problems, though none reported attending hospital or other services for help. The typical response to NPS problems was 'giving up'. Reasons for using NPS included curiosity, intoxication, peer influence and legal status. The main reasons given for not using NPS were lack of interest, harmful consequences and health problems. Together, these findings suggest that most of the college students who used NPS had been taking them occasionally and that many had 'given up' over the last year. Over seven in ten respondents reported that some or most their friends had tried NPS and six in ten thought that NPS were easy to buy in Blackburn with Darwen. The typical views on how the government should respond to NPS were 'ban them all' (four in ten) or 'ban them all and make cannabis legal' (a quarter).

28. Associations between NPS use and other variables.

Those reporting having tried NPS were almost twice as likely to have used alcohol in the last week as those who had never tried NPS. Even stronger associations were found between NPS and 'established' illegal drugs with all respondents who reported having tried NPS use also reporting having tried 'established' illegal drugs, compared with just over a third of non-users of NPS. Up to half of self reported NPS users also reported use of cocaine, ecstasy, amphetamine and mephedrone, compared with fewer than one in ten non-users of NPS.

NPS users' views and experiences

29. Methods.

53 NPS user were identified and contacted, initially those known to services through interviews with professionals and thereafter snowball sampling. Fifteen 'vulnerable' young people aged 16-26 were interviewed at length using semi-structured questions at a young people's drug service, children's home and young person's supported accommodation. All the participants had experience of social care or criminal justice services. Further interviews with young people and adults occurred in prisons, hostels, Houses of Multiple Occupancy and on the street in Blackburn town centre.

30. History of use of 'established' illegal drugs and NPS.

All the participants had experience of using 'established' legal and illegal drugs prior to using NPS, mainly cannabis and alcohol, and all had used from an early age. Amphetamine, ecstasy and cocaine also had been used. Several had experimented with heroin and crack, although none had become regular users. All had used mephedrone or 'bubble' and all had recently used other NPS, with current or recent use almost exclusively involving synthetic cannabinoids. There was much confusion and little accurate knowledge about synthetic cannabinoids with none of the 15 users having known what synthetic cannabinoids were before trying them. All had underestimated their potency and taken a far higher dose then intended as a result. Smoking synthetic cannabinoids mixed with tobacco was both the initial and normal method of use. Most were initiated into use by friends or acquaintances with first experiences commonly described as being overwhelming: several had collapsed or vomited. Physical effects included racing or erratic heartbeat, profuse sweating and trouble breathing. Mental effects of panic and 'wild' hallucinations were common, as was a 'blurred' memory. It was felt the experience gradually become more 'cannabis like' as it wore off. During the field research the brands most commonly used changed from the 'Exodus Damnation' and 'Happy Joker' brands to 'Vertex' brands such as 'Vertex Extreme' and 'Christmas Vertex'. For respondents who were homeless or in hostels, synthetic cannabinoids reportedly eased the boredom of walking around the streets all day and allowed them to fall asleep at night in inhospitable conditions.

31. Synthetic cannabinoid effects.

Users reported signs of tolerance quickly developing, with daily use commonly starting immediately after initial use, building up to using 1-3 grams/day within a week or two and developing a perceived dependency on the drug within about three weeks. Use could increase to 6 grams a day at times of heavy or chaotic use, if finances allowed. For most respondents, their use had been ongoing for one to two years and all respondents felt that synthetic cannabinoids were extremely 'addictive'. Friends and family would often notice changes in behaviour and appearance. This was commonly described as walking around in a confused state looking like 'zombies', with grey skin and bright pink eyes, being unable to communicate properly and often repeating actions because of short term impaired memory. A number described the effect of regular synthetic cannabinoid use with a phrase associated with heroin use: 'gouching' or 'gouching out'.

32. Consequences of synthetic cannabinoid use.

Many regular users felt that their physical health had deteriorated. Sore throat, bad coughs, skin rashes, chest and heart pains, nausea, headaches and short term memory loss were all repeatedly reported. Heavy or initial use could cause panic

and frightening experiences. A number of respondents reported that friends and family had remarked on changes in their behaviour such as irritability and increased aggression. The belief that insects were crawling under the skin when intoxicated (delusional parasitosis) was reported by several respondents. However it was difficult to differentiate between psychotic symptoms, whether drug induced or otherwise, and the effects of synthetic cannabinoids, as regular users tended to be intoxicated in every waking hour. One of the commonly described symptoms of regular use and a sign of dependence was the inability to sleep without using the drug. Withdrawal symptoms were described as including insomnia, night sweats and extremely sweaty palms. Disturbed thought patterns, agitation and severe cravings could go on for several weeks after cessation. A number of respondents reported an overwhelming temptation to start using synthetic cannabinoids again because they were so readily available: some relapsed soon after stopping, while others stopped for months before relapsing. A number of respondents had stopped using and described their physical and mental transformation 'back to the person they were'. However, a number described physical symptoms carrying on after use had stopped; in particular tenderness around the heart and pain in the chest and lungs that led them to believe they had caused permanent damage. A number of those who had stopped using synthetic cannabinoids were keen to return to cannabis smoking but felt that prolonged use of synthetic cannabinoids resulted in an inability to feel the effects of cannabis for at least a few weeks. Several users reported their involvement in shop theft and other acquisitive crimes to pay for their use and some had been sent to prison after committing crimes to pay for synthetic cannabinoids.

33. Buying and selling synthetic cannabinoids.

The Trading Standards action led a number of respondents to believe that 'legal highs' were now illegal in Blackburn with Darwen. Since the Trading Standards action most users had shifted from headshop purchases to a 'mobile vendor' associated with a 'clothes for cash' outlet who delivered NPS anywhere in Blackburn. He could be contacted either by phone or through Facebook and was widely considered to be the main supplier of 'legal highs' to this group of users during the fieldwork period. Although the researchers were careful to avoid asking names, it became apparent in multiple interviews and informal conversations – in fact it was the 'worst kept secret in town' – that this mobile vendor would sell any amount of NPS to anybody of any age and was also selling heroin and crack.

34. Views on NPS policy.

The most commonly expressed view regarding NPS policy was to 'ban them', although a minority thought that use should be permitted at home providing people were not committing crimes or causing a public nuisance. However, despite most respondents wanting NPS to be banned, in contrast none of them believed that this would work in practice. It was a widely held view that there was now a stigma surrounding use of 'legal highs' and those 'legal heads' who were still using were viewed negatively. It was generally felt that there were far less young people using synthetic cannabinoids than a year ago and less using in a problematic way users as they started to realize the dangers after seeing their friends need medical treatment. Furthermore those who had given up were actively persuading others to give up or not start.

Focus group at day centre for young homeless people

35. Focus group NPS use.

A focus group was conducted with 12 clients of a centre for young homeless people in Blackburn with Darwen in March 2015. Similarly to the individual interviews with professionals and users, focus group respondents described how use of NPS and 'established' illegal drugs overlapped; that the most commonly used illegal drugs are cannabis, cocaine and ecstasy; and that use of 'bubble' (mephedrone, other cathinones, other stimulants or unknown white powders) continues particularly amongst younger teens. Synthetic cannabinoids were by far the most commonly used NPS, particularly over the last year (particularly the Exodus brand), and the majority of participants indicated that they had either used these NPS regularly, and/or that they had experienced problems with them. The effects of synthetic cannabinoids, particularly when used heavily, were typically described as hallucinogenic and included many physical effects, with behaviour often becoming disoriented or even aggressive. Almost all regular synthetic cannabinoid users reported developing dependence on them, including craving, tolerance and withdrawals following cessation. Descriptions of the synthetic cannabinoid withdrawal syndrome closely resembled the symptom profile of the opioid withdrawal syndrome, including influenza-like symptoms, anxiety and insomnia. Almost all synthetic cannabinoid users indicated that they had recently given up their use, mainly because of the 'side effects', notably health problems and withdrawal symptoms.

Prisoners views

36. NPS use in prisons.

Twelve adult prisoners and two young offenders were interviewed. Given that the prisoners had been transferred from other northern prisons towards the end of their sentences, they were able to provide a broad picture of the situation regarding NPS use inside UK prisons. Prisoners reported that the rise of synthetic cannabis over the last four or five years and particularly within the last 12 months had meant that it was now the most common (and according to some just about the only) drug used in prisons and had displaced cannabis, heroin and prescription drugs. The attraction of NPS at first related to avoidance of positive results in drug screens. Prisoners had little detailed knowledge about NPS and in common with other users interviewed for this study, called NPS 'legal highs' and were unaware of the term NPS. Synthetic cannabinoids were known commonly as 'spice' and sometimes as 'green crack'. When asked for prevalence rates, prisoners estimated that on a wing or unit holding 50-60 prisoners there would be about 20 regular synthetic cannabinoid users and all knew of someone who they felt had a 'habit'. Whereas previously it was felt that synthetic cannabinoids were 'prison drugs' and that prisoners would go back to cannabis once they were released, attitudes seemed to have changed, with all prisoners saying they would continue to use synthetic cannabinoids when released.

Hostels and HMOs

37. The views of adults in hostels and HMOs.

Six adult male residents of hostels or Houses of Multiple Occupancy were interviewed in a town centre car park while attending a soup kitchen. All originated

from outside Blackburn with Darwen and had been placed in local hostels after leaving prison. All were current or ex-heavy drug users. Most had used heroin and reported addiction problems at one point in their lives, along with a range of other mental and social issues. None had heard of the term NPS: all called them 'legal highs' and synthetic cannabinoids were known by the prison slang names of 'spice' and 'green crack'. It was reported that nearly all NPS use in hostels involved synthetic cannabinoids. As with prisoners, there was a general level of ignorance about what synthetic cannabinoids were. Some had used synthetic cannabinoids in prison and all had used them at some point while in the hostels, some regularly. Most stated that they used synthetic cannabinoids because they were cheap or when other drugs of choice were not available. Although they all acknowledged synthetic cannabinoids were 'dangerous drugs', their use was perfectly acceptable in hostels. Synthetic cannabinoid users were described as either 'wired' all the time or 'off their heads' and unable to communicate. They all felt synthetic cannabinoids were highly 'addictive' and described people trying to stop using them who experienced psychotic-like symptoms.

Conclusion

38. Conclusions

- NPS users in Blackburn with Darwen are very largely the same population group who use illegal drugs. Use is found among both genders and all ethnic groups and they are used for the same reasons given for use of illegal drugs: pleasure/fun, stimulation, relaxation, boredom, curiosity, peer influence, sociability etc. Like all drugs, price, availability and desirability were also important factors.

- The main NPS used are synthetic cannabinoids & nitrous oxide (laughing gas). The use of stimulants (white powders) also occurred, but the use of 'bubble' (mephedrone and other white powders) had declined significantly over the last few years. The current problems caused by NPS almost exclusively concerned synthetic cannabinoids. Synthetic cannabinoids were considered to be far more harmful than cannabis.

- The population most affected by synthetic cannabinoid problems were the most vulnerable 'at risk' group of young people, those in prison and those in hostels and HMOs.

- Synthetic cannabinoids caused physical & mental health problems, including: mood and behavioural changes; aggression and violence; and involvement in crime. Hospital admissions were frequently reported

- Synthetic cannabinoid use can become very frequent and heavy for some users, leading to serious dependence (craving, tolerance and withdrawals). A withdrawal syndrome similar to opioid withdrawal involving craving, anxiety, insomnia and sweating was commonly reported.

- The Trading Standards action led to an increase in more traditional drug dealing methods for supplying NPS. One local supplier dominated the NPS market in Blackburn with Darwen during the fieldwork period, using a wide range of retail practices from Facebook advertising to a mobile delivery service.

- There is some evidence that synthetic cannabinoid use in Blackburn with Darwen has peaked. A number of those experiencing problems appear to have given up over the last year.

- Adult services see a relatively small number of people whose primary drug problem concerned NPS, although synthetic cannabinoid use was probably under-reported in this group. There was a perception that the pathway through treatment services was less clear for NPS users.

- NPS users with drug and mental health problems often fell between the gaps in services. After completing in-patient psychiatric treatment, patients were released into hostels where there was endemic synthetic cannabinoid use.

- Professionals often lacked NPS knowledge, which left them feeling de-skilled and may have led at times to a disproportionate response.

Key policy recommendations

39. Key policy recommendations

The key policy recommendations have been aligned to Blackburn with Darwen's five public health thematic areas for dealing with NPS.

Recommendation 1. An online professional information network should be formed in line with the proposed local drug information system (LDIS) model.[1] Staff from Accident and Emergency departments, the ambulance service, in-patient mental health services and community and welfare groups in the Asian community should be encouraged to become part of this network. Intelligence gathered by the proposed LDIS should be used to provide NPS users with timely and accurate harm reduction advice.

Recommendation 2. Where possible, local people's negative experiences of synthetic cannabinoid use and positive experiences of quitting and help seeking should be harnessed.

Recommendation 3. A train the trainers approach for non-specialist staff should be adopted in which trainers are able to provide short briefings on new and adulterated drugs as and when needed. Trainers can be supported and kept informed and up-to-date by the adoption of an LDIS model (Recommendation 1).

Recommendation 4. Clear, appropriate and integrated treatment pathway for NPS users particularly for those non opiate and crack users (OCUs) in their twenties, those from the Asian community and those in hostels and HMOs should be established and promoted effectively.

Recommendation 5. Clear, appropriate and integrated dual diagnosis treatment pathways for adults and young people should be established.

Recommendation 6. Alternatives to sending those leaving in-patient psychiatric care to a named bed in a hostel or HMO where NPS use is highly prevalent should be explored as a priority for mental health services.

Recommendation 7. A multi agency plan as a response to both the specific enforcement and wider policy issues likely to arise from the proposed legislation in the Psychoactive Substances Bill should be produced.

Recommendation 8. Blackburn with Darwen Council should work with the range of key partners across the wider PAN Lancashire geographical footprint to identify potential options for forensic analysis of new or unidentified substances and a multi-agency protocol should be adopted.

[1] LDIS = Local Drug Information System. Co-author Michael Linnell has written 'Drug alerts and local drug information systems: guidance for local areas" for Public Health England. It is due to be published shortly.