

Trends in availability, use, and harms of new psychoactive substances in Australia

Dr Amy Peacock, National Drug and Alcohol Research Centre, University of New South Wales

VI International Conference on Novel Psychoactive Substances, 8-9th April 2019, Maastricht, Netherlands

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Drug Trends Team:

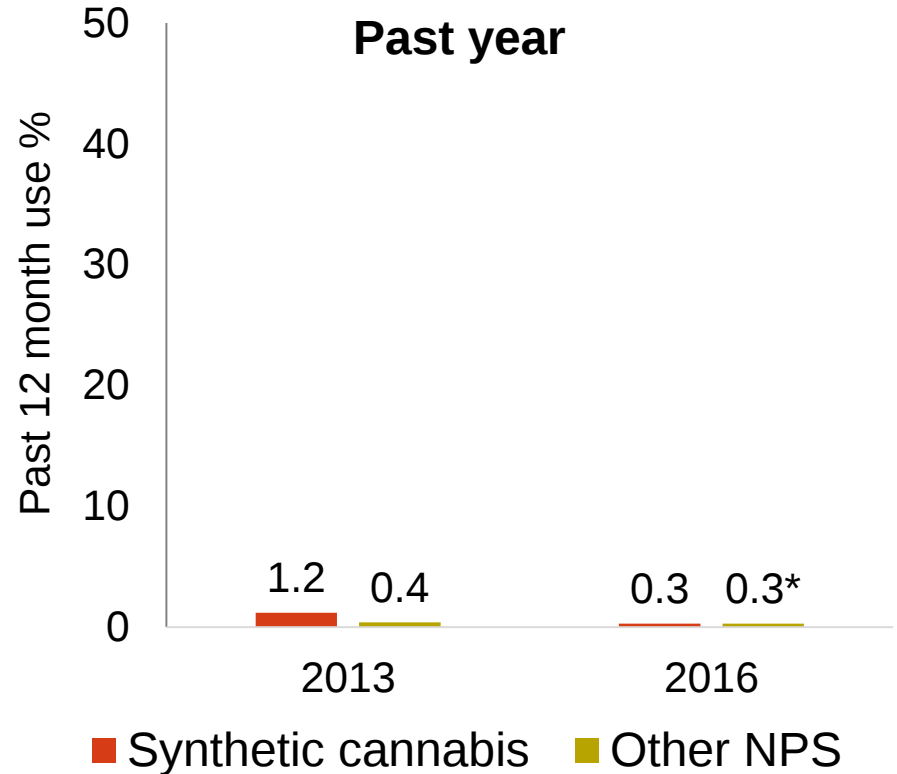
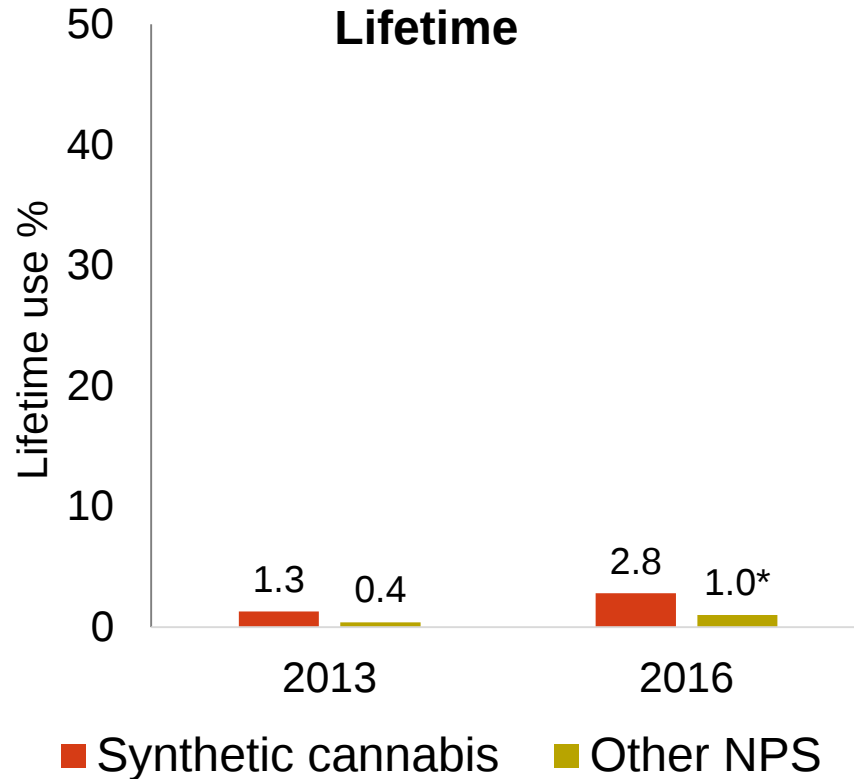
- *National Drug and Alcohol Research Centre:* Daisy Gibbs, Antonia Karlsson, Anant Mathur, Rachel Sutherland, Julia Uporova, Georgia Kelly, Amanda Roxburgh, Timothy Dobbins, Louisa Degenhardt, and Michael Farrell
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- Data custodians for the timely provision of data and input on analysis and interpretation
- Stakeholders for engagement with and input on Drug Trends

NPS use in Australian general population

- National Drug Strategy Household Survey (+ Wastewater analyses)



* $p < 0.05$ 2016 vs. 2013 estimate

Consumers of illicit drugs in the Australian population

- *Six types of Australian illicit drug consumers identified in 2013 household survey:*
 - Cannabis consumers (46%)
 - Pharmaceutical consumers (21%)
 - Ecstasy and cocaine consumers (19%)
 - Amphetamine and cannabis consumers (7%) – 35% synthetic cannabinoids
 - Polysubstance consumers (6%) – 31% NPS and 31% synthetic cannabinoids
 - Inhalant consumers (2%)

Source: Sutherland et al. (2018). Drug and Alcohol Dependence.



DRUG TRENDS

AIM

To establish, maintain, and continuously improve monitoring of trends in illicit drug use, harms, and markets across Australia

DATA SOURCES

National Monitoring: Secondary Data

Mortality Data

Drug-induced deaths from registry and coronial data

Hospitalisation Data

Drug-induced hospitalisations

Other Sources

Household survey, treatment data etc

Jurisdictional Monitoring: Secondary Data

Various sources assessing drug use and harms at the population-level (e.g., emergency department presentations) and subpopulation level (e.g., NSP visits)

Sentinel Sample Monitoring

Illicit Drug Reporting System (IDRS) Ecstasy and Related Drug Reporting System (EDRS)

Annual interviews with people who inject drugs (IDRS) and who use stimulants (EDRS)

Online Monitoring

Cryptomarket Data

Scraping listings on darknet drug markets

OUTPUT

Input from researchers, national stakeholders, and jurisdiction stakeholders to inform priority research questions

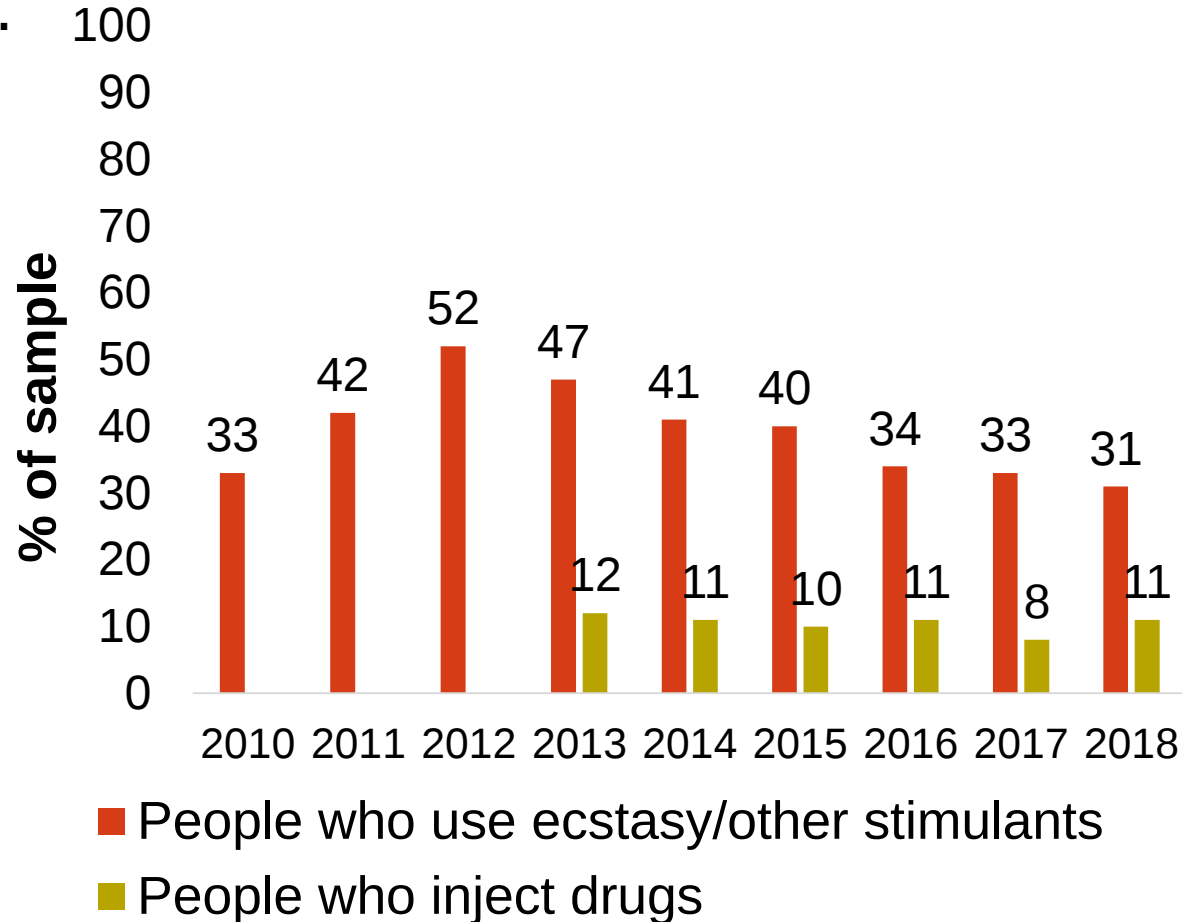
Analytical reports

Past six month use of 'any' NPS, 2010-2018

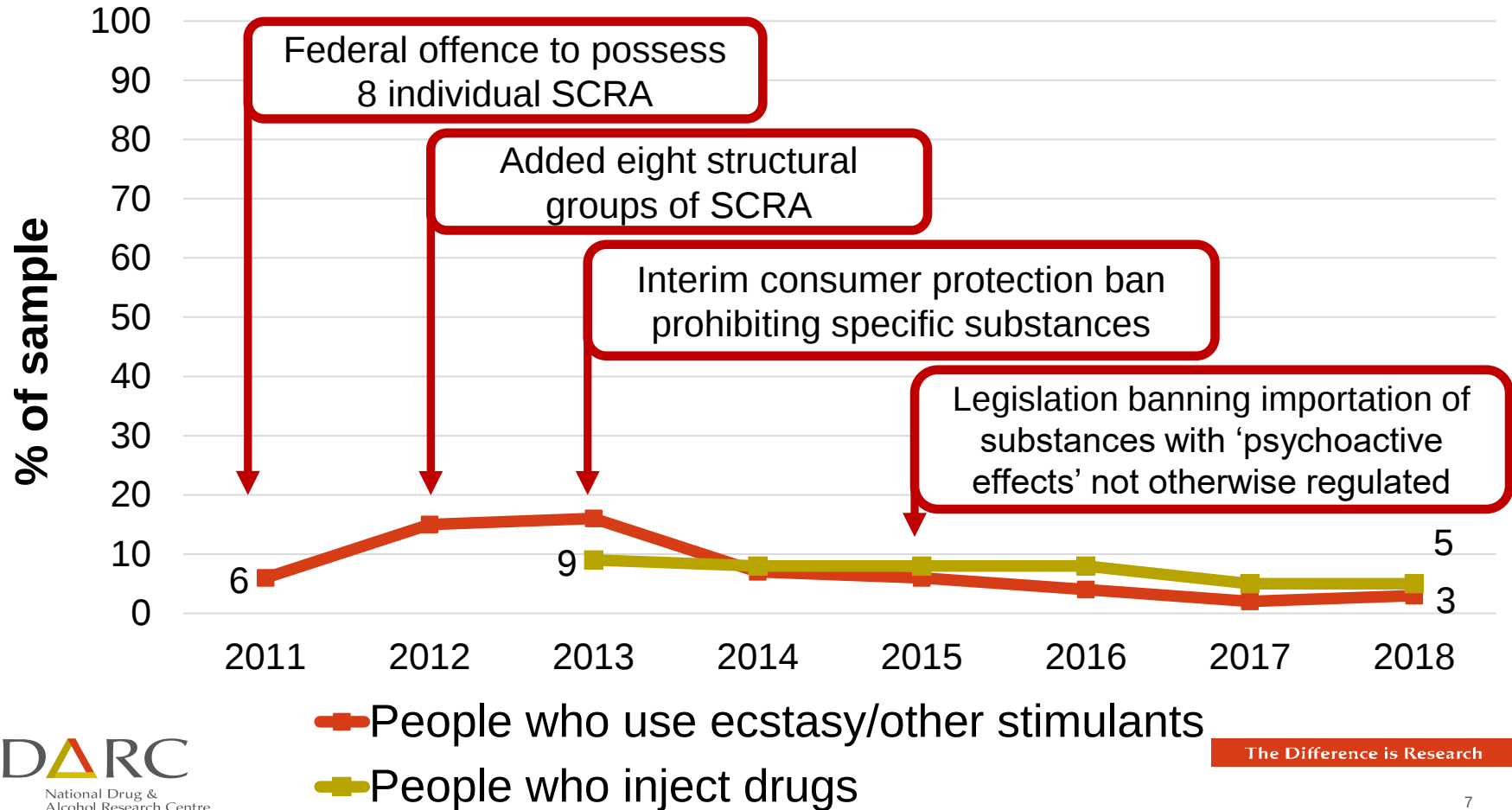
List of NPS evolves each year.

Core substances include:

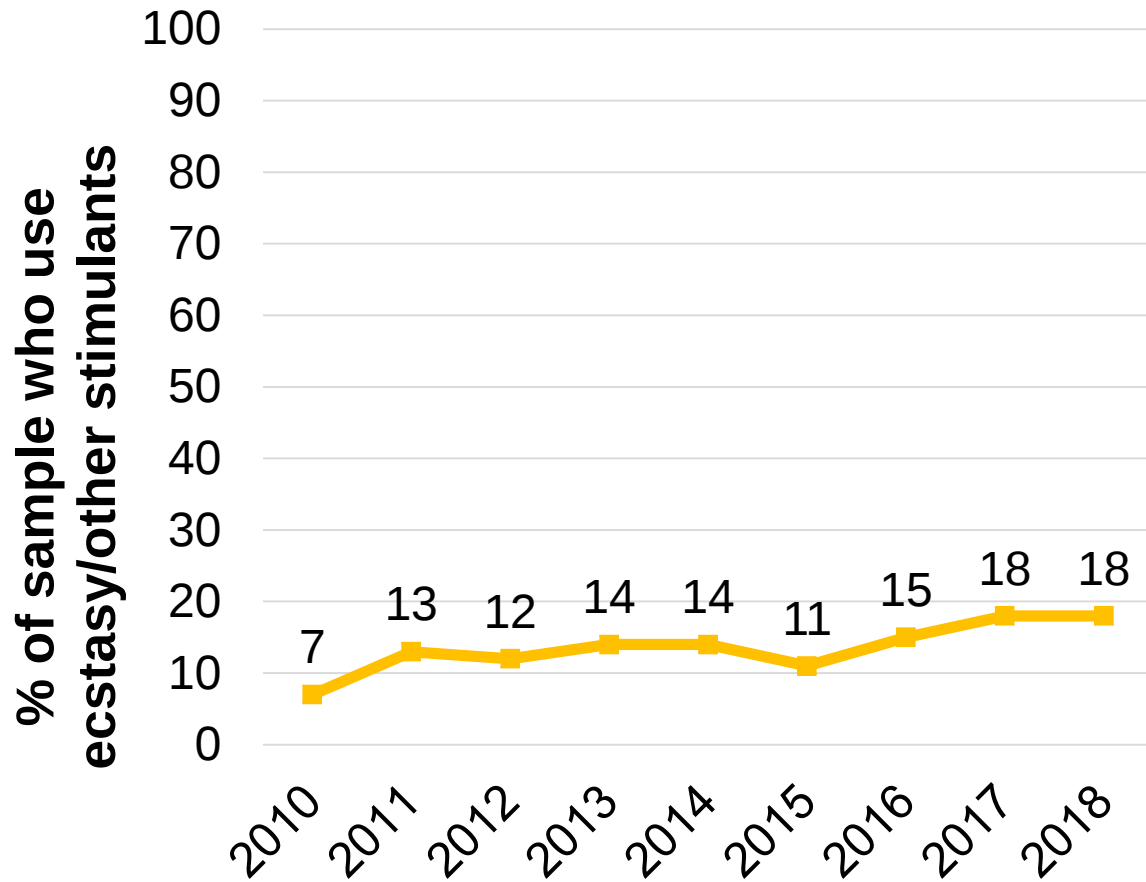
- 2c-x
- NBOMe
- 4-FA
- Mephedrone
- Methylone
- Alpha-PVP
- DMT
- BZP
- Methoxetamine
- Acetylfentanyl
- U-47700
- Synthetic cannabinoids



Past six month use of synthetic cannabinoids, 2011-2018

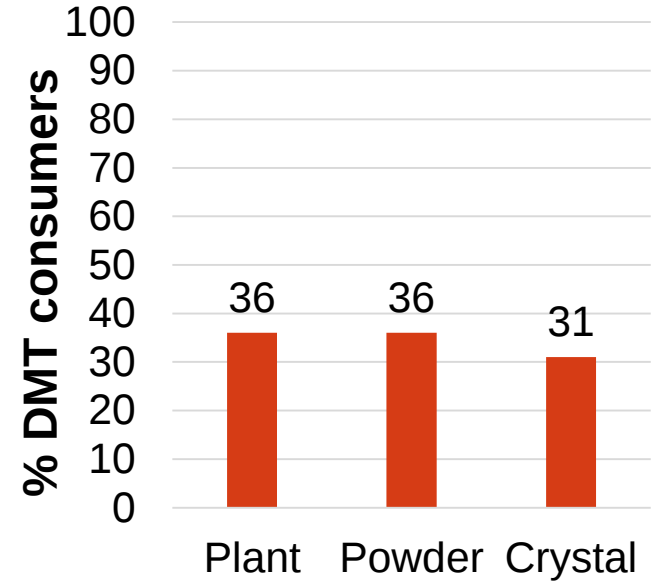


Past six month use of DMT, 2010-2018

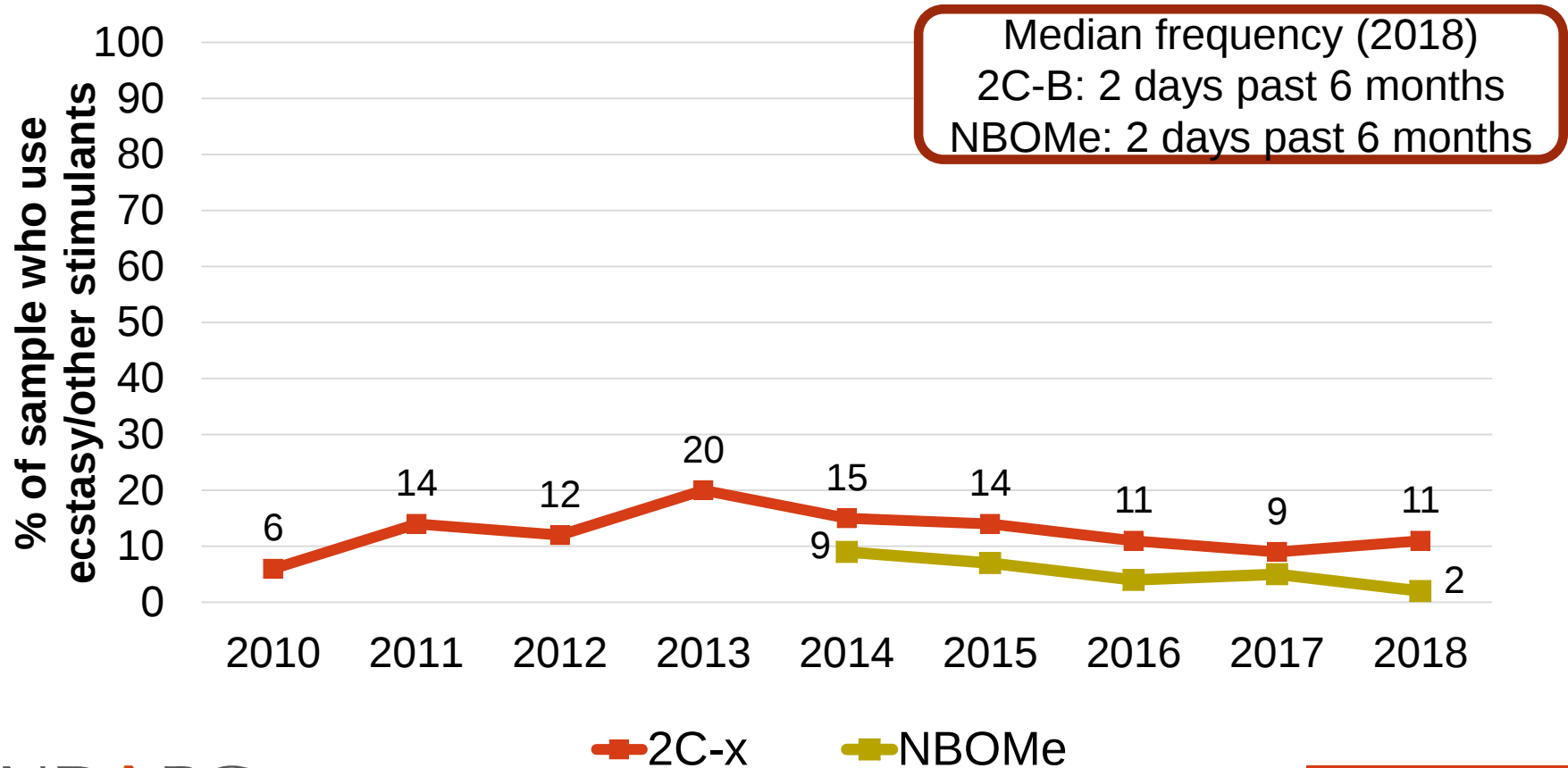


Median frequency (2018):
2 days in past 6 months

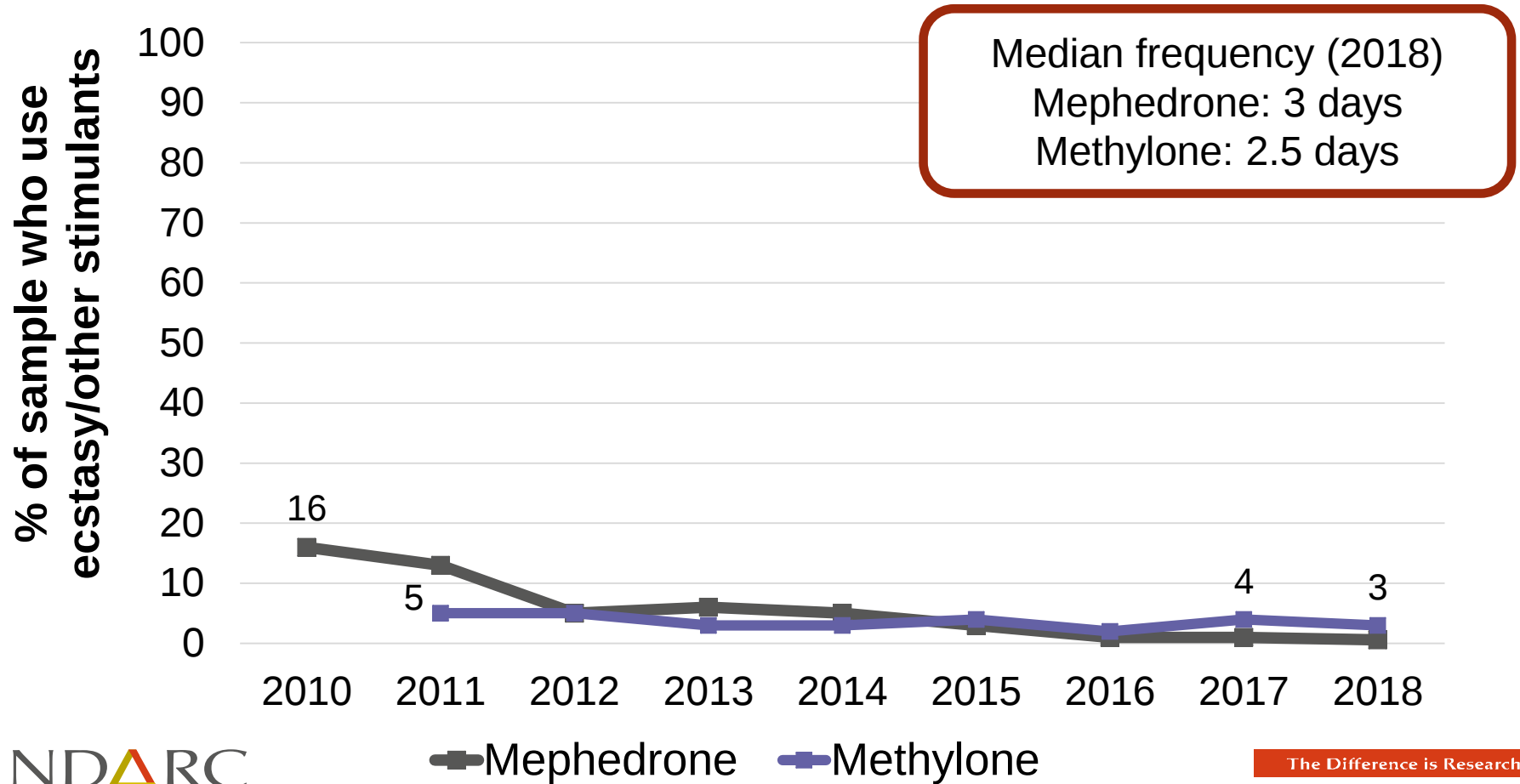
n=140; 2017



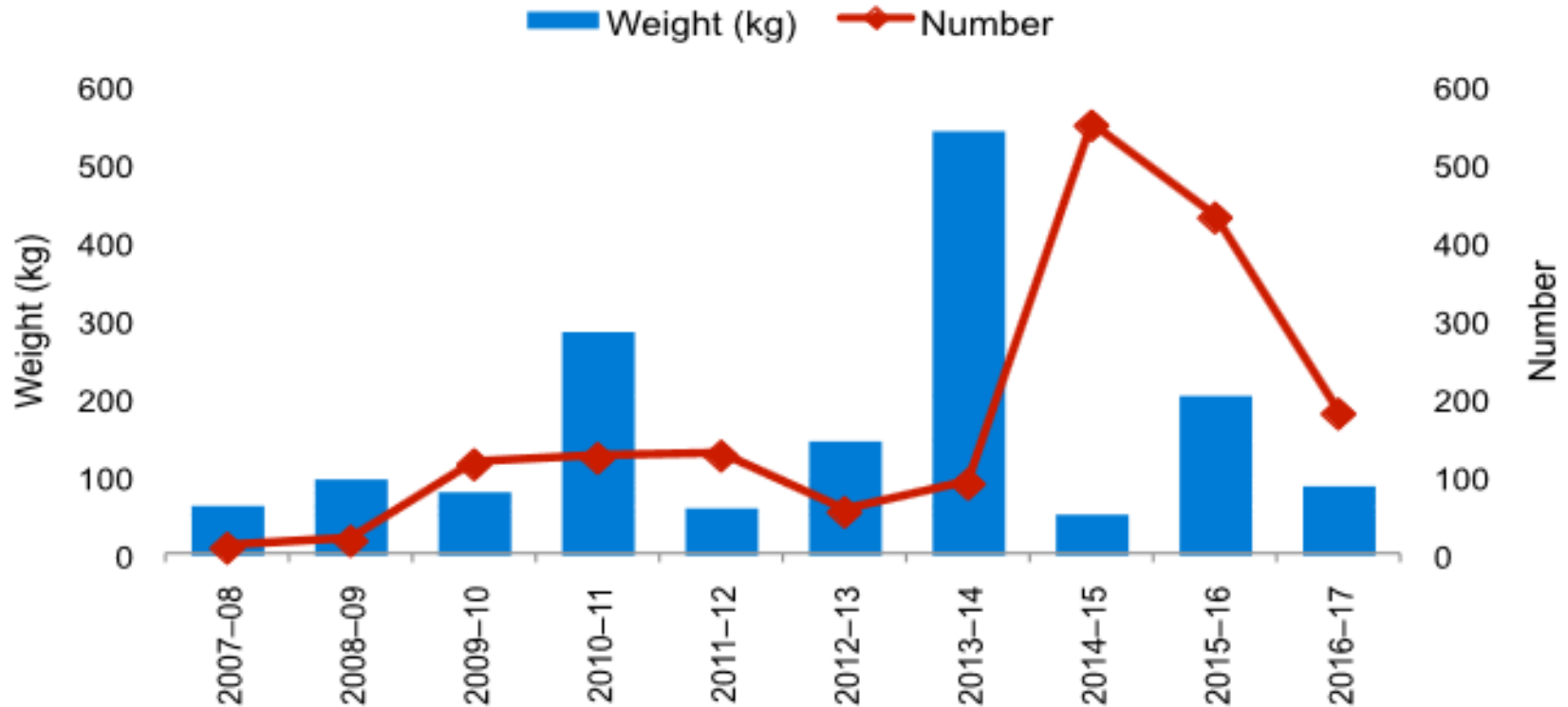
Past six month use of hallucinogen NPS, 2010-2018



Past six month use of stimulant NPS, 2010-2018



Number of weight of analysed seizures that contain NPS, 2007/08-2016/17# (Australia)



How else do we monitor the NPS market in Australia?

Dream Market
Ichudityeqm4ldj.onion
Established 2013

Shop

Messages: 0 Account: 00 dtunsw2



Logout

Browse by category

- Drugs 56696
 - Barbiturates 47
 - Benzos 2292
 - Cannabis 23038
 - Dissociatives 1482
 - Ecstasy 7008
 - Opioids 5871
 - Prescription 2149
 - Psychedelics 2432
- RCs 335
 - Steroids 1678
 - Stimulants 8167
 - Weight loss 154

- Digital Goods 41810
- Drugs 56696
- Drugs Paraphernalia 387
- Services 3268
- Other 2611

B Exchange

BTC	1.0
mBTC	1000.0
USD	3787.3
EUR	3187.3
GBP	2938.8
CAD	4726.7
AUD	4774.5
SEK	30247.4
NOK	29434.7
DKK	23707.1
TRY	13045.6
CNH	25155.1
HKD	29822.7
RUB	222142.0
INR	242547.1
JPY	413523.4

RCs (335)

Filter

Ships to	Ships from	Escrow	Category
			RCs
Price	Searchtext	Sort by	Vendor
-			All

Apply filter

1 2 3 4 5 6 7 8 9 10 11 →

Lidocaine 99% HCL or BASE ★ 2 kg ★ EU



฿0.1498
POL1 (940) (4.83★)
PL → WW

Order

500 mg MALT Freebase - Methylallyltryptamine



฿0.01316
ion8 (100) (4.98★)
CA → N. America, WW

Order

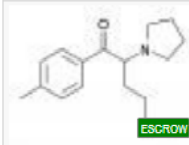
1g Furanylethylfentanyl (FUEF) Crystal



฿0.0092
RaKing (1) (5.00★)
CN → WW

Order

MPHP (MDPV Replacement) 50g



฿0.1182
cheapestmotherfucker (160)
(4.84★)
WW → US, WW

Order

25g Thirtylone Crystal (Replaces Methytlone)



฿0.0421
RaKing (1) (5.00★)
CN → WW

Order

Benzocaine HCL ★ 1 kg ★ from EU



฿0.0919
POL1 (940) (4.83★)
PL → WW

Order

4-ACO-DMT [50 GRAM] [FREE SHIPPING WORLDWIDE]

4MMC, 0.5G - 1KG, BULK DISCOUNTS & WORLDWIDE SHIP

Number of vendors selling NPS (July-Dec 2016)

Substance	Alphabay		Dream Market		Hansa		Valhalla	
	n	%^	n	%^	n	%^	n	%^
2C-x	89	2	107	4	26	3	11	3
U-47700	48	2	41	2	10	2	7	3
DMT	64	1	61	1	18	1	12	2
MDA	27	1	21	1	2	1	0	2
Mephedrone	44	1	64	2	10	1	10	3
α -PVP	27	1	24	1	9	1	3	1
NBOMe	53	1	39	1	8	1	6	1
FuranylFentanyl	40	1	32	1	8	1	5	1
Synthetic Cannabinoids	42	1	38	1	8	1	5	1
DOx	41	1	33	1	8	1	5	1
Total	517	13	450	15	111	12	64	19

Harms of NPS in Australia

- Challenges in timely identification of NPS involvement in harms
- Challenges in rapid, accurate communication to stakeholders, including consumers
- Eager to learn from other countries and other disciplines in both these respects

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<http://dx.doi.org/10.1080/00450618.2017.1315836>



An acetyl fentanyl death in Western Australia

Daniel M. Moss^{ab}, David H. Brown^{cd} and Bianca J. Douglas^c

^aDepartment of Forensic Pathology, PathWest Laboratory Medicine, Nedlands, Western Australia, Australia;

^bDivision of Pathology and Laboratory Medicine, School of Medicine, University of Western Australia, Crawley, Western Australia, Australia; ^cForensic Toxicology, Forensic Science Laboratory, ChemCentre, Bentley, Western Australia, Australia; ^dDepartment of Chemistry, Curtin University, Bentley, Western Australia, Australia

ABSTRACT

Post-mortem case details, including toxicology, of deaths involving novel psychoactive substances (NPS) are limited due to the relatively recent emergence of NPS as a global problem. Acetyl fentanyl, an illicit fentanyl analogue, is no exception, with its prevalence being documented since 2013. This case report seeks to provide pathology and toxicology findings of a sudden death attributed to acetyl fentanyl use. Following injection of acetyl fentanyl, a 24-year old male died suddenly. The autopsy indicated pulmonary oedema and congestion, and early aspiration pneumonia as the only notable

ARTICLE HISTORY

Received 14 February 2017
Accepted 30 March 2017

KEYWORDS

Acetyl fentanyl; illicit fentanyl analogue; sudden death; post-mortem toxicology



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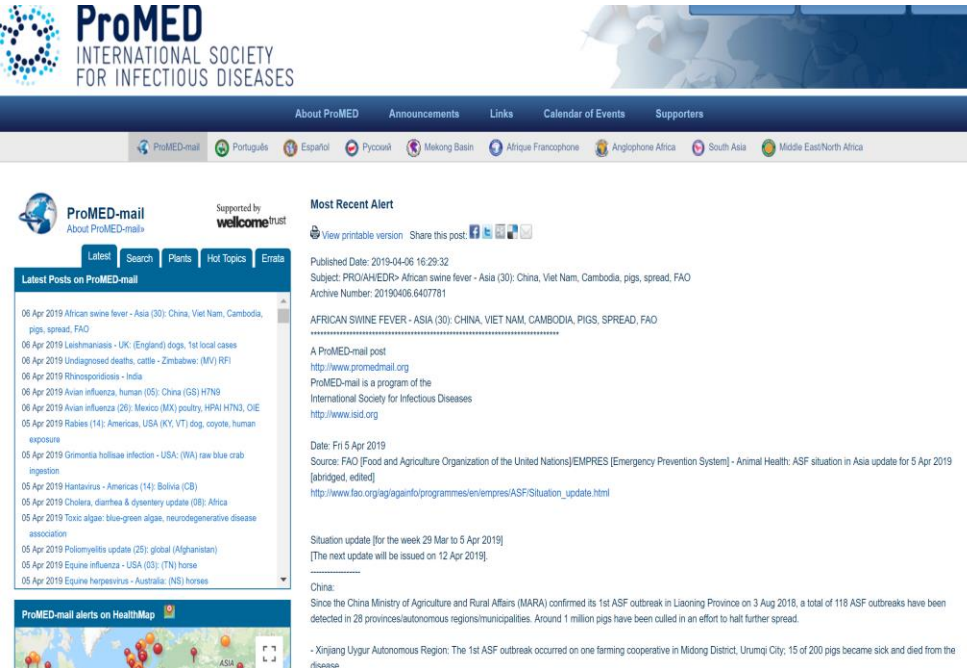
An early warning system for emerging drugs of concern in the emergency department: Protocol for the Western Australian Illicit Substance Evaluation (WISE) study

David McCutcheon✉, Mohan Raghavan, Jessamine Soderstrom, Francois Oosthuizen, Bianca Douglas, Ellen MacDonald, Daniel Fatovich

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David McCutcheon, MBBS, FACEM, Emergency Physician; Mohan Raghavan, MBBS, MRCS, FACEM, Clinical Toxicologist; Jessamine Soderstrom, MBBS, FACEM, Clinical Toxicologist; Francois Oosthuizen, BSc (Hons), MSc, PhD, Forensic Toxicologist; Bianca Douglas, BSc (Hons), Forensic Toxicologist; Ellen MacDonald, MN, GradDipFN, RN, Clinical Nurse Manager of Research; Daniel Fatovich, MBBS, FACEM, PhD, Professor of

Infectious disease communication networks



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- 06 Apr 2019 Undiagnosed deaths, cattle - Zimbabwe (MV) RFI
- 06 Apr 2019 Rhinopneumonitis - India
- 06 Apr 2019 Avian influenza, human (05): China (GS) H7N9
- 06 Apr 2019 Avian influenza (26): Mexico (MX) poultry, HPAI H7N3, OIE
- 05 Apr 2019 Rabies (14): Americas, USA (KY, VT) dog, coyote, human exposure
- 05 Apr 2019 Gironella holisae infection - USA (WA) raw blue crab ingestion
- 05 Apr 2019 Hantavirus - Americas (14): Bolivia (CB)
- 05 Apr 2019 Cholera, diarrhea & dysentery update (08): Africa
- 05 Apr 2019 Toxic algae: blue-green algae, neurodegenerative disease association
- 05 Apr 2019 Polymyositis update (25): global (Afghanistan)
- 05 Apr 2019 Equine influenza - USA (03): (TN) horse
- 05 Apr 2019 Equine herpesvirus - Australia (NS) horses

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View printable version | Share this post: [Facebook] [Twitter] [LinkedIn] [Email]

Published Date: 2019-04-06 16:29:32
Subject: PRO/IAH/EDR- African swine fever - Asia (30): China, Viet Nam, Cambodia, pigs, spread, FAO
Archive Number: 20190406.6407781

AFRICAN SWINE FEVER - ASIA (30): CHINA, VIET NAM, CAMBODIA, PIGS, SPREAD, FAO

A ProMED-mail post
<http://www.promedmail.org>
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International Society for Infectious Diseases
<http://www.isid.org>

Date: Fri 5 Apr 2019
Source: FAO [Food and Agriculture Organization of the United Nations]EMPRES [Emergency Prevention System] - Animal Health: ASF situation in Asia update for 5 Apr 2019 [abridged, edited]
http://www.fao.org/ag/againfo/programmes/en/empres/ASF/Situation_update.html

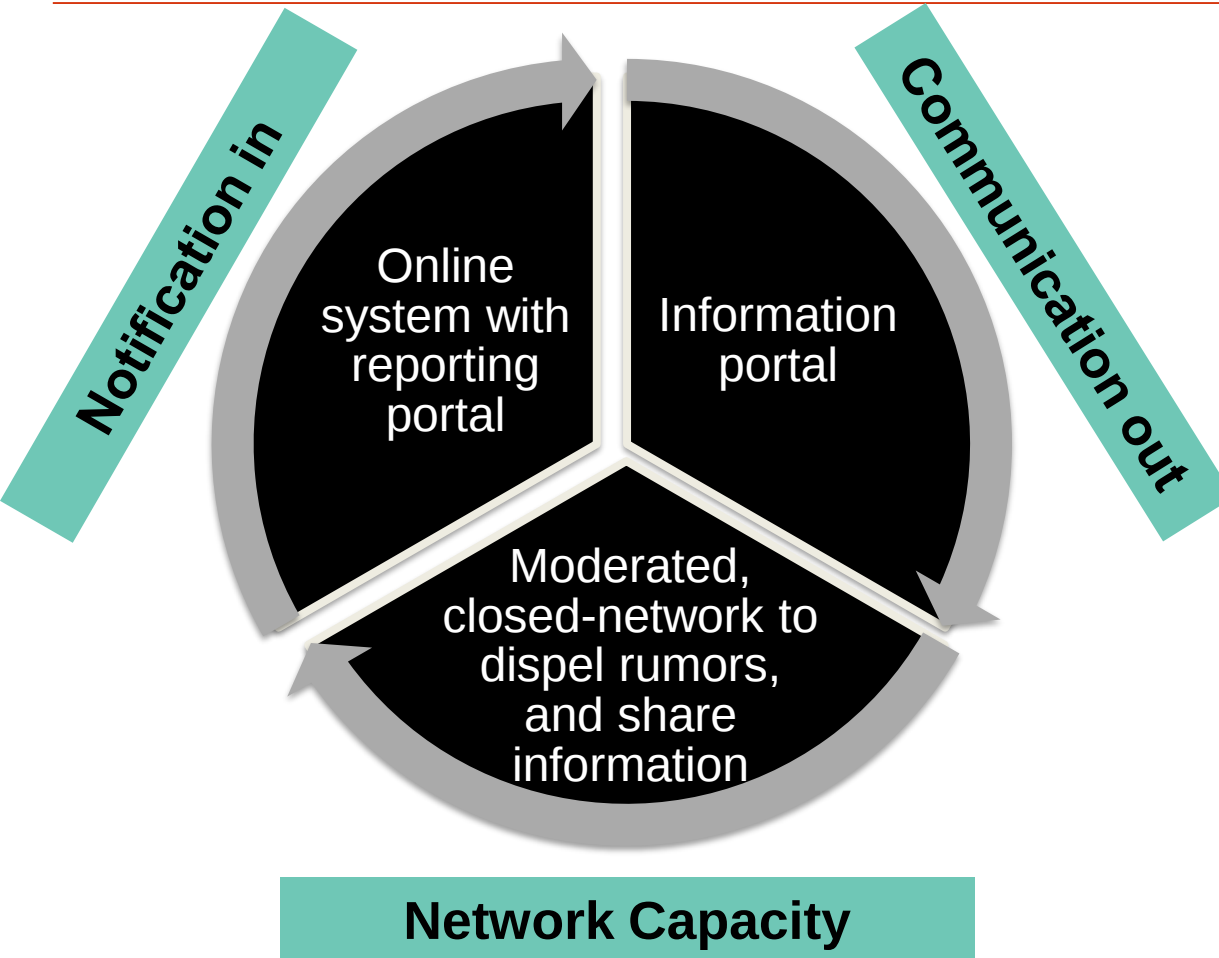
Situation update [for the week 29 Mar to 5 Apr 2019]
[The next update will be issued on 12 Apr 2019].

China:
Since the China Ministry of Agriculture and Rural Affairs (MARA) confirmed its 1st ASF outbreak in Liaoning Province on 3 Aug 2018, a total of 118 ASF outbreaks have been detected in 28 provinces/autonomous regions/municipalities. Around 1 million pigs have been culled in an effort to halt further spread.

- Xinjiang Uygur Autonomous Region: The 1st ASF outbreak occurred on one farming cooperative in Midong District, Urumqi City: 15 of 200 pigs became sick and died from the disease.



“Prompt Response Network”



KEY FEATURES:

1. Consumer focused
2. Multiple data sources
3. Various target users:
 - Toxicology
 - Ambulance
 - ED
 - Clinicians
 - Outreach
 - Customs/LE
4. Moderated forum emphasising public health messaging

Summary

- Low rate of self-reported NPS use in Australia population
 - Objective evaluation (wastewater analyses, urine testing of police detainees/treatment attendees/Medically Supervised Injecting Centre clients, drug checking pilot studies at music festivals)
- NPS are embedded within drug use repertoire for some consumers (noting unwitting consumption not captured)
- Progress in identifying and communicating experience of harm from emerging substances (new methods, new networks)

Halfway there...



DRUG TRENDS

 <https://ndarc.med.unsw.edu.au/program/drug-trends>

 Amy.Peacock@unsw.edu.au or drugtrends@unsw.edu.au

 @AmyKPeacock or @NDARCNEWS

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