



Use and knowledge of darknet markets among people who regularly use stimulants

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KEY FINDINGS

- From 2014 to 2017, there have been significant increases in the percentage of EDRS participants who purchased drugs online in their lifetime (14% to 22%; $p < 0.001$) and in the past year (11% to 16%; $p = 0.003$).
- The majority (81%; $n = 102$) of those purchasing online reported purchasing drugs from darknet markets.
- From 2014-2017, there has been an increase in the percentage of darknet purchasers purchasing exclusively from Australian vendors (28% vs. 38%), whilst the percentage purchasing from international vendors has remained stable (41% vs. 38%).
- MDMA (48%) was the most commonly reported drug purchased online, followed by LSD (29%), cannabis (18%), and any form of NPS (15%).
- The vast majority (93%; $n = 731$) of the EDRS participants sampled ($n = 786$) in 2017 reported having heard of the darknet (compared to 85% in 2016).

INTRODUCTION

The Silk Road was the first darknet market to gain international notoriety in 2011 in facilitating online trade in illicit drugs (Barratt, Ferris, and Winstock, 2014). Darknet markets, also known as cryptomarkets, are only accessible through anonymising software such as "The Onion Router" (TOR) network, which masks the consumers internet protocol (IP) address (Christin, 2013). The use of this software, in combination with the use of digital currencies such as Bitcoin (Bitcoin, 2017), provides relative anonymity for transactions occurring on darknet markets (Barratt et al., 2014).

While darknet markets trade in a range of goods (stolen credit cards, passports and weapons), illicit drugs make up the large majority of listings available. Ongoing monitoring of darknet markets shows the most commonly available substances (i.e. listed by the largest number of retailers) are cannabis, MDMA, and pharmaceuticals (Roxburgh, Van Buskirk, Burns, and Bruno, 2017).

With the emergence and growth of darknet markets in the illicit drug trade, it is important to monitor the way in which consumers interact with these markets. In this bulletin we assess the knowledge and use of darknet markets among a group of Australians who regularly use stimulants. The Ecstasy and related Drug Reporting System (EDRS) is an ongoing survey that purposively recruits these Australians and asks about patterns of drug use and related harms (see Uporova, Karlsson, Sutherland, and Burns, (in press) for more protocol details).

METHODS

Participants

The data presented in this bulletin are from a total of 3,139 EDRS participants, recruited between 2014 and 2017. EDRS participants are recruited through social media advertisements and via participant referrals (word of mouth) in each capital city across all Australian states and territories. Eligibility criteria for inclusion in the EDRS survey are; at least monthly use of ecstasy and/or other stimulants in the preceding six months, 17 years of age or

older and residence in the capital city of their state for 12 months prior to the interview (Uporova, Karlsson, Sutherland, and Burns, in press).

Measures

From 2014 onwards, participants were asked questions relating to their knowledge, and use of darknet markets to purchase illicit drugs. Participants who reported using the darknet to purchase illicit drugs answered further questions relating to their patterns of purchasing. We present data on trends over time from 2014 to 2017 where possible, and 2017 data for questions where there were no equivalent questions asked in earlier surveys.

Analyses

Significance tests were calculated using an implementation of the optimal methods identified by Newcombe (1998). Results of Pearson’s chi-squared tests (χ^2) and descriptive statistics are also reported.

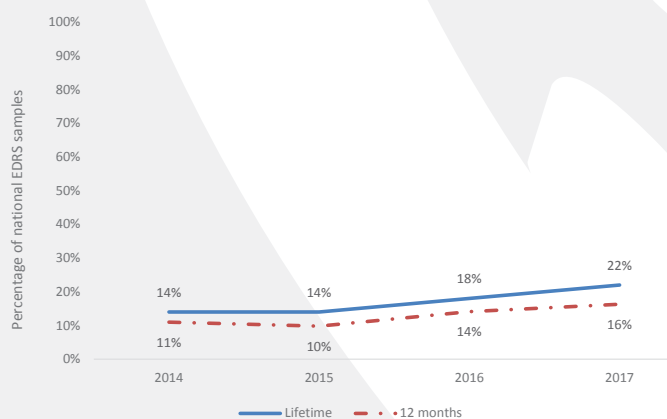
RESULTS

Percentage of participants purchasing online, 2014-2017

Across the entire sample of 3,139 EDRS participants interviewed between 2014 and 2017, 17% (n=539) overall reported having ever purchased an illicit drug online, and 13% (n=403) overall reported they had done so in the last 12 months.

Figure 1 shows the patterns of online drug purchasing among EDRS participants over time. There has been a significant increase from 2014 to 2017 in the percentage of EDRS participants who purchased drugs online in their lifetime (14% to 22%; $p<0.001$) and in the past year (11% to 16%; $p=0.003$).

Figure 1: Percentage of EDRS participants purchasing drugs online in their lifetime and in the last twelve-months, 2014-2017



Source, prevalence and frequency of purchasing online, 2017

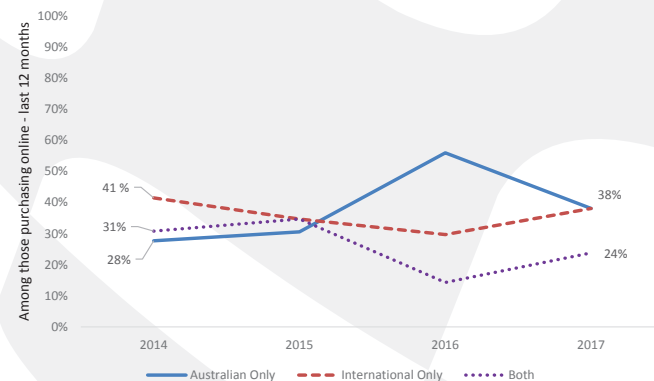
EDRS participants who had purchased drugs online in the last 12 months (n=127) were asked what percentage of drugs purchased during this period was bought online, and on how many occasions they had purchased online. In 2017, the majority (72%; n=91) of those purchasing online reported that less than 50% of drugs purchased had been bought online. In terms of frequency, in 2017 two thirds (69%; n=87) of those purchasing online reported doing so on less than five occasions. The majority (81%; n=102) of those purchasing online reported purchasing drugs from darknet markets. A small minority (22%; n=28) reported purchasing drugs from international stores available on the regular internet (‘surface web’ stores). Numbers purchasing from Australian ‘surface web’ stores are too small to report.

The vast majority (93%; n=731) of the EDRS participants sampled (n=786) in 2017 reported having heard of the darknet (compared to 85% in 2016), with 26% (n=204) having heard of, but never accessing the darknet in 2017 (39% in 2016).

Purchasing online from international and Australian vendors, 2014-2017

Figure 2 shows the pattern of online purchasing exclusively from international vendors, exclusively from Australian vendors, and from both (among those who had purchased from darknet marketplaces in the last 12 months) over time. Of note is the upward trend in percentages purchasing exclusively from Australian vendors (from 28% in 2014 to 38% in 2017). In 2017, equal percentages reported purchasing exclusively from international vendors, and exclusively from Australian vendors (38%).

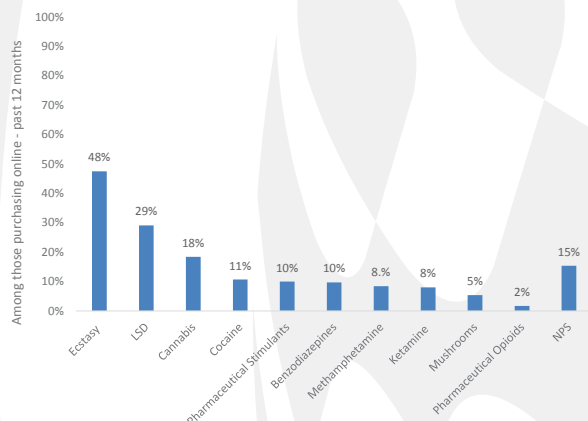
Figure 2: Percentage of EDRS participants purchasing from international versus Australian vendors, 2014-2017



NB: Percentages are among EDRS participants who had purchased from dark net marketplaces over the last 12 months.

Figure 3 shows the percentage of EDRS participants across the entire period (2014 to 2017) by drug purchased (among those purchasing online in the past 12 months). MDMA (48%) was the most commonly reported drug purchased online, followed by LSD (29%), cannabis (18%), and any form of NPS (15%).

Figure 3: Percentage of EDRS participants by drugs purchased online, 2014-2017



NB: Percentages are among EDRS participants who had purchased online over the last 12 months.

DISCUSSION

There has been an increase in the past two years in the percentage of Australians sampled for the EDRS who have heard of, and are accessing, the darknet to purchase drugs. There has also been an upward trend in percentages reporting exclusively purchasing from Australian vendors. This may be for several reasons; 1) fear of apprehension; and 2) an increase in Australian vendors operating on darknet markets. There is clearly a greater risk of apprehension involved when purchasing online from international vendors given the tight border controls that are in place in Australia (Kruithof et al., 2016), and within the context of law enforcement seizures of several major darknet markets over the past 3 years (<https://www.theguardian.com/technology/2017/jul/20/dark-web-marketplaces-alphabay-hansa-shut-down>; <https://www.wired.com/2014/11/operation-onymous-dark-web-arrests/>), consumers may be managing these risks more carefully. Research from the Global Drug Survey indicates that one of the main barriers for Australian consumers purchasing online is 'fear of being caught' (Barratt et al, 2014). Other research has also shown that Australian vendors are over-represented per capita on darknet markets in comparison with other countries such as the U.S. and the U.K. (Van Buskirk et al., 2016).

Overall, EDRS participants continued to purchase their drugs predominantly through more traditional markets such as from friends or through dealers in person, rather than online, with the majority of those who had reported purchasing online in the last 12 months,

having done so fewer than five times. There were very few reports of participants purchasing all of their drugs exclusively online, indicative that darknet markets have not replaced the use of traditional markets among this group, but rather, act as an ancillary source for obtaining illicit drugs. Interestingly, a small minority of online purchasers had bought from international 'surface websites', with very few purchasing from Australian 'surface websites.' Australian surface websites have declined in number since the introduction of legislation banning an increasing number of NPS, while many international sites have continued to operate, with varying legislation of NPS being implemented internationally (Burns and Van Buskirk, 2013).

Drugs most commonly purchased online among EDRS participants were MDMA, cannabis and LSD. Qualitative research has previously found that MDMA is reportedly of higher and more consistent purity when purchased from darknet markets compared to traditional markets (Van Hout and Bingham, 2013), which may account for our findings. Our findings are also consistent with drug availability more broadly on darknet markets, with cannabis and MDMA ranking as the top two substances sold by the largest number of vendors (Roxburgh et al., 2017).

While the EDRS participants who are purchasing drugs online are increasingly purchasing exclusively from Australian vendors, there is still approximately one-third purchasing exclusively from international vendors. This continues to pose a risk for these consumers. At the time of publishing there have been at least 32 Australians convicted for selling or purchasing drugs on darknet markets, the majority (26) of whom had purchased from, or sold to, international vendors (Branwen, 2017). Given Australia's relative geographic isolation, and cheaper prices for internationally sourced substances (Van Buskirk et al., 2016; Cunliffe, et al., 2017), it seems likely that this is a risk consumers will continue to take, and that darknet markets will remain a viable alternative for certain consumers.

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