New Psychoactive Substances Needs Assessment for Tayside, 2014

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Executive Summary

The Advisory Council on the Misuse of Drugs defines new psychoactive substances (NPS) as "psychoactive drugs which are not prohibited by the United Nations Single Convention on Narcotic Drugs or by the Misuse of Drugs Act 1971, and which people in the UK are seeking for intoxicant use"[1].

Since 2009, year on year the number of NPS identified to be circulating in Europe has increased. There are now over 350 substances that the European Monitoring Centre for Drugs and Drug Addiction are aware of and over 650 websites in Europe who market NPS to consumers[2].

In 2013 NPS were found to be a potential contributor to 60 drug deaths here in Scotland.

However, beyond these statistics, we know very little about NPS. Data are scant. Such is the current concern about NPS that the Scottish Government has made tackling NPS a priority for local Alcohol and Drugs Partnerships (ADPs).

This Needs Assessment was undertaken on behalf of the three Tayside ADPs to ascertain the current impact of NPS on the Tayside population.

The aim of the work was to improve our understanding of what is happening with regards to NPS in the Tayside area and make recommendations as to how the help and support offered to people who either take NPS or know others who do could be improved.

To inform our understanding we gathered available routine data, conducted an online population survey and spoke with professionals and various community groups to explore their experiences of NPS.

With regards to routine data, Police Scotland is currently systematically recording incidents where they encounter NPS. A wide variety of NPS has been recovered in the Tayside area since recording began at the beginning of May.

NHS data are limited due to constraints with ICD-10 coding.

The number of incidents involving NPS which the Scottish Ambulance Service has attended, according to free text querying, has increased consistently from January 2012 to June 2014. This may reflect an increased awareness amongst Scottish Ambulance Service staff about NPS who are now proactively asking service-users about possible NPS usage or it could reflect a genuine increase in the number of people requiring emergency medical assistance for NPS use.

The online survey ran for five weeks and attracted 687 responses; 258 from residents in Dundee City, 244 from Angus and 135 from Perth and Kinross. The ratio of female to male respondents was 5:2 and a wide distribution of ages was represented.

Although the majority of contributors to the survey had either known others who had taken NPS (but had not taken it themselves) or had no experience of NPS, 120 people with direct experience of NPS (having tried NPS previously or take it currently) also responded.

Most people reported obtaining their first NPS through friends or a shop. Ongoing supply after the first introduction to NPS was predominantly through shops.

Respondents reported that the most common age for introduction to NPS was aged 16 to 19 years. 26% respondents with direct experience of NPS reported always taking NPS with another substance and a further 32% said that they would usually take NPS with something else. The other substance was most commonly alcohol but cannabis and cocaine also featured amongst the responses.

109 respondents had been aware of others, or accessed for themselves, emergency medical help for NPS use. Most commonly this was via the Scottish Ambulance Service (n=58, 53%) but other services included Accident & Emergency/Minor Injuries Unit (n=33, 30%), GP (n=5, 5%) and mental health services (n=6, 6%).

There was an expressed wish for additional help and support to be available for those who take NPS by most respondents to the survey. The majority wanted there to be raised awareness of the dangers of or potential damage associated with NPS with emphasis on the requirement for greater education on the topic. Respondents also wanted to see greater availability of support services for NPS use with some suggesting readily accessible drop-in services or a dedicated NPS service. There was also an expressed desire in favour of either banning NPS or making them less readily available.

These results from the survey were echoed in the discussions with various professionals and community groups. That NPS is easily accessed through ‘head shops’ was a recurring theme across conversations, with concerns raised about techniques employed by the ‘head shops’ to encourage the purchase of NPS. There was a strong appetite for ‘head shops’ to be banned both from people who know others who take NPS and from those who take NPS themselves. In the case of those who take NPS they believe that by not having the shops there it would reduce temptation.

In the discussions professionals and community groups frequently expressed the desire for more information to be given to school children about the dangers of NPS.

The dissemination of information to the general public about NPS was another key theme. There was a widely expressed view that health promotion and harm reduction measures needed to be bigger, more widespread, and designed to have greater impact.

Several professionals have expressed the need to dedicate more time and personnel to NPS. Some suggested that there might be a need for NPS-specific clinics or that designated workers take the lead on NPS-related issues within services.

Also, many professionals expressed an appetite to develop networking in relation to NPS issues across Tayside. It was suggested that the purpose of this would be information sharing, peer-support, knowledge exchange, monitoring of trends and leading on the co-ordination and dissemination of health promotion messages and harm reduction measures for NPS.

The routine data, survey results and discussions with professionals and community groups provided us with a rich resource to consider the impact of NPS in the Tayside area. As a result of this information we have detailed suggestions as to how support and help for those who take NPS or know others who do can be improved; these can be found in section 5 of this report and as a summary in section 6.

Broadly, the recommendations can be grouped as follows:

i. improved data collection to monitor NPS-associated trends
ii. Raising awareness of NPS
iii. Advocating the restriction of access to NPS
iv. Facilitating information sharing of current NPS trends and experience
v. The development, monitoring and evaluation of NPS-specific support delivered by services

New psychoactive substances are a rapidly evolving entity. We hope that by reporting experiences of NPS in the Tayside area and suggesting changes for the future this work will provide a platform through which to consider and improve the way in which we provide help and support to those who take NPS or know others who do.

Acknowledgments

This Needs Assessment represents the work and input from a wealth of professionals, voluntary agencies and community members to whom we are very grateful.

This work was conducted on behalf of the three Tayside Alcohol and Drugs Partnerships (ADPs): Angus, Dundee City and Perth and Kinross. Each ADP was represented on the Needs Assessment Steering Group by Thane Lawrie and Laura Ogilvie (Angus), Vered Hopkins (Dundee City) and Ian Smillie (Perth and Kinross). In addition, Caroline Snowdon (Public Health Intelligence Officer) was also part of the Steering Group. Their help in guiding and supporting this work has been invaluable, thank you.

For the routine data we are very grateful and would like to thank the following people who assisted in our enquiries and provided us with the data included in this report:

- Mark Duncan (Police Scotland) for the police data
- Caroline Snowdon (NHS Tayside) for the NHS data
- Pauline Cunningham (The Cairn Centre) for the needle-exchange services data
- Derek Milligan (Scottish Ambulance Service) for the SAS data
- Dr Andrew Reddick, Dr David Smith and Dr Natalia Levchenko (NHS Tayside) for sharing their audit of Emergency Department Attendees with us

The survey was one of the largest general population surveys that the Public Health Department of NHS Tayside has conducted. For helping promote it and encourage the response we achieved our very many thanks go to: Alistair McGillivray (NHS Tayside) for his support in helping design and produce the promotional flyers and posters; Debbie Huband (NHS Tayside) for her help with promoting the survey amongst local partners and media; and our local partners and media for raising awareness of the survey amongst the general public. Most of all, we are indebted to the respondents who have taken their time to engage with the survey and provide us with the rich information that we have been able to present in this report – thank you.

Lastly, but by no means least, we would also like to thank the professionals and community groups and members who took the time to meet with us and share their experiences of NPS. These included:

- Greg Logan, Daniel Kelly, Kirstie Howell (CAIR Scotland)
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- Dave Barrie (Addaction)
- Dr Tim Elworthy (Tayside Substance Misuse Service)
- Graeme Shand and colleagues (Tayside Substance Misuse Service)

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- Karen Dammer (Education Department)
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Contents

1. Introduction

There has been increasing concern about new psychoactive substances (NPS) in recent years. The number of substances that are available and circulating on the European market are increasing year on year. Here in Scotland NPS have been implicated in the deaths of several people in recent years. Such is the concern the Scottish Government has made tackling NPS a priority for local Alcohol and Drugs Partnerships (ADPs).

This Needs Assessment was undertaken on behalf of the three Tayside ADPs to ascertain the current impact of NPS on the Tayside population. The aim of the work was to improve our understanding of what is happening with regards to NPS in the Tayside area and make recommendations as to how the help and support offered to people who either take NPS or know others who do could be improved.

This report considers existing evidence and presents: currently available routinely data; the results of quantitative and qualitative data analysis of online survey results; and the thoughts and experiences expressed by public and professionals with regards to NPS. From the results of this work we have been able to identify issues, concerns and needs of people who either take NPS themselves, or are affected by others' use. We have also made recommendations as to how to improve the support and help we offer to people affected by NPS and raising awareness of the potential harms associated with NPS more widely.

New psychoactive substances are a rapidly evolving entity. As such we hope this document, by providing a current snapshot of what is happening here in Tayside, is of interest to readers both locally and further afield.

2. Background

The Advisory Council on the Misuse of Drugs (ACMD) defines NPS as "psychoactive drugs which are not prohibited by the United Nations Single Convention on Narcotic Drugs or by the Misuse of Drugs Act 1971, and which people in the UK are seeking for intoxicant use"[1]. Each year, since 2009 when European-wide monitoring for NPS commenced, the number of NPS identified has increased.

In 2013 NPS were found to be a potential contributor to 60 drug deaths here in Scotland. However, beyond these statistics, we know very little about NPS. Data are scant. Such is the current concern about NPS that the Scottish Government has made tackling NPS a priority for local Alcohol and Drug Partnerships.

A recent report prepared by DrugScope wrote "Although there is much media and political interest in NPS, currently there is very little robust data on prevalence or patterns of use making it difficult to assess the level of need for health and prevention interventions"[3].

2.1 What are NPS?

New psychoactive substances are perhaps better known by the somewhat misleading term 'legal highs'. Other synonyms include novel psychoactive substances, new and emerging drugs, research chemicals and designer drugs.

The United Nations Office on Drugs and Crime specifies six main groups of NPS according to chemical class: ketamine, phenethylamines, piperazines, plant-based substances (e.g. khat, kraton and *salvia divinorum*), synthetic cathinones and synthetic cannabinoids[4]. A seventh group includes miscellaneous substances such as aminoindanes, tryptamines, and phencyclidine-type substances.

New psychoactive substances are frequently marketed as "not for human consumption" and are sold under the guises of 'plant food', 'fish food', 'room odoriser' or such like. By advertising and selling products under these terms vendors circumvent the legislation set out in the Medicines Act 1968[1].

New psychoactive substances were "not a widely recognised issue within drugs policy" prior to the rapid growth in consumption of mephedrone in 2009[1]. After concerns were raised about mephedrone following a number of deaths associated with the substance, mephedrone was classified under the Misuse of Drugs Act. In addition to mephedrone other NPS including naphyrone, methoxetamine, NBOMe have now also become classified substances but the vast majority remain technically legal.

2.2 How much of a problem is NPS?

Overall, in the general population, the use of NPS would appear to be low. The 2013 National Report to the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) from the UK reported that "prevalence of use of new psychoactive substances remains relatively low in surveys on drug use"[5]. The Scottish Crime and Justice Survey 2012/13 reported that 0.5% of adults had said that they had taken any of the "new drugs" in the last year compared to 6.2% who had taken one or more illicit drugs[6].

However, the concerns with NPS are two-fold. Firstly we have very little data to gauge accurately what is happening with NPS such as who is taking it, what they are taking, what difficulties with NPS they are encountering. Secondly, it would appear the availability and use of NPS is increasing. The 2013 World Drug Report produced by the United Nations Office on Drugs and Crime highlighted a marked rise in the availability of NPS in recent years.

Since 2009, year on year the number of NPS identified to be circulating in Europe has increased (figure 2.1). There are now over 350 substances that the EMCDDA are aware of and over 650 websites in Europe who market 'legal highs' to consumers[2].

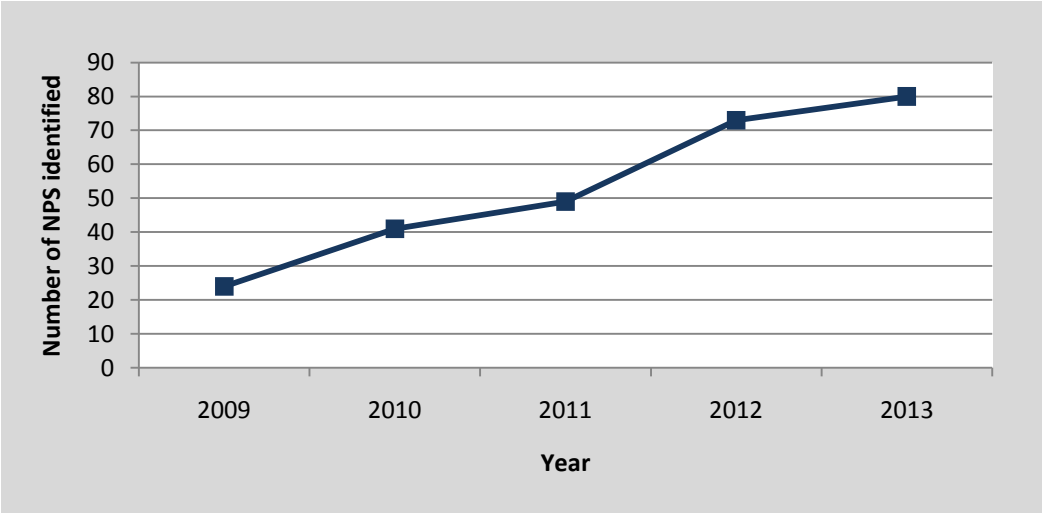


Figure 2.1 Number of NPS identified by EMCDDA each year[2]

2.3 Source of NPS

It is believed that the majority of NPS are manufactured in the Far East, particularly in China[7]. The distribution of NPS has been largely facilitated by the growth of the internet[3]. The internet can be used by both 'head shops' to purchase their stock or by individuals to acquire NPS for themselves. 'Head shops' is a commonly used expression for premises that sell NPS. The internet has allowed for more overt advertising, has increased

information exchange between users and provides products that are easy to search for and purchase.

A recent survey of EU-based online retailers of NPS found that more than half of the retailers were located in the UK[8]. The authors of the study found that little information was provided by the online retailers about the active ingredients of many products. Also they found a lack of information on dosages and the potential adverse effects of substances advertised.

When searching for "Where to buy legal highs" on the internet, a variety of websites advertising NPS can be found easily. On each website there are many products available with discounts offered for bulk purchasing. In addition to the standard internet and the World Wide Web, online drug marketplaces also exist on a parallel forum called the 'Deep Web' where consumers can search and purchase drugs with anonymity using Tor browser and 'bitcoins'[9]. This is likely to be used more for illegal drugs where anonymity to avoid prosecution is sought but NPS can also be accessed through this platform.

In addition to the internet people wanting to purchase NPS can do so from local 'head shops'. There are currently at least seven 'head shops' in existence across Tayside including Perth, Dundee, Arbroath and Montrose. 'Head shops' are usually high street retail premises that sell NPS, but elsewhere in the UK petrol stations, takeaways, tattoo parlours, car boot sales, pet shops, cobblers and ice-cream vans have also been known to sell NPS[10].

2.4 Effects of NPS

New psychoactive substances are designed, or are claimed, to mimic the effects of already existing illegal drugs. The Drugs Wheel[11] is a useful tool which categorises NPS according to the main effect experienced by the user when taking it. The classifications used by The Drugs Wheel are: stimulants, empathogens, psychedelics, dissociatives, cannabinoids, depressants, opioids. The purpose of The Drugs Wheel is to allow workers to provide advice and harm reduction messages tailored to the individual according to the effect of the NPS produced. It avoids the challenges of trying to pinpoint exactly which pharmacological class the NPS they are presented with falls into but concentrates more on the broad effect that results.

2.5 Adverse effects of NPS

New psychoactive substances can induce a range of adverse effects including palpitations, agitation, vomiting, seizures, headache, chest pain, insomnia, sweating, vomiting, paranoia, hypertension and delusions[12]. A recent survey of drug treatment services

conducted by the Scottish Drugs Forum reported that service users experienced mental health impacts such as paranoia, anxiety and psychotic symptoms while under the influence of NPS. In addition services noted dependency developing whilst on NPS, tolerance of the substances and withdrawal symptoms[13].

At the more extreme end, NPS can also result in death. In Scotland in 2013 there were 113 drug deaths where NPS was found to be present. In 60 of these deaths NPS was a potential contributor to death. In most cases NPS was found in conjunction with other substances but in 5 cases NPS was the only substance implicated in the death[14].

The first Scottish deaths involving NPS were registered in 2009. Since then the number of drug deaths where NPS has been found to be present has increased from 4 in 2009 to 113 in 2013 (figure 2.2). Although this marked increase may be due, in part, to increased detection of NPS on toxicology screening at post mortem as laboratory testing becomes more sophisticated it is also likely to reflect the increase in NPS availability and use described widely in the literature and current reports.

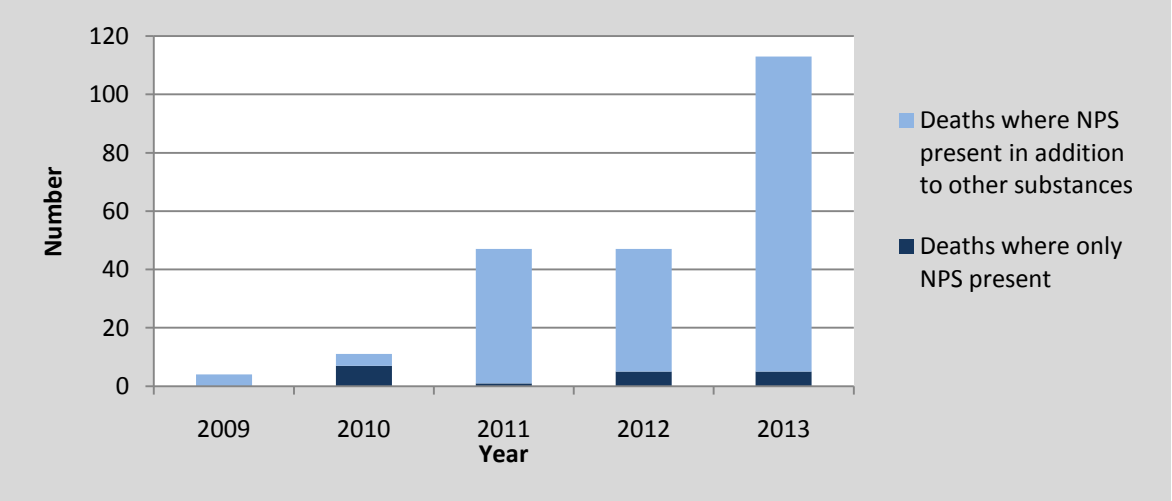


Figure 2.2 Number of drug deaths involving NPS in Scotland

The greater number of deaths where NPS was the only substance present in 2010 was likely due to the number of deaths at that time where mephedrone was implicated. Since 2010 and mephedrone was made illegal, mephedrone is no longer counted as part of the NPS data in the National Records of Scotland Drug-related Deaths report.

Overall drug-related deaths where NPS are the only substance present represent only a small proportion of overall drug-related deaths (1.0% in 2013 and 0.9% in 2012). However, the increasing trend since 2009 in numbers of death where NPS are present is concerning, as is the proportion of drug-related deaths where NPS are now found, which in 2013 was 20.5% of all drug-related deaths.

2.6 Quality of NPS

New psychoactive substances are not always what they are advertised as. A case report in the British Medical Journal described the adverse effects experienced by a 31 year-old man who had purchased the NPS, Energy-1, which at that time was legally available in the UK. The active substance it purported to contain was naphthylpyrovalerone. However, analysis of the drug showed that it actually contained two classified substances[15]. Other research has similarly shown the presence of illegal substances in other NPS[16] and 19.2% of NPS samples collected by the Forensic Early Warning System have been shown to contain controlled drugs[17].

Illegal drugs are not the only substance that are substituted or mixed in with NPS. Another study of six NPS found that caffeine was the only active pharmacological compound contained within the product[18]. Furthermore, there is no certainty that buying the same product on more than one occasion results in the acquisition of the same substances[19].

The variety of quality of NPS leads to uncertainties for both the consumer, in terms of effect to expect and liability of prosecution, and clinicians treating the myriad of associated presentations.

2.7 Legislation surrounding NPS

The legal framework that legislates for drug misuse in the UK is the UK Misuse of Drugs Act (1971). This specifies the names of substances that are currently banned in the UK. To be classified as an illegal drug there has to be evidence that the substance is dangerous or harmful if misused. The Act includes laws surrounding licensing, production, supply and possession.

In 2011 an amendment to the legislation was introduced whereby a substance could be controlled for the period of one year under a temporary class drug order whilst evidence was gathered as to its potential harm. Methoxetamine was the first drug that became subject to a temporary class drug order in the UK in 2012. Subsequently in 2013 it became classified as a class B drug under the Misuse of Drugs Act.

One of the challenges with trying to ban NPSs is that the substances are continuously evolving. The manufacturers realise that by tweaking one or two of the chemical components to create a different compound the laws as they stand currently can be circumvented.

One concern that is often raised about banning substances is that whether, once a substance is made illegal, substitution then occurs with another substance. This in theory could occur relatively easily given the plethora of NPS available. Research has shown that

when one NPS becomes controlled, the sale of other new compounds are more actively marketed[20].

The World Drug Report 2013 stated that "It has generally been observed that, when a NPS is controlled or scheduled, its use declines shortly thereafter, which has a positive impact on health-related consequences and deaths related to the substance, although the 'substitution effect' has inhibited any in-depth research on the long-term impact of NPS scheduling."

To date the following trends have been observed following the classification of substances:

1. The substance remains available to acquire, but its use declines shortly after scheduling e.g. mephedrone in the UK
2. The use of the substance decreases following a longer interval e.g. ketamine in the United States
3. Or classification has little or no impact on the use of the substance e.g. ecstasy in UK

An example of immediate decline in use has been shown after benzylpiperazine was prohibited in New Zealand in 2008. A general survey, comprising over 2000 respondents, showed the prevalence of use fell from 15.3% to 3.2%. Of those who stopped, 43% did so because "it's illegal now" and 24% stopped because they "don't know where to get it now it's illegal"[21]. Of note the authors found that overall NPS use was less post the benzylpiperazine ban suggesting that substitution did not occur on this occasion.

Similarly after mephedrone was banned in the UK (with effect from 16th April 2010) the number of calls to the National Poisons Information Service decreased in the subsequent month by half suggesting that the use of mephedrone had declined[22]. This also occurred with methoxetamine following its classification[23] and in the USA a significant reduction in contacts to poison control centres occurred following the ban of synthetic cathinones[24].

As far as legislation is concerned, New Zealand has chosen to tackle NPS in a different way to that of most other countries. The government passed as legislation, The Psychoactive Substances Act 2013, which came into effect on the 18th July 2013. The Act is designed to regulate the importation, manufacture and supply of psychoactive substances.

As a result of the Psychoactive Substances Act the responsibility now lies with the manufacturers to prove that their products pose a low risk of harm before they can be marketed in New Zealand. Manufacturers are required to provide human clinical trial data on the health risk of their product before they can receive approval which permits the products to be manufactured and sold legally[25].

The Psychoactive Substances Regulatory Authority, which was established as part of the Act, has the responsibility of ensuring products meet adequate safety requirements before distribution in New Zealand.

The introduction of the Act reduced the number of NPS available to purchase by 75%[26]. The remaining 25% could be sold under an 'interim licence'. However, the Psychoactive Substances Act was subsequently amended and from the 8th May 2014 all interim product approvals and interim retail and wholesale licences were revoked. Products are now only available legally if they have been approved under specified regulations.

It is anticipated that the cost to the manufacturer will be significant and this may result in a limited through put of substances. Furthermore the Act has introduced restrictions on where and how NPS can be sold and associated marketing. For example NPS can only be sold to people aged 18 years and over and advertising will only be allowed at the point of sale such as the shop or internet.

Some researchers have commented that a significant difficulty with this legislation is how to define 'low risk of harm'[25,27,28]. It is emphasised that 'low risk' does not mean safe. Furthermore they suggest that when considering legislating for NPS it should be remembered that NPS are not designed to have a treatment effect but that they are taken for solely recreational purposes. It will be interesting to observe what impact the legislation for NPS in New Zealand has over the next few years and what challenges are encountered as it is implemented.

2.8 Monitoring emerging NPS

Here in the UK the Home Office set up the Forensic Early Warning System which has the aim of identifying emerging NPS quickly and more effectively. Information that the Forensic Early Warning System gleans is used to inform the Advisory Council on the Misuse of Drugs[17]. The Home Office also established the Drug Early Warning System to encourage the sharing of information about emerging NPS trends with national and international partners.

In the European Union there is also an early-warning system which was set up to spread information of NPS to countries included in the network. Another task of this network is to activate a risk evaluation process in order to control identified compounds at European level. The EMCDDA and Europol disseminate Early Warning Notifications for substances that are of concern. For example, in June this year an Early Warning Notification was issued for the synthetic opioid, MT-45[29]. The notification was issued after the substance had been associated with an increase in fatalities in Sweden.

Recently a research project called The European Drugs Emergencies Network (Euro-DEN) has been set up. This project has the objective of developing a network of 15 sentinel centres across 11 countries in Europe, each with specialist clinical, toxicological and research interests in the adverse consequences of recreational drugs and NPS. Through this network, the researchers plan to collect data over a 12-month period to determine the epidemiology of presentations to the Emergency Department with acute harm from recreational drugs and NPS across Europe[30,31]. Notably, the research seeks to address the deficiency in lack of Emergency Department data. This occurs as a result of i) the absence of NPS-specific coding for hospital episode statistics and ii) existing data collection records only hospital admission, not Emergency Department attendances. Although none of the centres are based in Scotland the resulting information about the impact of NPS on the need for emergency medical help should be interesting and useful nonetheless.

In Scotland when the Scottish Schools Adolescent Lifestyle and Substance Use Survey ran last year it included a question for the first time about 'powders or pills that are sold as legal highs'. Again, this should provide useful information about the emerging trends of NPS and is due to be reported in 2014.

2.9 What is happening in Tayside as far as NPS are concerned?

We have very limited information as to what is happening with NPS in the Tayside area. Routine data are sparse. Anecdotally professionals are reporting increased involvement with service-users who are taking NPS. This has been backed up by a recent publication by CAIR Scotland which reported that following a peak in NPS-related referrals to their services in 2010, the proportion of service-users reporting use of NPS as either a primary or secondary substance is once again increasing[32].

This needs assessment was set up by the Alcohol and Drugs Partnerships to provide, in part, more information for professionals and the public about current NPS use in the Tayside area, but also to drive improvements in the way in which we deliver help and support for those who either take NPS or know others who do.

3. Methods

3.1 Aims

The aims of this Needs Assessment are to

- improve our understanding of NPS
- identify issues, concerns and needs of people who either take NPS themselves, or are affected by others' use
- improve the help and support offered to people who either take NPS or know others who do

To inform the Needs Assessment evidence was gathered via:

i) Routine data analysis
ii) Population survey
iii) Discussions with professionals and local community groups

3.2 Routine data

Routine data were sought from the following services.

Police Scotland

Police Scotland currently has an investigation into NPS called Operation Redwall. Since May 2014, as part of this operation, data are now routinely recorded on the number and type of NPS seized by Police Scotland. The data that have been collected under Operation Redwall, that are pertinent to the Tayside area, are included in this report.

Scottish Ambulance Service

In the electronic patient record form, which records details about the incident that the ambulance crew attend, there is a free text section. This was queried for a variety of search terms including "legal high", "NPS", "new psychoactive substance", "mephedrone", "ching" and other brand names of NPS. The results of this free text query are reported on in section 4.1.

NHS Tayside

The number of hospital admissions relating to NPS was sought using the Hospital Episode Statistics. These are reliant on the International Classification of Disease 10 (ICD-10) coding system. As alluded to in section 2.9, challenges exist with the interpretation of these data with regards to NPS. This is discussed in light of the results in section 4.1.

Emergency Department attendances

The Emergency Department at NHS Tayside Ninewells Hospital has recently conducted an audit looking at NPS-related presentations to the unit. This report includes some of the findings from this work.

Needle Exchange Services

Also included in this report are data obtained from reviewing the database which records attendances for needle exchange services. Since the middle of March the database now records instances where the expressed intention of sourcing clean injecting equipment has been for the use of NPS.

NHS 24

We also sought to include data from NHS24 but owing to the way the calls are recorded there were no routine data available for calls received concerning NPS use.

3.3 Population survey

The population survey was developed in consultation with the Needs Assessment Steering Group and piloted prior to its dissemination. The survey comprised four main stems that tailored the questionnaire to the experience of the respondents. As a result it was available to anyone to complete whether they had taken NPS themselves, known others who had or had no experience of NPS.

The survey went 'live' on the 18th June and was promoted by local radio and print media. We also produced posters and flyers to promote the survey and these were distributed through ADP links. A further press release was issued on the 16th July which was again picked up by local radio and print media, and on this occasion regional television also. This press release was designed to generate a final push to encourage Tayside residents to complete the survey before it closed at midnight on the 22nd July.

3.4 Discussions with professionals and local community groups

To supplement the survey data and routine data one of the authors (EF) conducted interviews, discussions groups and email exchanges with various professionals and people in the local community. Professionals included those working in Trading Standards, Social Work, Tayside Substance Misuse Service, Police and the Voluntary Sector. The local community members comprised a range of ages from late teens to mid-50s. These were individuals who had either had first-hand experience of NPS or knew of others who had taken NPS.

4. Findings

4.1 Routine Data

4.1.1 Police Scotland data

Since the start of May, Police Scotland has been systematically recording the numbers and types of NPS that are seized. From the 6th May until the 23rd July, 34 NPS had been seized from 28 individuals in the Tayside area. A wide variety of NPS have been recovered (table 4.1). 21 of the substances were known to have been purchased from 'head shops' in Perth, Angus and Dundee.

Table 4.1 NPS seized in the Tayside area between 6th May and 23rd July 2014

NPS Seized		
Psyclone	*U-4-E-A*	*Sky High*
Clockwork Orange	*Voodoo Gold*	*Happy Joker*
Buzz	*Happy me*	*Pandora's box*
Rapture	*Exodus*	*Pink Panther*
Colombian	*Mr White*	*Cake*
Ching	*Olympic Legacy*	

The most commonly seized NPS were Psyclone (n=4), Sky High (n=3), Happy Joker (n=5) and Pandora's Box (n=3). Only Happy Joker was found in one location. The other commonly seized NPS were found in more than one council area in Tayside.

The majority of the individuals from whom NPS was seized were male (89%) and aged between 18 and 49, with the majority being in their mid 25s to mid 30s (figure 4.1.1).

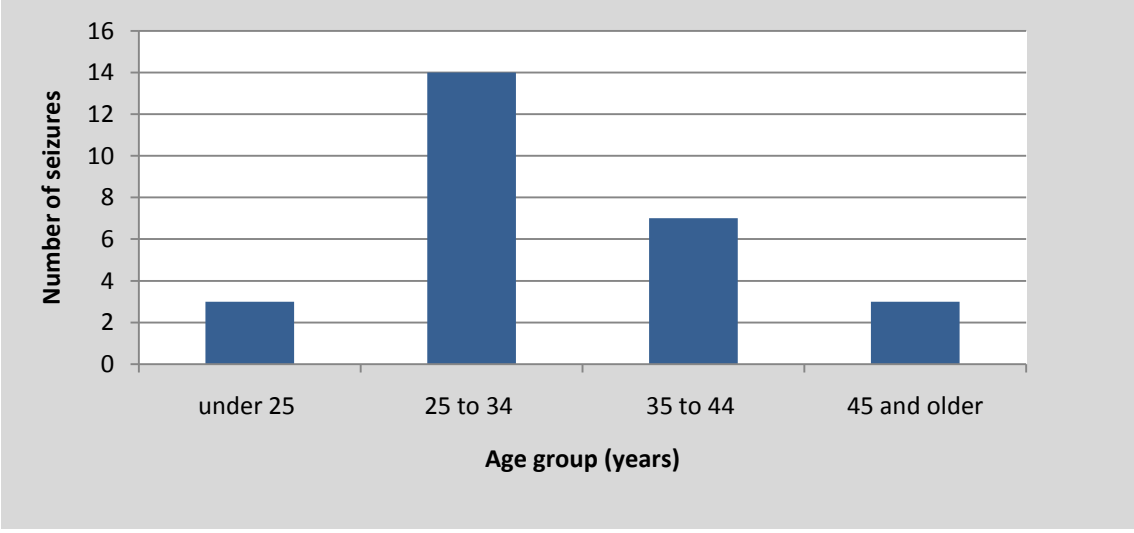


Figure 4.1.1 Age distribution of individuals where NPS has been seized in Tayside

The seizures occurred for one of the following reasons: the individual was stopped and searched on exit from a 'head shop'; he/she was searched as they appeared under the influence of drugs; or the person was stopped regarding another matter and the NPS was found on searching. In all but one of the instances, NPS was the only drug found on the person at the time of seizure.

4.1.2 NHS Data

The NHS data presented in this section should be interpreted with caution. Hospital episodes are coded for on discharge using the International Classification of Disease (ICD-10) codes. There is not one specific code that defines admission due to NPS use. As such an approximation has to be made using other currently available codes and achieving a 'best fit'.

For these routine data NPS was defined by Medical Records within NHS Tayside as being the following ICD-10 codes:

- **T43.6** – Psychostimulants with abuse potential (poisoning)
- **X41. (X410-419)** – Accidental poisoning by and exposure to antiepileptic, sedative-hypnotic, antiparkinsonism and psychotropic drugs, not elsewhere classified.
- **X61.(X610-X619)** - Intentional self-poisoning by and exposure to antiepileptic, sedative-hypnotic, antiparkinsonism and psychotropic drugs, not elsewhere classified. (The external cause code to "T43.6" if a patient has intentionally self-harmed using Mephedrone.)
- **F15. (F150-F159)** - Mental and behavioural disorders due to use of other stimulants, including caffeine. (The category to select to record any mental and behavioural disorders due to use of Mephedrone).

There will inevitably be some overlap with these codes and the use of non-NPS drugs. For example there will be individuals included in these numbers who have not taken NPS but some other psychoactive substance that falls into one of the categories above.

Using these data there has not been a significant change in the number of hospital discharges across the age groups since 2007 (table 4.2).

Table 4.2 NHS Tayside hospital discharges with a diagnosis relating to NPS according to ICD-10 codes

	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
Under 20	51	36	49	56	47	26	32
20-29	105	115	74	113	86	93	79
30-39	92	84	74	86	71	70	70
40-49	87	92	71	86	89	88	76
50-59	40	50	39	39	28	35	33
60+	21	22	22	18	19	25	26
All ages	**396**	**399**	**329**	**398**	**340**	**337**	**316**

Before 2009 there was little awareness of NPS. Given that the data are similar across the years from before this time it would suggest that NPS are not being sensitively identified by these current codes. That there are no appropriate ICD-10 codes through which to record hospital-associated data has been noted previously in research [33, 34].

4.1.3 Needle Exchange Services Data

'Neo' is a database that records data from needle-exchange services across the Tayside area. For every needle exchange, needle return or needle dispense, the person attending the service is asked questions concerning their needle usage. Since mid-March an entry asking service-users whether they intended to use the needle for injection of NPS or not was included in the database.

Between the start of April and end of June 1503 needles were dispensed and recorded on the Neo database. On 38 of these occasions the service-user reported that the injection equipment was intended to be used for NPS. Although this is only a minority of occasions (2.5%) compared to the overall use of needles for illicit drug use, this has the potential of being an emerging trend for NPS use and will be important to monitor in future. It is also valuable to note in terms of the future delivery of harm reduction measures concerning NPS use.

4.1.4 Scottish Ambulance Service data

In the first seven months of this year the Scottish Ambulance Service attended 130 incidents in Tayside where 'legal high' was subsequently recorded in the electronic patient report forms. This number compared to 915 overall in Scotland. In addition to 'legal high', named substances such as 'Biff', 'Ching', 'Gocaine', 'Cyclone', 'Clockwork Orange' and 'Pandora's Box' were mentioned on 11 occasions in Tayside records. No Tayside records were found where 'NPS' or 'New Psychoactive Substance' was mentioned and only 3 noted nationally.

Looking at the reporting of 'legal high' in the electronic patient report form specifically, in the past three years in Tayside the number of incidents where 'legal high' is referred to has increased substantially from three in the first six months of 2012 to 106 in the first six months of 2014 (figure 4.1.3). This may reflect an increased awareness amongst Scottish Ambulance Service staff about NPS who are now proactively asking service-users about possible NPS usage or it could reflect a genuine increase in the number of people requiring emergency medical assistance for NPS use.

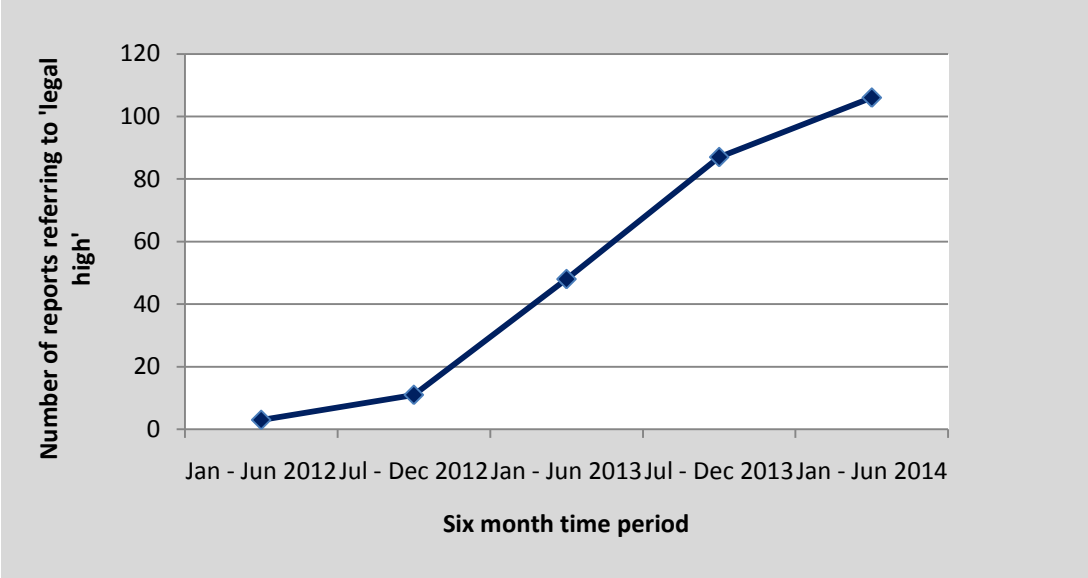


Figure 4.1.3 Incidents in Tayside attended to by the Scottish Ambulance Service where 'legal high' has been referred to

4.1.5 Emergency Department attendances

A recent audit, conducted over a four week period, identified 12 people presenting to Ninewells Hospital with intoxication where NPS was either the only substance taken (n=3) or NPS had been taken in addition to other substances (n=9). The average age of the person attending was 22 years with there being an even distribution of males to females. Most (n=10, 83%) had taken the NPS whilst in a private residence prior to admission. The types of NPS involved were varied with 8 different NPS reported. The other substances taken in addition to the NPS included alcohol, opioids, cannabis and heroin. None of the persons attending the Emergency Department required subsequent medical or psychiatric admission.

The acknowledged caveats with this audit are, firstly, it represents only small numbers and, secondly, that it is possible that some cases will have been missed. Furthermore, it should be noted that the data collected have only been for presentations related to NPS-associated intoxication and not other reasons such as injury while under the influence of NPS. However, the results of this audit do illustrate that people are presenting to the Emergency Department with intoxication, sometimes solely due to the effect of NPS. In addition, as discussed previously, presentations at the Emergency Department do not necessarily translate to hospital admissions and therefore routine data analysis identifying NPS-associated admissions can be difficult.

4.2 Survey

Over the five weeks the study ran we received 687 responses, including 258 from Dundee City, 244 from Angus and 135 from Perth and Kinross.

The survey comprised five sections:

- Section 1 – basic demographics (completed by all respondents)
- Section 2 – completed by those who have not taken NPS themselves but know others who have (n=280)
- Section 3 – completed by those who have previously taken NPS (n=93)
- Section 4 – completed by those who currently take NPS (n=28)
- Section 5 – completed by those who have had no experience of NPS (n=281)

Five people completed only section 1 of the survey and did not proceed to complete another section. Survey completion for sections 1, 2 and 5 was greater than 80% (figure 4.2.1). Approximately 90% of those that could respond to section 3 started doing so with 60% completing it. Of those respondents that replied saying they currently took NPS at the time of the survey, just fewer than 70% progressed to answer the questions, with 46% completing the section. In sections 3 and 4 there were two questions towards the start that could only be completed by entering free text – the response rates to these questions were markedly lower than the rest of the trend, as visible on the plot below.

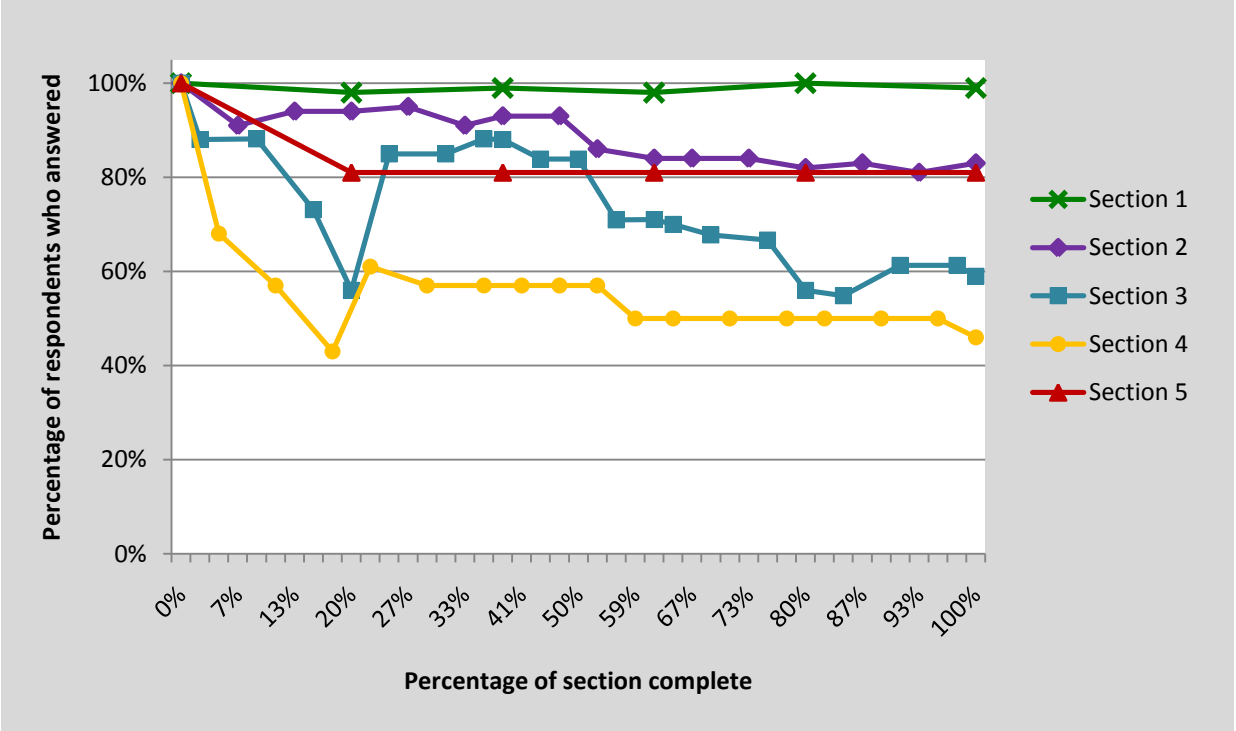


Figure 4.2.1 Survey completion by section

4.2.1 Demographics

The majority of respondents were either Dundee City or Angus residents (figure 4.2.2).

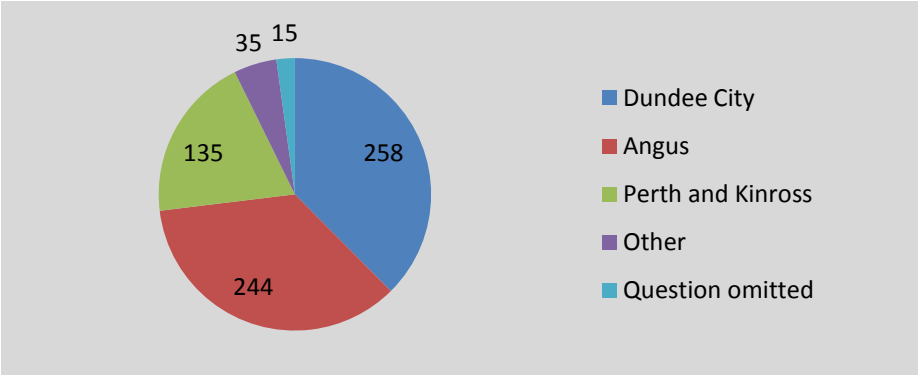


Figure 4.2.2 Area of residence of respondents

These figures translate to a completion rate (per 10,000) of 17.4 for Dundee City, 21.0 for Angus and 9.1 for Perth and Kinross.

Of the respondents who answered 'other', 17 lived in Fife, 11 elsewhere in Scotland and 7 in the rest of the UK. Where the survey results are reported by region, for example in the figure below, the answers from the few respondents who live outwith Tayside are not included. However, where region of residence is not specified the replies from 'other' are included in the data presented. This was because, despite having their place of residence elsewhere, most of the 'other' respondents reported links to Dundee. Their contributions were considered valuable and at the same time unlikely to bias the results significantly given the few numbers involved.

Most respondents were 20 to 64 year olds (figure 4.2.3).

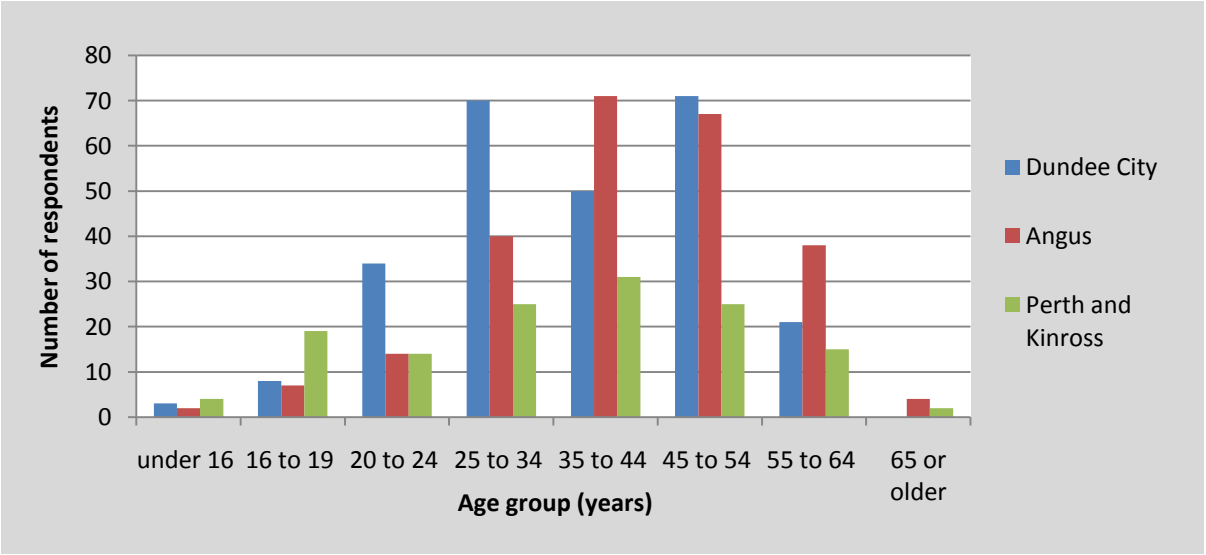


Figure 4.2.3 Age distribution of respondents across the three council areas

In all three council areas the ratio of female to male respondents was approximately 5:2. The employment status across the three areas for respondents was also similar and the majority of respondents were in full-time employment (table 4.2.1).

Table 4.2.1 Employment status of respondents

Answer Options	Response Percent	Response Count
Full-time employed	72.5%	498
Part-time employed	13.2%	91
Unemployed	4.4%	30
Self-employed	1.2%	8
Full-time education	4.9%	34
Part-time education	0.0%	0
Retired	1.6%	11
Other	2.2%	15

4.2.2 Respondents' experience of NPS

Although the majority of contributors to the survey had either known others who had taken NPS (but had not taken it themselves) or had no experience of NPS, 120 people with direct experience of NPS (having tried NPS previously or take it currently) also responded (figure 4.2.4).

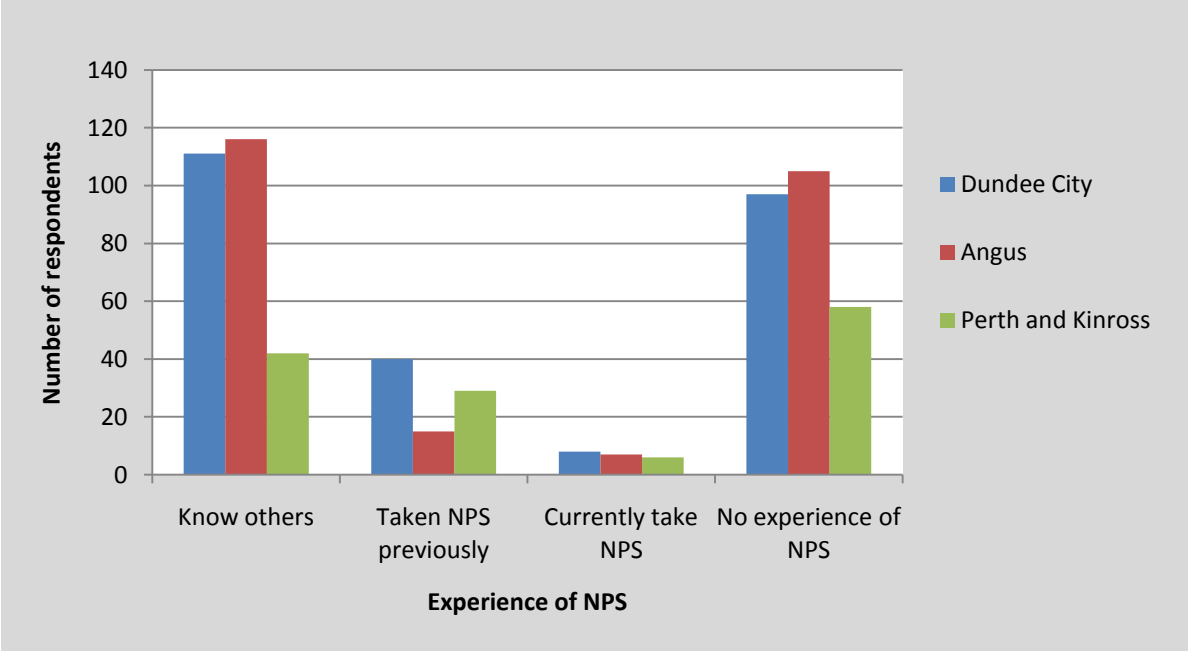


Figure 4.2.4 Respondents' experience of NPS

Of the respondents who completed the survey having had no experience of NPS or knew others who took NPS the majority were women (table 4.2.2). More men than women replied saying they took NPS currently and it was roughly equal between the sexes for those who had taken NPS previously.

Table 4.2.2 Respondents' experience of NPS by gender

Experience of NPS	Men	Women
Know others, *n* (%)	73 (26.3)	205 (73.7)
NPS previously, *n* (%)	41 (44.1)	52 (55.9)
NPS currently, *n* (%)	19 (76.0)	6 (24.0)
No experience of NPS, *n* (%)	57 (20.7)	218 (79.3)
Total	190	481

The people who responded saying that they currently take NPS comprised a range of ages (figure 4.2.5). Similarly, people who had taken NPS previously were also of all ages. Both of the other groups (those who knew others who had taken NPS and those that had no experience of NPS) tended to fall in the 25 to 54 year old brackets.

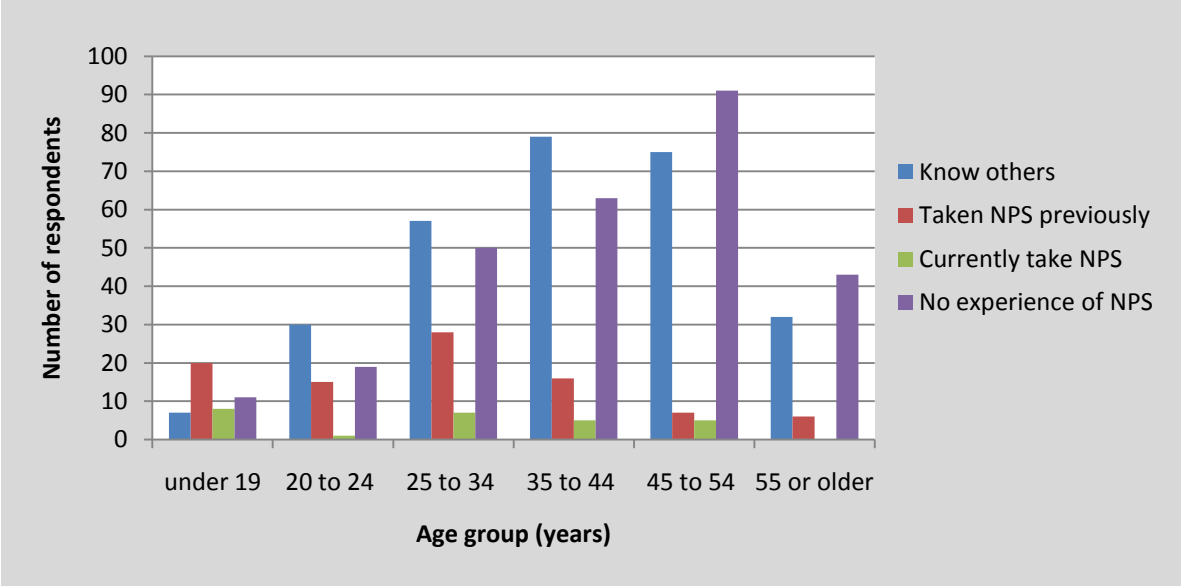


Figure 4.2.5 Age distribution of respondents by NPS experience

Of those individuals who had taken NPS previously over half (51%) reported last taking NPS over a year previously. 10% had last taken NPS over a week ago, 19.5% over a month ago and a further 19.5% between six months and a year previously.

Of those who take NPS currently, seven (50%) said that their use of NPS had not changed in the past six months and six (43%) replied saying their use of NPS in the past six months had increased.

Where respondents replied saying that they had not taken NPS themselves but knew others who did or had done, nearly half of these were professionals with experience of service users having taken NPS (table 4.2.3). 'Other' mostly comprised friends or relatives of other friends.

Table 4.2.3 Person known to respondents who takes/has taken NPS

Answer Options	Response Percent	Response Count
Friend	25.4%	81
Family	16.3%	52
Colleague at work	4.7%	15
Colleague at school/university/college	5.6%	18
Service user	44.2%	141
Other (please specify)	3.8%	12

4.2.3 NPS in Tayside

The survey asked which NPS people took, either themselves or which others that they knew had taken. The responses to these questions comprised nearly 100 different names for NPS (figure 4.2.6). The most common NPS named was mephedrone (22). Also in the top five were its alternative names: bubbles (21) and M-Cat (12). Other commonly listed NPS were Gogaine (16) and Pandora's box (12). Some of these names (e.g. bubbles and mephedrone) describe the same underlying constituent substance. The list has not been de-duplicated where this occurs, rather it has been presented with the names as reported in the survey to illustrate the vast array of descriptors for NPS that exists currently. This emphasises the challenges encountered by professionals, and people who use NPS, in determining what type of substance the name represents and consequently what effects each may have.

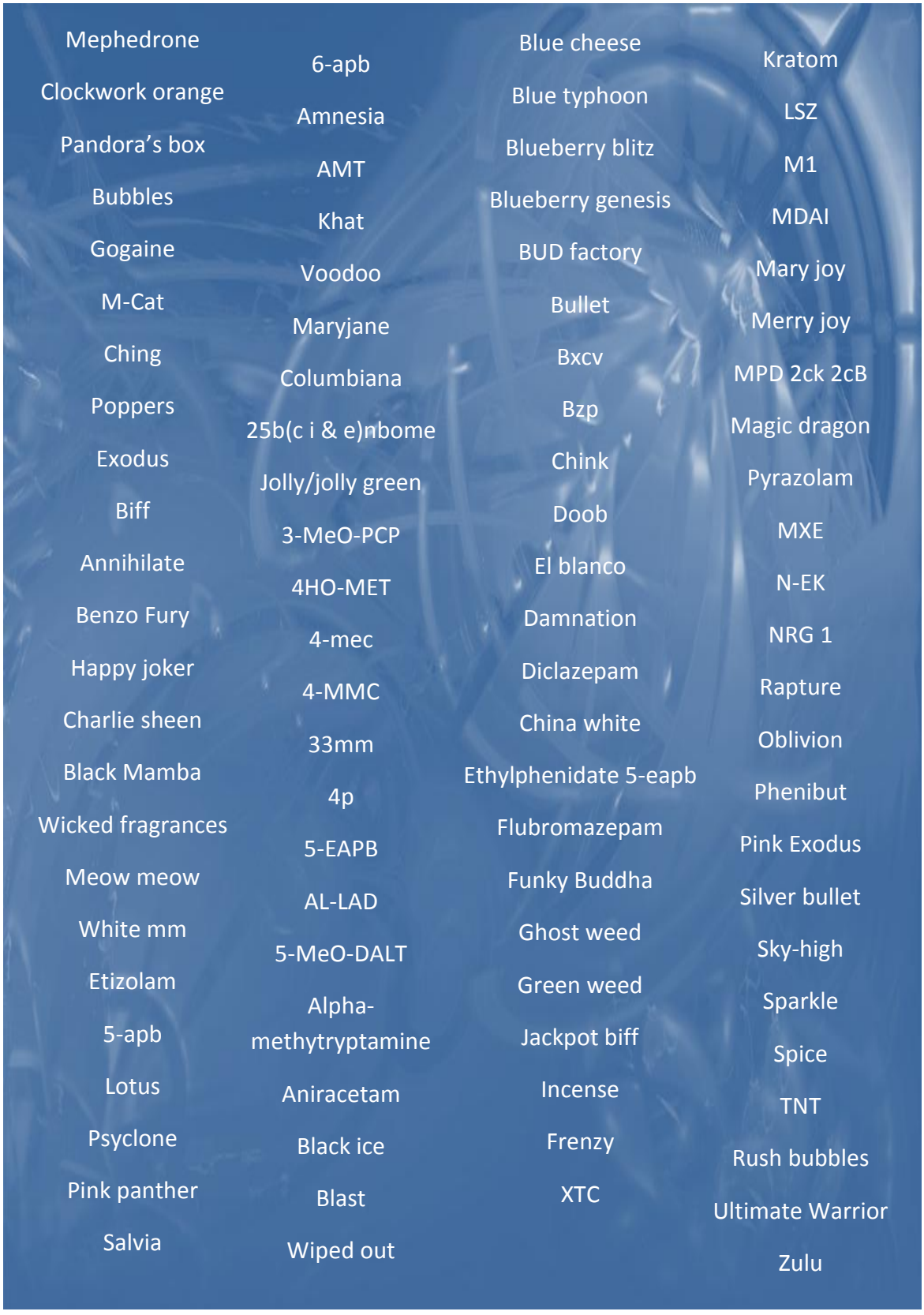


Figure 4.2.6 NPS taken by respondents or persons known to respondents of the survey

The survey suggested that NPS is most commonly taken as tablets, powder, snorted or smoked (figure 4.2.7). 'Other' included taking the NPS as a 'blotter' and letting it dissolve on the tongue, in 'bombs' and also sprinkling NPS powder into alcohol drinks.

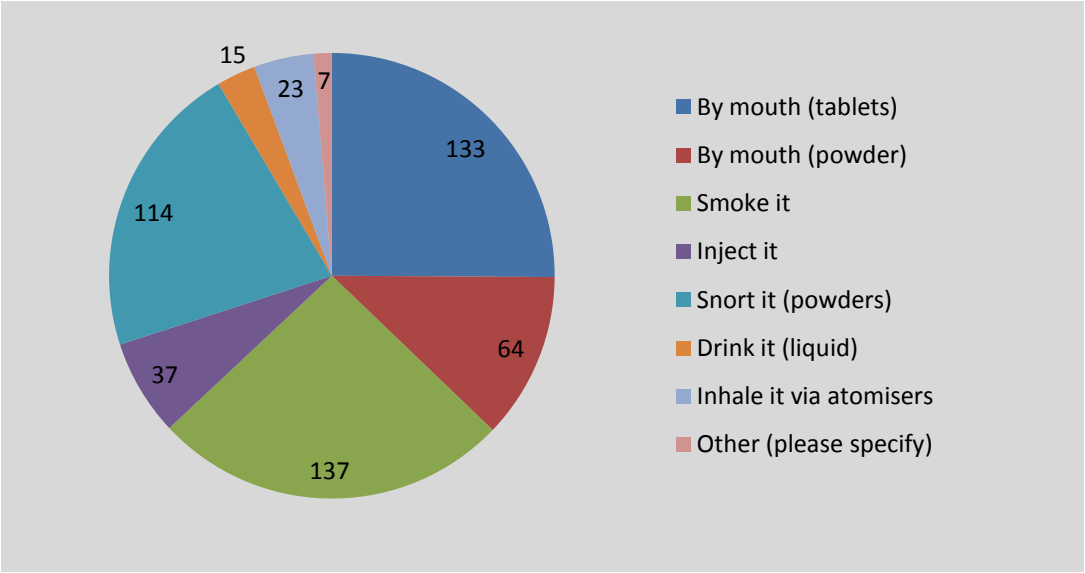


Figure 4.2.7 Route by which NPS is taken

In Tayside most people reported obtaining their first NPS through friends or a shop. This was consistently reported as the case by those with direct experience of NPS and by those who knew others who had taken NPS (figure 4.2.8).

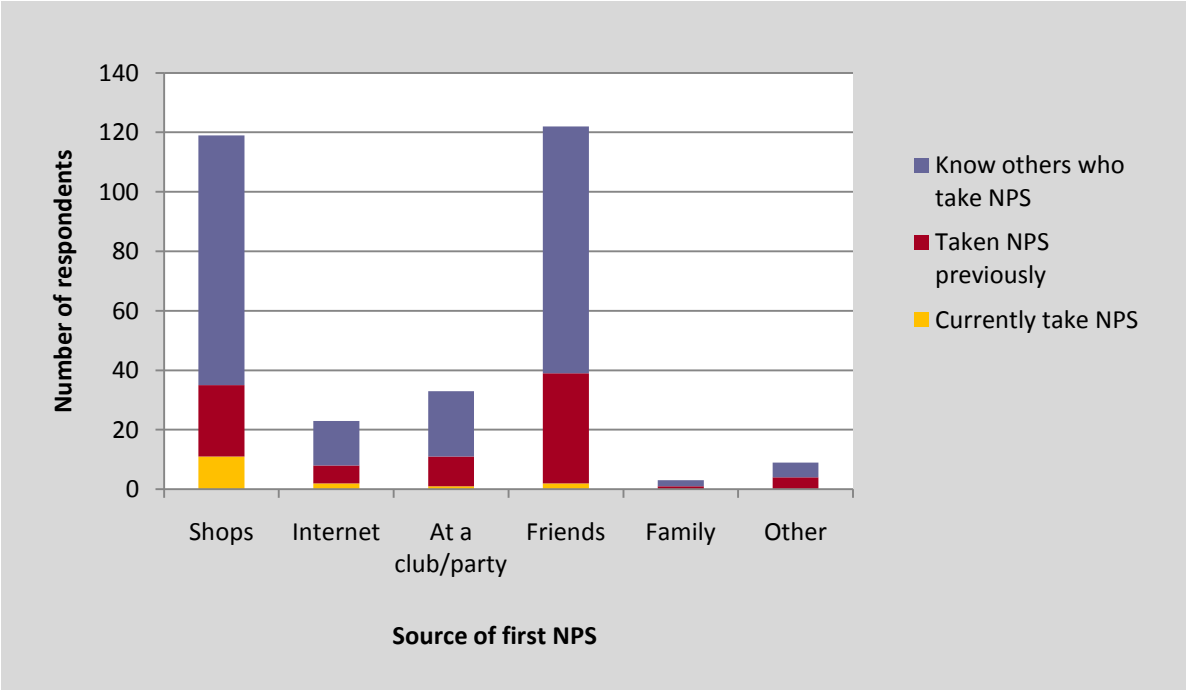


Figure 4.2.8 Source of first NPS

Furthermore, the pattern of acquiring the first NPS through shops or friends was similar across all three council areas (figure 4.2.9).

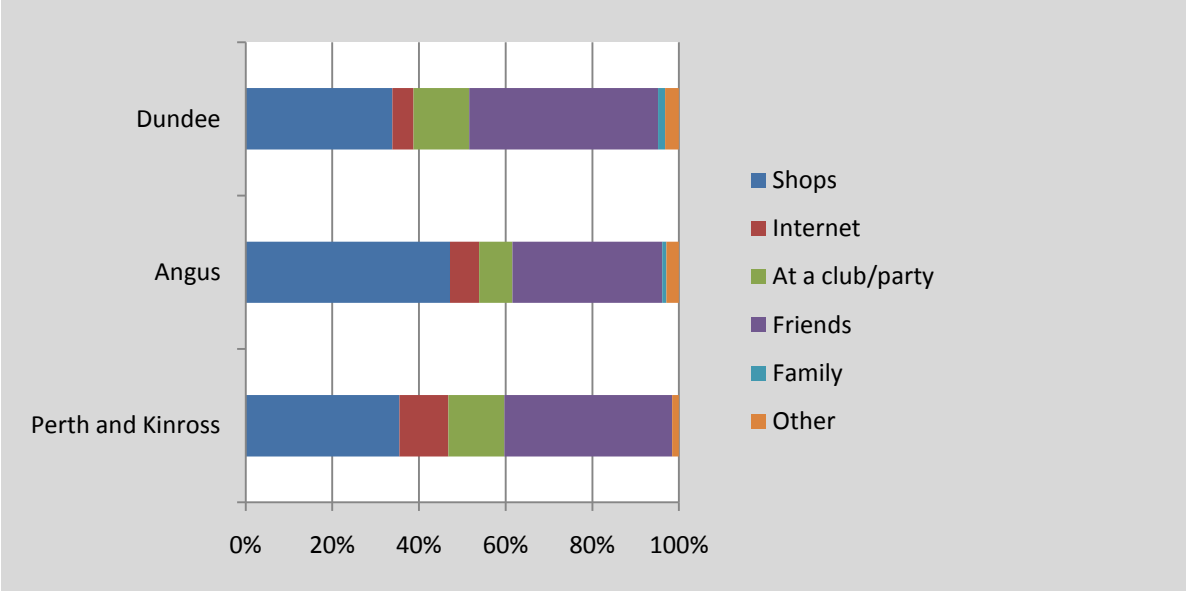


Figure 4.2.9 Source of first NPS by council area

When asked where respondents usually obtain NPS from after their first introduction to the substance, most reported that ongoing supplies were obtained directly from shops (figure 4.2.10). Friends were also still a source but to a lesser extent.

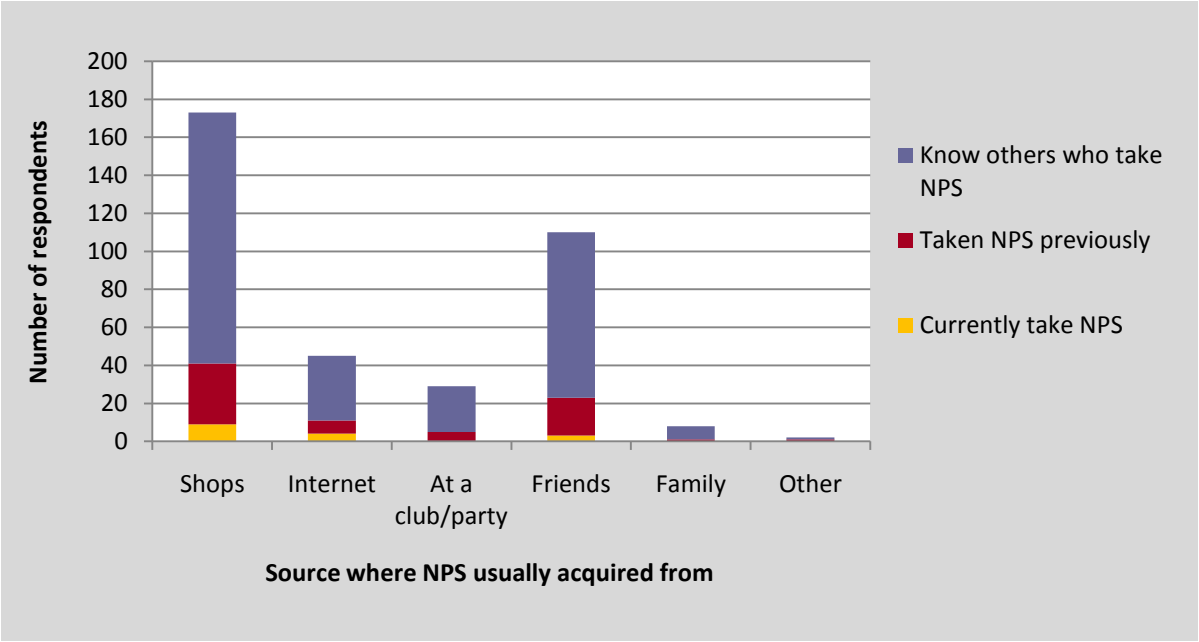


Figure 4.2.10 Source of usual NPS acquisition after first introduction to the substance

That NPS is most commonly acquired from shops or friends, but less commonly the internet, was the same across the three regions of Tayside (figure 4.2.11).

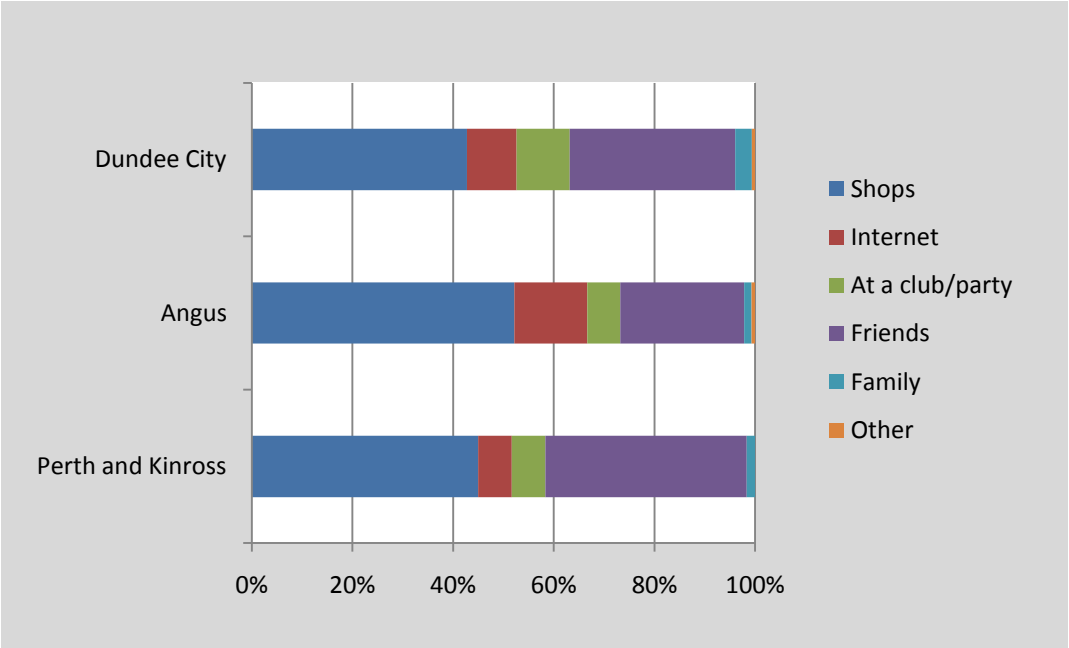


Figure 4.2.11 Source of usual NPS acquisition by council area

How often people reported taking NPS varied with some individuals taking NPS everyday and others taking it several days a week and some only a couple of times a month. No frequency stood out as being the most common.

4.2.4 Introduction to NPS

People most commonly tried NPS for the first time at aged 16 to 19 years old (30% respondents). 12% tried NPS at an earlier age, 21% aged 20 to 24 years, 19% aged 25 to 34 years and 19% older than 35 years.

80 people responded to the question asking if NPS was the first ever drug that they had taken. 15 (19%) replied saying it was. Of the 65 respondents who said it was not, 49 (75%) completed the free text section to specify which drug had been their first, with 25 (51%) stating that this was cannabis and 7 (14%) cocaine. Other drugs that were reported less frequently included ecstasy, amphetamine and solvents.

The major reason recorded in the survey for individuals taking 'legal highs' was curiosity or experimentation (n=16). Other commonly reported reasons included it was ease of access (n=7) or for use when partying (n=5). The full list of reasons given is detailed in table 4.2.4.

Table 4.2.4 Reason for taking 'legal highs'

Reason for taking 'legal highs'	
Curiosity/ experimentation	Considered harmless or safe
Ease of access	Stupidity
Partying	Could purchase underage and online
Good laugh/for fun	Interested in all the tabloid buzz.
To get high	Thought it was cool.
Perception of legality	Enjoy the feeling
To be sociable/friends did it	Feedback from friends about how good it was
Under the influence of alcohol	Escapism from social and personal problems
Cheap	Recreational use
Family take NPS	

4.2.5 Purchasing NPS from shops or internet

The next section applies to people who had responded saying that they had purchased the NPS from either a shop or the internet.

Perhaps not that surprisingly, a greater proportion of those who were current users of NPS were very confident that what they were taking was what they thought it was, as opposed to those who had decided to stop taking NPS previously (figure 4.2.12).

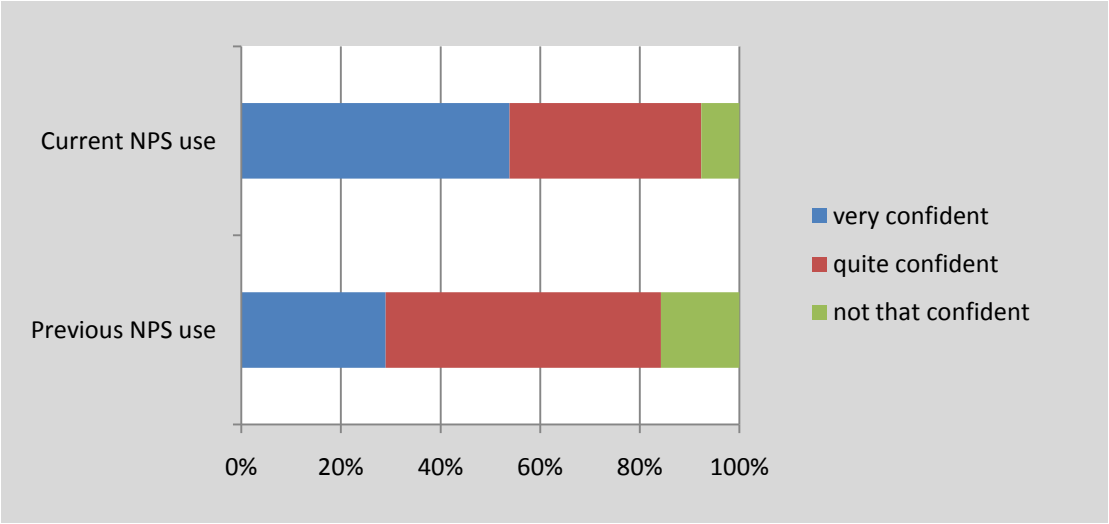


Figure 4.2.12 Perception that the content of the NPS was that which was being advertised on the packet

Of 52 people answering the question "Would you find/have found it useful if the shop/internet site which was selling the 'legal high' (NPS) could have provided you with more information about the substance you were buying?", 65% replied saying "yes".

Fourteen (27%) thought that the packaging influenced which NPS they purchased.

4.2.6 NPS and other substances

Approximately a quarter of respondents reported always taking NPS with another substance (alcohol, illicit or legal drugs) and just over a fifth reported never taking another substance with the NPS (figure 4.2.13).

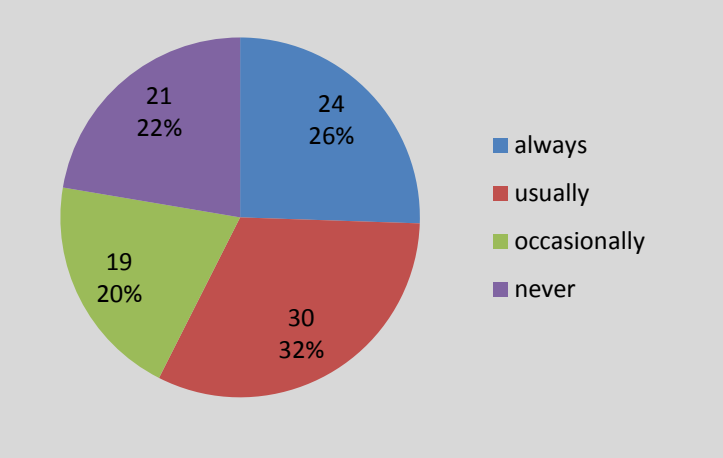
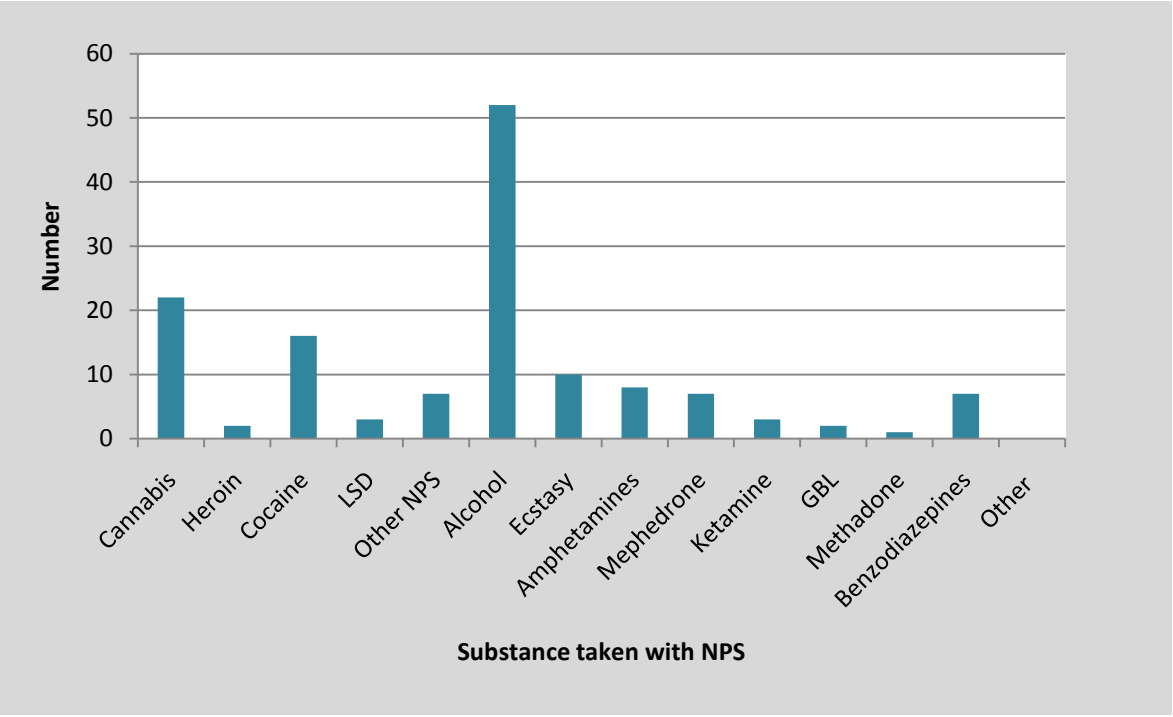


Figure 4.2.13 Use of NPS with another substance

Most commonly respondents took alcohol, cannabis or occasionally cocaine in combination with the NPS (figure 4.2.14).



4.2.14 Substance taken along with NPS

4.2.7 Cessation of NPS

Five of the respondents who currently take NPS thought that stopping their NPS use would either be difficult or very difficult, seven thought it would be very easy or easy, and two were uncertain.

For those who had taken NPS previously but who had stopped now, cessation was either easy (n=15, 26.3%) or very easy (n=37, 64.9%) for most, but for a few (n=5, 8.8%) said that stopping NPS had been either difficult or very difficult.

As to whether current users of NPS would like to stop taking the substances, the answers were fairly evenly split between 'yes' (n=4), 'no' (n=5) and 'don't know' (n=5).

When the group of respondents who no longer took NPS were asked why they chose to stop, 51 respondents gave their reasons, with some giving multiple reasons. The most common viewpoint of respondents (n=10, 19.6%) was that they didn't like the feeling or side effects or bad 'come downs' after taking the NPS:

"Made me feel very strange"
"Didn't like the head rush"
"Horrible come downs"

Eight respondents (15.7%) reported having a bad or frightening experience, including:

"A mate freaked out on bad trip"
"I almost died"
"Had a bad experience on them"

The next most common reason given by respondents for stopping taking NPS was that individuals got bored with them, lost interest or felt they were no longer fun (n=7, 13.7%). This was followed by the realisation by individuals of the dangers of taking NPS or being scared of their implications (n=6, 11.8%):

"I read about all the dangers online after taking some and not feeling well"

"The content of legal highs is not standardized or regulated ...Essentially I realized that taking legal highs was a stupid idea"

For five individuals it was a phase they went through, or as some put it they stopped when they '*grew up'.*

More significantly another five respondents (9.8%) felt that NPS had brought on mental health or behavioural problems:

> *"Because they started to change me by making me unsociable, lazy, depressed, lose interest in my hobbies, feel mentally and physically unwell and I learned the truth about how dangerous they really are"*

> *"I became very depressed as well as realising I was throwing my life away. I watched so many people destroy or significantly alter their life. It was becoming a need rather than a choice to use legal highs. I felt vulnerable and unsafe in some situations."*

The other reasons for stopping NPS included: *'made me ill/unwell'*, *'change in life circumstances/other responsibilities'*, *'only wanted to try it'*, *'quality of NPS variable'*, *'over time needed more of drug to get the same effects'*, *'drug was made illegal/no longer available'*, *'alternative pleasures'*, *'didn't/don't have time'*, *'no money'*, *'effect not as good as other illegal drugs'* and *'less safe than illegal drugs'*.

4.2.8 Impact of NPS use

82 (35.3%) respondents reported they had been affected by others taking NPS. Most had been affected by the use of NPS by a friend (n=15, 19.0%) or family member (n=27, 34.2%). 36 (45.6%) were professionals expressing concern about the impact of NPS use on a service user.

Of the 82 respondents affected by others taking NPS, 62 (76%) elaborated in the free text section as to how the NPS use by others had affected them; 26 (42%) professionals working with service users and 36 (58%) affected by the use of NPS by friends, neighbours, family or colleagues.

Nineteen (73%) professionals working with service users reported that NPS use by service users had impacted on their current workload. Respondents reported an *'increased and unpredictable workload'* or service users requiring '*more intensive support'.* Workers from different sectors reported on the deleterious effects on behaviour they saw in people taking NPS, with some saying they see this on a daily basis:

> *"I have faced aggressive service users which has put my safety & the safety of other patients at risk."*

> *"I face it at work and see the destructive effects it has on people. I have been quite shocked in regards to how it affects people"*

> *"Getting scared of reactions of users when they come to hospital in crisis. Never sure what will happen as so unpredictable."*

Five (19.2%) professionals commented on the aggressive or antisocial behaviours of some service users, with three individuals feeling scared or fearful of their or others' safety.

Other behaviours reported were service users becoming *'uncooperative',* their '*level of offending gets worse',* or a '*deterioration in the Service user'* is observed. One worker commented that the use of NPS by a service user '*makes it very difficult to assess mental state and has varying effects on both mental and physical health of patients'.* Another voiced the difficulty in knowing how to treat patients when they were unsure as to what they had taken.

Of the 36 individuals who had elaborated on how the use of NPS by friends, neighbours, family or colleagues had affected them, the most notable theme to emerge (n=14, 38.9%) was around the pressures that an individual's use of NPS placed on family and friends and how relationships were often broken or severely tested. One reported that:

"It has literally rocked my whole family".

Other devastating consequences to rock family life included three reported deaths, one of which was expressed by:

"... life will never be the same again. .... Such a waste of a young life"

Other reports of relationships tested included '*fall outs/arguments, losing friendships'* whilst a mother spoke about her son's NPS use as *'a living nightmare'* and another, "*It has destroyed my marriage and relationship with some of my children".*

The mental health of family units suffering as a result of a loved one's behaviour is a theme directly expressed by four individuals and inferred by many more.

Concurring with the professionals' accounts, respondents who reported about friends, family or colleagues highlighted the behaviour changes, mental health issues and antisocial behaviours exhibited by those taking NPS (n=13, 36.1%), with the inference that individuals acted differently, with some having impaired judgement. There were seven accounts of individuals being '*aggressive'* or purporting *'threats of violence'.* Other reports were of *'verbal abuse'* or *'abusive behaviour'* whilst one respondent reported someone '*acting dangerously'*. A small number of respondents expressed being fearful of the individual under the influence of NPS.

The final theme to emerge from the analysis was around people's reactions or emotions to witnessing family members or friends under the influence of NPS (n=8, 22.2%), with feelings evoked by respondents include being *'distressed', 'embarrassed', 'ashamed', or 'in fear'.*

4.2.9 Attitudes towards NPS

Respondents who had not tried or taken NPS themselves but knew others who had and those who had had no experience of NPS stated emphatically that they would not consider taking an NPS in future (figure 4.2.15).

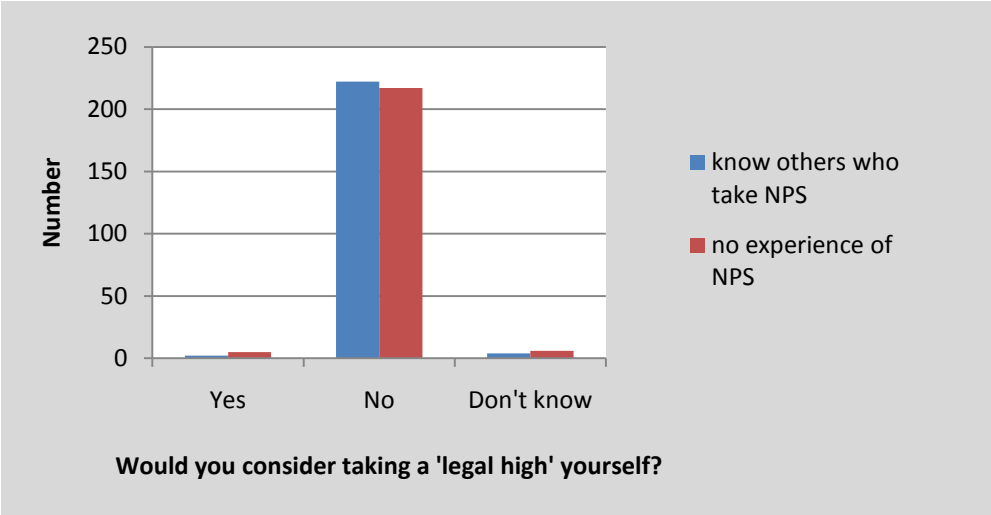


Figure 4.2.15 Attitudes towards taking NPS in future

When asked how dangerous respondents considered NPS to be, perhaps not surprisingly a greater proportion of those individuals who take NPS currently thought that NPS were not at all dangerous compared with the perceived level of danger expressed by other groups (figure 4.2.16). That said, the proportion of individuals who take NPS currently and consider NPS not at all dangerous was of similar magnitude to the proportion who take NPS currently and consider it very dangerous and yet still continue to do so. Most of the individuals who had not taken NPS themselves considered the substances to be very dangerous.

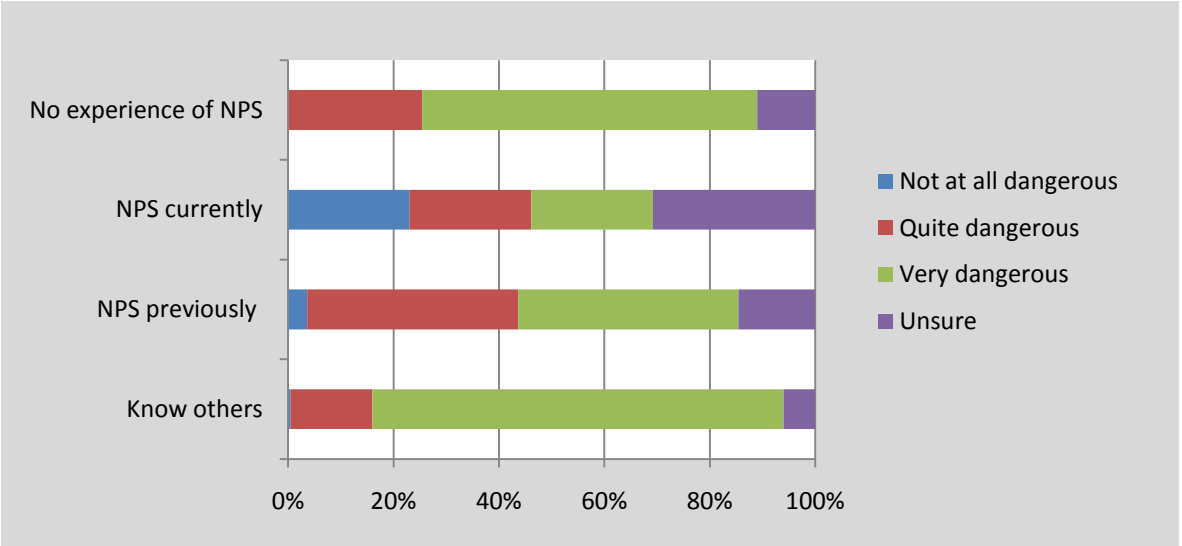


Figure 4.2.16 Perception of danger associated with NPS use

4.2.10 Emergency medical help required as a result of taking NPS

When asked if emergency medical help has been required as a result of taking NPS a smaller proportion of people who take NPS currently or previously reported requiring emergency medical help compared to those who were answering the questionnaire knowing someone else who had taken NPS. This is perhaps not surprising given that the individuals completing the survey recounting another's experience may be more aware and motivated to complete the survey when concerns have arisen over the use of NPS by an individual. For similar reasons the need for emergency medical help required by those who have taken NPS currently or previously may be an overestimate of what truly happens. However, it is also possible that people who have needed to seek help for NPS use may be less inclined to declare issues via the means of a survey resulting in a potential underestimate of the true picture.

Of the 80 respondents who have taken an NPS previously or take it currently, 6 reported requiring emergency medical help (figure 4.2.17).

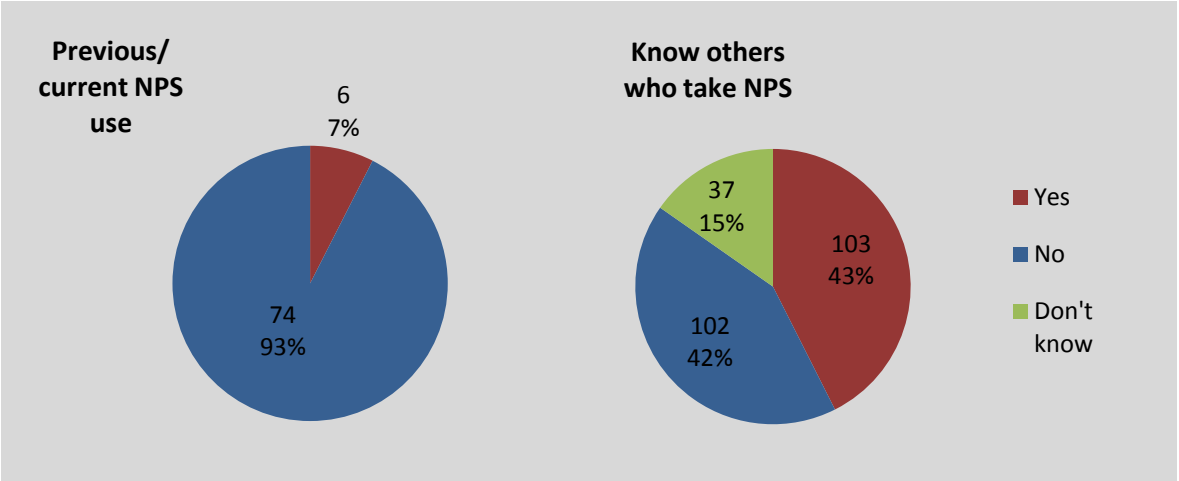


Figure 4.2.17 Emergency medical help sought for NPS use

Across all sections of the questionnaire, emergency medical help was most commonly sought via the Scottish Ambulance Service (n=58, 53%). Other services that were accessed were the Emergency Department/Minor Injuries Unit (n=33, 30%), GP (n=5, 5%) and mental health services (n=6, 6%). There were seven instances where people sought help from other services including NHS24.

73 respondents in total described what happened in relation to emergency help. It should be noted that some respondents were reporting on multiple observations and not referring to a single emergency event.

At the most extreme level, a small number of respondents reported knowledge of an individual(s) dying after using NPS. Whether this is one or more than one fatality

associated with NPS is unclear: the respondents may have been referring to the same person.

A key theme to emerge from the analysis was that of the deleterious effect on individuals' mental health, with 47 respondents (64%) reporting a range of mental health symptoms. Psychosis or psychotic behaviours including hallucinations, paranoia, delusions, confused and disturbed thoughts, a lack of insight and self-awareness were reported by 21 respondents (29%). Some were described as follows:

"Panic. Fear of death. Psychosis"
"Totally psychotic"
"jumped out of a window"
"confused and lacked self-awareness"
"visual and auditory hallucinations"

Ten respondents reported behaviours which required either psychiatric assessment and/or admission to a psychiatric hospital or mental health facility. Again it is emphasised that this has not been reported as individual examples only; some observations have been about multiple cases:

"Taking them (NPS) has often led to a deterioration in their mental health, quite often resulting in admission to Psychiatric hospital",

"I have seen so many psychiatric presentations attributed to legal high use".

Physical symptoms were another key theme to emerge from the analysis and were reported by 28 respondents (38%). They range from the nondescript *'acutely'* or *'very unwell'* (n=3), to vomiting (n=5) and fainting, collapse or unconsciousness (n=13) including *'collapsed in the street', 'unconscious and unresponsive', 'passed out'.* There were a number of heart or circulatory related symptoms reported, particularly tachycardia (n=5), including symptoms such as *'heart racing'.* There were two reports of chest pain and three reports of seizures/convulsion whilst the following serious consequences were also highlighted:

"My heart stopped"
"My friend had a heart attack due to the use of legal highs"
"Had a stroke"
"Patient in critical care dept".

Complications of taking NPS by injection was reported by five respondents, including '*overdose*', '*cellulitis resulting from injection abscess'* and someone whose '*neck had went blue, hands and feet contorted... and found it difficult to speak'.*

There were four instances of individuals refusing care/treatment or discharging themselves from hospital. One respondent noted that:

> *"He came round and refused medical treatment. Paramedics were very frustrated as they said this is happening everyday due to legal high use."*

This latter perception of the professionals' viewpoint may be the explanation behind the behaviour reported by 2 respondents. One noted that the GP *'didn't want to know'*, whilst another sensed that

> *"The paramedics were not sympathetic in the slightest and behaved like they'd seen this so many times. However they did take her and admit her ... overnight".*

4.2.11 Experience of general help and support currently offered for NPS use

This section details: the experience of respondents where individuals have previously sought general help and support for their NPS use; where respondents would currently think to seek help and support for people who take NPS; and where respondents recommend for help and support for those who know others who take NPS if required in future.

4.2.11.1 Experience of general help and support already sought for NPS use

59 people reported knowing others who had sought help and or support for their NPS use and 3 who had either taken NPS previously or take it currently.

The most common reason people sought help or support for NPS use was in relation to stopping taking NPS (table 4.2.5). Nearly one fifth said that they sought help for mental health problems, with 3 of these individuals reporting suicidal/suicide ideation problems. 'Other' reasons included personality changes, low moods and self-harming.

Table 4.2.5 Reasons for seeking NPS help/support

Reason	Number	%
Giving up/stop taking	17	37.0%
Mental health problems	11	23.9%
Harm Reduction/managing use	5	10.9%
Addiction to legal highs	4	8.7%
Drug use in general	4	8.7%
Other	5	10.9%

Respondents reported seeking help and support from a range of places, people or services. Most commonly respondents (n=9) sought help from their G.P, with a further five stating 'doctor' or 'medical staff'. The next most prevalent response was the Drug and Alcohol Team (n=6).

All the services, places and people where help for NPS use was sought is listed in table 4.2.6.

Table 4.2.6 Services, places and people where help for NPS use was sought

Where help sought		
A&E	Friends	Substance Misuse Services
ADBBV Team	GP	Support Worker (staff)
ADDACTION	Health drop-in	Susan Carnegie centre
Ambulance	Insight	TAPS
Care workers	Medical staff	TCA
Carseview centre	Mental health support	The Corner
CPN	Mental health unit	The WEB Project
Criminal Justice Service	NHS 24 who passed the call on	TSMS
DAPL	NHS addiction team	Voluntary sector
Doctor	Police	When an in-patient
Drug and Alcohol Team	Psychiatric services	Youth workers
Drugs counsellor	Rehabilitation centre	Teachers
ECLIPS	SAMH Community Support	
Family	Social work	

In answer to the question "was the help/support useful?", 53 responses were received. More than half (n=29; 54.7%) of respondents agreed that, yes, the help or support was useful. Eight respondents (15.1%) did not know if the help/support was useful, whilst seven (13.2%) said that the help/support was not useful. Two people indicated that the help/support was ongoing, whilst six (11.3%) indicated that it was not completely effective or only effective for a short period of time, suggesting that it was *'variable depending on the individual's circumstances at the time'*, or it was only effective *'if the person followed the harm reduction advice'*. One person indicated that the help was *'average, as there is no known substitute drug to help legal high withdrawals'*.

4.2.11.2 Knowledge of where to seek help and support for people who take NPS use if required in future

If help or support had not yet been required by the respondents or the person that the respondents knew, then they were asked if they knew where to seek help or support if required in future. The answers are given in table 4.2.7. A number of respondents reported multiple answers, and the analysis has been undertaken using individual categories.

The most common response was to seek help and support from the GP, although another 9 responses were for "doctor/doctors", which may or may not refer to GPs. More than 10% of respondents referred to Addaction as being a place of support. Three respondents reported knowledge of where to get help or support but commented that the individuals taking NPS refuse to acknowledge they have a problem and would not seek this support.

Two respondents felt that services are driven towards mainstream illicit drugs such as heroin or methadone and alcohol, and those taking NPS do not *'align themselves to those who inject/smoke class A drugs or require substitute prescribing'*. One of those respondents felt that a dedicated NPS service delivery time or drop-in would be more appropriate.

Table 4.2.7 Knowledge of where to get help/support of person who takes 'legal high'

Where to get help/support	Number	%
GP	34	33.0%
Addaction	11	10.7%
Doctor/doctors	9	8.7%
Drug and alcohol centre/team	6	5.8%
A & E	4	3.9%
Family and/or friends	4	3.9%
Other	4	3.9%
TSMS	4	3.9%
School Support	3	2.9%
WEB project	3	2.9%
Hospital	2	1.9%
Internet	2	1.9%
NHS 24	2	1.9%
unsure	2	1.9%
Access Line	1	1.0%
City Base	1	1.0%
Community services	1	1.0%
Crew 2000	1	1.0%
Drug Action	1	1.0%
Key 2 Change	1	1.0%
NHS	1	1.0%
Staff in the unit they live in	1	1.0%
Support worker/youth worker	1	1.0%
TCAC	1	1.0%
The Corner	1	1.0%
University counsellor/community	1	1.0%
Youth Criminal Justice workers	1	1.0%
Total	103	

4.2.11.3 Knowledge of where to seek help and support for people *who know others who take NPS* if required in future

The most popular places to direct people to if they required help in providing support to others who take NPS were: GPs (n=26, 14.4%), Addaction (n=22, 12.2%), internet/websites (n=22, 12.2%), drug and/or alcohol team/services (n=21, 11.6%), The Web Project (n=10, 5.5%) and TSMS (n=9, 5.0%).

These and other places where respondents thought that help and support could be support from are listed in table 4.2.8.

Table 4.2.8 Places of help or support for people who know others who take NPS

Where help or support could be sought from for people who know others who take NPS		
GP	Addaction	Internet/webistes
Drug and alcohol team	The Web Project	TSMS
The Corner	NHS 24	TCA
A&E	Doctor	Key 2 Change
Colleagues	Counselling	Crew 2000
Talk2Frank	TAPS	Accessline
ADP	Alloway Centre	Cair Scotland
Cairn Centre	DAPL	DPC
Drug addiction clinic	Drug alcohol counselling	Drug problem service
Emergency services	Explore	Family and friends
Guidance teacher	Harm reduction service	Hospital
NHS	OHSAS	OOH
Rannoch Drug Rehabilitation	Rohallion SCC	Samaritans
School	Staff Net	Support agencies
Toxbase	Youth worker	

4.2.12 Additional help and support that may be required

The next two sections report on whether additional help and support would be considered useful and what form this may take for firstly individuals who take NPS and secondly for people who know others who do.

4.2.12.1 Additional help and support suggested for those who take NPS

There was an expressed wish for additional help and support to be available for those who take NPS across the four sections of the survey, although this varied slightly between groups. Nearly 60% (n=265, 57.4%) who had no direct experience of NPS themselves thought additional help and support should be available compared to the smaller proportion of 40.8% (n=73) of those who currently take or previously took NPS (figure 4.2.18).

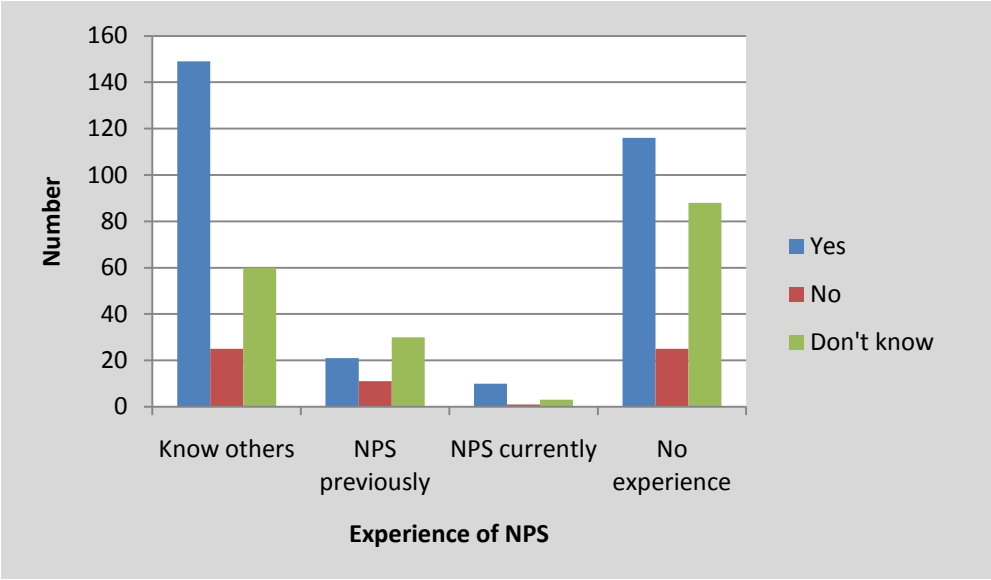


Figure 4.2.18 Respondents' wish for additional help and support for those who take NPS

In total, 184 respondents described what help or support they thought should be available for those who take NPS; 156 (84.8%) who had no direct experience of NPS and 28 (15.2%) who take NPS currently or have taken it previously.

Overall, the majority response (n=64, 34.8%) thought raising awareness of the dangers or damage that NPS pose would be useful and/or emphasising a requirement for more education on this topic:

> *"People should be told exactly what the legal highs can and most probably will do to them"*

> *"More awareness of risks and recognising that this is an issue the same as other drug use."*

> *"Education as to the risk to health/life"*

However, it should be noted that this was less of a priority amongst those with direct experience of NPS with only three (10.7%) using the free text section to support raising awareness around the risks or damage associated with NPS.

Fifteen (23.4%) of the individuals who highlighted raising awareness of the risks of taking NPS also underlined the need for this to be targeted at school pupils, who '*need to hear first-hand accounts from young people who have experienced the dangers'*. It was emphasised that '*more pro-active work in schools, both primary and secondary*' was required. One respondent felt that parents should also be made aware of the dangers.

There were also eight respondents who emphasised that education/awareness raising was required because of the misnomer of using the term 'legal high', as:

> *"The message isn't getting across that these substances can be bought legally but that this does not make them safe"*

Whilst another added ...

> *"The sellers must make it known to buyers that these drugs are uncontrolled and their effects on any individual are unknown".*

The next major theme to emerge from the analysis was around the type of service provision that should be available for people who take NPS. Nearly one quarter of respondents (n=45, 24.5%), including 28.6% of those who take or have taken NPS (n=8), reported on some aspect of this. Ten (22.2%) respondents overall suggested that people with problems connected to NPS use should be offered some sort of psychological or counselling/therapy treatment, as one respondent emphasised that *"they are taking this stuff for a reason, to feel different"* and need "s*omething to treat the underlying issues".*

Nine individuals (three of whom with direct experience of NPS) suggested that drop-ins should be readily available, with suggested settings for those including, '*local areas', 'GPs', 'libraries', 'drug agency specific to legal high use',* and having *'dedicated staff at schools, universities and colleges'.*

A dedicated NPS service or a service comparable to that of other drug services was underlined by seven respondents (16%), including one with direct experience of NPS, in relation to service provision, where "*they should be offered the same service/help & support as iv drug users".* One individual suggested 'a *specific call centre for advice or self-referral process to a clinic which specifically focuses on legal highs'* whilst another felt that a dedicated NPS service was necessary as the numbers of people requiring help was only going to increase *'due to the accessibility and ease at which NPS is obtained'.* Six respondents felt that the training of professionals or promoting awareness of the issues around NPS use with professionals should be underlined, such as...

> *"Doctors or other medical practitioners should be better informed and trained on how to handle NPS addictions".*

A small number of respondents suggested other services such as '*outreach work'*; *'support groups'* or '*greater access to residential rehabilitation'* would be helpful.

Another major theme to emerge from the analysis was that of the availability of information/information sharing (n=29, 16%). This included one quarter (n=7, 25%) of respondents with direct experience of NPS who specifically raised this issue. Information to support individuals to make choices and practice harm reduction was advocated by five

respondents (17.2%) with one respondent reporting *"People (especially young impressionable people) are buying powders with no idea what the active or 'safe' dosages are".* It was also recognised by five respondents that any information that was to be provided in future should be *'credible'*, *'accurate'* or *'evidence-based'*.

A few suggested a targeted approach to providing information in places including chemists, supermarkets, surgeries, schools, night clubs, health centres. One respondent suggested that there should be better information about the effects of the NPS on the product packets.

Another strongly held view to emerge from the analysis was that nearly 10% of respondents to the question (n=18, 9.8%) expressed an opinion that NPS drugs should be either banned or be made less readily available. Four individuals who take or have taken NPS are included in this count. Those who wanted a ban of their sale and/or legislation to safeguard this implementation numbered eight (44%) with one respondent saying:

> *"Close the shops and have legislation in place to ban these products. Ireland has an outright ban on them, why can this country not do the same?"*

Others did not specifically state that the substances should be banned with legislation in place, but expressed a desire to see the forced closure of shops that sell them (n=6, 33.3%).

The final theme to emerge from the analysis was around the necessity for a media campaign to raise awareness of NPS. 16 respondents (8.7%) raised this issue, including one who had reported taking NPS previously. The majority viewpoint was that this should be '*high profile'* and *'advertised more widely'* including on television, social media, poster campaigns etc.

> *"Needs to be hard hitting like the original AIDS campaign"*
>
> *"Should probably have advertising similar to anti-smoking and anti-drug campaigns"*
>
> *"I think that a public warning should be displayed in the shops that are selling these, similar to that which is displayed for smokers. I also think there should be more public information on the television."*

When asked what form help or support should take 48 individuals responded including three with direct experience of NPS. Only three individuals who take NPS currently or have taken NPS previously responded to this question. The majority response was around the idea of a specialised service or the involvement of *'experts'* (n=13, 27.1%), with *'face to face'*, '*personal'* or *'one to one'* contact emphasised (n=6, 46%). One respondent felt

that the *"Local SMS [Substance Misuse Service] should have a higher level of involvement with education of the issues with these substances"* whilst another felt that there should be *"Greater access to effective/holistic residential rehabilitation when use is particularly problematic".*

The next most prevalent viewpoint was that the help or support should be targeted at schools (n=10, 20.8%), where there should be *'education sessions',* '*talks'* or *'guidance lessons'.* One individual felt that this should be a '*multi-agency approach...including Police and support services'* whilst another felt that it would be helpful to have '*Young people who have experience of legal highs discussing them in schools'.*

As in the earlier question describing what help or support should be available for those who take NPS, a viewpoint around having a media campaign was raised by 8 individuals (16.7%). Again it was suggested that this could take the form of TV adverts, local newspapers, radio and leaflets, with one individual stating that '*shock tactics work. Don't hold back'.* They suggested looking at the Safe Drive Stay Alive approach to young people and driving and adopting the same approach to educating about NPS.

Five respondents suggested that a mixed approach, dependent upon the individual would be supportive, whilst two individuals felt that peer support would be helpful, either '*similar to AA* [alcoholics anonymous]', or '*from past users'.* Another three felt that a community or outreach approach was beneficial and two suggested the availability of drop-ins.

Other responses included shutting down shops selling NPS, or being able to give *'safe use information'* with '*good advice and help given at point of sale'*.

4.2.12.2 Additional help and support suggested for those who *know others* who take NPS

Of the 136 respondents who thought that more help or support should be available for people like themselves who knew others who take NPS, the majority viewpoint (n=30, 22.1%) was that there was a lack of understanding about where to go for help and from whom. It was felt that there should be more advice, guidance or pointers about what to do either in the context of knowing where to go for help, or to signpost clients as to where to seek help:

> *"Being able to speak to someone for advice on how to support someone taking legal highs but also access to speak to someone about how it's affecting you too"*

> *"Pointers on where to refer people to and support that is available"*

> *"To know where to go to for reputable advice and information e.g. like CREW 2000 shop"*

> *"I have limited knowledge of the help available but as a healthcare professional, I would imagine there should be more help available given this is a new phenomenon"*

Three of these respondents (10%) felt that they required more support about what to do if a person became unwell or overdosed under the influence of NPS.

The next most prevalent response (n=24, 17.6%) was with regard to having more help or support for family, friends, guardians and carers of those who know individuals who take NPS. One respondent felt that it was necessary *'to support the supporters'.* Other viewpoints within this theme included:

> *"It can be a worry to friends and relatives and people forget that they need the support too of how to deal with people who are caught up in taking them and don't know how to stop."*

> *"I know partners/families of substance abusers who would like support but aren't offered it because the service barely copes with users let alone their families."*

> *"Support for family of users especially - information sources, access to someone to talk to."*

Another theme to emerge was around being more informed about NPS, either of the side effects/risks or more broadly through '*education'* or *'information',* with 23 respondents (16.9%) highlighting this:

> *"Credible and non sensationalist info and advice as with other drugs."*

> *"Information about the dangers of the drugs to have an informed discussion with their friend/relative who is using the drugs."*

> *"Yes, if they are young teenagers and peer pressure plays a part. Educate teenagers in a group setting; make it the uncool thing to do."*

A further ten respondents highlighted a sense that there was continually rapidly evolving information as regards NPS and that they required '*up to date information of latest drugs, trends, safety messages - info for supporting service user'* or that they required *'up to date information provided on the current 'popular' legal highs' with* knowledge of the '*street names'* and '*what is likely to be in them'* and that there should be *'regular updates'.*

Twenty one respondents (15.4%) wrote of the necessity of providing support in settings such as community groups and community resources, drop-in centres and support groups, with counselling and helplines being accessible, and '*dedicated staff to support such people'.*

> *"Support from a helpline - both practical and emotional support to cope with the changes in behaviour by young people under the influence"*
>
> *"I think there should be some sort of community action group for people aware of the plight of legal highs. I find it deeply distressing that we live in a society whereby anyone with capability of buying sweeties can now also buy legal drugs that cheat the systems to safeguard our vulnerable people"*

Another theme underlined by 14 respondents (10.3%) was for training to be in place for staff from different organisations as well as the general public: the NHS; staff who support service users; staff from the emergency services; staff working with young people. It was suggested that this training should be around issues such as:

> *"Training to understand what the effects of legal highs are",*
>
> *"First aid training on how to deal with unconscious people"*
>
> *"More training in the same way we are trained to deal with other alcohol and drugs misuse".*

The final theme highlighted by 11 respondents (8.1%) was around raising awareness of NPS by way of the media, advertising or literature, whether through '*the press, TV, cinema adverts', 'social media'* or through '*tailored information about effects etc via leaflets and online'*.

When asked about what form of support or help this should take, the top three forms of support quoted by respondents was '*training*', followed by '*face to face contact'* and '*community drop-in/ drop-in support'* (table 4.2.9).

Table 4.2.9 Form of support for those who know someone who takes 'legal highs'

Form of support	Number	%
Training	7	18.4%
Face to face contact	5	13.2%
Community drop-in/drop-in support	3	7.9%
Social work	2	5.3%
Patient information leaflet	2	5.3%
Broad spectrum or variety of approaches	2	5.3%
Media: press, TV, cinema, you tube etc	2	5.3%
More police/community police involvement	2	5.3%
Support groups	1	2.6%
Updating sessions provided by drug services.	1	2.6%
Telephone support	1	2.6%
Non-judgemental support	1	2.6%
Specialist groups	1	2.6%
Face to face networking	1	2.6%
Support in nightclubs, pubs etc	1	2.6%
Group sessions	1	2.6%
LIke CREW 2000 premises	1	2.6%
Peer support	1	2.6%
Education	1	2.6%
Helpline	1	2.6%
Multi-agency awareness session	1	2.6%
Grand Total	**38**	

4.2.13 Additional comments

At the end of the survey respondents were asked if there was "anything else about 'legal highs' (NPS) that you would like to share with us?". There were 108 respondents who wanted to add some additional viewpoints or emphasise points they had already made in previous questions.

No new themes arose as a result of this question but some of the themes which emerged from earlier questions were re-emphasised. The strongest viewpoint to be shared at the end of the survey by 25 respondents (23%) was that the sale of NPS should be banned and made illegal. There was a definite sense that *'more needs to be done',* and within this group, there was some consensus around the necessity of a legal framework to be in place, with prosecutions of those who break the law, enforced. Some respondents also wanted to see the closure of the shops that sold NPS.

> *"I think the sale of them* [NPS] *should be banned and supply of them made illegal and made illegal to have them on your person"*

> *"I would be keen to see a targeted approach to close the shops. Although this would not stop supply it would reduce the visibility and availability for most people"*

> *"Legal Highs have been banned in other countries and Scotland should be considering the banning of these substances"*

> *"The ease of access and the low cost compared to other illicit drugs are a major incentive. More must be done to close down head shops and greater laws be enforced or this will be more of an issue in years [to come]"*

This *'ease of access'* was a concern for 19.4% (n=21), many of whom felt that NPS were far too '*readily available'*, '*extremely easy to obtain'* and '*cheaper than alcohol'.* One respondent encapsulated this in their experience of others' use:

> *"They just want more legal high and will do anything to get it. Even though the user tries to stop taking it and may succeed for a period of time, it is so readily available that they go back to it. In my experience the user takes this as a cheaper more accessible option to cannabis/weed."*

In corroboration with earlier viewpoints, many respondents (16.7%, n=18), expressed concern about the dangers to health and the deleterious effect on individuals' mental health and behaviours that NPS pose:

> *"If the public could witness the psychotic & aggressive symptoms which legal highs can cause, some people may decide not to risk taking them"*

> *"I worry that these drugs are more dangerous than 'traditional party drugs' such as cocaine as the long term effects are less known"*

> *"Often, service users end up acting completely "out of character" and may exhibit behaviour previously unseen including suicidal ideation, violence and psychotic episodes. These are dangers beyond the individual and are a huge concern for the public and communities."*

A further nine respondents (8.3%) felt that NPS were particularly addictive with some *'using on a daily basis and to the detriment of other things in their lives'.*

> *"I have known people to take legal highs, mostly 'bubbles' and form addictions really quickly, quicker than people become addicted to xtc [ecstasy] etc".*

> *"They basically control my life. They have such a grip on me that when I don't use them I get depressed and just socially withdrawn from everyday life."*

Again, there was a plea for more information, knowledge or support to be made available (15.7%, n=17). Whether this is within the context of *"being necessary for those who take the legal highs and those who have to deal with the consequences",* or by educating people (young people in particular) about the '*adverse effects of these substance*'. One individual reported their concern that *"for most parents ... being in the dark about the subject adds to the concerns."*

Within this theme of information, knowledge or support, there was also one viewpoint that there should be *'clear and safe guidelines'* for individuals to use these drugs *'in moderation'*.

The use of the term *'legal'* in 'legal high' or concerns around the legality of selling these substances was expressed by 12% (n=13) of respondents. Some of these respondents felt that this led to the misconception amongst users that 'legal' meant that the substances were safe to take, or were less harmful than 'traditional' drugs with one who had observed that the *"Effects on people's mental state & mental health can be worse than with known 'street drugs".*

This perception of *'legal'* being equated with *'safe'* is negatively associated with another theme to emerge from the analysis whereby 13.8% (n=15) expressed concern about being ignorant about what chemicals the substances contain which made them '*dangerous due to the unpredictability of how they are made.'* This was underlined in the following quote:

> *"When you buy alcohol you know the contents of your purchase. With Legal Highs you do not know what you are taking or the effects the substance will have on your mind and body."*

This lack of knowledge around the chemicals contained within the different NPS compounds was underlined by a further nine respondents (8.3%), who felt that there should be more regulation or control around the sale of such products:

> *"These substances are not regulated in any way as other legal drugs are so there is no control over the compounds or the affects of these substances."*

Some of these respondents felt that regulation would help those who effectively wanted to take NPS drugs as *'Perhaps regulating the market and allowing safety testing would be the best way forward'.* A further eight respondents (7.4%) expressed a viewpoint around decriminalising NPS and/or other drugs, with one who felt that *'the increased criminalising*

of various substances has led a number of people to seek out alternatives'. It was also thought to be a matter of *'personal choice'.*

4.3 Results from discussions with professionals and community groups

As part of the needs assessment one of the authors (EF) met with various professionals and community groups to hear and learn more about their experiences of NPS. EF met or talked on the telephone with professionals from Tayside Substance Misuse Service, CAIR Scotland, Addaction, Police Scotland, Trading Standards, Social Work and Education. In addition, she met with a member of the 'Arbroath Against Legal Highs' community pressure group. EF was also able to meet and talk with several community groups of varying ages who had a breadth of experiences with NPS.

The following sections describe the key themes that arose from these conversations.

4.3.1 Accessing NPS

First-hand reports endorsed the findings of the survey whereby most people tend to access NPS on their first occasion from friends. Thereafter, echoing the results of the survey, most people reported ongoing use tended to be through friends or head shops. The internet does not seem to be commonly used to purchase NPS in the Tayside area and the reasons suggested for this included the time delay in substances arriving and lack of access to the internet or the payment mechanisms required by those, in particular, who regularly take illegal drugs.

That NPS is easily accessed through 'head shops' was a recurring theme across conversations. Several sources described techniques employed by the 'head shops' to facilitate the purchase of NPS. These included: offering loyalty cards whereby after purchasing NPS on nine occasions the tenth one is given free; the availability of 'lay ons' (where the customer asks for a packet of NPS but cannot pay for it at that point in time so instead leaves an item such as their mobile phone as collateral until they can come back a few days later with the money to pay for the NPS); and running a 'tab' (similar to 'lay ons' but no collateral is required as the shopkeeper is confident of returning custom).

There is a strong appetite for 'head shops' to be banned both from people who know others who take NPS and from those who take NPS themselves. In the case of those who take NPS they believe that by not having the shops there it would reduce temptation.

When talking with a group of young people who had seen the effects that NPS had on people they knew, and had on occasion taken NPS themselves, they described NPS as "disgusting". Many reported that these were not pleasant substances and were appalled at how easily accessible NPS were to children in particular. We discussed what would happen if shops were to close – would a hidden market through drug dealers develop? But the feedback received was that, in contrast to the shops, their experience of drug

dealers was that they were much more reluctant to sell products to children and therefore, if the shops were to close, children would find it much harder to access NPS.

Another theme that emerged from the discussions was the connotation of validity and safety that arose from having a 'legitimate' purchasing outlet for NPS in the form of a shop. Many professionals and group members expressed concerns that "because a shop sells it, it seems ok".

Talking with representatives from Trading Standards, officers currently have limited powers to intervene. The current legislation does not allow for effective monitoring, control and regulation of these substances.

4.3.2 Why NPS is taken

Professionals and community groups alike reported that NPS are taken as they are cheaper and more accessible than illicit drugs. The fact that they are sold in attractive packets makes it look mainstream, safer and more acceptable than wrapped up foil packets of heroin or other illicit drugs. The supply of NPS also tends to be more reliable than that of illicit drugs and some people reported taking NPS when heroin was unavailable; the strength and effects of NPS were sufficient to cover the heroin withdrawal symptoms. Several professionals reported seeing a shift in illicit drug use to NPS in some individuals.

Individuals who have seen others taking NPS reported that another reason for taking NPS is that they are harder to detect. One person described NPS as being 'rife in prisons'. Other reports included individuals on methadone programmes supplementing the methadone they took with NPS in order to obtain the rush they craved for with the reassurance that it would be unlikely that they would be caught as the NPS cannot be tested for. Individuals EF spoke to said often people do not want to declare they take NPS for fear that they get kicked off the methadone programme or, where children are involved, the child protection services intervene.

Young adults reported that the people they knew most commonly smoked synthetic cannabinoids. Those that had tried NPS found it difficult to remember why they had started taking NPS in the same way they said that it can be hard to remember why anyone started smoking or drinking alcohol. On balance they thought it was most likely because other people had been taking it and it was part of a culture with friends and family also taking NPS. The novelty of experimenting was a theme arising from several discussions. NPS are seen to be different, new, attractive and convenient.

4.3.3 How NPS are taken

The experience of NPS was quite varied amongst the groups EF met. One group of young adults reported that they were not aware of many people taking NPS. They had not seen it amongst peers at school or university ordinarily but several remarked that at one-off events such as festivals or whilst on holiday at 'party' destinations NPS were much easier to come by and overt. Despite not having had much exposure to NPS a couple did recount knowing of or hearing about incidents where NPS had induced seizures in the people who were taking it.

Another group of young adults reported that most of the people they knew chose to smoke synthetic cannabinoids.

Professionals noted that amongst adults who take NPS in addition to illegal drugs that polydrug use is a problem as the effects of the interaction of NPS with other NPS, illicit drugs or even alcohol are unknown and unpredictable.

One needle exchange service reported that they had seen a notable increase in the number of people attending and reporting injecting NPS since the end of last year. Their experience of service users who inject NPS is that when people inject NPS the duration of effect is much shorter than for example heroin, and therefore individuals who inject NPS need to do so much more frequently than with other illegal drugs.

4.3.4 Adverse effects of NPS

Professionals and people who knew others who have taken NPS reported a range of adverse effects resulting from NPS use. These included prolonged muscle contractures, speech disturbances, seizures, rashes, skin discolouration, psychotic symptoms and dependency. One person who had taken NPS described to a professional that they had experienced a feeling of complete detachment or "out of body experience".

Many people remarked that the 'come downs' following NPS were not pleasant and associated with feelings of being very emotional and paranoid. Several commented that the withdrawals are worse than those after taking heroin. Some people EF spoke to who regularly take illicit drugs said that they had been put off NPS as the substances were too powerful, with too many side-effects. They said they preferred taking illicit drugs, even with the increased risks of the potential for criminal prosecution, as they knew the effects of these substances better – they said the effects of illegal drugs were better known and more predictable.

Amongst the young adults who had seen others taking NPS they reported that people taking NPS became completely "melted" or in other words, totally out of it. They have seen what has happened to others and reported wanting nothing to do with it, saying

emphatically they are “never going near it”. Other bad effects they have noticed include “really bad trips” and addiction associated with NPS. One young adult commented that they wouldn’t take NPS as they “don’t know what’s in it”. When this was explored further amongst the group in comparison to illegal drugs, the group explained people are much more used to how cannabis, ecstasy and other such drugs should feel, taste and smell and can gauge their quality whereas with NPS this is much harder as these are such unknown and varied substances.

A recurring theme that professionals reported on is that service-users presenting after taking NPS can often be quite unpredictable in their behaviour. Professionals working with drug misuse are much more accustomed to presentations involving, for example, heroin or cannabis. However, when taking NPS the person affected can become quite “jumpy, volatile” and far less predictable in their mood or actions, which can make engaging with the service-user more challenging.

4.3.5 Challenges of addressing issues associated with NPS

Several key themes emerged in the discussions concerning the challenges of addressing issues associated with NPS. The first theme is the issue with the name ‘legal high’. This was mentioned in nearly all the discussions with professionals and community groups. Many said that the term ‘legal high’ confers a degree of safety and acceptability and should not be used. However, many thought ‘new psychoactive substances’ was not a viable substitute yet as few members of the public have heard of this term and as one person said “it hardly trips off the tongue”.

The second key theme associated with the challenges of addressing NPS is the lack of legal framework that can be applied to NPS-specific circumstances. Trading Standards reported that in the majority of cases it is difficult to counter the sale of NPS as the current legislature is not set up to deal with NPS and there is little enforcement action that can be taken. There are no specific laws for NPS (other than the temporary class drug orders for a selected number of compounds) under which the Police can operate. If a person is found to be in possession of NPS the police can confiscate it under the Misuse of Drugs Act, as a suspected controlled substance and have it tested for illegal constituents with subsequent prosecution if these are found.

Another theme arising from the discussions emphasises some of the earlier themes in other sections around the fact that NPS are, by and large, an unknown quantity. Professionals and individuals who know others who take NPS alike, raise the issue that there is a huge amount of variability with NPS. Within a packet of NPS there may be several substances, there may be variability between packets of the same brand purporting to sell the same substance and substances are rapidly evolving. All of these make monitoring, testing and providing support for NPS very difficult.

4.3.6 Discouraging NPS use

In the discussions professionals and community groups frequently expressed the desire for more information to be given to school children about the dangers of NPS. Thoughts were that ideally education should be given by those who have had first-hand experience of the adverse effects of NPS, or an external agency, and be delivered to children in the 1st and or 2nd years of senior school. Suggestions were also made that parents should be given information about NPS also.

EF spoke with a representative from the Education Department who advised that although there is nothing explicit about delivering education around NPS in the curriculum it falls under the substance misuse strand in the Curriculum for Excellence. The Curriculum for Excellence is designed to empower each school to meet the needs of the community it serves. Schools would and do teach on NPS if considered appropriate and necessary. Any further resources and help to support teachers regarding NPS would be welcome.

The only people who did not think additional education in schools was warranted at this stage were a group of young adults who felt that NPS was not a significant issue in schools at the moment. When discussing this further they thought it might not be wise to highlight their availability when few children currently know that NPS exist. But they also said that should NPS affect more people in future, and become more widely known about, it would be better to discuss and provide information in schools about NPS sooner rather than later. Many said that they were not entirely sure where to get more information about NPS currently if they needed it. A few said they would 'Google it'.

The dissemination of information to the general public about NPS was another key theme arising from the discussions. There was a widely expressed view that health promotion and harm reduction messages needed to be bigger, more widespread, and designed to have greater impact.

Someone who had taken NPS previously suggested that advertising campaigns in the magazines that young people buy would be a good idea. They recommended that the content of any health awareness massage should focus on the consequences of NPS use as a deterrent, including those of addiction and the loss of friends and family as a result or taking NPS. They said that the message should be that when you take NPS, particularly at a younger age, "you lose your life".

Another said there should be advertising to inform people of risks, everywhere, including sides of buses, and that the picture or image should be changed every few weeks or so.

With the group of young adults who knew others who had taken NPS we asked "what would you do if you were prime minister for the day and wanted to do something about

'legal highs'?". The answers all came back emphatically as either "ban it" or "close the shops".

4.3.7 Support for those who take NPS or know others do

As in earlier sections a key theme of this section that emerged was around the provision of education and information for those who either take NPS or know others who do.

One person suggested that early intervention was key. When someone is found to be taking NPS they thought it would be useful to have somewhere to direct them to. They commented that most services tended to be appointment-based whereas something that was more reactive and quicker to access would be helpful.

Other suggestions arising from the discussions concerned the improvement of information dissemination, including engaging with social media and the internet to deliver NPS education. For example, when searching "Where to get 'legal highs' in Dundee..." it was suggested that one of the first websites to appear on the search results page should be one delivering information and advice about NPS. Some people also suggested there needed to be greater publicity for the public as to how to access services or support for NPS use.

From the discussions arising with young adults who have seen others take NPS and have been affected by the resulting adverse effects some expressed a need and a role for more first aid information to be given to young people about possible consequences arising from the use of NPS and other drugs.

As part of the information delivered, several professionals raised reminders about the need for standard harm reduction methods that were originally for illicit drug use, such as safe injecting messages, but that are now often applicable to NPS also. Similarly they advised that it should be remembered that whatever the drug, be it NPS or an illegal substance, "drug use is a symptom of something else" and the holistic approach to drug misuse should not be forgotten.

4.3.8 How to improve services

Some services have asked for improved clarity for GPs and other frontline staff as to where to refer people presenting with issues associated with NPS use. Examples were given where some referrals ended up being "lost in the system" temporarily as they were passed between departments/services/agencies.

Several services have expressed the need to dedicate more time and personnel to NPS. Some suggested that there might be a need for NPS-specific clinics or that a designated NPS worker is appointed who takes the lead on NPS-related issues within a service.

Also, many professionals expressed an appetite to develop an NPS network across Tayside. Suggestions for representation included from Addaction, CAIR Scotland, Tayside Substance Misuse Service, Social Work, Police, NHS Emergency Department, Scottish Ambulance Service, Trading Standards, Prison Services, and Education. It was suggested that the purpose of this would be information sharing, peer-support, knowledge exchange, monitoring of trends and leading on the co-ordination and dissemination of health promotion messages and harm reduction measures for NPS.

One group of professionals reported that they had had limited experience of people presenting with NPS-related issues. Occasionally someone would present to the service having taken NPS in addition to other substances but that NPS-related medical issues were rarely seen. One professional mused that they were not seeing people asking for help for NPS and wondered whether this was because help was not needed or people did not know where to get help from. A couple of professionals also observed that there is no specific medical treatment options for NPS-related issues currently and so pondered what type of help was best delivered and by whom. One person suggested that it may be worth setting up a designated clinic for people presenting specifically with NPS-related issues and to pilot this clinic, record the issues that individuals presented with and evaluate it following introduction. That way if NPS is associated with specific problems amenable to support/help/intervention e.g. addiction, this information could be used to define further the needs of people with NPS-related issues and improve the help and support delivered.

5. Discussion and Recommendations

There is a paucity of data concerning the current impact of NPS. Such is the concern over these substances the Scottish Government has made tackling NPS a priority for local Alcohol and Drugs Partnerships. This Needs Assessment was set up to improve our understanding of what is happening with regards to NPS in the Tayside area and make recommendations as to how the help and support offered to people who either take NPS or know others who do could be improved.

To inform our understanding we sought available routine data and the views of the general public and professionals who encounter NPS through the means of a survey and discussions with individuals.

The survey generated close to 700 responses. We are very grateful to local partners and the media who raised awareness of the survey and encouraged such numbers to contribute their thoughts and experiences of NPS, particularly as there were no incentives offered to complete the survey in turn for people giving up their free time to engage with it.

As with most surveys, without mandatory completion across the population, the results obtained can only provide a snapshot of the experiences of those who submit responses. It may be that we have missed sections of the population who take NPS but either did not hear of the survey or chose not to complete it. For example, given that it ran predominantly over the summer months we may have missed contributions from students who may have otherwise answered. Also members of the public who take NPS without issue may have considered such a survey unnecessary and chosen not to share their experiences. And there will inevitably be members of the public who have limited access to the internet and would have been unable to complete the survey for that reason. Aware of these potential limitations we sought to supplement the results of the survey with targeted discussions with various community groups.

However, even with these limitations, the survey has managed to garner a substantial response and provides the most comprehensive regional picture of the awareness and experience of NPS in Scotland to date. A wide age range of participants completed it. Furthermore, continued completion rate to the end once respondents had started the survey was good.

In addition to those who had no direct experience of NPS, but who either knew others who had or were able to share their thoughts about NPS more generally, over 100 respondents replied saying that they had either tried NPS previously or took it currently. Of those who knew others that took NPS approximately half were friends or family and half were professionals involved in supporting service-users presenting with

NPS-related issues. All these data provided us with a rich resource from which we can start to examine in greater depth the impact of NPS in the Tayside area.

5.1 Overview of NPS

Data obtained from both Police Scotland and the results of the survey suggests that there are a plethora of substances available to acquire within the Tayside area. It might be expected that one substance would be more commonly found, for example, in Angus and another in Perth and Kinross, but this did not appear to be the case. A variety of substances are available Tayside-wide.

Respondents to the survey reported that people take NPS through a variety of mechanisms such as smoking, injecting, snorting powders and or ingesting pills. The frequency with which people took NPS also varied as did whether they took it with another substance or not and what that substance was. The survey was useful to understand how a large number of individuals approach taking NPS, however, with the discussions we were able to identify emerging patterns as far as specific groups of people who chose to take NPS. Two key groups to emerge were: young adults who were experimenting with NPS and in particular smoking synthetic cannabinoids; and regular, long-term drug users who were supplementing their illicit drug misuse with NPS. The main reasons expressed for taking NPS were availability and accessibility and, for those with a history of illicit drug use, less chance of detection.

There will inevitably be other groups of the general public who use NPS that we haven't identified through this work. Some of the discussions suggested that there was widespread use of NPS in prisons and this may be an area to explore in future. For the moment, however, we have identified two groups of NPS users who have identified needs in terms of support and help required for their NPS use. Much of the research to date has concentrated on the use of NPS as a recreational or 'party' drug. The use of NPS by illegal drug users who supplement drug misuse with NPS has not been a big focus previously, partly as it likely represents a smaller proportion of NPS use, but nonetheless these individuals can encounter some distinct and significant problems with the NPS they use and may require additional help and support. In particular, this would concern the aspect of NPS injection which is considered in section 5.4.2.

5.2 Source of NPS

Both the results of the survey and the discussions held with professionals and community groups emphasised the importance of considering 'head shops' as a significant source of NPS. Friends also featured as a source for the introduction of NPS but, in the survey and discussions, shops were the predominant source for ongoing acquisition of NPS.

A concerning feature of the discussions surrounding the supply of NPS from 'head shops' was the implementation of tactics by shop owners to encourage return trade and regular purchase of NPS.

Although some people expressed concern that the closure of shops may drive the purchasing of NPS 'underground' and increase the involvement of drug dealers, the vast majority of people (both those who take NPS and individuals who know others who take NPS) felt that the presence of 'head shops' and the resulting overt availability and accessibility of NPS provided a far greater incentive to purchase NPS than would be present if alternative avenues to obtain NPS had to be pursued.

We had expected the internet to feature more as a source of NPS as has been reported previously[3]. However the results from the survey, corroborated by subsequent discussions, would appear to refute this as a significant source of NPS for the end user in Tayside currently. It may be that the internet does play a role for some people to acquire their NPS from but that this does not seem to represent a large proportion of NPS use currently.

5.3 Help and support for those who take NPS or know others who do

5.3.1 Emergency medical help

The Scottish Ambulance Service and the Emergency Department or Minor Injuries Units at hospital were the principal points of contact for emergency medical help. Approximately two thirds of the people who had required emergency medical help needed it for acute mental health symptoms and a third for physical symptoms.

What is significant about these presentations to the Scottish Ambulance Service and the Emergency Department or Minor Injuries Unit is that we do not have routinely collected data through which to monitor this element of NPS-related help required.

The ambulance data presented in the routine data section of this Needs Assessment is useful as it gives an indicator as to what is happening but given that these data have been sourced from interrogating the free text section of the patient record form it can be difficult to ensure that all references to NPS and its synonyms are captured by the search terms employed. Furthermore although it is likely that as the SAS data suggest the number of incidents that ambulance crews are attending where NPS is involved is increasing it could be that ambulance crews are now more commonly asking about NPS use and therefore we are seeing more cases year on year due to increased awareness amongst the SAS about the potential harmful effects of NPS rather than actual increase in number of incidents per se.

As far as presentations to the Emergency Department/Minor Injuries Unit are concerned the bulk of routine data available pertains only to those individuals who have been admitted. And even then, owing to the limitations in coding (that is there is no specific code to indicate that an individual had an NPS-related issue that resulted in admission) we are not able to access reliable data informing us about NPS-related admissions.

Improved data collection with regards to emergency medical presentations would be useful in order to monitor future trends of NPS-related presentations.

5.3.2 General help and support

The reason that most people who replied to the survey sought general help or support for NPS use was in relation to stopping taking it. This would suggest a level of dependency, be it psychological or physical dependency, amongst regular users of NPS. The potential for NPS dependency was also raised by respondents who had previously taken NPS; they said that stopping NPS had been difficult. Similarly current users also said that they anticipate that it would be difficult for them to stop taking NPS in future.

Another key feature was looking for help and support for the adverse mental health and wellbeing experiences encountered by people who took NPS.

A wide range of support and services were acknowledged by respondents to the survey as having offered help and support to those who take NPS previously. Also many different places were suggested as places to go to if help was required in future by either those who take NPS or people who know others who do and the most common answer was to seek help from the GP. Several respondents expressed a lack of understanding for those who know others who take NPS about where to go for help and for themselves as to where to direct people for help.

We suggest that each ADP ensures information regarding services that provide NPS-related help and support is widely available in their area.

5.4 Addressing NPS

Feedback via the survey and discussions proposed several routes through which services/professionals/government could respond to the challenges associated with NPS.

5.4.1 The term 'legal high'

Both respondents to the survey and people met through the discussions expressed strong antagonism towards the phrase 'legal high'. Concerns were expressed that the term: confers an element of safety that is not present with these substances; it considered an attractive term to new users without recognising that many of the substances can result in

significant adverse effects; and it implies that taking NPS is not a criminal activity, when actually many NPS contain illegal substances and in fact users could indeed be prosecuted.

Currently, however, the preferred term, "new psychoactive substances", is not well recognised by the public or professionals who work outwith the field of substance misuse. When developing the promotional material for the survey undertaken as part of this Needs Assessment we made the conscious decision to revert to the term 'legal high' as this was what people recognised, not 'new psychoactive substances'. Although not ideal we did feel that it gave us the best chance of obtaining the greatest amount of information to inform the development of services and in the promotional material and survey we explained and referred to 'new psychoactive substances' where possible as the preferred synonym.

It was interesting to note that in both Scottish Ambulance Service and NHS Emergency Department records 'legal high' was the term most frequently used. This is likely to have been in part because when asking the public about drug-related presentations the phrase 'legal high' will have been better understood and then when noting in free text boxes it can be easier to record verbatim phrases referred to in discussions.

Given that 'new psychoactive substances' is quite wordy and not that catchy, there is an appetite to change the term again. Crew has proposed 'new drugs'[35] but perhaps this is too all-encompassing. Maybe it is a matter of continuing to embed 'new psychoactive substances' and 'NPS' where possible. There is no easy solution.

Our recommendation at this stage would be to continue to use the term 'new psychoactive substances' and refer to it in preference to 'legal highs' wherever possible and practical. However, if specific data collection methods are to be implemented the crossover from 'legal highs' to 'NPS' needs to be considered and a system implemented that is capable of capturing both for the time being.

5.4.2 Raising awareness of NPS

Survey respondents and themes arising from discussions emphasised the need for improving awareness of NPS in the general public. Education for school children was a key element of this. The results of the survey showed that most commonly people try NPS for the first time between the ages of 16 to 19 years and therefore the optimal timing of NPS-related education may be to early senior school pupils. The delivery of educational sessions by an external agency or person with first-hand experience of NPS was expressed as a preference in the discussions. However, we recognise that one-off sessions by external agencies in schools can be of limited effectiveness in relation to building links across different areas of the curriculum. Many also suggested that the provision of leaflets or information to distribute to parents would also be helpful.

We would recommend that schools consider the need for the delivery of NPS-specific sessions as part of the broader health and wellbeing education (of which substance misuse is already a part of). Information should be balanced and informative and recognise reasons for taking NPS but also identify the associated risks and uncertainty concerning the substances.

We suggest that ADPs continue to work with Education Departments in their areas to support the development of NPS specific sessions where required. We also suggest that teachers are provided with the support, knowledge and means to help with pupil and or parental queries concerning NPS and to know which services are available to direct people to as needed.

The results from this Needs Assessment also suggested that greater information should be given to the general public about NPS via the media and advertising campaigns. Many participants thought this would be helpful in raising awareness of NPS and useful to challenge the misconception of safety associated with 'legal highs'.

There should be greater dissemination of information about NPS to the general public via advertisement campaigns either locally or nationally.

The provision of harm reduction messages for those who take NPS or are thinking about taking NPS was another strong theme to emerge from the results of this work. As people who take NPS often believe that the substances are safer than their illegal counterparts they may not think the same harm reduction messages apply. Services which currently interact with people who take NPS deliver harm reduction messages but feedback from the survey and discussions have indicated that there is a role for greater dissemination of these messages more widely.

We suggest that harm reduction messages, considering the ways in which the risks associated with NPS could be mitigated by people who still chose to take them, are promoted.

We also recommend that specific advice related to the harm reduction measures around NPS injection is available and accessible.

5.4.3 Restricting access

The feedback through the survey and discussions has been emphatic that 'head shops' should be banned. Although this is something that would require action at a national level, locally we can continue to support and promote community pressure to lobby shop owners to cease the vending of NPS.

Consequently, we would advocate that the Scottish Government continues to work to address the selling of NPS through 'head shops'. In the interim we recommend that

ADPs support professionals and community groups with the position that NPS should not be readily available and sold through shops.

5.4.4 Information sharing

Through the discussions it became apparent that many professionals wanted to be able to share information about current NPS trends, experiences and information more easily especially as this is still a relatively novel field that is emerging and changing rapidly. Many services, as illustrated by the survey results, contribute to helping and supporting people with NPS-related issues, and they felt that sharing experiences and knowledge with other professionals would be beneficial to their own practice.

We therefore suggest that an NPS network with multi-agency representation is available for professionals to engage with. This may not necessarily be a new network but could be facilitated through already established ADP networks (e.g. Substance Forums). The network would facilitate collaborative working and provide all services an opportunity to share current intelligence.

5.4.5 Improving the help and support delivered by services

Many services across Tayside are accessed by people who require help and support for NPS use either for themselves or others they know. Sometimes there is a lack of clarity as to which service is best suited to refer people on for more specialised help. Professionals have expressed a need for better signposting of specialised services who provide NPS support.

One proposed solution was to develop the provision of targeted NPS support. The benefit of this would be that it could be used to gather more information about the specific help and support required arising from NPS use. A disadvantage would be that it implies treating NPS-related issues as a specific entity rather than considering underlying factors that are common to many substance misuse presentations.

However, given that we have relatively little information about NPS and associated harms currently, and evidence would suggest this is a rapidly growing area, it may be valuable to service users and professionals alike to explore the application of NPS-specific targeted support. By running an NPS-specific clinic within a service, for example, a further benefit may be that it is easier to promote and raise awareness of where to go for NPS-related help and therefore improve the accessibility to such support.

Our recommendation therefore would be that there needs to be better sign-posting for professionals who work in areas where acute presentations of NPS-related issues may be encountered (such as the Scottish Ambulance Service, General Practice, NHS24 or

NHS Emergency Departments) as to where to direct individuals who require or request support for NPS use.

As part of this we would suggest considering the development of NPS-specific provision (e.g. dedicated clinic sessions or specially trained staff) within existing services that could be promoted locally and that are readily accessible for individuals to self-refer or drop-in as required.

We would suggest that where such NPS-specific provision is developed, these are considered pilot initiatives and are monitored and evaluated to inform the future development of more NPS-specific support services if required.

As part of enabling access to NPS-specific services there is a role for improving the information provision to the general public as to NPS in general and also where NPS-specific help and support can be sought. This has a degree of crossover with the raising awareness section.

We would suggest ADPs support the development of webpages to disseminate NPS-related advice and help. For example, if someone was to search on the internet 'Dundee legal highs' it would be ideal if a webpage providing information on how to access information, help and or support were to appear as the first site they come across. In tandem with this, there is an opportunity to use social media e.g. Twitter or Facebook to enable the quick dissemination of information and harm reduction messages about NPS use and to the public.

Concerns were raised both in the survey and via the discussions that service users who have taken NPS can present with challenging and unpredictable behaviour.

In improving the help and support delivered by services we recommend that ADPs work with services to ensure the availability of NPS-specific training to assist with staff confidence in supporting people presenting with NPS issues and to continue to monitor and respond to challenges encountered by staff as this NPS field develops.

5.4.6 Data collection

The need for improved data recording was not something that arose from the survey results or discussions but rather a reflection of our own following the challenges of trying to collect routine data to inform the current picture of the impact of NPS. The data that Police Scotland have recently started recording as part of Operation Redwall is a useful resource and can help inform the societal impact of NPS. However, health-related data are sparse. We are limited in part by the lack of appropriate ICD-10 codes for NPS which are used to assimilate the hospital episode statistics. Accurate data are useful to monitor trends and gauge effectiveness of interventions.

We would recommend ADPs support services to establish and or develop robust methods for routinely collecting data indicative of NPS-related activity.

5.5 Conclusion

These are the key recommendations arising from this Needs Assessment. They have arisen as a result of the information gathered through available routine data, the online population survey and discussions with various professionals and community groups. It is hoped that these recommendations will be useful in considering and improving the way in which we provide help and support to people who either take NPS or know others who do in future, as the challenges associated with NPS continue to develop and emerge. We acknowledge that the recommendations are not inconsiderable and will involve the time and effort of all partners, under the leadership of ADPs, to consider and implement.

6. Summary of Recommendations

1. Use the term 'new psychoactive substances' instead of 'legal highs' wherever possible and practical.
2. Develop robust methods for routinely collecting data indicative of NPS-related activity.
3. Consider the need for and support the delivery of NPS-specific sessions as part of broader health and wellbeing education.
4. Disseminate more widely NPS information to the general public.
5. Further promote harm reduction messages including those around the injection of NPS.
6. Advocate the cessation of NPS availability through 'head shops'.
7. Develop new or use existing networks to share current NPS intelligence.
8. Improve sign-posting to appropriate services for professionals working in areas where presentations of NPS-related issues may be encountered.
9. Develop NPS-specific provision within existing services as a pilot initiative with subsequent monitoring and evaluation to inform ongoing NPS-related support.
10. Develop websites and other social media mechanisms to disseminate NPS-related advice and support.
11. Ensure availability of NPS-specific training for staff and to continue to monitor and respond to challenges encountered by staff as the NPS field develops.

7. References

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