Postal delivery of illegal consignments into Scotland: Dataset description

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Abstract

This report describes a novel dataset of illegal consignments from overseas identified in postal processing centres between April 2011 and January 2016 and intended for delivery to Scotland. The data were provided to researchers at the Scottish Centre for Administrative Data Research by the National Crime Agency. This dataset provides valuable information on drugs entering Scotland via international postal services, a popular delivery method for drugs purchased in online cryptomarkets. The report provides an overview of how the dataset was constructed, its contents, and the technical and governance arrangements involved in accessing this dataset. It also provides descriptive statistics for the variables included in the dataset, comparing this data source with other data on patterns of cryptomarket usage and focusing particularly on the type, size and distribution of different commodities. From this comparison we conclude that the Illegal Consignment dataset has similar characteristics to other datasets on cryptomarket use over the same time span.

Keywords
Criminology, drugs, postal delivery, administrative data, Scotland, cryptomarkets
Introduction

This report describes a novel dataset which contains information about illegal consignments of drugs that were intercepted on their way to Scotland between April 2011 and January 2016. The data were provided to researchers at the Scottish Centre for Administrative Data Research (SCADR) by the National Crime Agency (NCA). The nature and content of the dataset makes it a useful proxy for studying drug deliveries from cryptomarkets. The report is structured into three sections.

Section One presents high-level information on how the data were collected, the nature of the variables contained in the dataset and the data access arrangements under which the data were analysed.

Section Two provides descriptive analysis of the main variables in the dataset, describing trends in illegal consignment identification over time, spatial distribution by Scottish datazone, number of consignments identified by commodity and law enforcement action for different commodities.

Section Three offers a more in-depth exploration of the sizes of different consignments identified in the dataset. In this final section we draw on existing literature which makes inferences about the intended use of packages supplied through cryptomarkets based on their size (for example, whether they were likely for personal or commercial use). Most of the packages described in the dataset are small and we infer that they were most likely for non-commercial use, but there were also a few larger packages that were probably intended for commercial supply. We found that the characteristics of this dataset were similar to other sources of data on drugs sold in cryptomarkets, both in terms of the mix of commodities purchased and the distribution of package sizes. This suggests that it is a reliable source for investigating the nature and utilisation of cryptomarkets.

We end the report with suggestions for ways in which this data source could be used in the future to better understand how drugs packages flow through postal delivery.

Research Background

Online cryptomarkets\(^1\), and the associated use of postal delivery services to distribute packages purchased over the internet, represent an increasingly important element of the international drugs supply (Mounteney et al. 2016, 13). As a result, there has been substantial research interest in understanding how drugs bought on cryptomarkets flow into wider society and into broader illegal drug markets. The research to date has relied primarily on ‘digital trace’ methods, which means “essentially downloading and organising the content of the live online markets on a regular basis, and using this as the basis for analysis” (Cunliffe et al. 2019), in addition to the more typical social science research methods of surveys and qualitative research. However, developing ‘ground truth’ measures for cryptomarket drug supply is difficult as the reliability of these digital traces is hard to assess. Administrative data can, therefore, provide an alternative and novel perspective on cryptomarket use. We argue that the NCA Illegal Consignments dataset described in this report is a robust and reliable source for this purpose, provided that the researcher is willing to make some strong, but plausible, assumptions that the packages identified through the postal service were sourced via cryptomarkets.

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\(^1\) Barratt and Aldridge define cryptomarkets as “marketplace[s] that host multiple sellers or ‘vendors’, provide participants with anonymity via [their] location on the hidden web and use of cryptocurrencies for payment, and aggregate and display customer feedback ratings and comments” (2016:1). Other terms for these sites include darknet markets (DNMs) or marketplaces.
Section One: About the Dataset

Data collection

The process for identifying illegal consignments coming into the UK, and by which all the packages described in this report were identified, is fairly straightforward\(^2\). Packages being delivered into the UK from overseas come through clearing houses at different airports and, as part of their role, parcel handlers at each site will identify any parcels that look, smell or feel suspicious and bring them to the attention of the United Kingdom Border Force (UKBF). Members of the UKBF also oversee parcels and select some for examination based on appearance, the package’s country of origin and the current intelligence picture of where a given commodity is being sourced. Parcels that have been selected for examination are x-rayed and those that raise further suspicion will be opened for detailed investigation. Where a suspicious substance is detected, samples are presumptively tested using a mass spectrometer. When an illegal drug (or a drug related commodity, such as a cutting agent) is identified the UKBF notifies the NCA which takes a decision about how to proceed. There are two main courses of action open to the NCA: firstly, to take the drugs consignment out of circulation and destroy it; and secondly, to work in partnership with law enforcement partners to conduct a ‘controlled delivery’\(^3\). This decision is taken based on the characteristics of the package (i.e. its size and the type of commodity it contains) as well as other relevant contextual and practical factors (including resource considerations).

We are not aware of any other uses of similar administrative data by researchers to understand the operation and nature of drugs markets, and so this NCA dataset provides a valuable and novel resource for examining how, what, when and where drugs flow into Scotland from overseas through the postal service. For example, this dataset gives an unparalleled window into the spatial distribution of delivery points at the sub-national level (Matthews et al., forthcoming). This is of particular importance to cryptomarket research, as the existing approaches based on digital traces provide comparatively little insight into the geography of cryptomarket use. However, this data collection process has implications for the representativeness of the dataset, meaning that there are some questions that we cannot answer based on the NCA’s Illegal Consignment data.

First, we cannot know how representative these data are of all illegal drugs consignments flowing into the UK through the postal service from abroad. Given the data collection mechanism described above, we assume that the contents of the dataset are not biased towards any particular type of commodity, as this could not be known beforehand.

Second, not every package containing illegal drug commodities is identified and pulled out for examination, so it is difficult to make generalisations about the total volume of drugs purchased through online markets based on this dataset.

Third, this dataset cannot tell us about drugs packages purchased in Scotland from elsewhere in the UK. Demant and colleagues (2018) show that some users may prefer to buy from ‘local’ (i.e. within country) sellers to avoid the hazard of using international shipping which increases the chances of packages being identified at the border.

Fourth, this dataset contains only a small number of variables and does not include, for example, information about the characteristics of those purchasing the commodity. This limits our capacity to understand the demographic profile of cryptomarket users based on this dataset alone.

\(^2\) This description is based on correspondence with Dr Stuart Weatherley, Senior Analyst at the National Crime Agency (NCA).

\(^3\) Cutting (1983: 15) has defined a controlled delivery in the following terms: “a consignment of illicit drugs is detected and allowed to go forward under the control and surveillance of law enforcement officers in order to secure evidence against the organizers of such illicit drug traffic”. According to Dr Stuart Weatherley at the NCA, due to the potential risk to public safety posed by of a loss of control of the consignment by law-enforcement, current practice is to remove the illegal commodity and replace it with an inert ‘placebo’.
Variables in the dataset

Table One provides a descriptive summary of the contents of the illegal consignments dataset and the variables available for analysis.

Table One: Dataset overview

<table>
<thead>
<tr>
<th>Element of dataset</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variables for analysis (8)</td>
<td>Date of Seizure; Type of commodity identified; Quantity of commodity; Unit measure of commodity; Misuse of Drugs Act (1971) classification; Datazone of delivery address; Method of disposal; Other actions taken</td>
</tr>
<tr>
<td>Number of packages</td>
<td>1,374</td>
</tr>
<tr>
<td>Commodities identified</td>
<td>Amphetamines; Benzodiazepines; Cannabinoids; Cathinones; Cocaine; GBL; Hallucinogens; Other, Ketamine; Khat; MDMA; Mephedrone; Methamphetamine; NPS; Opioids; Steroids; Suspected Cutting Agent⁴</td>
</tr>
<tr>
<td>Period covered</td>
<td>6ᵗʰ April 2011 to 5ᵗʰ January 2016</td>
</tr>
<tr>
<td>Datazones⁵ with a delivery address</td>
<td>979 out of 6,976 (14%)</td>
</tr>
<tr>
<td>Method of disposal</td>
<td>346 (25%) consignments seized and adopted for controlled delivery 1,028 (75%) consignments seized and destroyed</td>
</tr>
</tbody>
</table>

Data access

The illegal consignments dataset was provided to the Scottish Centre for Administrative Data Research (SCADR) by the NCA under a Data Sharing Agreement. This was done to allow researchers from SCADR to conduct research on the number, nature and spatial distribution of the intercepted drug parcels. Data was accessed in Scotland’s secure Safe Haven environment at the Edinburgh BioQuarter. Information about SCADR and the Safe Haven can be found in Section 8 of the ADR Researcher handbook (2019). Given the sensitive nature of this dataset it is not available via open access; however, any researcher interested in analysing the illegal consignments data should contact SCADR to discuss the procedures for accessing the dataset in the Safe Haven⁶.

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⁴ Packages containing Heroin, PCP and Methylphenidate are included as ‘other’ commodities in this report due to the small numbers of consignments identified containing these substances.

⁵ Datazones are a standard statistical geography used in Scotland. Based on the 2011 Census, they cluster households with similar characteristics whilst also representing natural boundaries between communities (https://www.scotlandscensus.gov.uk/variables-classification/sns-data-zone-2011). They typically contain 500 to 1000 people.

⁶ SCADR can be contacted at scadr@ed.ac.uk. The final decision as to whether a researcher can access the dataset lies with the NCA as the Data Controller.
Section Two: Descriptive Analysis of Key Variables

This section of the report provides descriptive statistics about the key variables contained in the NCA’s illegal consignments dataset. This includes: the number of packages intercepted over time, the spatial distribution of the packages, the nature of the commodities contained in the packages, and the distribution of commodity types that were subject to a controlled delivery by law enforcement.

Temporal trends

Figure One shows the number of illegal drug consignments intercepted by quarter, from Q2 (April-June) 2011 to Q4 (October-December) 2015. There was a generally increasing trend in the number of packages intercepted throughout the period covered by the dataset, until the last quarter when there was a substantial decline. We are not aware of a specific reason for this decline in packages identified in Q4 2015. However, there seems to be some seasonal trend in the data, with Q4 having the lowest number of intercepted packages in each year after 2011. Based on the dataset alone it is not possible to know whether this reflects seasonal fluctuations in the underlying number of packages being sent or the rate at which packages were intercepted (if, for example, postal processing centres were busier in Q4 due to high volumes of mail prior to Christmas and the New Year).

![Figure One: Number of illegal drug consignments identified per quarter (2011-2015)](image)

Spatial trends

For reasons of confidentiality, the dataset does not provide details of the address to which the intercepted package was due to be delivered. Instead, address information has been aggregated to the level of Scottish datazones. Although they are aggregated to areal units that represent between 500-1000 people, datazones provide a useful statistical geography by which to analyse the distribution of the illegal drugs packages because they are based on data from the 2011 Census and are designed to be as homogeneous as possible whilst also respecting natural boundaries between neighbourhoods. This means we can attach various pieces of information to these areas which enables us to examine the characteristics of neighbourhoods, and the people who live there, to which illegal drug packages are delivered (and, we can assume, from which cryptomarkets are accessed).
Overall, there was at least one parcel addressed to 979 of the 6,976 datazones across Scotland (i.e. 14%), with at least one datazone in each of the 32 Scottish Local Authorities receiving one or more packages.

Table Two shows how many Scottish datazones were destined to receive one or more consignments of drugs. Of the 979 datazones receiving at least one parcel, the majority (76%) received only one while only a few datazones (9%) had three or more parcels intercepted. Matthews et al. (forthcoming) provide an in-depth exploration of the spatial distribution of consignments across Scotland.

Table Two: Number of illegal consignments intercepted per datazone

<table>
<thead>
<tr>
<th>Number of consignments</th>
<th>N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>One consignment</td>
<td>742 (76%)</td>
</tr>
<tr>
<td>Two consignments</td>
<td>149 (15%)</td>
</tr>
<tr>
<td>Three or more consignments</td>
<td>88 (9%)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>979 (100%)</strong></td>
</tr>
</tbody>
</table>
Number of packages by commodity

Some illegal consignments contain more than one type of commodity; however, the NCA dataset only lists the primary commodity contained. The number and type of primary commodity that was recovered from each parcel is summarised in Figure Two. The two most commonly intercepted commodities were cannabinoids, which represented 27% of all intercepted parcels; and benzodiazepines (i.e. psychoactive sedative drugs, such as Valium), which represented 26% of all intercepted parcels. The third most commonly intercepted drug was MDMA, also known as Ecstasy, representing 9% of all parcels.

All other drug types were far less commonly intercepted. It is notable that some drugs parcels contained suspected ‘cutting agents’ (i.e. cheaper chemicals used to dilute or adulterate drugs for selling on to others), which may be indicative of wider drug supply in the local area. The ‘Other’ category includes packages containing Heroin, PCP and Methylphenidate as the number of consignments identified containing these substances was too small to report individually.

![Figure Two: Numbers of intercepted consignments by primary commodity type](image)

7 In the cases of parcels containing multiple commodities the determination as to which was the primary commodity was a subjective decision based on the types and volumes of the commodities. In a hypothetical package with equal quantities of cocaine and cannabinoids, cocaine would be the primary commodity, but if a parcel was identified containing 1 gram of cocaine and 20,000 benzodiazepines, the benzodiazepines would be the primary commodity (based on discussion with Dr Stewart Weatherley, NCA). From the data contained in the Illegal Consignments dataset we do not know how many packages contained multiple commodities.
As a comparator, Ciancaglini et al. (2015) provide an estimate of the percentage of products sold by vendors on the top 15 cryptomarkets in June 2015 based on digital trace methodology. They suggest that Cannabinoids made up 31.6% of transactions, pharmaceuticals (including stimulants such as Ritalin and benzodiazepines like Xanax) made up 21.1% of transactions, and MDMA made up 10.5% of transactions. Whilst the differences in methodology mean these figures cannot be directly compared to those in the NCA’s illegal consignment dataset, the figures presented in Figure Two suggest a broadly similar pattern in terms of the most common drugs intercepted within an analogous time frame. This provides further support for the claim that many of the packages intercepted by the NCA are likely to have been purchased via cryptomarkets and, therefore, this dataset can reasonably be used to make inferences about cryptomarket activity.

Use of controlled delivery by law enforcement

Table One showed that 25% of all intercepted packages were adopted for a controlled delivery by law enforcement.

It is interesting to note, however, that the likelihood of a controlled delivery taking place varied substantially according to the nature of the commodity contained in the package. Figure Three shows the proportion of each primary commodity type that was adopted for controlled delivery. It is important to note that there were very few consignments intercepted for most commodity types (see Figure One). As a result, we have calculated credible confidence intervals for these proportions to reflect the level of uncertainty about the proportion of commodities that were likely to be adopted given that we do not know how many of such packages were not intercepted. We used 95% Bayesian credible intervals based on a Jeffrey’s prior.

![Figure Three: Proportion of different commodity types adopted for controlled delivery](image)

8 These figures include around 10% of transactions for commodities other than drugs.

9 We calculated these confidence intervals using the “bayes” setting in the R package binom (Dorai-Raj 2014).
Figure Three shows substantial disparity by commodity type in the proportion of packages that were adopted for controlled delivery.

The total number of consignments of each commodity type is represented by the size of the black dot which marks the proportion of adopted consignments. It is clear that the proportion of parcels adopted for delivery is not related in a linear way to the number of consignments of each type. For example, cannabinoids and benzodiazepines were the most commonly intercepted type of commodity overall, but the proportion of these packages resulting in a controlled delivery was just around average. Whereas, the packages with the highest chance of being adopted for controlled delivery were intercepted in far smaller numbers. This gives a strong indication that packages are not randomly adopted for controlled delivery, but rather the decision is based on some other factors relating, at least in part, to the nature of the commodity. As we do not have any information about the address or addressee of the package, it is not possible to speculate on how intelligence about these factors may impact on the decision to adopt a controlled delivery. Looking at the most likely commodity types to be adopted for controlled delivery, it is likely that perceived risk of potential harm had a strong bearing on the decisions taken by the NCA and their law enforcement partners to execute a controlled delivery with the intention of making an arrest.

By far the most common commodity type adopted for controlled delivery was Mephedrone, although the number of consignments was small and so the confidence interval is wide. Mephedrone is a synthetic psychoactive drug, known commonly as MCAT, which is similar to Ecstasy and derives from the Amphetamine and Cathinone classes. Until 2010, Mephedrone was one of a group of New Psychoactive Substances (NPS or ‘legal highs’) circulating widely around Scotland. In April 2010, it was banned under the Misuse of Drugs Act and became a Class B drug; however, it has been identified as the main or partial cause of several drug-related deaths in Scotland (ISD Scotland 2018). Packages containing Cathinones (i.e. a group of synthetic stimulants similar to Mephedrone which were also previously classed as legal highs) and other NPS also had a higher than average chance of being adopted for controlled delivery. The greater likelihood of adoption for controlled delivery of these packages most likely reflects a heightened level of concern by Police Scotland from 2010 onwards about the use of legal highs (even after some of them, such as Mephedrone, became illegal). Reports suggest that these substances were implicated in the rising number of drug-related deaths in Scotland recorded in 2012 and 2013 (see Fraser 2014; and Police Scotland, no date).

Cutting Agents also had a much greater than average likelihood of being adopted for controlled delivery. These can include a wide range of substances that are designed to reduce the purity, and increase the profit, of drugs such as cocaine. By their very nature, the interception of Cutting Agents is likely to signal to the police that the recipient of the package intends to adulterate drugs with the intention of supplying them to others. Or the presence of such substances could be indicative of a larger network of drugs delivery at the locus. Therefore, it would be likely that the police would wish to reduce the level of drug-related harm by arresting and prosecuting any suspected drug dealers.

Not surprisingly, high risk packages containing Cocaine and ‘other’ Class A drugs, including Heroin and PCP, also had a higher than average likelihood of being adopted for controlled delivery.

Some commodity types had a lower than average likelihood of being adopted for controlled delivery. This included Opioids, Hallucinogens and Steroids. There is no clear explanation for why these types of substances may have been less likely to be adopted; however, it could be hypothesised that these packages were considered to pose a lower level of potential harm to the population and were for personal use only. This may be the case if these commodities were only identified in small quantities. To this point we have not considered the amount of the commodity, which is also likely to have a strong bearing on the decision of the NCA and law enforcement partners to adopt a controlled delivery. We provide an overview of the distribution of package sizes in the Illegal Consignments dataset in the next section.
Section Three: Size and Likely Use of Consignments

This section describes the size of the packages contained in the NCA dataset. As noted at the end of Section Two, the size, as well as the type, of a consignment is likely to be an important factor in determining the likely action taken by law enforcement agencies. It provides an important clue as to the intended use of the commodity (i.e. whether it was for personal use, commercial supply or non-commercially motivated supply). Whilst cryptomarkets have been characterised in some quarters as an “eBay for drugs”, where people mainly purchase products for personal supply, Aldridge and Décary-Hétu’s (2014) analysis of Silk Road 110 showed that a “substantial proportion” of transactions involved package sizes11 and prices that likely indicated “business-to-business” transactions.

There are also other motivations which lie between the two extremes of personal and ‘business’ use, such as non- or minimally commercially motivated supply (Coomber and Moyle, 2014). Barratt and Aldridge summarise this mixed picture of use both for personal use through to wholesale use, by suggesting that “drugs flow into and out of cryptomarkets into broader social and commercial drug supply chains” (2016:1). In this Section, we assess whether the packages intercepted by the NCA follow a similar mixed pattern of mostly small (likely personal) but some large (likely wholesale) consignments.

Size of consignments

There was substantial variation in the size of packages intercepted by the NCA. Table Three presents a breakdown of consignments by size. For sake of statistical disclosure control we present these sizes in coarse categories, from less than ten units, through to 5000 or more units. Very few of the packages were in the smallest category of less than 10 units (5%) or in the largest category of 5000 units or more (7%). In total, around seven out of ten packages were smaller than 1000 units, and around one in four were smaller than 100 units. This implies a very skewed distribution of quantities, including some very small packages and some other packages being multiple orders of magnitude larger.

<table>
<thead>
<tr>
<th>Quantity</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;10</td>
<td>63</td>
<td>5</td>
</tr>
<tr>
<td>10-49</td>
<td>138</td>
<td>10</td>
</tr>
<tr>
<td>50-99</td>
<td>160</td>
<td>12</td>
</tr>
<tr>
<td>100-499</td>
<td>483</td>
<td>35</td>
</tr>
<tr>
<td>499-999</td>
<td>114</td>
<td>8</td>
</tr>
<tr>
<td>1000-4999</td>
<td>325</td>
<td>24</td>
</tr>
<tr>
<td>&gt;=5000</td>
<td>91</td>
<td>7</td>
</tr>
<tr>
<td>Total</td>
<td>1,374</td>
<td>100</td>
</tr>
</tbody>
</table>

*Note: Depending on the commodity type, units are in grams, millilitres, ampoules or tablets*

It is difficult to interpret the figures presented in Table Three given that they represent quantities of very different commodity types. Therefore, we now present figures broken down by commodity type and most frequent consignment.

10 Silk Road 1 was the first major cryptomarket.

11 Aldridge and Décary-Hétu note that the crawler used to extract data from Silk Road 1 was not able to capture quantity data automatically, and so relied on manual coding (2014). An additional benefit of using data from seized packages is that there is reliable information on the volume of the consignment seized.
Comparing consignment size

Table Four shows the number of consignments of different sizes by the three most common commodity types, plus all other commodities. Here the highest category is 1000 or more consignments, for the sake of statistical disclosure control. Again, we see a skewed distribution of consignments for each commodity type, with some very small packages and some others tens or hundreds of times larger. However, we see quite different distributions of consignment size by commodity type.

For benzodiazepines, half of all packages contained over 1000 units (typically tablets), whereas the same was true for only 7% of cannabinoid packages and 5% of MDMA packages. Cannabinoids (primarily measured in grams) and MDMA (tablets) had a broadly similar profile, with the most common package size being between 100 and 499 units, and a substantial proportion of packages being smaller than this. Consignments of ‘other’ commodity types had a similar size profile to that of benzodiazepines, with the highest proportion of packages containing 1000 units or over.

The median package containing benzodiazepines was 1000 units or more, whilst the median package for other consignment types was between 100 and 499 units. By this measure, packages of benzodiazepines are typically larger than those of other commodities; but there was substantial variation across all commodity types.

Table Four: Distribution of consignments by quantity and commodity

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Benzodiazepines</th>
<th>Cannabinoids</th>
<th>MDMA</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>&lt;10</td>
<td>0</td>
<td>0</td>
<td>34</td>
<td>9</td>
</tr>
<tr>
<td>10-49</td>
<td>6</td>
<td>2</td>
<td>56</td>
<td>15</td>
</tr>
<tr>
<td>50-99</td>
<td>23</td>
<td>6</td>
<td>53</td>
<td>14</td>
</tr>
<tr>
<td>100-499</td>
<td>114</td>
<td>31</td>
<td>170</td>
<td>46</td>
</tr>
<tr>
<td>499-999</td>
<td>34</td>
<td>9</td>
<td>29</td>
<td>8</td>
</tr>
<tr>
<td>&gt;=1000</td>
<td>186</td>
<td>51</td>
<td>25</td>
<td>7</td>
</tr>
</tbody>
</table>

Total    | 363 | 367 | 127 | 517 |

Note: Units vary commodity type. More than 98% of Benzodiazepine packages and 75% of MDMA packages contained tablets, whilst more than 98% of cannabinoid packages were listed as grams. ‘Other’ packages are more varied as they refer to a variety of consignment types.

Consignment size by England and Wales sentencing guideline

In addition to analysing the size of packages by commodity type, we can also use sentencing guidelines to provide an indicator of the potential use of a given consignment. Currently there are no relevant sentencing guidelines specific to Scotland, so we use the England and Wales Sentencing Council’s Drug offence guidelines as a reference point (Sentencing Council, 2012). Whilst it is not possible to directly infer the intended use of a given consignment by its size, the sentencing guidelines provide information on ‘harm categories’ based on the amount of a particular commodity required to receive a conviction for a supply offence. Coomber and Moyle (2014) and Aldridge and Décary-Hétu (2016) point out that there are problems in taking legal guidelines as hard-and-fast thresholds between different types of drug use, but such guidelines are helpful in indicating the potential use of differently-sized packages intercepted through the postal service.
The England and Wales Sentencing Council’s guidelines cover the supply of Heroin, Cocaine, Ecstasy, LSD, Amphetamines, Cannabis and Ketamine. They divide consignments into four categories, where Category One is the most serious in terms of potential criminal sanction and Category Four is the least serious. Even though some of the commodities covered by the guidelines are Class A, very small quantities of drugs fall below the threshold of Category Four.

The four harm categories and the amount and type of drugs that are presented in Table Five. As the sentencing guidelines make clear, there are more factors that go into determining the potential sentencing for a person convicted of possessing a drugs in these different categories, including their motivation, how involved they were in the enterprise etc. (Sentencing Council, 2012:12). As such, we recognize that it is not possible to make inferences about the intended use of a particular consignment with 100% certainty based solely on its size and commodity it contains, and so we use these categories only as indicative guidelines.

Table Five: England and Wales Sentencing Guidelines based on drug type and volume

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Category 4 (least serious)</th>
<th>Category 3</th>
<th>Category 2</th>
<th>Category 1 (most serious)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heroin or cocaine (g)</td>
<td>5</td>
<td>150</td>
<td>1,000</td>
<td>5,000</td>
</tr>
<tr>
<td>Ecstasy/MDMA (tablets)</td>
<td>20</td>
<td>300</td>
<td>2,000</td>
<td>10,000</td>
</tr>
<tr>
<td>LSD (squares)</td>
<td>170</td>
<td>2500</td>
<td>25,000</td>
<td>250,000</td>
</tr>
<tr>
<td>Amphetamine (g)</td>
<td>20</td>
<td>750</td>
<td>4,000</td>
<td>20,000</td>
</tr>
<tr>
<td>Cannabis (g)</td>
<td>100</td>
<td>6,000</td>
<td>40,000</td>
<td>200,000</td>
</tr>
<tr>
<td>Ketamine (g)</td>
<td>5</td>
<td>150</td>
<td>1,000</td>
<td>5,000</td>
</tr>
</tbody>
</table>

Source: Sentencing Council (2012: 11)

Table Six shows the number of drug consignments in the database that met the sentencing guideline thresholds. Of the 1,374 drug consignments, 830 (60.2%) contained substances that were not covered by the England and Wales sentencing guidelines. They do not cover, for example, benzodiazepines, the second most common commodity in the illegal consignments dataset based on number of packages identified. Of the remaining 544 packages which were covered by the guidelines, a further 157 (11.4%) contained a quantity of drugs that was too small to meet the threshold for conviction based on intent to supply. Only 44 of the packages in the database contained commodities that were covered by the sentencing guidelines and were Category Three or above.

If the drug packages intercepted through postal delivery systems are representative of all drugs packages purchased online, these findings would suggest that they mostly contain small quantities of drugs, which are likely to be for personal or minimally commercial use only. Mixed in with these small packages are a small number of high volume consignments which are likely to be for wholesale use.

Table Six. Number of consignments by sentencing seriousness category and action taken

<table>
<thead>
<tr>
<th>Sentencing threshold</th>
<th>Total number of packages</th>
<th>Number of packages adopted for delivery</th>
<th>Percent adopted of all packages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category One to Three</td>
<td>44</td>
<td>30</td>
<td>68.2%</td>
</tr>
<tr>
<td>Category Four</td>
<td>343</td>
<td>99</td>
<td>28.9%</td>
</tr>
<tr>
<td>Below threshold</td>
<td>157</td>
<td>10</td>
<td>6.3%</td>
</tr>
<tr>
<td>Not covered by the guideline</td>
<td>830</td>
<td>207</td>
<td>24.9%</td>
</tr>
<tr>
<td>Total</td>
<td>1,374</td>
<td>346</td>
<td>25.7%</td>
</tr>
</tbody>
</table>
Table Six also shows that the higher the level of harm the commodity posed according to the sentencing guidelines, the more likely it was to be adopted for a controlled delivery. Around seven in ten of the Category One to Three packages were adopted for delivery, compared to only three in ten of those classed as Category Four. Parcels containing commodities that were covered by the guidelines, but were too small for the guidelines to apply, were highly unlikely to result in a controlled delivery. However, this did happen in around 6% cases which shows that even very small packages have some risk of resulting in a prosecution.

Like Figure Three, we can place confidence intervals around the proportion of packages adopted for controlled delivery in each category, as shown in Figure Four. Category One to Three packages – which were much smaller in terms of the number of consignments, were clearly more likely to be adopted for controlled delivery even within the confidence intervals. Whereas, those packages that fell below the threshold of the guidelines (on the basis of size) were by far the least likely to be adopted for controlled delivery.

Thus, as noted in Section Two, size of commodity is as important a factor as type in making the decision to organise a controlled delivery. Interestingly, however, there was no significant difference in the likelihood of being adopted for delivery between packages in Category Four and those not covered by the guidelines (which would include many of the legal highs and associated substances).

It is clear, therefore, that law enforcement agencies take a wider view of ‘harm’ than just that which may be required by the courts in sentencing when they are deciding how to deal with drug consignments that are intercepted through the postal service.
Conclusions and avenues for further research

The purpose of this report was to provide a descriptive overview of a dataset containing information about illegal drug consignments entering the UK via the postal service and intercepted en route to Scotland between April 2011 and January 2016.

In Section One we provided details of how the data were collected by the NCA, a description of the dataset and its variables, and how to access the data.

In Section Two we provided a descriptive analysis of key variables in the dataset, including temporal trends in drug package interceptions, the distribution of packages across Scottish datazones, the number of packages of each commodity type, and a detailed discussion of the use of law enforcement procedures to adopt packages for controlled delivery.

In Section Three, we discussed the size of the consignments, compared consignment size by commodity type and used the sentencing guidelines for England and Wales to classify the consignments according to the level of harm they posed and likely usage (i.e. personal versus commercial).

Analysing the nature, size and distribution of consignment sizes in the NCA dataset lends support to the argument that the use of online markets to purchase drugs tends to be restricted to small-scale, potentially recreational or non-commercially motivated supply, mixed with a small proportion of likely-wholesale consignments. This is similar to the findings of Aldridge and Décary-Hétu (2014).

In comparing the mix of commodities covered in this dataset we find that they are broadly similar to the proportions of drugs transactions on major cryptomarkets that occurred within a similar time period. From this we conclude that consignments described in this dataset are similar to reported cryptomarket use both in terms of the distribution of commodity types and in the distribution of consignment sizes. This supports the idea that this dataset can be used to make tentative inferences about cryptomarket use (see Matthews et al. forthcoming).

We have also demonstrated in this report that decisions taken by law enforcement organisations about how to respond to intercepted packages take into account a range of factors. There is strong evidence that the decision to adopt a package for a controlled delivery (with the aim of securing a prosecution) is driven partly by the size and scale of the package, but also by the perceived harm that the package may inflict on society. Harm appears to be determined in a number of ways, including the seriousness of the class of drug (as illustrated by using the sentencing guidelines for England and Wales) but also according to policing priorities that are related to wider societal trends (such as drug related deaths). These findings suggest that there is further merit in exploring the patterns of controlled drug delivery and its potential impact on the communities affected.

We have demonstrated that this is a unique and novel dataset that could be used for further research, either in its own right or to provide contextual information for a wider study of the purchase of drugs through online cryptomarkets.

We believe that administrative data can give a new perspective on how drugs flow between jurisdictions through the postal system. Secure access facilities like Scotland’s Safe Haven provide the technical infrastructure to work with potentially sensitive data in a way that minimizes possible disclosure risk, and we encourage further use of this type of data, including from other jurisdictions, to provide greater insight into cryptomarket use.
Bibliography


Matthews, B., Collier, B., McVie, S and Dibben, C. (forthcoming) Understanding the geography of cryptomarkets using administrative data on postal drug deliveries in Scotland


