



NDLERF

Trafficking in multiple commodities: Exposing Australia's poly-drug and poly-criminal networks

Dr Caitlin Hughes
Dr Jenny Chalmers
Dr David Bright
Dr Michael McFadden

Monograph Series No. 62

Funded by the National Drug Law Enforcement Research Fund
An Initiative of the National Drug Strategy

Trafficking in multiple commodities: Exposing Australia's poly-drug and poly-criminal networks

Dr Caitlin Hughes
Dr Jenny Chalmers
Dr David Bright
Dr Michael McFadden

Funded by the National Drug Law Enforcement Research Fund,
an initiative of the National Drug Strategy

Produced by the National Drug Law Enforcement Research Fund (NDLERF)
GPO Box 1936, Canberra, Australian Capital Territory 2601

© Commonwealth of Australia 2016

ISSN: 1449-7476

This work is copyright. Apart from any use as permitted under the *Copyright Act 1968*, no part may be reproduced by any process without prior written permission from the Commonwealth available from the National Drug Law Enforcement Research Fund. Requests and enquiries concerning reproduction and rights should be addressed to the National Drug Law Enforcement Research Fund, GPO Box 1936, Canberra, Australian Capital Territory 2601.

Opinions expressed in this publication are those of the authors and do not necessarily represent those of the National Drug Law Enforcement Research Fund (NDLERF) Board of Management or the Australian Government Department of Health and Ageing.

The research on which this report is based was funded by the National Drug Law Enforcement Research Fund, an initiative of the National Drug Strategy.

Contents

Acknowledgements	x
Executive summary	xi
Background.....	xi
Methods.....	xi
Results	xiii
Chapter 1: Introduction	01
Terminology	02
Chapter 2: Literature review	03
Understanding the operation of high-level drug traffickers.....	03
The challenge of curtailing illicit drug traffickers	04
The rise of poly-drug trafficking?	05
The scale of poly-drug trafficking	06
Drivers and implications of poly-drug trafficking	07
Drivers and implications of poly-criminal behaviour	10
Difficulties in estimating the scale and nature of poly-drug trafficking.....	14
The approach	15
Chapter 3: Methodology	16
Introduction	16
Australian Federal Police (AFP) data.....	16
Judges' sentencing comments.....	19
Social network analysis.....	20
Chapter 4: Trends in Australian poly-drug importations 1999–2012	22
Introduction	22
Methodology	22
Trends in Australian commercial drug importations 1999–2012.....	24
Estimating the extent of poly-drug seizures at the border.....	27
Comparing the characteristics of poly-drug and mono-drug seizures.....	28
Trends: poly-drug versus mono-drug seizures	35
Summary and conclusions.....	46
Chapter 5: Profiles of Australian poly-drug and mono-drug traffickers	49
Introduction	49
Method.....	49
The scale of Australian poly-drug trafficking using seizures, versus cases, versus linked cases	50

Poly-drug versus mono-drug profiles	51
Summary and conclusions.....	66
Chapter 6: Social network analysis of Australian poly-drug and poly-criminal trafficking networks...	68
Introduction	68
Method.....	68
Analysis of poly-drug and poly-criminal syndicates	70
Summary and conclusions.....	94
Chapter 7: Discussion and implications.....	96
Research limitations.....	96
Key findings.....	97
Further research	100
Policy implications	101
References.....	103
Appendix A: Likelihood of drug traffickers engaging in other criminal activities in Australia	108
Appendix B: Trends in Australian importation seizures, by major drug groups	110
Appendix C: Annual trends in mono-drug seizures, 1999–2012	114

Tables

Table 2.1 Drivers of poly-commodity market diversification	10
Table 2.2 Incentives for, barriers to and mediators of collaboration between terrorists and drug traffickers	13
Table 3.1 Variables extracted on primary and linked cases.....	19
Table 4.1 Weight share of drugs in poly-drug seizures containing two drug types	31
Table 4.2 Proportion by weight of poly-drug seizures, by drug seized and period of seizure	39
Table 4.3 Weight share of seizures, by country of embarkation, for main drug group and period	45
Table 4.4 Weight share of poly-drug seizures, by country of embarkation of main drug group 2009–12	46
Table 5.1 Summary of similarities and differences for poly-drug and mono-drug cases	55
Table 5.2 Quantity of drug seized in each linked case by drug type and total (kg).....	57
Table 5.3 Summary of similarities and differences between poly-drug and mono-drug linked cases.....	60
Table 6.1 Members of the Victorian poly-drug syndicate and their roles	72
Table 6.2 Members of the international poly-drug and poly-criminal syndicate and their roles	81
Table 6.3 Members of the international poly-drug and poly-criminal syndicate and their roles	93
Table A1 Federal offences finalised in the higher courts 2011–12, by offence type	108

Figures

Figure 2.1 Number and type of criminal activities, per organised crime group	12
Figure 3.1 Schemata of Extract 2, AFP data extraction and comparison process.....	18
Figure 4.1 Annual total weight and number of commercial importation seizures, 1999 to 2012.....	24
Figure 4.2 Annual total and median weights of commercial importation seizures, 1999 to 2012.....	25
Figure 4.3 Annual weights of seizures by drug type, 1999 to 2012: ATS, cocaine, heroin, MDMA and precursors	26
Figure 4.4 Annual number of commercial importation seizures by drug type, 1999–2012: ATS, cocaine, heroin, MDMA and precursors	26
Figure 4.5 Annual number of poly-drug commercial importation seizures, 1999–2012	27
Figure 4.6 Weight of poly-drug commercial importation seizures, 1999–2012	28
Figure 4.7 Type of drug seized by proportion, poly-drug versus mono-drug seizures	29
Figure 4.8 Combinations of drugs in poly-drug seizures	29
Figure 4.9 Type of drug seized by total weight, poly-drug versus mono-drug seizures.....	30
Figure 4.10 Median weight of drugs seized 1999–2012, poly-drug versus mono-drug seizures	31
Figure 4.11 Mode of transport, poly-drug versus mono-drug seizures	32
Figure 4.12 Method of concealment: poly-drug versus mono-drug seizures	33
Figure 4.13 Total weights of seizures by method of concealment, poly-drug versus mono-drug seizures	33
Figure 4.14 State where seizure was made, poly-drug versus mono-drug seizures.....	34
Figure 4.15 Total weights of seizures by state where seizure was made, poly-drug versus mono-drug seizures	34
Figure 4.16 Country of embarkation, poly-drug versus mono-drug seizures.....	35
Figure 4.17 Number of mono-drug seizures by drug seized and year of seizure, periods 1 to 3	36
Figure 4.18 Number of drugs seized in poly-drug seizures by period of seizure, 1999–2012.....	36
Figure 4.19 Number of drugs seized in poly-drug seizures by period of seizure, 1999–2012.....	37
Figure 4.20 Total weights of mono-drug seizures by main drug type and period	38
Figure 4.21 Total weights of poly-drug seizures by drug types and period of seizure	38
Figure 4.22 Number of mono-drug seizures by mode of transport: 1999–2012	40
Figure 4.23 Number of poly-drug seizures by mode of transport, 1999–2012.....	40
Figure 4.24 Number of mono-drug seizures by method of concealment	41
Figure 4.25 Number of poly-drug seizures by method of concealment.....	42
Figure 4.26 Number of mono-drug seizures by state where seizure was made	42
Figure 4.27 Number of poly-drug seizures by state of importation.....	43
Figure 4.28 Number of mono-drug seizures by country of embarkation	44
Figure 4.29 Number of poly-drug seizures by country of embarkation.....	44
Figure 5.1 Example of a poly-drug case involving two seizures	51

Figure 5.2 Schemata of data extractions of commercial mono-drug and poly-drug seizures	51
Figure 5.3 Total weight of drugs seized, by individual mono-drug and poly-drug cases	52
Figure 5.4 Type of drugs seized, poly-drug versus mono-drug cases, by weight	53
Figure 5.5: Type of drug seized, poly-drug versus mono-drug cases, by weight, excluding 550kg precursor seizure	53
Figure 5.6 Type of drug seized in individual poly-drug and mono-drug cases, by weight	54
Figure 5.7 Number of persons of interest in poly-drug and mono-drug cases	55
Figure 5.8 Type of drugs seized, poly-drug versus mono-drug linked cases, by weight	56
Figure 5.9 Type of drugs seized, poly-drug versus mono-drug linked cases, by weight, excluding 4.4 tonne MDMA seizure	56
Figure 5.10 Type of drug seized in individual poly-drug and mono-drug linked cases, by weight	57
Figure 5.11 Number of connected criminal cases, by individual poly-drug and mono-drug linked case	58
Figure 5.12 Type of criminal cases (drug, economic or other), poly-drug versus mono-drug linked cases	59
Figure 5.13 Type of criminal cases (drug, economic or other), by individual poly-drug and mono-drug linked case	59
Figure 5.14 Example of linking process	61
Figure 5.15 Connections between poly-drug and mono-drug cases and linked cases	61
Figure 5.16 Connections between poly-drug and mono-drug linked cases, showing shared links	62
Figure 5.17 Total quantity of drugs seized in each poly-drug and mono-drug linked cases (shown by variation in size of the principal nodes)	63
Figure 5.18 Total quantity of cash seized by each poly-drug and mono-drug linked case (shown by variation in size of the principal nodes)	64
Figure 5.19 Total number of crimes connected to each poly-drug and mono-drug linked case (shown by variation in size of the principal nodes)	65
Figure 5.20 Connections between poly-drug and mono-drug linked cases, showing main drug types and suspected/known drug flows	66
Figure 6.1 Syndicate 1 —The poly-drug network as a whole, undifferentiated by drug type	72
Figure 6.2 Syndicate 1 —The poly-drug network, showing involvement in MDMA, methamphetamine and/or cannabis	74
Figures 6.3 Syndicate 1 —The MDMA, methamphetamine and cannabis subnetworks	75
Figure 6.4 Syndicate 2 —Poly-drug and poly-criminal network as a whole, undifferentiated by drug or crime type	77
Figure 6.5 Syndicate 2 —The heroin, methamphetamine and money laundering subnetworks	79
Figure 6.6 Syndicate 2 —Poly-drug and poly-criminal network, showing involvement in heroin and methamphetamine trafficking and/or money laundering	80
Figure 6.7 Syndicate 3 —The poly-drug and poly-criminal network as a whole, undifferentiated by drug or crime type	85
Figure 6.8 Syndicate 3 —The MDMA importation and trafficking subnetwork	87
Figure 6.9 Syndicate 3 —The money-laundering subnetwork	88

Figure 6.10 Syndicate 3—The cocaine importation subnetwork.....	89
Figure 6.11 Syndicate 3—The precursor importation subnetwork.....	89
Figure 6.12 Syndicate 3—The poly-drug and poly-criminal syndicate showing involvement in MDMA, methamphetamine precursors, cocaine and/or money laundering.....	91
Figure B1 Heroin—annual total weight and number of seizures, 1999–2012.....	110
Figure B2 Cocaine—annual total weight and number of seizures, 1999–2012	110
Figure B3 MDMA—annual total weight and number of seizures, 1999–2012	111
Figure B4 MDMA—annual total weight and number of seizures, 1999–2012, adjusted scale	111
Figure B5 ATS—annual total weight and number of seizures, 1999–2012.....	112
Figure B6 Precursors—annual total weight and number of seizures, 1999–2012	112
Figure B7 Precursors—annual total weight and number of seizures, 1999–2012, adjusted scale	113
Figure C6 Number of mono-drug seizures by drug seized and year of seizure, 1999–2012.....	114
Figure C7 Total weight of mono-drug seizures by main drug type and year of seizure, 1999–2012	114
Figure C8 Number of mono-drug seizures by mode of transport and year of seizure, 1999–2012.....	115
Figure C9 Number of mono-drug seizures by method of concealment and year of seizure, 1999–2012.....	115
Figure C10 Number of drugs seized in mono-drug seizures by country of origin and year of seizure, 1999–2012	116
Figure C11 Number of mono-drug seizures by state where seizure was made and year of seizure, 1999–2012	116

Acknowledgements

The investigators are indebted to the Australian Federal Police (AFP) for providing support for the project and access to data on border seizures, cases and linked cases. The investigators also wish to acknowledge the advice and insight provided by members of the Project Reference Group (PRG) over the course of the research. The membership of the PRG included:

- Robyn Attewell, Australian Federal Police;
- Detective Sergeant Keith Randall, Australian Federal Police;
- Dr Brad Grant, Australian Customs and Border Protection Service;
- Detective Sergeant Bob Wynn, ACT Policing;
- Detective Sergeant Adam Rice, South Australia Police;
- Claire Rickards, NSW Police Force;
- Sergeant Pat Doyle, Western Australia Police;
- Lucas Ride, Western Australia Police;
- Barry Newell, Western Australia Police;
- Susan Beattie, Queensland Police Service;
- Detective Senior Constable Luke Hodge, Queensland Police Service;
- Inspector Steve Munro, Queensland Police Service;
- Inspector Bill Graham, Queensland Police Service;
- Senior Sergeant Adam Frost, Queensland Police Service;
- Sarah Mayes, Queensland Police Service;
- Detective Senior Sergeant Mark Newlan, Victoria Police;
- Dr Maria Borzycki, Australian Institute of Criminology; and
- Monica Boyle, Australian Institute of Criminology.

Executive summary

Background

More than 10 years ago, Australian law enforcement agencies highlighted the ‘convergence of criminal networks and, concomitant to this, poly-drug trafficking’ and the challenges this may bring to drug law enforcement and the broader community (Gordon 2001: 22). Poly-drug traffickers are defined as traffickers who produce or trade in more than one drug or precursor, for example meth/amphetamine, cocaine and ecstasy. Mono-drug traffickers, in contrast, are defined as traffickers (or networks) who produce or trade in a single drug or precursor, for example cocaine. For a range of reasons both methodological and conceptual, the extent, nature and implications of poly-drug trafficking are not well understood. The lack of attention to poly-drug trafficking within Australia is of concern, given international agencies have identified an apparent rise in the diversification of drug traffickers—particularly high-level drug traffickers—choosing to deal in multiple different drugs (EMCDDA 2014; Europol 2011, 2013; National Drug Intelligence Center 2012; UNODC 2014a). It is moreover conjectured this may be a ‘deliberate modus operandi’ (Europol 2013: 19) and that the formation of ‘trading portfolios’ (Malm, Bichler & Van De Walle 2010: 56) may make such traffickers more profitable, dynamic and resilient to changes in drug supply and drug law enforcement (Europol 2013; Rubin Pardal, McGee & Culley 2013). There are also concerns that such traffickers may be more inclined to deal in multiple commodities—whether drugs, money or firearms—and hence become not only poly-drug dealers, but also poly-criminal (Rubin et al. 2013). The question remains: do such issues apply in the Australian context, and to what extent?

This project sought to provide the first detailed examination of poly-drug and poly-criminal trafficking in Australia, focusing on the actions of high-level traffickers (importers and wholesale distributors). It had four specific objectives:

- to estimate the proportion of high-level drug traffickers at Australian borders importing more than one illicit drug, and determine trends in the extent and nature of poly-drug importation;
- to generate and compare profiles of poly-drug traffickers and mono-drug traffickers importing illicit drugs at the Australian border;
- to explore how product diversification is managed in high-level Australian multi-commodity drug-trafficking networks; and
- to build research and law enforcement knowledge of Australian poly-drug commodity traffickers, including developing insight into how existing police databases can be used to identify poly-drug trafficking.

Methods

Three distinct but complementary lenses were used to examine this issue:

- trend analysis of importation-level seizures;
- analysis of the profiles of poly-drug and mono-drug traffickers; and
- social network analysis of poly-commodity networks.

The methods outlined below drew upon different types of Australian Federal Police data (including on seizures, cases and linked cases), supplemented by other criminal justice sources (court sentencing data) and social network analysis approaches.

Component 1: Trend analysis of Australian commercial poly-drug and mono-drug importations, 1999–2012

For the first component, Australian Federal Police (AFP) data on all drug, plant and precursor shipments seized (involving heroin, amphetamine-type stimulants [ATS], MDMA, cocaine, precursors, cannabis, hallucinogens or sedatives) at the Australian border between 1999 and 2012 were extracted. Exports were excluded, leaving only importation seizure data. Using the Commonwealth Criminal Code Regulations 2002, each seizure was then categorised as either a commercial poly-drug or mono-drug seizure, based on weight and the mix of drug types within each seizure. The extracted data was then used to:

- estimate what proportion of seized importations were poly-drug;
- examine differences and similarities in the patterns of poly-drug and mono-drug seizures including drug type, seizure weight, drug transport mode, drug concealment method, state of importation and country of embarkation; and
- identify trends in the extent and nature of poly-drug seizures compared with mono-drug seizures over three periods—1999–2003, 2004–2008 and 2009–2012.

Component 2: Quantitative and qualitative analysis of poly-drug and mono-drug trafficker profiles

Analysis of drug trafficking is often based on seized shipment data alone. This study recognised this may provide an incomplete picture of the extent or nature of poly-drug trafficking as, by definition, it assumes products will be imported at the same or a similar time. For the second component, seizure data were supplemented with an examination of what are termed drug cases and linked cases. The study defined drug cases as entire criminal investigations, including all persons of interest and all actions taken (drugs, assets and money seized) and, where relevant, multiple drug-seizure events. Linked cases were defined as the primary drug trafficking case and all other criminal investigations connected to it by known offenders or suspects, including criminal cases involving drugs, economic crime or other types of crime. The final level of analysis was particularly significant to this project, incorporating all known criminal alliances of the people involved in the primary case.

The sample commenced with 10 poly-drug and 10 mono-drug commercial border seizures, matched by year of seizure and drug type. Data was then extracted at two levels, firstly for the entire drug case connected with the specific drug seizure ('case data') and secondly for all other criminal investigations connected to the primary drug case, whether involving drug or other crimes ('linked case'). Key variables were then extracted at the case and linked-case level, including the total quantity of each drug seized, money seized, whether or not there was evidence of weapons involvement, the number of identified offenders and suspects and, for linked cases specifically, the number of criminal cases to which the original case was connected and the type(s) of crime (drug, economic or other).

Estimates of the scale of poly-drug trafficking were then compared using AFP seizure, case and linked-case data. The study also examined the similarities and differences between poly-drug and mono-drug cases and between poly-drug and mono-drug linked cases.

Finally, the study used social network analysis (SNA) as an analytical tool to determine the proportion of cases and linked cases (whether mono-drug or poly-drug) which had offenders, suspects or drug seizures in common. Social network analysis is a proven technique for identifying and characterising relationships, including the presence or absence of interconnections (Morselli & Giguere 2006). The study specifically explored whether poly-drug linked cases were more likely to lead to the formation of strategic alliances with other drug traffickers and other types of criminal offenders, as hypothesised by the extant literature. Network maps of connections were constructed to compare the number and type of connections between poly-drug and mono-drug traffickers.

Component 3: Social network analysis of three Australian poly-drug and poly-criminal trafficking networks

The final component of the study was a social network analysis of three different Australian poly-drug and poly-criminal trafficking syndicates, selected in consultation with the project reference group. Judges' sentencing comments extracted from the Australian Legal Information Institute (Austlii) and LexisNexis AU databases were used to identify all offenders involved in each network—their roles, their relationships (who knew who), the specific criminal commodity each individual was involved with and their resource flows. The entire network and the subnetworks for each drug and/or criminal activity were mapped; the structure and functionality of each subnetwork was explored, including their management structures, whether the same people were involved with different drugs/precursors and criminal activities, and the potential benefits and limitations for poly-drug traffickers of engaging in this form of criminal behaviour.

Results

Extent of high-level poly-drug trafficking at Australian borders

Over the 14-year period from 1999 to 2012, 5.3 percent by number of commercial shipments seized were poly-drug (involving two or more drugs imported at the same time); by weight, they were 8.5 percent. However, analysis of entire cases and linked cases, as opposed to individual seizures, suggests the scale of poly-drug trafficking may be much greater, with 35–65 percent of commercial mono-drug seizures involving some form of poly-drug trafficking. Using a conservative approach, it was estimated that approximately 35 percent of commercial importation seizures at the Australian border may be connected to poly-drug trafficking.

Profiles of poly-drug versus mono-drug traffickers

Most Australian poly-drug traffickers did not import their drugs in the same consignment, instead using multiple consignments. This conclusion is based on two findings: the magnitude of poly-drug commercial cases far outweighed poly-drug commercial seizures, and two of the three poly-drug syndicates examined used different supply chains to import different drug types, sourcing each drug from different suppliers.

There were consistent differences between poly-drug traffickers and mono-drug traffickers:

- poly-drug seizures were associated with the seizure of larger quantities and more frequent importation via vessels and in containers or machinery;
- poly-drug traffickers were much more likely to traffic ATS, MDMA and cocaine and much less likely to traffic heroin;
- analysis of cases and linked cases showed poly-drug traffickers were associated with larger networks, longer periods of operation, more weapons involvement, the seizure of more money, and much greater involvement in other criminal activities such as money laundering and corruption. For example, each poly-drug case was related to an average of 21.7 other criminal cases, compared to 0.5 cases for their mono-drug-trafficking counterparts; and
- poly-drug linked cases were also more likely to be connected to other cases and linked cases in the sample through common offenders, suspects and/or drug seizures. This suggests strategic alliances are the core of their modus operandi.

The study unexpectedly found heterogeneity among poly-drug traffickers. For example, in some poly-drug linked cases small quantities of drugs were seized, and there was no involvement in economic or other crime.

Trends in poly-drug trafficking at Australian borders 1999–2012

Poly-drug trafficking is not a new phenomenon in Australia. The study noted poly-drug seizures were made in the first year analysed (1999) and almost every year thereafter. There was, however, some evidence to suggest it was a growing and/or somewhat more complex phenomenon: for example, between 2002 and 2012 the number of poly-drug shipments seized increased. The study found instances of the presence of three rather than two drugs per poly-drug seizure from 2008 onward. Equally importantly, between 1999 and 2012 there were a number of other shifts in the nature of poly-drug seizures; key among these shifts were in the types of drug, the method of concealment and which state traffickers attempted to import poly-drugs into. In terms of total weight, there was a shift away from poly-drug importation of end-product ATS and MDMA (1999–2003) to MDMA and precursors (2004–2008) and then to end-product ATS and cocaine (2009–2012). The main method of concealing poly-drug seizures also changed, from in baggage and on the body or in clothes (1999–2003) to in containers and cargo (2004–2008), and then to in machinery (2009–2012). Poly-drug seizures have increasingly been concentrated in New South Wales, with a shift away from other states. Such trends differ to those observed for mono-drug seizures; baggage has remained the primary or secondary means of concealment throughout the analysis period. These shifts in poly-drug trafficking appear to reflect a number of different factors including demand, supply, globalisation and responses to law enforcement. For example, changes in the means of concealment suggest poly-drug traffickers have increasingly adopted more sophisticated importation methods.

The how and why of product diversification for Australian drug traffickers

This analysis of three different Australian poly-drug and poly-criminal syndicates indicated many ways product diversification might occur: in-house production of multiple products (Syndicate 1); collaboration between two syndicates (eg a money-laundering syndicate and drug-trafficking syndicate) where each managed independent products (Syndicate 2); and outsourcing (Syndicate 3). The emergence of these three quite different organisational approaches was unexpected, and suggests there is no single, simple method of product diversification.

Despite these differences, the three poly-drug syndicates showed a number of commonalities. Importantly, they all had a clear management structure, with one or two different levels of delegated decision-makers for the network (ie a hierarchical management structure). This is contrary to what has been found by much of the social network analysis of mono-drug networks (see, for example, Morselli 2009), which challenges the existence of hierarchies in criminal networks. This suggests some form of centralised management may be essential for product diversification. In addition, many traffickers had jobs or prior experience in management in the legitimate business world, which suggests legitimate business skills may also be important in this type of trafficking.

Consistent with the literature, product diversification appeared to offer multiple benefits to poly-drug traffickers, including:

- an increased ability to be flexible and adapt to changes in supply, such as a drop in purity;
- an ability to reinvest revenue across drug and crime businesses;
- an ability to capitalise on existing infrastructure (eg brokers, trade routes);
- the cross-pollination of ideas;
- risk-sharing;
- increased resilience with regard to law enforcement; and
- greater ability to respond to changes in demand.

The most important benefit appeared to be a reduction in the risk of loss of supply due to changes in the Australian and international illicit drug market. For example, when there was a decline in the purity of MDMA and heroin, two of the syndicates studied were able to maintain and expand supply by increasing their trade in alternative drugs. Consistent with the findings above, however, the study found some evidence that poly-drug

and poly-criminal trafficking may be less successful if the business expansion is unplanned or too rapid (eg from trafficking in one product to trafficking in four products simultaneously).

Policy implications

This study provides the first comprehensive evidence that significant poly-drug trafficking occurs at the Australian border. The findings show approximately 35 percent of commercial importation seizures were connected to traffickers attempting to import more than one drug.

Consistent with predictions, poly-drug traffickers appear to be more harmful than mono-drug traffickers (EMCDDA 2014; Europol 2011, 2013; National Drug Intelligence Center 2012; UNODC 2014). This was evident in multiple indices, including quantities of drugs, types of drugs, size of network and connections with other types of crime.

However, the study suggests the fears of some international law enforcement agencies (EMCDDA 2014; Europol 2011, 2013; National Drug Intelligence Center 2012; UNODC, 2014) may not have been realised—for example:

- the extent of poly-drug trafficking is not necessarily on the rise, although it may be becoming more complex;
- poly-drug traffickers are clearly heterogeneous, which suggests some pose risks of low-level harm only;
- poly-drug trafficking appears to require specific skills, including business skills not every drug trafficker will have; and
- processes for forming alliances between poly-drug traffickers (something core to their *modus operandi*) appear to be strategic rather than *ad hoc*. This is good news for drug law enforcement in particular, suggesting poly-drug traffickers may be somewhat less dynamic than previously thought, and that there may be barriers to the expansion of their businesses.

This was an exploratory project and some unanswered questions remain, particularly about pathways into poly-drug trafficking and the true extent of poly-drug traffickers' ability to adapt to either market or law enforcement change. Nevertheless, the results indicate poly-drug and poly-criminal traffickers warrant the increased attention of police, policymakers and researchers into the future. The authors would like to impress on policymakers the importance of improving monitoring and reporting on trends in Australian poly-drug trafficking, and of moving beyond monitoring or reporting that is segregated by drug type (eg ecstasy versus cocaine). Importantly, by using and comparing three different types of AFP data (drug seizures, cases and linked cases) this project demonstrates existing police data can be used to capture the extent, trends and harms of poly-drug trafficking. It also indicates that, of the three types of police data examined, police seizure data is most likely to underestimate the scale of poly-drug trafficking in Australia and miss or obscure many of its harms. The authors therefore recommend Australian drug law enforcement agencies supplement the analysis of police seizure data with analysis of case and linked-case data into the future.

The clearest implication of this project is that there is now evidence that, on average, poly-drug traffickers appear to be more harmful than the norm, often by a great degree. This poses a clear dilemma. On the one hand, it suggests poly-drug traffickers should be a priority target for law enforcement attention. On the other, it suggests poly-drug traffickers may be difficult to curtail and that targeting them may lead to an increase in other types of crime or violent behaviour.

More generally, this project shows trafficking in multiple commodities is a reality of the Australian illicit drug market. When supply of a particular drug changes policymakers, police and the research community must be aware of the potential for poly-drug traffickers to expand or alter their business to capitalise on new opportunities or compensate for potential losses; it is equally important they be aware that regulatory responses or law enforcement aimed at one drug may increase the problems associated with another. Most importantly, this research highlights the need for a new way of thinking about responses to drug trafficking in an interconnected marketplace, to be more proactive in responding to the ways the market and market players may change and to foresee and mitigate the most harmful adaptations.

Chapter 1: Introduction

It has long been recognised that illicit drug traffickers can and do trade in multiple drugs (see, for example, Matrix Knowledge Group 2007). Over 10 years ago, Australian law enforcement agencies highlighted the ‘convergence of criminal networks and, concomitant to this, poly-drug trafficking’ and the challenges this might pose for drug law enforcement and the broader community (Gordon 2001: 22); but for a range of reasons, both methodological and conceptual, the extent and nature of poly-drug trafficking is not well understood.

Despite the stated concerns of law enforcement, the great majority of Australian policy, research and law enforcement data continues to focus on single illicit drugs. This focus is exemplified by published data on drug law enforcement outputs, most notably the annual *Illicit Drug Data Report*, in which data is aggregated by drug type (Australian Crime Commission 2014), crime statistics from state and territory police (see, for example, Victoria Police 2014) and Australia’s national drug monitoring systems such as the Illicit Drug Reporting System (IDRS; Stafford & Burns 2014) and the Ecstasy and related Drug Reporting System (EDRS; Sindicich & Burns 2014). Similarly, research into drug-trafficking behaviour tends to focus a group’s involvement with a single drug, such as cocaine, and not their potential involvement in multiple drug markets (see, for example, Degenhardt, Day & Hall 2004; Fowler, Kinner & Krenske 2007; McKetin, McLaren & Kelly 2005; Shearer, Johnston, Kaye, Dillon & Collins 2005). While there may be justification for this, including practicality and that this is how drug law enforcement data are published; such a lens obscures traffickers who trade in multiple drugs. It means that, while many studies have noted the existence of traffickers who trade in more than one drug (see, for example, Fowler et al. 2007), few have systematically examined the extent, nature, harms or implications of poly-drug trafficking (Rubin et al. 2013).

Ironically, poly-drug use has received great attention. It is recognised that this poly-drug use can increase harm to people who use drugs and the community (European Monitoring Centre for Drugs and Drug Addiction 2009; McAtamney & Willis 2009; Quek et al. 2013; Sweeney & Payne 2011). For example, a latent class analysis of the 2007 National Drug Strategy Household Survey showed approximately 12 percent of Australians aged 19–29 reported poly-drug use (defined as concurrent use of two or more of the drugs cannabis, ecstasy, alcohol and methamphetamine in the last 12 months; Quek et al. 2013) and the 2009 Drug Use Monitoring in Australia (DUMA) program report indicated that one in four police detainees (29%) who reported using drugs had used two or more in the previous 48 hours (Sweeney & Payne 2011). Poly-drug users reported higher rates of psychological distress and lower levels of education (Quek et al. 2013) and were almost twice as likely to report receiving income from drug dealing and other illegal sources (Sweeney & Payne 2011).

The lack of attention to poly-drug trafficking in Australia is of concern, with international drug law enforcement agencies pointing to an increasing diversification of traffickers across drug-related and/or other criminal activities, particularly among middle-market and high-end drug traffickers (Europol 2011, 2013; National Drug Intelligence Center 2012). Authorities fear this diversification is associated with increased trafficker profitability, flexibility and, ultimately, resilience to drug law enforcement and changes in the international drug market (Europol 2011, 2013; National Drug Intelligence Center 2012). That said, there is no published literature on whether and to what extent this holds true within Australia.

This project therefore sought to provide the first detailed examination of poly-drug and poly-commodity trafficking in Australia, focusing on the actions of high-level traffickers (importers and wholesale distributors). It had four specific objectives:

- to estimate the proportion of high-level drug traffickers at Australian borders connected with the importation of more than one illicit drug, and determine trends in the extent and nature of poly-drug importation;
- to generate and compare profiles of poly-drug traffickers and mono-drug traffickers connected to the importation of drugs at the Australian border;

- to explore how product diversification is managed in high-level Australian multi-commodity drug-trafficking networks; and
- to build research and law enforcement knowledge of Australian poly-drug and commodity traffickers, including developing specific insight into how to best use existing police databases to capture information on poly-drug trafficking.

Terminology

While drug trafficking is universally defined as activities involved in the production, distribution and sale of psychoactive substances, as proscribed under the 1998 United Nations Convention against the Illicit Traffic in Narcotic Drugs and Psychotropic Substance (United Nations, 1988), what constitutes upper-level drug trafficking remains contentious. The clearest distinction between upper-level and other trafficking is the quantity of illicit drugs involved in importation, manufacture, wholesaling and distribution to other traffickers, as opposed to where traffickers sell directly to users; upper-level trafficking involves large quantities of illicit drugs (Desroches 2007). This study and analysis of the extant literature adopts this definition and excludes the activities of street-level dealers and user-dealers.

Different terms are used to discuss issues around traffickers who trade in multiple drugs or engage in multiple criminal activities. In particular, Rubin et al. (2013: 43) have used the term ‘polymorphous criminal networks’ to describe ‘groups or networks, at local, national, regional, or international levels, able to profit from activities relating to multiple illicit goods and/or services.’ This term emphasises the ability of such networks to change under pressure. This study specifically avoids using this term, as it gives the impression other criminal networks are not flexible; Chapter 2 shows this to be false and that flexibility is an inherent feature of all drug networks. In contrast, Pearson and Hobbs (2001) have called traffickers who trade in multiple drugs ‘multi-commodity’. While the authors agree that drugs such as heroin, MDMA and cocaine are commodities, use of this term excludes other types of commodities in which drug traffickers may trade, such as people or firearms. Consequently, the authors contend that ‘multi-commodity’ should not be used for those trading in two or more different types of drugs, but should instead be reserved for traffickers trading in multiple commodities such as drugs, people, money and firearms.

This project, therefore, uses the terms poly-drug and poly-crime or poly-criminal. Mono-drug traffickers are defined as traffickers or networks that produce or trade in a single drug or precursor, for example cocaine. By contrast, poly-drug traffickers are traffickers or networks that produce and/or trade in more than one drug and/or precursor—for example in methamphetamine, ecstasy and cocaine. Traffickers are engaged in poly-crime if they are involved in multiple illicit activities such as drug trafficking, people smuggling and counterfeiting. Commodities are defined as anything that can be traded such as drugs (as a whole), people, money and firearms.

Finally, Rubin et al. (2013) draw a distinction between poly-drug trafficking and poly-crime using concepts of diversity or co-occurrence—for example traffickers importing heroin, MDMA and methamphetamine at the same time—and diversification or change over time, for example, traffickers switching from importing heroin only to importing MDMA only. This study focuses on the former, but the latter is a related and important phenomenon (see Chapter 2). The study commenced by reviewing the available literature on poly-drug and poly-criminal trafficking.

Chapter 2: Literature review

Studies of upper-level drug trafficking are scarce both in Australia and internationally (for example Abele 2003; Bright & Delaney 2013; Bright, Hughes & Chalmers 2012; Calderoni 2012; Caulkins, Burnett & Leslie 2009; Decker & Chapman 2008; Le 2013; Malm & Bichler 2011; Matrix Knowledge Group 2007; Reuter & Haaga 1989; Zaitch 2002). This is in large part due to the difficulty of researching a covert activity. This literature review, therefore, brings together different strands of research and draws from studies of drug trafficking and organised crime. It commences with a general overview of high-level drug traffickers, their models of operation and resilience, then examines the size, nature and potential implications of poly-drug trafficking and broader insights into the drivers and facilitators of trade in multiple commodities. It concludes by outlining this study's approach to the topic.

Understanding the operation of high-level drug traffickers

Parallels are often drawn between high-level drug trafficking and conventional business (Basu 2013; Caulkins et al. 2009; Decker & Chapman 2008). Desroches' (2007) review of upper-level drug trafficking supports this, finding traffickers frequently have legitimate business experience, do not use illicit drugs, live relatively conforming lives (apart from drug trafficking) and characterise themselves as business entrepreneurs. Indeed, in an earlier study of 70 high-level Canadian traffickers, Desroches (2005) found that 33 percent of interviewees had originally worked in legitimate importing and exporting businesses before getting involved with the drug trade. Moreover, he found the nature of the business had many characteristics mimicking legitimate business: '...ongoing market activity in which participants must procure a quality product at a reasonable price, compete for clients, market their drugs, collect payments, and pay their bills including the fees, commissions, and/or salaries of people who work for them' (Desroches 2007: 830). For example, the importation of both legal and illegal goods requires complex logistics planning including route planning, load planning, dispatch, warehousing, packaging, transshipment and disposal (Basu 2013). As in legal business, there is a focus on profit and new opportunities for growth are sought. The primary differences between drug trafficking and licit business are: the business must be covert, traffickers cannot advertise their product in traditional ways, there are no legal means of dispute resolution and strategies to reduce the risk of detection by law enforcement are necessary (see discussion below; Basu 2013; Caulkins et al. 2009).

A range of models have been developed to describe the structure of drug-trafficking operations. The original and most widely known model, popularised through mainstream media and law enforcement accounts, has drug traffickers operating through a rigid hierarchy with one or two leaders ('king-pins'), a command-and-control structure (ie a top-down chain of authority with different levels of subordinates), division of labour and defined roles, and decision-making that is passed down the chain. This model is exemplified by Pablo Escobar and the Colombian drug trade (Kenney 2007). In spite of its popularity, however, evidence suggests such a model is seldom used by drug traffickers (Caulkins et al. 2009; Decker & Chapman 2008; Morselli 2009; Natarajan 2006; Williams 2001).

Another widely known model is the freelance or network model, involving loose affiliations of people who come together as and when opportunities arise. For example, Chambliss (1978: 9) observed not every crime network had a 'godfather' but, rather, they operated using 'network[s] in which people come and go, dominant officers shift and change, roles vary and fluctuate, but the system goes on.' In the Australian context Fowler et al. (2007: 102, 104) have noted 'a move away from even strategic alliances between organised middle-level networks to service provision in loose, shifting and overlapping teams and networks, mediated through complex internal and inter-network relationships, that vary with the task at hand.' Furthermore, 'individuals and syndicates move in and out of the drug trade, vary their quantities and methods of operation or cease trading altogether, as circumstances change.' In this model participants operate on the basis of

reciprocal relationships, exchanging knowledge and skills or pooling resources, such as the capacity to bring in larger quantities of drugs, with horizontal rather than vertical systems of power. Over time this has become the accepted model in academic literature on the structure of drug-trafficking operations (Bouchard 2007; Bright et al. 2012; Malm & Bichler 2011; Morselli 2009).

Between the two extremes are hybrid models, with elements of both the hierarchical and networking models (Calderoni 2012; Kenney 2007; Varese 2013). For example, Kenney showed that Colombian drug traffickers operated using a series of sub-operations, or nodes, each of which focused on a different area of specialisation—for example, an importation node, a production node or a money-laundering node. The nodes were interconnected via brokers and overseen by central management and node management.

All these models are by necessity stylised types and, while the academic literature increasingly reinforces the notion of drug traffickers operating under alliance or network models (Bouchard 2007; Bright et al. 2012; Malm & Bichler 2011; Morselli 2009), examples of all three models exist. Importantly, all three models have advantages and disadvantages for would-be drug traffickers (Judicial Commission of New South Wales 2012; Le & Lauchs 2013). For example, hierarchical approaches aid clear decision-making and provide mechanisms for accountability at the cost of reducing responsiveness and the ability to adapt to changes in the market or law enforcement. Researchers believe operations fitting the freelance model allow flexibility and responsiveness and foster more cooperative working relationships, as well as enabling the pooling of resources and knowledge, which may assist with growth (Bouchard 2007; Morselli 2009). Such models, however, require more complex decision-making and communication systems, and pose added security risks through the formation of alliances with new—albeit potentially vetted—players. Finally, hybrid models incorporate the advantages of both other models. Kenney (2007) hypothesised that a hybrid model may be necessary for larger trafficking groups, and to enable growth. The literature is silent on the applicability of these models to poly-drug networks.

The challenge of curtailing illicit drug traffickers

In spite of drug laws and expanding powers of drug law enforcement, high-level drug traffickers, in particular, are notoriously difficult to curtail. A growing body of research has explored their resilience, defined as ‘the ability of market participants to preserve the existing levels of exchanges between buyers and sellers, despite external pressure aimed at disrupting the trade’ (Bouchard 2007: 329), revealing a number of reasons for it.

There are high payoffs for drug trafficking and minimal perceived entry barriers into the illicit market (Bouchard 2007; Desroches 2005; McSweeney, Turnbull & Hough 2008; Reuter & Haaga 1989). Drug trafficking, particularly at the mid to high level, can be a very profitable business (Insulza 2013; Reuter & Greenfield 2001; Reuter & Stevens 2007); the global trade in illicit drugs has an annual turnover of millions of dollars. For example, it is estimated that in the UK the mark-up for heroin and cocaine, from plantation to sale on the retail market, is around 16,000 percent compared with only 223 percent for a legal product like coffee (Matrix Knowledge Group 2007). Drug trafficking to Australia is argued to offer particular incentives compared with other countries, due to high demand and the high price of drugs (Australian Crime Commission 2013b). At the same time, there are few barriers to entry into the drug-trafficking trade (Caulkins et al. 2009; Desroches 2005). The main requirements for traffickers, therefore, are a willingness to operate in an illicit market and to prove oneself trustworthy. Even then some people may be particularly sought after in the drug trade, by virtue of their specialist skills (Bright, Greenhill, Reynolds, Ritter & Morselli 2014; Caulkins et al. 2009). Both factors build resilience: high payoffs create a strong motivation for individual drug traffickers to stay in the market and, because this creates an ongoing supply of new players willing to enter the drug trade, to replace any detained traffickers or assist in business expansion.

Drug traffickers employ multiple risk-management strategies to avoid detection, including:

- limiting how long they are in possession of drugs;
- spending time assessing routes;
- working with a small but trusted clientele, thus reducing the risks associated with new clients;

- remaining at arm's length from the most easily detectable activities by employing people to undertake the more risky elements of transactions; and/or
- forming links with corrupt officials to obtain an inside edge (*Matrix Knowledge Group 2007*).

Other strategies to minimise the risk of detection include working with people who are known through family, friends or business connections, and limiting the flow of information or working on a need-to-know basis (Decker & Chapman 2008; Dorn, Levi & King 2005; Matrix Knowledge Group 2007; Pearson & Hobbs 2001). All these factors may increase business costs and reduce ease of expansion, but also reduce the risk of detection by law enforcement agencies. This has been termed the 'efficiency-security trade off' (Morselli, Giguère & Petit 2007).

Drug-trafficking networks have proven to be very adaptable and flexible (Carley 2006; Desroches 2005; Dorn et al. 2005; Matrix Knowledge Group 2007), changing partnerships and modes of doing business. Reuter et al. (1988) were the first to document the adaptability of drug traffickers, reporting that one early adaptations made by marijuana traffickers to smuggling operations was to scale down the size of individual shipments, thereby reducing the probability of large-scale detection. Since that time many different adaptations have been reported, including altering trafficking routes, changing suppliers, time of entry and modes of trafficking, or substituting one drug for another (Bouchard 2007; Decker & Chapman 2008). Undoubtedly a key factor in Pablo Escobar's success in trafficking cocaine into the US was his ability to stay one step ahead of law enforcement—adapting his operations by, for example, using mini-submarines to transport cocaine to the US rather than planes, to avoid detection in US airspace (Escobar 2010). Other adaptations that lower the risk of detection include the adoption of new technology such as mobile phones to transform high-risk, open drug markets into closed markets with lower risk of detection (Curtis & Wendel 2000; Natarajan, Clarke & Johnson 1995). Even so, the flexibility of the network may depend in part on its structure: it is widely argued that decentralised, loose networks like those outlined above are most likely to foster flexibility (Bouchard 2007; Bright et al. 2012; Malm & Bichler 2011; Morselli 2009).

It is increasingly clear, however, that not all traffickers have the same business acumen. This is most evident when observing operations at different levels of the drug market. Middle- to upper-level traffickers differ in often significant ways from retail or street-level dealers. The former are much more focused on maximising profit and operating as businesses (Desroches 2007; Matrix Knowledge Group 2007; Wilson & Stevens 2008). For example, as argued by Desroches (2005: 11), drug traffickers at this level 'exhibit a great deal of rationality' and calculated decision-making, and thus 'develop and implement a *modus operandi* that emphasises safety and profit'. The retail level, in contrast, is dominated by user-dealers who are more intent on surviving than on growing their businesses. Even among high-end traffickers, not all have the same business acumen. For example, a UK study of 222 upper-level drug traffickers found 75 percent wanted to grow their business but many were unsuccessful (Matrix Knowledge Group 2007). The key determinant of successful growth appeared to be the ability to identify and secure alternative and/or multiple drug sources—for example, a cocaine wholesaler securing access to two supply chains for importing cocaine. This appears to be important for two reasons: it provides a 'greater ability to maintain and expand their supply than others'—particularly by reducing the risk of a trafficker's sole supplier being arrested—and increases their chances of being exposed to other viable opportunities for doing business, such as through other ways of importing drugs (Matrix Knowledge Group 2007: 41). An alternative but related strategy appears to be expanding the product repertoire, particularly by dealing in multiple illicit drugs or commodities.

The rise of poly-drug trafficking?

There is growing concern at the international level about drug traffickers who diversify by trafficking more than one drug and/or engaging in a diverse range of crimes. For example, the 2011 EU Organised Crime Threat Assessment identified the rise in 'criminal groups that are increasingly multi-commodity and poly-criminal in their activities' (Europol 2011: 8). The key frontrunners in this shift were drug traffickers: '(D)rug trafficking to and within the EU is increasingly controlled by groups dealing in more than one drug to maximise profits'

(Europol 2011: 10). Two years later the 2013 EU Serious and Organised Crime Threat Assessment reported that poly-drug trafficking was no longer ‘just a trend’, but a common and deliberate ‘modus operandi’ (Europol 2013: 19). Poly-drug trafficking was labelled as one of the highest-priority areas for drug law enforcement.

The 2014 European Drug Report (EMCDDA 2014: 14) raised concerns about poly-drug trafficking, particularly by South-East Asian organised crime groups diversifying from simple cannabis production into methamphetamine production and trade in central Europe, and European crime groups ‘using established heroin routes’ via Turkey and the Balkans (Bulgaria, Romania, Albania etc) that were diversifying into cocaine and methamphetamine trafficking. There are further concerns about Nigeria, where organised crime groups have shifted from trafficking cocaine and heroin (Williams 1995) to also producing and trafficking methamphetamine, adding another drug to their stable (Luna 2014; UNODC 2013).

Finally, the US National Drug Intelligence Center (2012) has noted poly-drug trafficking is increasingly a feature of US drug markets, in direct contrast to an earlier era when trafficking groups were mono-drug focused. Examples of this shift to poly-drug trafficking include Canadian-based ethnic Vietnamese criminal organisations, which from 2006 to 2010 increasingly produced and trafficked MDMA and high-potency marijuana across the Canadian-US border, and Colombian drug-trafficking organisations which trafficked heroin and cocaine into US East Coast markets. However, the clearest examples of poly-drug trafficking are the Mexican drug trafficking organisations. Throughout the late 2000s, but particularly in 2009 and 2010, Mexican drug-trafficking organisations expanded their operations to the simultaneous trafficking of heroin, methamphetamine, cocaine, cannabis and MDMA, cementing their monopoly on supply to the US drug market (National Drug Intelligence Center 2012).

The scale of poly-drug trafficking

While there has been increased attention to the issue of poly-drug trafficking, there remain few estimates of its scale. For example, while Europol reported in the 2013 Organised Crime Threat Assessment that poly-drug trafficking is no longer ‘just a trend’, but a ‘common and deliberate modus operandi’ (Europol 2013: 19), what ‘common’ means is not clear, nor is it clear on what basis such an estimate has been made. The reasons for this lack of estimates are both conceptual and methodological, including the difficulties involved in estimating poly-drug trafficking (see later discussion).

The few estimates made in the academic literature are largely derived from samples of imprisoned drug traffickers. The UK Matrix study found 32.6 percent of their sample of 222 high-level traffickers—primarily importers and wholesale distributors—reported dealing in more than one drug (Matrix Knowledge Group 2007). Of the poly-drug traffickers, the majority distributed heroin and cocaine (41%), followed by heroin and cannabis (20.6%). A further 15 percent dealt in three or four different drugs. This study, and subsequent studies, were limited by not distinguishing between whether poly-drug trafficking was a deliberate choice to trade in multiple drugs at the same time (diversity) or a temporary, and perhaps reactionary, change—that is, a substitution in response to a shortage of a particular product (diversification). These two motivations may have very different implications for police and other stakeholders.

Another UK study of 70 imprisoned middle-market drug traffickers (defined as those involved between bulk importation traffickers/wholesalers and retail-level dealers) found 38 percent were involved in dealing more than one drug (Pearson & Hobbs 2001). The majority of polysubstance dealers were buying and selling ‘dance drugs’: amphetamine and ecstasy (39%) or amphetamine, ecstasy and cocaine (29%), with a much smaller number involved in buying and selling heroin and cocaine (16%) or amphetamine, ecstasy, cocaine and heroin (16%).

A Canadian study by Malm & Bichler (2011) of 1,998 imprisoned drug traffickers involved in production, transport, supply and retail sale between 2002 and 2006 found that 43 percent were poly-drug traffickers. Moreover, poly-drug activity mainly involved the combination of cocaine and marijuana (26%). In contrast, mono-drug activity tended to involve cocaine only (34%). Poly-drug traffickers in ‘complex roles’ (that

is, involved in more than one part of the supply chain) were more likely to traffic multiple types of drugs, compared with those involved in only one part of the supply chain (Malm & Bichler 2011: 14).

In stark contrast, another Canadian study of 70 high-level traffickers, including importers, manufacturers and wholesalers, found 93 percent dealt in only one drug—ie only seven percent were poly-drug traffickers (Desroches 2005). The sample was heavily concentrated on cocaine trafficking alone. The low estimate of poly-drug trafficking may therefore be an artefact of the sample selection.

In support of this argument, an early US study reported no evidence of poly-drug trafficking among 41 high-level imprisoned traffickers (Reuter & Haaga 1989). This study focused exclusively on importation and distribution of cocaine and cannabis. This invariably limited the likelihood of poly-drug trafficking, as per gram cocaine can be shipped in much smaller packages than cannabis, making joint importation into the US very unlikely. Equally importantly, the focus on cocaine and cannabis meant that poly-drug trafficking involving the most profitable form of trafficking—heroin—was excluded.

In summary, the international literature suggests that among convenience samples of imprisoned drug traffickers, up to 43 percent may be poly-drug traffickers. It further suggests the scale of poly-drug trafficking may vary according to the geographic location and the number and type of drugs examined.

Within Australia, a range of large drug market studies of heroin, methamphetamine and ecstasy have identified the existence of poly-drug trafficking (Degenhardt et al. 2004; Fowler et al. 2007; McKetin et al. 2005). For example, Degenhardt et al. (2004) and McKetin et al. (2005) discovered the heroin shortage coincided with a shift in the behaviour of at least some traditional heroin producers and traffickers in South-East Asia, who took on methamphetamine production and trafficking as well. For example, there was evidence of an increase in dual production through the same people and/or labs:

One seizure of methamphetamine by Thai law enforcement had the same seals as were used in the packaging of heroin and some samples of methamphetamine showed traces of heroin. This suggested that heroin and methamphetamine were being produced by the same people and/or in the same laboratories (Degenhardt et al. 2004: 56).

At the same time, Australian traffickers engaged in the importation and distribution of heroin began importing and distributing methamphetamine as well (Degenhardt et al. 2004). A clear sign of this was the detection of some mixed shipments of methamphetamine and heroin to Australia. Finally, in a 2007 National Drug Law Enforcement Research Fund (NDLERF) drug market study, a number of law enforcement officers interviewed reported a 'convergence in supply', whether for ecstasy, cocaine, methamphetamine or amphetamine (Fowler et al. 2007: 101). Notably, no Australian study has estimated the scale of poly-drug production and trafficking.

Drivers and implications of poly-drug trafficking

To date there has been limited attention to the drivers of poly-drug trafficking specifically (broader drivers of poly-criminal trafficking will be examined later). Pearson and Hobbs' (2001) examination of middle-level dealers notably identified the following possible drivers: demand, changes in availability and even the moral stance of trafficking networks.

Middle-level dealers supplying the clubbing scene will tend to trade in those drugs—amphetamine, ecstasy and sometimes cocaine—most in demand in that setting. At other times the choice might be determined by availability. More than one middle-market dealer complained that cocaine could sometimes be difficult to access at the right price. In the case of heroin, there are middle-market dealers who adopt a moral stance and, although they are prepared to trade in most other drugs, will not get involved with heroin.

One of the biggest quandaries is whether poly-drug trafficking is a short- or long-term strategy. There is some indication that poly-drug trafficking may be a short-term strategy employed at times of market change. For example, the dominance of Dutch groups in the global ecstasy market has been attributed primarily to the speed with which traditional amphetamine producers and hashish traffickers took up the production and

supply of ecstasy. Blickman (2004: 15) notes that 'as the [ecstasy] market started to expand, some of these groups combined their expertise in amphetamine production and their profits from hash trafficking to replace the original producers'. The benefits were clear: within a short period of time they had squeezed out the smaller social producers and established highly professional enterprises that took control of both the domestic and the lucrative export market. While other production sites emerged, at least during the 1980s and 1990s, the Dutch groups' rapid professionalisation and expansion gave them a major competitive advantage unrivalled even by other established criminal networks (Abele 2003; Massari 2005).

Other evidence suggests that poly-drug trafficking may be a tactical and long-term strategy where traffickers seek to build on their success in mono-drug trafficking by crafting intricate and sophisticated 'trading portfolios' (Malm et al. 2010: 53). In this vein, Europol report that poly-drug trafficking is a deliberate modus operandi designed to make drug traffickers more profitable, flexible and ultimately resilient to changes in the international drug market (Europol 2013).

One such example comes from Western Europe. During the late 1980s and early 1990s, a long-term strategic alliance between the Colombian Cali cartel and the Sicilian mafia (the Cosa Nostra) enabled the Italians to expand their well-established distribution networks for heroin—and their skills in corruption and money laundering—to traffic cocaine into Europe (Williams 1995, 2001). This led to a marked increase in cocaine supply in Western Europe.

The clearest example of the long-term benefits of poly-drug trafficking comes from the Americas. While traditionally cocaine supply to the United States has been the purview of Colombian trafficking networks, increasing pressure for more land-based transit routes, following increased law enforcement detection of trafficking by plane, is thought to have provided Mexican drug trafficking organisations, skilled in methamphetamine and hashish production and distribution, with the opportunity to expand their repertoire and transport cocaine into the US market (National Drug Intelligence Center 2012). Yet what started as an alliance between Colombian and Mexican drug trafficking organisations (DTOs) has now led to the near-displacement of the Colombians from the United States market. By 2008, Mexican organised crime groups were found in 230 US cities—up from 100 cities three years earlier—while Colombian groups controlled illicit cocaine and heroin distribution channels in only 40 cities, mostly in the north-east (United Nations Office on Drugs and Crime 2010).

As summed up by the United States National Drug Intelligence Centre (2012: 7), the Mexican DTOs 'capacity to produce (or obtain), transport, and distribute nearly every major illicit drug of abuse in the United States' has ensured a huge competitive advantage that will ensure their 'reign for the foreseeable future'. Given their clear links with violence and corruption, these poly-drug and poly-criminal networks now pose a very daunting challenge for United States and Mexican law enforcement authorities. Indeed, the UNODC (2010: 277) goes so far as to say that as 'multi-crime enterprises', the Mexican cartels 'are likely to endure even if cocaine demand were to dry up'.

The Mexican drug trafficking organisations have increasingly become poly-criminal, branching into kidnapping, assassination for hire, auto theft, prostitution rings, extortion, money laundering, robbery, software piracy, resource theft, human smuggling and petroleum theft (Beittel 2012). This is not to imply that their poly-criminality is attributable solely to their drug trafficking operations; but it is thought that drug trafficking has provided the funds to expand into other criminal spheres (National Drug Intelligence Center 2012). One consequence is that the rise in drug trafficking within the region has been accompanied by increases in associated crimes, particularly a 188 percent increase in kidnappings since 2007. This reinforces the prediction that poly-drug traffickers will not only be more resilient, but that their engagement with other forms of criminal activity will increase.

The examples of poly-drug trafficking illustrated by these Australian drug market studies appear more akin to strategic long-term rationales. For example, despite early conjecture that the rise in methamphetamine production and trafficking during the Australian heroin shortage was attributable to simple substitution or product displacement—from heroin to methamphetamine—Degenhardt et al. (2004) found little evidence of this. They noted that there were 'no reports of dramatic decreases in South-East Asian heroin production

in recent years concurrent with the massive increases in methamphetamine production' (Degenhardt et al. 2004: 56). Instead, there was a rise in methamphetamine with the same labels and containing traces of heroin, indicative of a continuation of heroin supply. They therefore argued the change could be more readily understood in terms of a diversification, from heroin alone to heroin and methamphetamine, driven by methamphetamine offering attractive production conditions that could be incorporated into existing production and trafficking cycles. In particular, they noted that methamphetamine production did not depend on crop cultivation, and that it fit well with existing heroin production schedules in South-East Asia:

Heroin is produced about one month after the opium harvest, and the laboratories can then be used for methamphetamine production. Around 50% of the chemicals used in the production of heroin are used in methamphetamine production (Degenhardt et al. 2004: 55).

These findings were supported by Australian Federal Police (AFP) analyses that identified a combination of factors driving diversification (Keelty 2001). Methamphetamine offered reduced risks for production as it did not require agricultural production, which is visible from aircraft or satellites and susceptible to drought, floods and frost; it also could be produced through the use of moveable units, reducing risk of detection. Methamphetamine also offers high potential for profit, driven by increased mark-ups: 1,900 percent versus 214 percent for heroin (Keelty 2001). In addition, heroin demand remained strong, so 'for business reasons it paid to produce both products for multiple markets' (Keelty 2001).

Fowler et al. (2007) also conclude that the more recent rise of poly-drug trafficking in Australia was deliberate, assisted in part by the high-demand stimulant market. They noted that groups of traffickers who traditionally would not work together appeared more willing to collaborate for business reasons:

The profit motivation behind market participation means that alliances between otherwise conflicting groups or individuals are being created in order to facilitate the procurement and distribution of ecstasy. The supply of ecstasy, and other drugs, has developed into a business enterprise based purely on the tenets of free market capitalism rather than group allegiances (Fowler et al. 2007: 103).

Previously you had your Leb[anese], or that group, or the OMCG running separate races. Well now they have formed a nice big company...Once upon a time you would never see Asians and Lebanese talking. In fact, they would be aggressively fighting or stabbing each other. Now there's plenty of information to say that they're forming partnerships — certainly in Sydney. You see them up here just walking through Surfers. There'll be Leb[anese] with Vietnamese...[I]t's just a business concern now...we're heading away from ethnic-based crime to business-based crime [Market regulator/Male/Gold Coast] (Fowler et al. 2007: 103).

The benefits of these collaborations were clear: they enabled the development of new, often temporary, networks involving specific areas of expertise; they allowed participants to consolidate their finances to source larger quantities of drugs; they allowed new players to enter the market (eg bikie gangs moving into methamphetamine production); and they made sourcing multiple substances easier (Fowler et al. 2007).

The existing literature thus suggests that poly-drug traffickers may pose greater risks than their mono-drug trafficking counterparts. They are more resilient, more likely to survive changes in the drug market or law enforcement interventions; they reap more profit by bringing in larger quantities of drugs; their methods of importation are more sophisticated; and they are more likely to be involved in other forms of crime. As the United Nations Office on Drugs and Crime (2014a: 127) summed up, poly-drug trafficking offers multiple strategic benefits to criminal networks, and consequently more challenges to law enforcement.

The nature of south-eastern European trafficking groups continues to evolve. Several major drug-trafficking groups focusing exclusively on one particular market, such as heroin, cocaine or heroin precursors, have been effectively dismantled during the last decade. This monolithic approach to drug trafficking has increasingly given way to poly-drug trafficking, which is more sensitive to changes in the market. Groups are also using more effective forms of communication and more sophisticated modus operandi; they are expanding into new markets and building networks at all stages of the supply chain.

The studies to date are evidently limited; poly-drug trafficking has only been examined as part of a broader study and there is yet to be a comprehensive analysis of poly-drug trafficking. In the absence of comparison

with mono-drug traffickers, it also remains unclear whether poly-drug traffickers are more resilient or harmful than their mono-drug trafficking counterparts and, if so, whether this is necessarily the case for all poly-drug traffickers. Equally importantly, many questions remain about poly-drug trafficking: under what conditions are drug traffickers likely to diversify, what is the nature of that diversification, and what are the benefits and costs of collaboration?

The broader literature on poly-criminal activity provides some insight, particularly as it suggests that specific skills and/or conditions are prerequisites for trade in multiple commodities. Drug traffickers may therefore not be equally likely to diversify and become poly-drug traffickers.

Drivers and implications of poly-criminal behaviour

Similar to poly-drug trafficking, trade in multiple illicit commodities appears to offer benefits, including increasing flexibility, sustainability and profitability of networks. As Shelley argues: 'With groups working with two commodities, routes, facilitators and transport can be exploited more effectively' (2012: 251).

Chief among the identified drivers of poly-criminal activity are globalisation and the opening of trade routes and transportation hubs. Globalisation increases the free movement of people, goods and services and abolishes many traditional borders, facilitating cross-border traffic in both licit and illicit commodities (Europol 2013; Morselli, Turcotte & Tenti 2011; Paoli 2008; Shelley 2006; von Lampe 2012). It has coincided with significant shifts in traditional trafficking routes (Trautmann 2013) and also increases the spread of members of particular ethnic communities across the world and thus the ease of doing business internationally.

Other enablers of poly-criminal activity identified by Rubin et al. (2013) include:

- changes in supply and demand;
- ease of access to alternative commodities;
- the potential profitability of the commodity;
- the low probability of detection and lack of severity of sanctions;
- easily corruptible law enforcement officials; and
- ease of access to facilitators, logistical infrastructure and skilled personnel, enabling involvement in multiple commodities.

See Table 2.1 for a more extensive list.

Table 2.1 Drivers of poly-commodity market diversification

Market forces	Legislative and regulatory environment	Human capital, knowledge and networks
Financial risk/return	Legal status of goods and services	Skills and knowledge to tap into
Attractiveness of market	Level of regulation enforcement/corruption	Access to commodity supply/production
Supply and demand/changing fashions	Risk of involvement, including risks to proceeds/assets	Access to logistical infrastructure (transport, storage, financial expertise, forged documents, etc)
Bargaining power of buyers/suppliers	Ease of adapting to policy eg spatial, temporal, tactical	Technology
Level of competition in market place		Family and ethnic ties (routes for kin-based recruitment)

Source: Rubin et al. 2013: 373

Links between drug trafficking and other criminal activity

Drug trafficking has been linked to numerous crimes including terrorism, human trafficking, arms trading, extortion, kidnapping, credit card fraud and tobacco smuggling (Australian Crime Commission 2013b; UNODC 2010, 2011). Indeed, drug trafficking is frequently argued to be the leading contributor to ‘serious and organised crime’, defined by Europol as any criminal activity involving two or more people where the crime is serious enough to warrant sanctions of at least four years imprisonment and where the purpose is, directly or indirectly, to obtain a financial or other material benefit (Europol 2013). For example, organisations such as the UNODC estimate drug trafficking is responsible for 20–85 percent of the proceeds of organised crime, with the next biggest contributors being counterfeiting and human smuggling (Global Financial Integrity 2011; UNODC 2010, 2011). This is equally true in Australia: ‘[T]he illicit drug market is the most profitable of the organised crime markets in Australia, and the principal source of profit for organised crime groups’ (Australian Crime Commission 2013a).

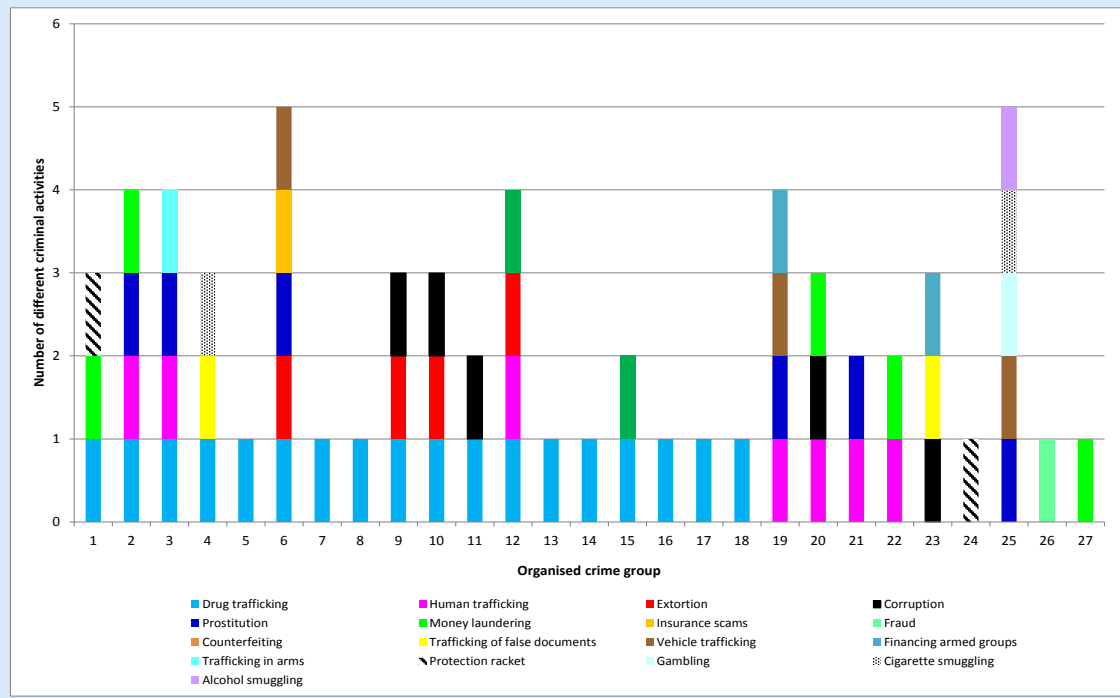
More systematic analyses have indicated that drug trafficking is much more likely to co-occur with some crimes than others. Lichtenwald et al. (2009) reviewed Multiple Consignment Contraband (MCC) smuggling, defined as two or more different types of contraband smuggled at the same time, across US borders. They identified 19 different examples of poly-commodity activity co-occurring in the same consignment using open source data including literature reviews, international government documents and web crawlers that ran from 2004 through 2009. Seventy-nine percent of the multiple consignment contraband involved illicit drug trafficking. The most popular forms of poly-commodity activity were smuggling illicit drugs and wildlife (32%), smuggling drugs and people (21%) and smuggling drugs and weapons (16%).

A more recent study for RAND Europe by Rubin et al. (2013) reviewed 11 studies in which poly-commodity licit and illicit activity was identified among serious and organised crime groups in order to discern what specific commodities co-occurred and how frequently. Studies were derived from empirical literature, case studies, grey literature and a UNODC survey. A noted limitation was that none of the studies specifically sought to examine co-occurrence. Nevertheless, a total of 54 different commodities and activities were identified, ranging from cannabis production to licit computer trading and real estate provision, associated with 27 different organised crime groups. These activities and commodities were defined as follows:

- illicit—cannabis production, cannabis trafficking, amphetamine production, amphetamine trafficking, human trafficking, cigarette smuggling, fraud, arms trafficking, vehicle trafficking, counterfeiting, trafficking of false documents and insurance scams;
- licit—computer trading, real estate, hotels and the construction industry; and
- mixed—prostitution and gambling.

As shown in Figure 1, two-thirds of these organised crime groups were engaged in the production and/or trafficking of illicit drugs; many drug-trafficking organisations were involved in no other crime. But when they did engage in other criminal activities they most frequently engaged in criminal activities involving extortion (22%), corruption (17%), human trafficking (17%) and prostitution (17%). Equally importantly, as shown by Figure 2.1, there was diversity in the number and nature of poly-criminal activities, with a number of drug-trafficking groups involved in four or five different types of crime.

Figure 2.1 Number and type of criminal activities, per organised crime group



Source: Adapted from Rubin et al. 2013

This suggests that drug trafficking is most likely to co-occur with crimes involving extortion, corruption, people smuggling/prostitution and perhaps wildlife smuggling. On the other hand links with financing armed groups, vehicle trafficking or gambling appear very unlikely.

There appear to be good reasons why collaboration occurs between criminals involved in some criminal activities and not others. While the nexus between drug trafficking and terrorism—more commonly called ‘narcoterrorism’—receives more public attention, the academic literature is increasingly highlighting reasons why these two activities are unlikely to go hand-in-hand—particularly not as a long-term venture. Researchers such as Kleiman (2004) have outlined four main rationales for how collaboration with illicit drug trafficking organisations could assist terrorists by:

- providing cash/revenue for terrorist groups;
- creating/maintaining chaos and instability—an environment that is much more conducive to terrorist activity—and corruption;
- providing services/infrastructure of mutual benefit eg smuggling capabilities, money laundering, forged documents; and
- providing competition for law enforcement and intelligence attention (anti-drug vs anti-terrorism).

Of these, access to cash revenue has been deemed the most important to terrorist organisations due to factors including declining state sponsorship of terrorists in the post-Cold War and post-September 11 eras and increased monitoring of traditional terrorist revenue sources (Dandurand & Chin 2004; Makarenko 2004; Piazza 2011).

However, as outlined in Table 2.2, drug traffickers obtain fewer advantages from terrorist operations. The biggest benefit is likely to be the creation of a chaotic, unstable environment, limiting the potential for effective governance or actual political buy-in and control (Monteleone, Caruso & Locatelli 2014). More importantly, there are many disincentives for traffickers to collaborate with terrorists including goal conflict, unwanted media attention on drug trafficking organisations which do so collaborate, and a reduction in cash flow or future business opportunities due to police or government attention. As argued by Hutchinson and O’Malley (2007: 1,100) the risks often ‘far outweigh the benefits of cooperation’. For these reasons, many argue the

links between drug-trafficking organisations and terrorist organisations will be rare and very transient, the exception being in weak or transitional states where black markets and economies are controlled by existing organised crime groups (Dandurand & Chin 2004).

Table 2.2 Incentives for, barriers to and mediators of collaboration between terrorists and drug traffickers

	Terrorists	Drug traffickers
Incentives		
• Generate cash flow/profit	✓	?
• Generate/sustain instability and corruption	✓	✓
• Share specialist services/infrastructure eg smuggling routes	✓	?
• Political buy-in/control		✓
Barriers		
• Goal conflict	✓	✓
• Loss of control	✓	
• Unwanted exposure to media, government and/or police		✓
• Damage to reputation		✓
• Risks of infiltration	✓	✓

Source: Adapted from Dandurand & Chin 2004; Kleiman 2004; Monteleone et al. 2014

Research into the incentives for and barriers to collaboration between drug-trafficking groups and other organised crime groups is more limited, but what there is suggests there are fewer barriers and more incentives. For example, Shelley (2012) has identified considerable overlap between drug trafficking and human smuggling and trafficking, particularly for human trafficking, with organisations often bringing people and drugs together and forcing their buyers to act as drug mules. Shelley (2012: 242) notes many more drug-trafficking organisations are entering the business of human smuggling and trafficking (either transporting people willingly via voluntary illegal migration, or involuntarily for exploitation such as sexual slavery), a change she attributes to a combination of the increased presence of the drug trade and the unique opportunities offered by the human-trafficking trade: a lucrative and easy-to-enter low-risk crime (with minimal prosecutions and low penalties, particularly compared with those for drug trafficking). Despite this her study showed distinct regional variation, with for example more extensive links between drug and human trafficking in Asia and emerging links in Latin America.

The crime most strongly—almost self-evidently—linked with drug trafficking to date is money laundering. These crimes are linked largely because drug trafficking is an illegal and cash-intensive market (with an estimated value of US\$320b); the illegal origins of drug money must be concealed or disguised and made to appear legitimate (Andelman 1994; Schneider 2004; Stamp & Walker 2007). As noted by Schneider (2004), a comprehensive money-laundering operation does not only convert cash to a less suspicious form but also conceals its criminal origins, often by circulating it through various economic sectors, companies and transactions to obscure the audit trail, thus creating a legitimate front or explanation. Money laundering is critical in allowing drug traffickers to profit from their criminal activity and fund it into the future. But how much money is laundered, and how much money laundering can be directly attributed to drug trafficking, is notoriously difficult to estimate (Stamp & Walker 2007; UNODC 2011). The UNODC (2011) estimate about 70 percent of drug-trafficking revenue is laundered (a range of 60%–80%).

A number of experts, including Seddon (2008), have argued the expansion of the drug trade is aided by the globalisation of the financial sector, which provides additional avenues for large-scale money-laundering operations and makes it more difficult for law enforcement and financial agencies to track the movement of money. Accordingly, while mainstream banking remains a popular avenue for laundering drug funds, particularly via layering—moving funds through multiple bank accounts across the world—drug traffickers have also increasingly used legitimate money-transfer businesses, avoiding the cash transaction reporting limit by moving amounts of less than \$10,000 (banks must report cash transactions of more than \$10,000 to

AUSTRAC; such transactions are now a criminal offence). Traffickers also use alternative remittance services to transfer money within and between countries, often outside the formal financial and banking system (AUSTRAC 2011). Until 1 November 2011 there was no requirement for these services to be registered with the financial regulator, AUSTRAC; this has now changed.

Domestic avenues of money laundering remain common. For example, a Canadian study of money laundering identified the four main ways of laundering money were through the purchase of real estate (55.7% of cases) and motor vehicles (59.7%), the insurance industry (particularly through the purchase of insurance for real estate and cars; 64.4%), and deposit institutions (76.5%; Schneider 2004). Real estate was particularly popular for those involved in drug trafficking as it provided an avenue to hide funds—via cash deposits, down payments, mortgage payments or construction and renovation expenses, often in the name of relatives, friends, business associates or shell companies—as well as offering potential sites for the cultivation and/or manufacture of illicit drugs, thus providing an additional revenue stream.

How organisations collaborate is often more complex than traditionally conceptualised. Collaborations can range from ad hoc alliances to complete functional merging between crime groups (Makarenko 2012). Ad hoc alliances are most often likened to a business model. In this approach, ad hoc alliances will form on an as-needs basis to provide access to specialist knowledge/skills such as money laundering or specific routes for smuggling. These relationships can be time-limited. Complete functional merging involves different crime groups adopting the skills of other criminal organisations but retaining separate identities. For example, the Medalin drug cartel increasingly employed the terrorist techniques of the FARC; conversely, the FARC increasingly became involved in drug smuggling. The two groups nevertheless retained separate identities and approaches. There is a third model which involves the complete functional merging of crime groups, thus forming a new hybrid form of criminal activity (Makarenko 2012).

This shows that there can be a number of drivers and barriers to collaboration; that not all criminal groups are equally likely to collaborate and that forms of collaboration may vary. The authors suggest a number of additional hypotheses around poly-drug and/or poly-drug and poly-criminal trafficking:

- poly-drug trafficking may be fostered not only by changing supply and demand but also by factors such as human capital and knowledge of networks, including level of access to logistical infrastructure and trade routes;
- the motivation for and cost of trafficking in different illicit drugs may vary;
- specific forms of poly-drug trafficking in Australia may vary not only in what is shared, but when and how. In particular, some traffickers may operate via strategic alliances and others through more converging and overlapping networks. This is further explored in the social network analysis; and
- context matters. The incentives and barriers to collaboration are likely to vary according to the specific context examined, and the incentives for poly-criminal activity or poly-drug trafficking in Australia may differ from those in other parts of the world.

For reflections on the likelihood of Australian drug traffickers collaborating with other types of criminal offenders, see Appendix A.

Difficulties in estimating the scale and nature of poly-drug trafficking

There are a number of challenges in examining issues of poly-drug and poly-criminal involvement, due to the lack of readily accessible data and because it tends to be difficult to consider multiple commodities simultaneously in existing data sets (Lichtenwald et al. 2009; Rubin et al. 2013). The clearest example of this is Lichtenwald et al. (2009), who originally sought data on multiple consignment contraband from US police agencies including the Central Intelligence Agency (CIA) and Homeland Security, but were told it would not be possible to search across multiple crime types as each database could search for only one specific contraband—eg illicit drugs.

To date, the principal source of information on poly-drug trafficking has been interviews with incarcerated drug traffickers (Desroches 2005; Matrix Knowledge Group 2007; Pearson & Hobbs 2001; Reuter & Haaga 1989). The representativeness of these findings is limited, as the researchers only spoke with people who had been arrested or, more commonly, imprisoned; such studies also employed convenience samples and hence are not even representative of incarcerated traffickers. In addition, the information obtained was based on self-report and consequently vulnerable to response bias (Weatherburn 2011). Other sources of information include open-source data such as media reports and, more rarely, the expert opinion of law enforcement agents. A key challenge of such sources is that they are ad hoc rather than comprehensive in approach. The extant literature on this topic is particularly limited in Australia, which means such methods risk reinforcing dominant accounts, even if erroneous or flawed.

A final limitation of all such approaches is they tend to focus on poly-drug traffickers only, rather than comparing poly-drug and mono-drug traffickers or analysis over time. This is a vital next step in determining how and to what extent poly-drug traffickers differ, and the implications of those differences for law enforcement and other stakeholders.

The approach

To date, law enforcement and criminal justice data have seldom been examined. There are exceptions to this: seizure data pertaining to mixed shipments of drugs such as heroin and methamphetamine have been cited on an ad hoc basis as an indicator of the presence of poly-drug trafficking (see, for example, Degenhardt et al. 2004). Rubin et al. (2013) criticise the use of seizure data in the analysis of poly-drug trafficking, arguing it is likely to reflect policing priorities rather than poly-drug trafficking; they do however note that other sources of law enforcement data, particularly detailed case files or wiretaps, may offer greater potential—providing the challenges of access can be overcome. As they note, ‘these data are difficult to obtain and can be expensive to analyse’ (Rubin et al. 2013: 365). Another source suggested by Rubin et al. (2013) is epiphenomena of illicit activity—using health data, data on access to services and insurance, consumption and expenditure data as proxies of changes in criminal activity; for example, they suggest human trafficking could be examined using data on access to STD clinics. They have not yet outlined how proxy indicators could be used to monitor poly-drug trafficking specifically.

While cognisant of concerns about relying on law enforcement and criminal justice data, the authors believe it to be the essential first step in any analysis of poly-drug trafficking. It is the only data source that comprehensively captures poly-drug and mono-drug activity over multiple years. According to Weatherburn (2011: 3), the key strength of police data over other sources such as self-report data and proxy indicators is the ‘volume’ and ‘richness’ of the data, which permits detailed analysis of offence and offender characteristics. Moreover, provided there is no mass change in reporting and recording behaviour, police data provide a valuable indicator of trends in criminal activity over time.

For this project, various law enforcement data sources were triangulated using seizure, case and linked-case data, including a number of seldom-used (at least in the public domain) sources of particular pertinence to the topic at hand. These provide insight into factors including the size of criminal networks of poly-drug and mono-drug traffickers and the extent of their connection to non-drug criminal activity.

First, trends in poly-drug and mono-drug commercial importation seizures over a 14-year period (1999–2012) were analysed. Then the profiles of poly-drug and mono-drug traffickers were analysed, taking into account:

- differences in the methods of trafficking such as the method of concealment and mode of transport;
- differences in the size of the networks (number of offenders and suspects involved), their potential profitability (amount of assets involved); and
- extent of involvement in other forms of criminal activity, whether drugs, money laundering or other types of crime.

Finally, social network analysis of three Australian poly-drug and poly-criminal trafficking networks was undertaken, to explore how product diversification is managed in multi-commodity networks.

Chapter 3: Methodology

Introduction

This chapter describes the methodology used to examine the issue of Australian poly-drug and poly-criminal traffickers. Three distinct but complementary lenses were employed:

- trend analysis of Australian Federal Police (AFP) data on drug importations between 1999–2012;
- quantitative and qualitative analysis of AFP unit record data on a time-matched group of Australian poly-drug and mono-drug trafficking cases and linked cases; and
- social network analysis of three Australian poly-drug and poly-criminal trafficking networks.

The methods drew upon different types of AFP data including seizures, cases and linked cases, supplemented by other criminal justice sources such as court sentencing data and news media, and approaches such as social network analysis. The key data sources (including two different extracts of AFP data and court sentencing transcripts) and approaches (social analysis) are outlined in this chapter. Further and specific details are then provided in each of the relevant chapters.

Australian Federal Police (AFP) data

The AFP's role is to enforce Commonwealth criminal law and to protect Commonwealth and national interests from crime in Australia and overseas (AFP 2013). The AFP has the lead role in the detection and prosecution of persons who attempt to import or export border-controlled drugs into Australia and in offences connected to drug importation, including money laundering and drug distribution. A significant part of the role is working in collaboration with domestic and international partner agencies including the Australian Border Force (formerly known as Australian Customs and Border Protection Service), the Australian Crime Commission, the Australian Taxation Office, the Australian Transaction Reports and Analysis Centre and state and territory police services (AFP 2013). This study was allowed supervised access to the AFP's Police Real Time Online Management Information System (PROMIS), which is used to record investigations and operational information. Further information on the contents of PROMIS and the decision-making process for matters referred to the AFP can be found on the AFP website (AFP 2010).

The current version of PROMIS has been in use since late 1998. PROMIS's strengths as a data source are many. Information stored in police databases can have serious consequences for individuals who are the target of investigation, so stringent procedures are in place to ensure the accuracy of the data entered. Data are checked and rechecked at time of entry and further data quality checks are carried out during the course of an investigation and at its conclusion. PROMIS is also regularly audited by both an internal audit team and external auditors. The use of PROMIS as a data source for research is established. A number of studies have used PROMIS data over the past decade, mainly involving AFP researchers (Attewell & McFadden 2008; Higginson 2011; McFadden 2006; McFadden, O'Flaherty, Boreham & Haynes 2014; Smithson, McFadden & Mwesigye 2005; Weatherburn & Lind 1997).

For this project two different extracts of AFP data were obtained. All PROMIS data was extracted by a member of the project team with eight years experience working with AFP data. The project team carried out quality checks of data on commercial seizures between 1999–2012, to see whether the type and weight of the drug seized as recorded in PROMIS matched that of the source documents (the original handwritten reports of AFP forensic scientists). One hundred seizures chosen at random were checked against the source documents to ensure there was no evidence of double-counting and that seized drug types and weights were

entered correctly. Next, the most and least harmful seizures—defined as two or more standard deviations from the mean AFP drug harm index—were also checked against the source documents. No discrepancies were found.

PROMIS is a live police database containing much material of a highly sensitive nature. All data were therefore extracted in accordance with AFP procedures stipulating that data will not be extracted and/or provided to researchers for secondary analysis if, by making it public, it could reasonably be expected to endanger a person's safety, prejudice an investigation or prosecution, compromise any law enforcement agency's operational activities or methodologies or be contrary to the public interest for any other reason. Two implications of this were that the analysis focused on closed cases, and that some variables of interest retained a high level of aggregation. For example, criminal cases connected to drug-trafficking cases were defined using three categories: drug, economic and other.

There are a number of broad limitations to analysis of police datasets, and specifically of data on drug offences. First, and most obviously, these data are limited to details of reported crimes—which may or may not be representative of all crime, including unreported crime (Weatherburn 2011). Second, the contents of police databases are dictated by the legal requirements of the relevant jurisdiction. The information required to conclude a successful investigation and subsequent conviction may not necessarily match an external researcher's area of interest. Third, the ease with which relevant information can be identified will vary. For example, identifying the type and weight of drugs seized for a given drug seizure is a simple matter; however, in relation to characteristics of a seizure where the testimony of a suspect is required, such information may not be as forthcoming. Information on where a drug was sourced and who else was involved is difficult to establish in some cases. As a result, there may be significant levels of missing data for some variables of interest. In this report, these are either excluded on this basis or noted where they occur. Finally, seizures occurring overseas, even if the drugs were destined for Australia, may be excluded from the data. This is important to note, particularly given the AFP and Australian Border Force have increased their efforts to seize drugs and precursors before they reach Australia's borders (AFP 2013).

Extract 1

Extract 1 data was used to identify trends in commercial poly-drug seizures from 1 January 1999 to 31 December 2012 involving the following drug types: heroin (opioids), amphetamines and amphetamine type stimulants other than MDMA (henceforth ATS), cocaine, MDMA, cannabis, precursors, hallucinogens and sedatives. Illicit drug seizures are composed of one or more items. An item is defined by the AFP as a container, package or other vessel that contains a single illicit drug type. The following item data were extracted: year of seizure, state or territory of seizure, major drug group, minor drug group, reported weight, purity, country of embarkation, concealment method and transport mode. All data were then aggregated to the level of the seizure for analysis.

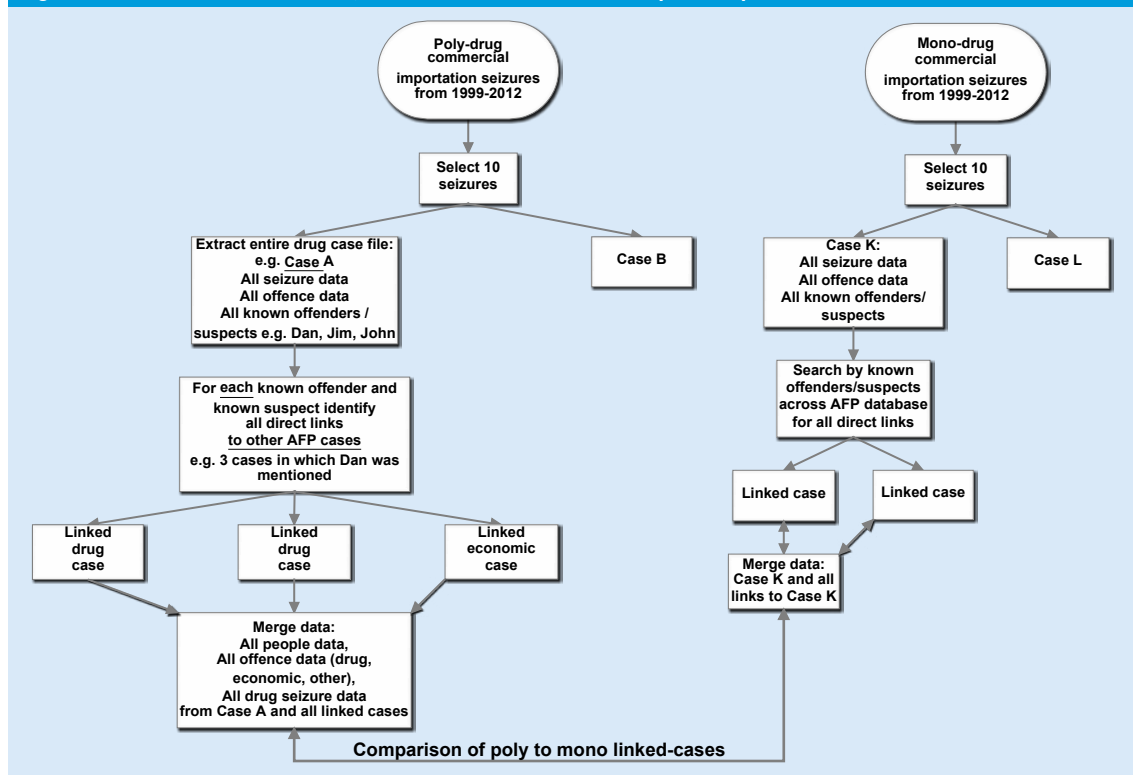
The definition of a commercial importation of illicit drugs is primary to the extraction method. Commercial seizures of border-controlled drugs, precursors and plants were defined in terms of weight in the Commonwealth Criminal Code Regulations 2002. On 29 May 2013 the Criminal Code Amendment Regulation 2013 (No. 1) came into force. This amendment significantly expanded the schedules of controlled and border-controlled drugs and moved the schedules from the Criminal Code to the Criminal Code Regulations 2002. For example, 205 different border-controlled drugs, 14 precursors and seven plants were defined as of September 2014. This study utilised the current list for all years of analysis with one exception. The quantities in the Criminal Code Regulations 2002 are pure quantities, excluding added inert substances and fillers. Data on purity was not available for all seizures, hence quantities for this project include inert substances (mixed quantities).

Extract 2

The purpose of Extract 2 was twofold. Analysis of drug trafficking is often based on seizure data alone; however, this may provide an incomplete picture of the extent or nature of trafficking, particularly poly-drug trafficking, as by definition it assumes products will be imported at the same or a similar time. AFP federal investigations record detailed information about the crime, people and assets involved and the methods used and, for drug cases, the multiple drug seizure events—information that extends far beyond a single seizure event. The first objective was therefore to see whether analysis of entire cases and linked cases provides additional insight into the size, nature and harmfulness of trafficking networks not provided by analysis of seizures alone.

The second objective was to pool this data in order to generate a profile of poly-drug versus mono-drug trafficking networks, and to compare the size and potential harmfulness of each. The process (outlined in more detail later in the report) is complex but, at the most basic level, data was extracted for 20 commercial border drug seizures; then for the entire drug case connected with the specific drug seizure including all known offenders and suspects; then for every investigation that was linked to that drug case—defined as all other AFP investigations, whether of drug or other crimes, in which the persons of interest were involved as an offender, suspect or affiliate (see Figure 3.1).

Figure 3.1 Schemata of Extract 2, AFP data extraction and comparison process



Extract 2 commenced using pairs of poly-drug and mono-drug seizures involving the following drug types: heroin (opioids), ATS, cocaine, MDMA, cannabis and precursors (sedatives and hallucinogens were excluded). The top 20 mono-drug seizures (defined in terms of the AFP drug harm index) were extracted and matched to poly-drug seizures by time and drug type. A quasi-matched pair design was employed, selecting the nearest (in time) mono-drug seizure where the drug type matched one of the drug types in the poly-drug seizure. This matching process was undertaken to reduce the potential impact of drug type or year of seizure on the results of the analysis. Seven potential matched pairs were excluded as they had one or more seizures attached to cases before the court, and a further three matched pairs where both the poly-drug and mono-drug seizures were attached to the same case. This left a final sample of 10 matched pairs, which were then used to identify ten matched primary drug cases, all of which occurred between 1999 and 2012.

Next, all individuals who were identified as either offenders or suspects in these investigations (the primary cases) were identified and traced to all other AFP investigations in which they also played a role—defined as linked cases—which were not active or ongoing. For some cases no other linked cases were identified; for others there were up to 60 different linked cases. The time period for this analysis was unrestricted: most cases occurred between 1999 and 2012, but some occurred as far back as 1991 and others as recently as 2013. Data was then merged into one linked file. A number of variables were extracted for each primary case and linked case, including the total quantity of drugs seized (beyond the initial seizure event), the estimated value of money seized, whether or not weapons were involved and the number of offenders and suspects identified (see Table 3.1).

Table 3.1 Variables extracted on primary and linked cases

Variable	Primary case	Linked case
Number of criminal cases, by crime group*	yes	yes
Total quantity of drug seized, by drug**	yes	yes
Total value of drug seized in millions of Australian dollars (AFP drug harm index)	yes	yes
Estimated monies involved in Australian dollars***	yes	yes
Total value of proceeds of crime (POC) forfeited in Australian dollars****	yes	yes
Number of cases involving weapons	yes	yes
Number of identified offenders and suspects	yes	no
Date of earliest linked case	no	yes
Date of latest linked case	no	yes

*Investigations were grouped into three categories: drug (import, export, trafficking); economic (fraud, money laundering, counterfeit currency, transnational economic crime); and other crime (human trafficking, people smuggling, terrorism, child pornography, importation of firearms). Primary cases all involved a single drug crime

**Drugs included heroin, amphetamine, cocaine, MDMA, cannabis and precursors

***Defined as all money seized at the point of detection, excluding proceeds of crime converted into assets such as property

****Defined as the value of all money and assets (such as property, cars and jewellery) forfeited under the *Proceeds of Crime Act 2002* excluding all money and assets that were restrained but not forfeited

The term drug case refers mainly to drug importation or possession of a border-controlled drug as listed in the *Criminal Code Act 1995* (Cth). More rarely, AFP drug cases also include other drug offences including drug export, trafficking or pre-trafficking.

Because AFP data was used, linked cases refer to criminal investigations under Commonwealth law—excluding offences such as assault and theft, which are subject to state law. They may also exclude some investigations where there is criminal liability under both Commonwealth and state law. This is because many Commonwealth drug offences, such as trafficking controlled drugs, duplicate state offences. Accordingly, trafficking may be pursued by the AFP under Commonwealth law or by state police under state law, such as the New South Wales *Drug Misuse and Trafficking Act 1985*. These cases are excluded from the data.

Judges' sentencing comments

Judges' sentencing comments are written remarks provided by the judge at the time of sentencing, including a review of the facts in the case, the circumstances of offending and the reasons for sentencing. They may include details such as the illicit activities in which the offender was engaged, offender roles, the names and roles of other people involved in the commission of the crime (ie co-offenders) and their interrelationships (who knew who, who worked with who and under what circumstances). Over the past decade, a number of studies have used judges' sentencing comments to analyse topics including, but not limited to, social network analysis (eg Berlusconia 2013; Bouhours 2006; Bright et al 2012; Gong, Ritter, Bright & Doran 2012; Le 2013; Le & Lauchs 2013; Ritter, Bright & Gong 2013; Steele 2014). Judges' sentencing notes served as the primary

data source for this project's social network analysis of three poly-drug and polycriminal syndicates. A specific advantage of this is that such data can provide details of importation, wholesale distribution and other criminal activity that has occurred at the border and within different states of Australia, and it is publically available. This means access does not require the approval of any agency, and court sentencing transcripts can be accessed free of charge through the legal databases of the Australian Legal Information Institute (Austlii) and LexisNexis AU (Bright & Delaney 2013; Bright et al. 2012; Le 2013).

The broad limitation of using court sentencing transcripts is that they provide an extract rather than an entire court hearing. They may miss some offenders or links, particularly when compared to other sources such as wiretaps. Despite this, the specific transcripts used in this research were up to 42 pages long, providing a lot of material. Equally importantly, analyses comparing different data sources for social network analysis (including court sentencing transcripts, electronic police surveillance files and prosecutorial files) show congruous findings (Bright & Greenhill 2013; Bright et al. 2012). Indeed, a counterargument against employing the most detailed data sources is that they may provide too much information to permit timely analysis (Bright et al. 2012). Given this was just one of the project's components, and three different poly-drug networks were analysed, this was a pragmatic consideration.

Another limitation is that, since this data is based on court sentencing, there can be considerable delays between the date of offending, the sentencing of offenders and the finalisation of appeals, particularly when dealing with larger networks such as those this project focuses on. One consequence is that the activities of the specific syndicates examined mostly occurred between 2005 and 2008, rather than more recently.

Finally, as with the analysis of AFP data, linked cases and offences that occurred overseas may be omitted. For this reason, court sentencing transcript data was supplemented with targeted searches of Australian and international news media. For specific details on selection, or the network and network construction, see Chapter 6.

Social network analysis

Social network analysis (SNA) is both a theoretical perspective and a set of methodological techniques. As a theoretical perspective, it stresses interdependence among social actors and views the social world as patterns or regularities of relationships (Wellman 1983; Wasserman & Faust 1994). As a set of methodological techniques, SNA is based in mathematical graph theory. Mathematical modelling is used to capture the pairwise relationships between people (Wasserman & Faust 1994).

Application of SNA to criminal networks has demonstrated numerous network features, including the number and roles of network members, the presence or absence of subgroups, the number and nature of key facilitators like financiers, the nature and direction of resource/information flows, power and dependency across the network, network stability and capacity to adapt to law enforcement intervention (eg Bright & Delaney 2013; Bright et al. 2014 Oct 14; Bright et al. 2012; Heber 2009; Morselli 2009). Analyses have often demonstrated the presence of smaller subgroups within a larger network and that it is facilitators, rather than 'leaders', who have the highest level of contact with network members (Bright et al. 2014; Morselli 2009). These are deemed key features for security. A particular example of this was found through an analysis of a New South Wales methamphetamine syndicate (Bright et al. 2012). The syndicate, comprised of 35 members, was made up of two loosely connected subgroups or cells that operated parallel manufacturing sites, connected by a number of facilitators and individuals whose skills were shared across the two subgroups. The network was thus structured to both reduce risk of detection and improve adaptability to inevitable changes in drug supply. However—as with the majority of SNA research on drug trafficking—whether the network, subgroups or members were also involved in trafficking any other illicit drugs or commodities was unexamined.

Indeed, SNA research on drug trafficking explicitly and on criminal networks more generally typically focuses on one criminal enterprise such as motor vehicle theft and rebirthing (eg Morselli 2009) or trade in illicit firearms (Morselli 2012). Even Morselli & Pettit (2007), who conducted a social network analysis of a group

that imported both cocaine and hash, did not examine the intersections between actors involved in trafficking one or both of these drugs, factors such as potential differences in the subgroups within the master network or differential connections to other criminal activities.

In spite of the dearth of research on connections across illicit commodity networks, SNA offers a particularly appropriate method for examining overlaps and intersections across and between groups involved in one or more of these types of activities, particularly by drawing together knowledge about the economic principles of diversification and business management (Moliterno & Mahony 2011) and the known challenges of understanding poly-drug traffickers to date.

Chapter 4: Trends in Australian poly-drug importations 1999–2012

Introduction

This chapter reports on the use of unit record level AFP data on drugs seized at the border between 1999 and 2012 to:

- estimate the proportion of seized importations involving more than one drug;
- characterise seized poly-drug importations in relation to mono-drug importations; and
- identify any changes in the extent and nature of seized poly-drug importations over that period.

Consistent with the literature review, secular growth in poly-drug importations over the period and short-term, temporary increases in poly-drug trafficking associated with key changes in the Australian drug market (eg the heroin shortage) were hypothesised.

Methodology

This chapter references Extract 1 from the AFP PROMIS database described in Chapter 3. Extract 1 comprised all drug seizures at the border from 1999–2012 involving the following drug types: heroin (opioids), amphetamines and amphetamine type stimulants other than MDMA (henceforth ATS), cocaine, MDMA, cannabis, precursors, hallucinogens and sedatives. Each drug seizure comprised items—that is, separate packets or containers of drugs.

Extract 1 included 5,308 seizures (12,542 items) with the number of items associated with each seizure ranging from one to 606. Associated with each item was information on:

- the year the seizure was made (from 1999 to 2012);
- the state in which the seizure was made;
- the major drug group in the item (ATS, cocaine, heroin (opioids), MDMA, precursor, cannabis, hallucinogens and sedatives);
- the minor drug group, such as MDEA or MDA, in the item (there were 108 minor drug groups);
- the reported weight;
- the country of embarkation, defined as the last country the drugs were known to be before detection at the Australian border. This may be the source country, but more commonly reflects transshipment points;
- the mode of transport, defined as the method by which the drugs arrived in Australia such as ship, aeroplane or post; and
- the method of concealment, defined as where the drug was hidden, such as in a container, baggage or on the body.

The analyses sought to examine all poly-drug and mono-drug commercial seizures as defined in Schedule 4 of the Criminal Code Regulations 2002 (Cth; henceforth the Criminal Code). Two adaptations were necessary to accord with the data. First, the Criminal Code defines drug weight as the weight of drugs in their pure form. Purity was not always recorded in Extract 1, hence the analyses have been based on mixed weight; that is, not purity adjusted. Second, the Criminal Code designates commercial weights for over 205 different drug types. Accordingly, it provides specificity that better reflects the AFP minor drug group categorisation than the major drug group. However, Extract 1 did not contain information on the minor drug in every seizure,

nor on every item in each seizure; seizures were therefore determined to be commercial on the basis of the major drug group alone. This may mean some commercial weights are underestimated. For example, within the major drug group ATS, the commercial weight for most minor drug groups such as amphetamine or 4-methoxymethamphetamine is 0.75kg, but in the case of phentermine it is 5kg. In the case of the major drug group precursor, the most reported minor drug groups were ephedrine and pseudoephedrine, both of which attract a commercial weight of 1.2 kg. However, other minor drug group classifications attract higher commercial weights—for example, safrole (2.85kg) and phenylacetic acid (4.05kg).

It was also noted not all seizures in Extract 1 contained drugs designated as border-controlled drugs under the Criminal Code at the time of analysis. Some notable examples include khat and hypophosphorous acid (a precursor chemical). Since the information on minor drug group classification was incomplete, it was decided not to remove those that could be identified. For example, an 11-tonne seizure of hypophosphorous acid in 2012 was retained—the largest seizure in Extract 1.

- ATS 0.75kg
- Cocaine 2kg
- Heroin (opioids): 1.5kg
- MDMA 0.5kg
- Precursors 1.2kg
- Cannabis 100kg
- Hallucinogens 0.5kg
- Sedative 1kg

A poly-drug seizure was defined as a seizure in which:

- at least two major drug groups were seized and the weight of each major drug group was at least a quarter of the total commercial weight of the seizure. A minimum weight for the second or third drug was introduced to more closely align with poly-drug intent. This ruled out instances where seizures were defined as poly-drug based on a large quantity of one drug and a very small quantity of another drug (eg 100g of heroin and 1g of cannabis found in someone's pocket); and
- the combined weight of the drugs exceeded a combined commercial weight; that is, the sum of the fractions of each drug's weight to its commercial weight exceeded one. The approach described in the Criminal Code for determining whether a seizure comprising multiple drug types is a commercial weight is to add the fractions of each drug's pure weight to its commercial weight. However, as noted above, the purity of each item was not always recorded in Extract 1 and consequently analysis was not based on purity-adjusted weight.

A mono-drug seizure was defined as a seizure in which only one drug was of commercial weight, and any other drug seized weighed less than a quarter of its commercial weight. In some instances, small amounts of other drugs were seized at the same time.

The study excluded 457 seizures on the grounds that they were exports; Australia was listed as the drug's source country for at least one of the items included in the seizure. There were some seizures where Australia was listed as the drug's source country for some items but another country for others. Only three of the excluded seizures were commercial, all of ATS. In 337 (74%) of the excluded seizures cannabis was the only drug seized. The final sample included 778 commercial seizures (referred to hereafter as seizures), all imports.

The characteristics of poly-drug and mono-drug seizures were compared using all extracted variables such as drug type, median and total drug weight, drug concealment method and state or territory detected. However, some variables contained missing data; most commonly, this was the country of embarkation variable. This is noted where relevant. Moreover, for some seizures the concealment method, country of embarkation, and/or transport mode varied between items within a seizure or were not reported for all the items in a seizure. Seizure level measures were therefore constructed for each of these characteristics by adding the weight of items with similar characteristics, and allocating the seizure the characteristic associated with the heaviest weight.

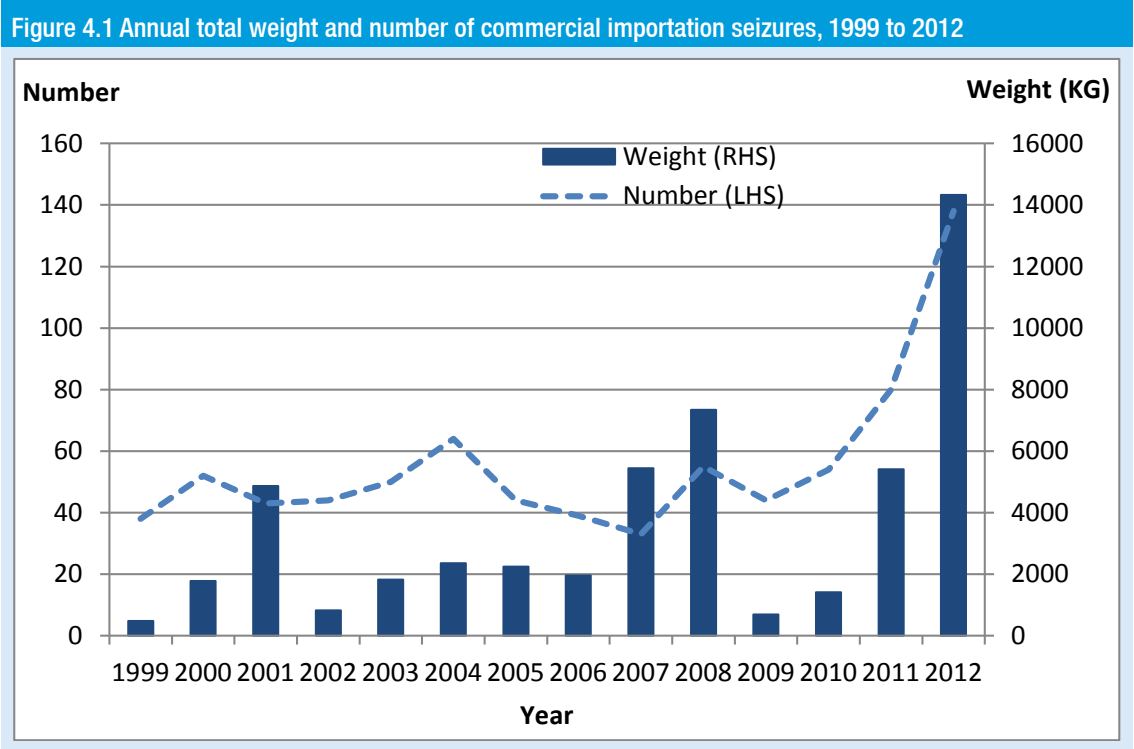
The analysis commenced with an examination of the sample as a whole, including the number and weight of all commercial importation seizures detected in the period 1999–2012, regardless of whether poly-drug or mono-drug. The study then focused on the sub-sample of poly-drug seizures, estimating the proportion of poly-drug seizures detected at the border and the characteristics of poly-drug versus mono-drug seizures. Finally, trends in poly-drug and mono-drug seizures between 1999–2012 were examined.

Trends in Australian commercial drug importations 1999–2012

Figure 4.1 summarises the annual total weight and number of the 778 seizures of Australian commercial drug importations over the period studied. The annual variation in both the number and weight of seizures should be noted, as should the fact there is no apparent correspondence between the two, except in the last two years when both increased appreciably.

The annual number of seizures ranged from 33 to 64 between 1999 and 2010. In 2011 there was a marked increase in the number of seizures to 80, followed by an even greater increase to 139 in the following year. In most years the total weight of seizures was below 2,500kg. There are three distinct periods when the annual weight of seizures was almost double that or more: 2001, 2007–08 and 2011–12. Five seizures accounted for almost half the total weight of the 778 seizures. In 2012 there was a 10-tonne seizure of hypophosphorous acid (used in the manufacture of methamphetamine), which accounted for a fifth (22%) of the total weight of commercial seizures over the 14-year period. Excluding that seizure from the 2012 weight left 3,325.9kg.

The next four heaviest seizures accounted for a further quarter (24%) of the total weight of seizures over the 14-year period (seizures of MDMA, cannabis resin, safrole [a precursor for MDMA] and gamma butyrol lactone [an analogue of GHB]). These seizures took place in 2001, 2007, 2008 and 2011, the other years when the weight of annual seizures was relatively high. All five of these seizures were mono-drug seizures.

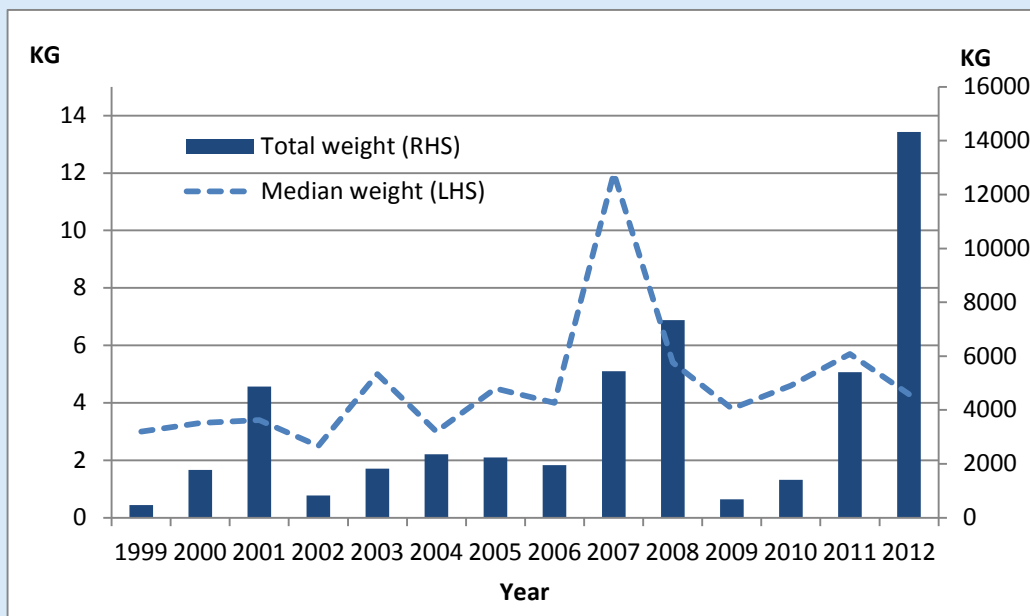


Having illustrated the diversity in the weight of seizures, the median weight of annual seizures against the total weight of seizures (Figure 4.2) was reported. The median weight of seizures over the entire 14-year period was 4kg.

The annual median seizure weight sat within the 2.6kg to 5.7kg range for all but one year of the analysis: in 2007 it was 12kg. 2007 had the fewest seizures (33), which tended to be of larger weight. For example, the smallest seizure of 2007 weighed 1kg and the next smallest seizure weighed 2kg. In contrast, over the period as a whole, five percent of seizures weighed less than 1kg and 18 percent weighed less than 2kg.

Excluding 2007, it can be seen that there has been some upward movement in the annual median weight of seizures. From 1999 until 2002 the annual median weight was within the 2.5kg to 3.4kg range. From 2003 until 2006 the median weight ranged from 3kg to 5kg. Over the most recent five years, 2008 to 2012, it ranged from 3.8kg to 5.7kg.

Figure 4.2 Annual total and median weights of commercial importation seizures, 1999 to 2012



This indicates that the annual number of commercial importation seizures remained fairly stable from 1999 to 2010, then increased in 2011 and 2012. The annual total weight fluctuated, with three peaks in 2001, 2007–08 and 2011–12, some of which was attributable to a small number of very large single seizures. Despite this, the median weight of commercial importation seizures increased from 1999 to 2012.

It is also valuable to analyse specific trends in the number and weight of major drug group seizures over the observation period, to determine when they moved in tandem or individually. Figures 4.3 and 4.4 outline trends in the weight and number of commercial importation seizures for the five main drug types, heroin (opioids), cocaine, MDMA, ATS and precursors. Appendix A includes more detailed figures by drug type.

In 1999, heroin was the drug most seized at the Australian border by weight (352kg; ¼ of the total weight seized). In 2000, although a similar weight of heroin was seized, there were substantial increases in the number and weight of cocaine seizures and, to a lesser extent, ATS seizures, heralding what is now known as Australia's 'heroin drought'. Similar trends continued into 2001. ATS seizures in 2003 were the third highest by weight, but dropped significantly from 2004 until 2006, while precursor seizures increased. From 2003 to 2007, MDMA was the main drug seized by weight. The year 2007 warrants particular mention, as it marked the largest ecstasy seizure in the world at that time (4.4 tonnes). It also marked a significant shift in the market; after this, there were few very seizures of MDMA either by weight or number. Since then, the major drugs seized have been precursors, cocaine and ATS. For example, there were increases in both cocaine and ATS seizures in 2007 and 2008 and again from 2010 until 2012. 2011 and 2012 also had very high levels of seizures of precursors, ATS and, to a lesser extent, heroin.

Over the period there were clear shifts in the dominant drugs by weight, such as the shift between 1999 and 2001 from heroin to cocaine and ATS, coinciding with the heroin shortage, then a shift from ATS to precursors, a rise and fall in MDMA and, more recently, a rise in precursors, ATS and, to a lesser extent,

cocaine and heroin. There were also some periods when a number of drugs increased in prevalence at the same time. Of note were the trends in ATS and cocaine weights, increasing in 2000–01, 2007–08 and 2010–12.

Figure 4.3 Annual weights of seizures by drug type, 1999 to 2012: ATS, cocaine, heroin, MDMA and precursors

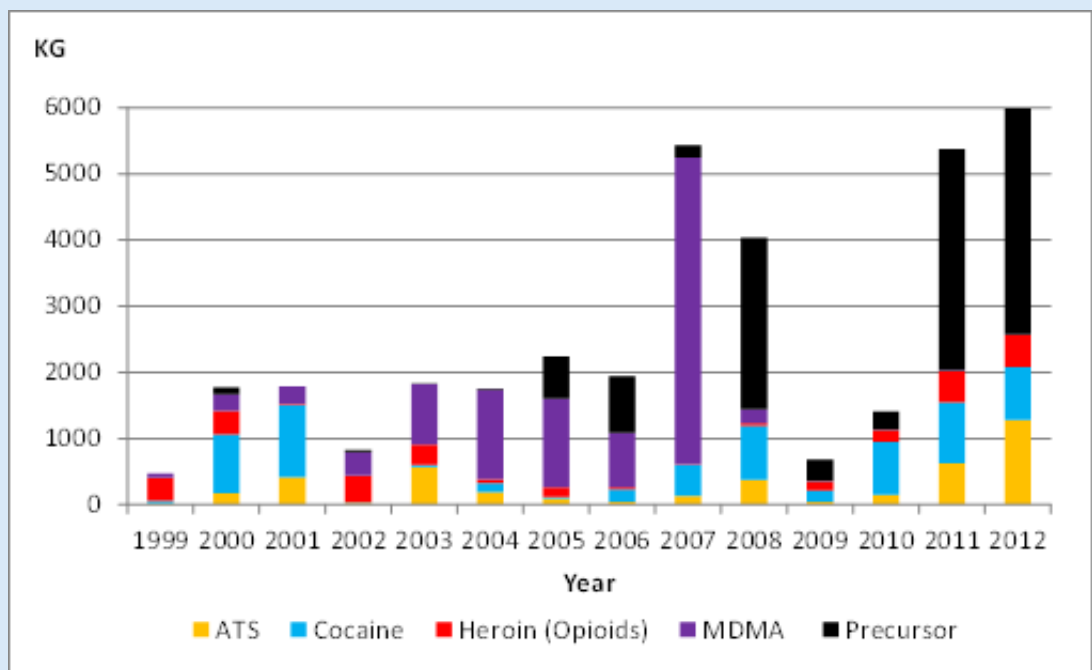
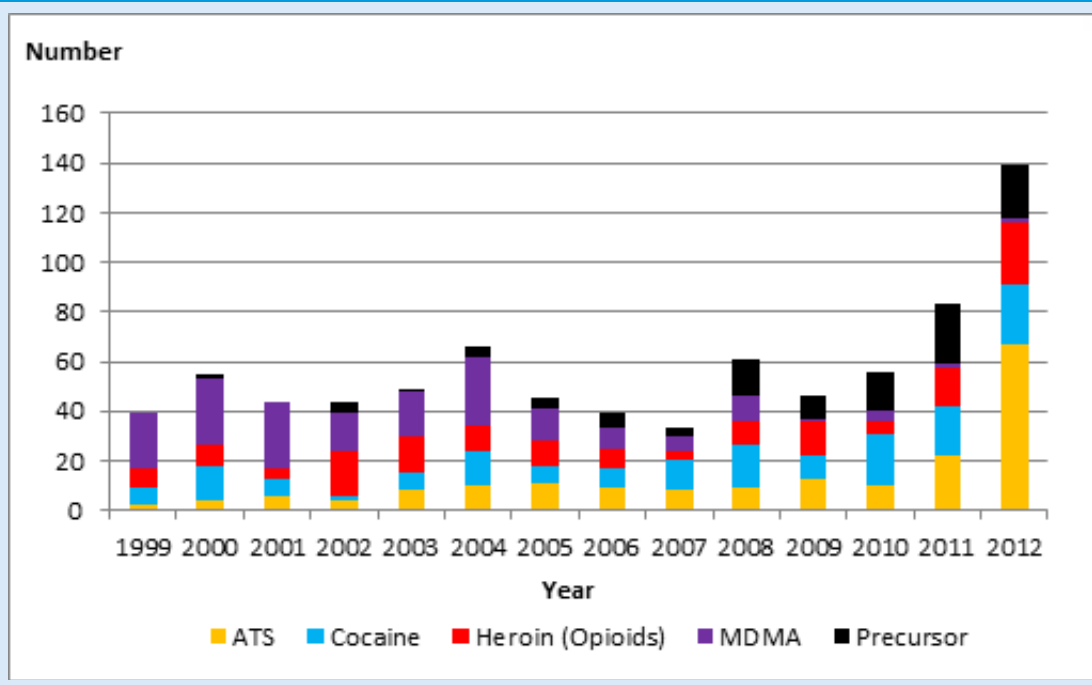


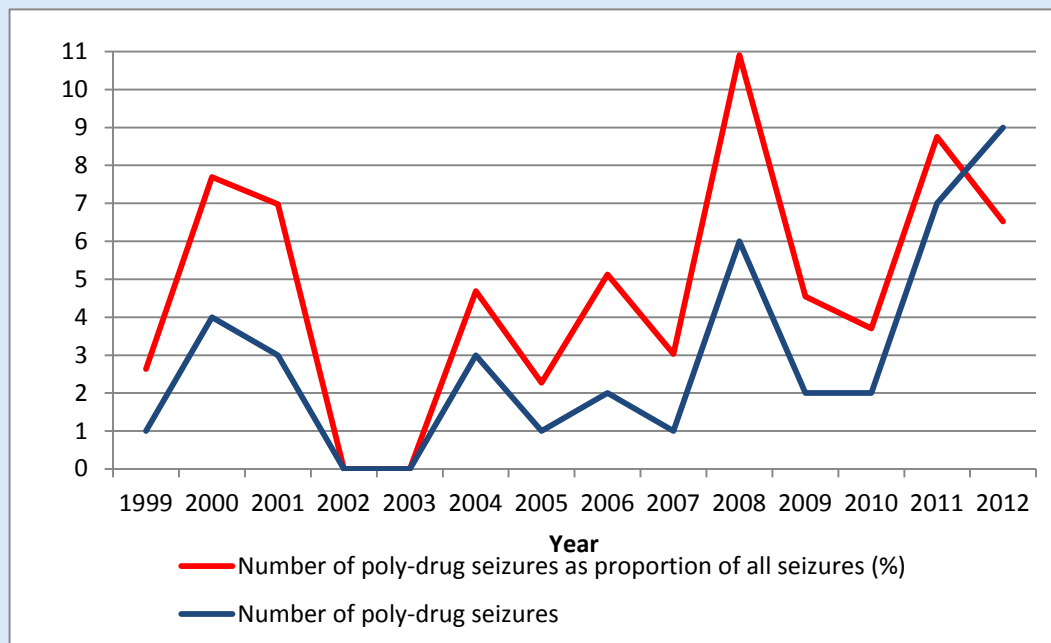
Figure 4.4 Annual number of commercial importation seizures by drug type, 1999 to 2012: ATS, cocaine, heroin, MDMA and precursors



Estimating the extent of poly-drug seizures at the border

Over the 14-year period, 5.3 percent (41) of the 778 commercial drug seizures were poly-drug seizures; the annual proportion ranged from 0 to 10.9 percent. As Figure 4.5 illustrates, there were eight poly-drug seizures from 1999–2001 and none in 2002 and 2003. Since 2003 there is some tentative evidence that the annual number of poly-drug seizures has been trending higher, as has the number of poly-drug seizures in proportion to all seizures. For example, the proportion of poly-drug seizures increased from none in 2003 to 8.7 percent in 2011 and 6.5 percent in 2012. This may be partly a result of the overall increase in the number of commercial importation seizures from 2010 onwards (see Figure 4.1).

Figure 4.5 Annual number of poly-drug commercial importation seizures, 1999–2012



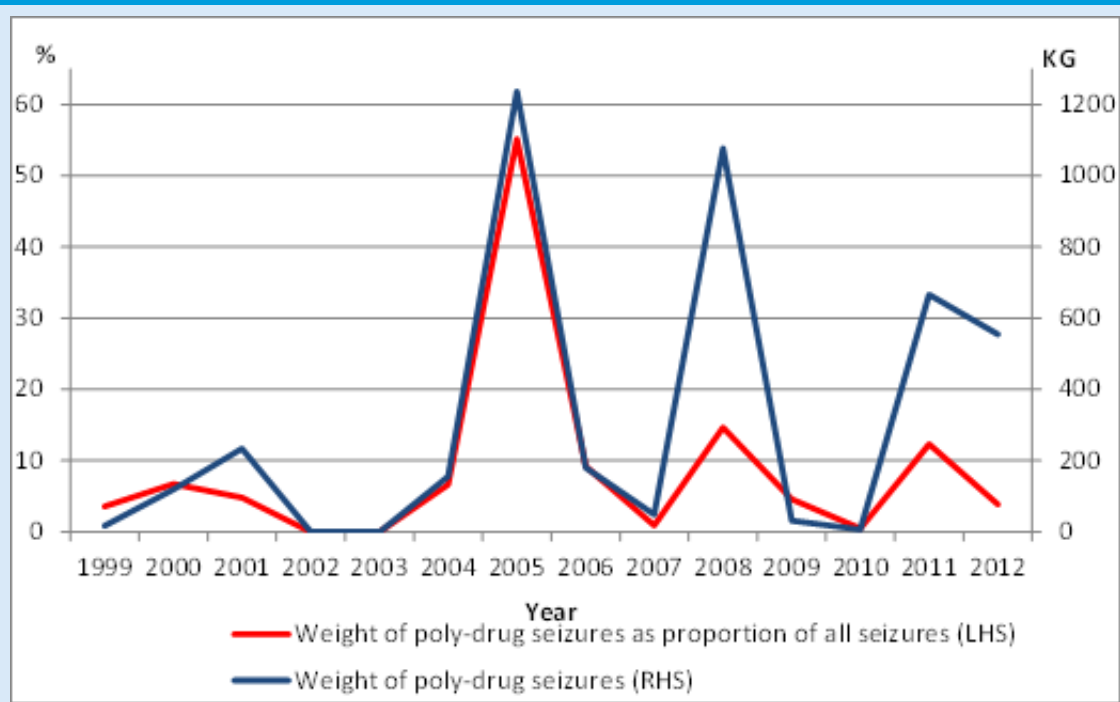
The total weight of poly-drug seizures over the 14-year period was 4,327kg. In all but four of the 14 years, the annual weight of poly-drug seizures was less than 250kg (Figure 4.6), but there were four peaks: 2001, 2005, 2008 and 2011–12. The highest annual weight of drugs seized was in 2005, due to one extremely large seizure of 1,235.8kg of MDMA and 0.4kg of ATS. This qualifies as a poly-drug seizure by this study's definition, although the ATS component alone weighed less than the commercial weight for ATS (0.75kg).

Six poly-drug seizures were made in 2008, accounting for the second heaviest annual weight (1,077.1kg). One of these seizures was the second heaviest poly-drug seizure of the entire period (555kg of precursor, 48kg of ATS and 35kg of cocaine). In 2011 and 2012, the years of the third and fourth heaviest seizures, seven and nine poly-drug seizures were made respectively.

Poly-drug seizures comprised 8.5 percent of the total weight of seizures over the entire period studied (50,918kg). As noted earlier, the heaviest five seizures, all mono-drug seizures, accounted for 46 percent of the total weight of seizures over the 14-year period. The next five heaviest seizures accounted for a further nine percent of the total weight of seizures. Two of those five seizures were poly-drug seizures, as described in the previous paragraph; both were mainly of MDMA.

As Figure 4.6 shows, apart from 2005, when the weight of poly-drug seizures comprised 55 percent of total seizure weight, the proportion by weight of poly-drug seizures was 14 percent or less. Despite the trend in the number of seizures, there seems to be no trend in the relative importance of poly-drug seizures when measured by weight. Apart from 2005, the annual weight of poly-drug seizures appears to ebb and flow in line with mono-drug seizures.

Figure 4.6 Weight of poly-drug commercial importation seizures, 1999–2012



In summary, poly-drug seizures over the 14-year period from 1999 to 2012 were 5.3 percent of seizures by number and 8.5 percent by weight. There was a slight upward trend in the number of poly-drug seizures between 2003 and 2012. Despite this the absolute numbers remain small (see Chapter 5 for more analysis of the extent of poly-drug seizures based on the analysis of AFP cases and linked cases).

Comparing the characteristics of poly-drug and mono-drug seizures

Type of drugs seized by number

Figure 4.7 compares the distribution of different drug types seized in poly-drug seizures with mono-drug seizures; the specific combinations of drugs occurring together in poly-drug seizures are then examined. ATS were the type of drug most often involved in poly-drug seizures (36%) poly-drug. Cocaine was the next most common drug seized in poly-drug seizures (22%). MDMA and heroin (opioids) each comprised 14 percent of the drugs seized, and precursors six percent.

In contrast, the five drugs found in poly-drug seizures were distributed equally among mono-drug seizures: poly-drug ATS, cocaine, heroin (opioids) and MDMA each comprised a fifth of these seizures. Precursors made up another 14 percent of seizures and a small number of seizures were of cannabis, hallucinogens and sedatives.

In comparison with mono-drug seizures, ATS were over-represented in poly-drug seizures and heroin (opioids), MDMA and precursors were under-represented. No poly-drug seizures included cannabis, sedatives or hallucinogens. While less common, they were all present in mono-drug seizures.

Figure 4.7 Type of drug seized by proportion, poly-drug versus mono-drug seizures

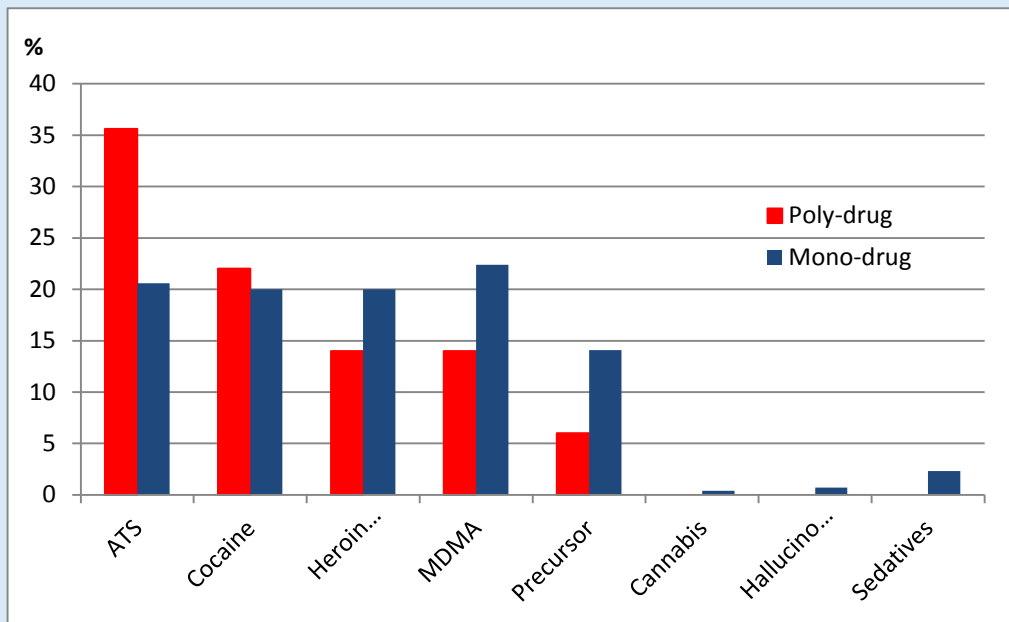
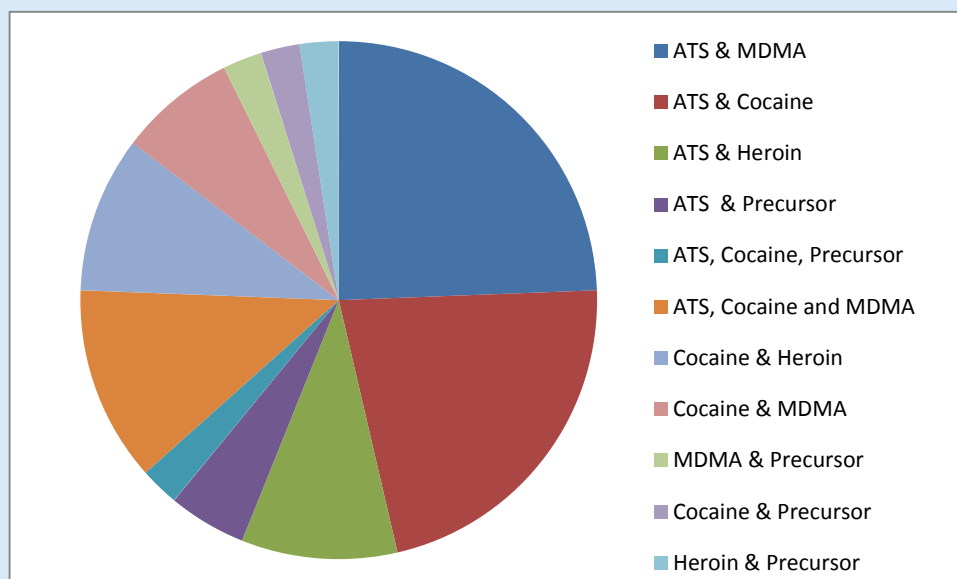


Figure 4.8 illustrates the combinations of drugs found within the 41 poly-drug seizures. Poly-drug seizures were comprised of two drugs in 88 percent (36) of the 41 seizures and three drugs in 12 percent (5) of seizures. Notably, the five poly-drug seizures involving three drugs all occurred after 2008 (3 in 2008, 1 in 2011 and 1 in 2012). The most common drug combinations in two-drug poly-drug seizures were ATS and MDMA (24%) and ATS and cocaine (22%). ATS and heroin made up 10 percent (4) of the seizures and cocaine and heroin another 10 percent (4). The most common drug combinations in poly-drug seizures of three drugs were ATS, cocaine and MDMA at 12 percent (5). Finally, in poly-drug seizures of three drugs, ATS was involved in 76 percent of the seizures, cocaine in 56 percent and MDMA in 46 percent. Notably, those poly-drug seizures containing three drug types included these three drugs.

Figure 4.8 Combinations of drugs in poly-drug seizures



The type of drugs seized by total weight

Considering the weight distribution of drugs seized over the observation period, it appears MDMA and ATS were relatively more important in poly-drug seizures than in mono-drug seizures, while precursors were relatively less important (Figure 4.9). However, for MDMA and precursors, much of the difference in the weight distribution could be explained by two large seizures. For example, whereas precursor seizures comprised 14 percent of all mono-drug seizures, the precursor share of the total weight of mono-drug seizures was 41 percent, and while only 14 percent of the drugs seized in poly-drug seizures were MDMA, the MDMA made up 44 percent of the weight of poly-drug seizures.

If the extremely heavy mono-drug shipment of hypophosphorous acid seized in 2012 and the largest poly-drug seizure (comprising 1.2 tonnes of MDMA and 0.5kg of ATS) are excluded from the analysis, the mono-drug precursor share of total weight falls to 23 percent and the precursor poly-drug share of weight increases to 24 percent. The MDMA weight share in relation to all poly-drug seizures falls to 17 percent, while for mono-drug seizures it increases to 24 percent. This suggests the differences in weight shares for these two drug types can be explained by two very large seizures. Despite this, the dominance of ATS in poly-drug seizures remains. Regardless of whether drug types were considered in terms of the relative number or weight of seizures, poly-drug seizures were more likely to involve ATS than mono-drug seizures.

Figure 4.9 Type of drug seized by total weight, poly-drug versus mono-drug seizures

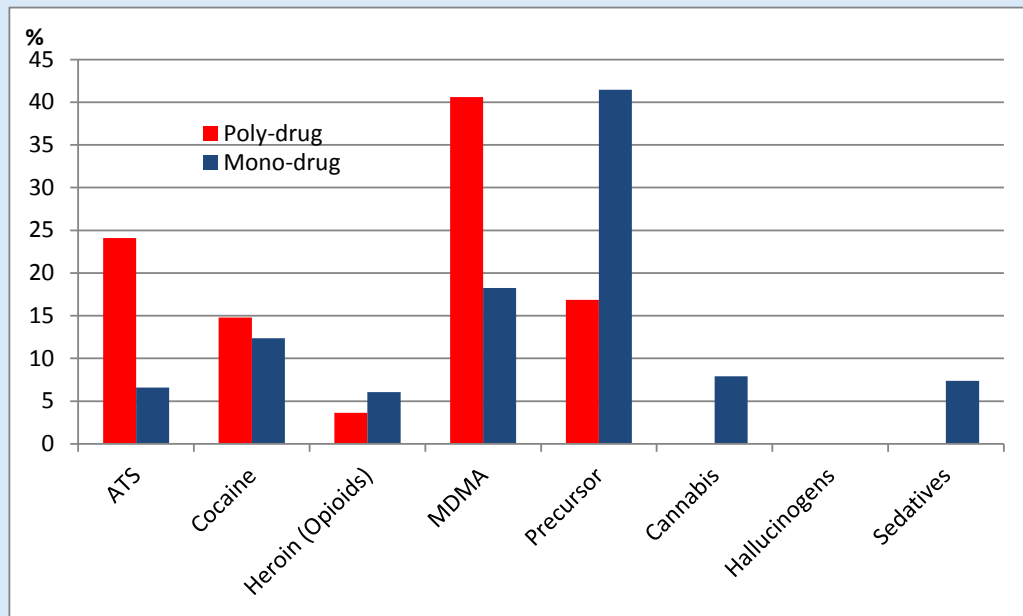
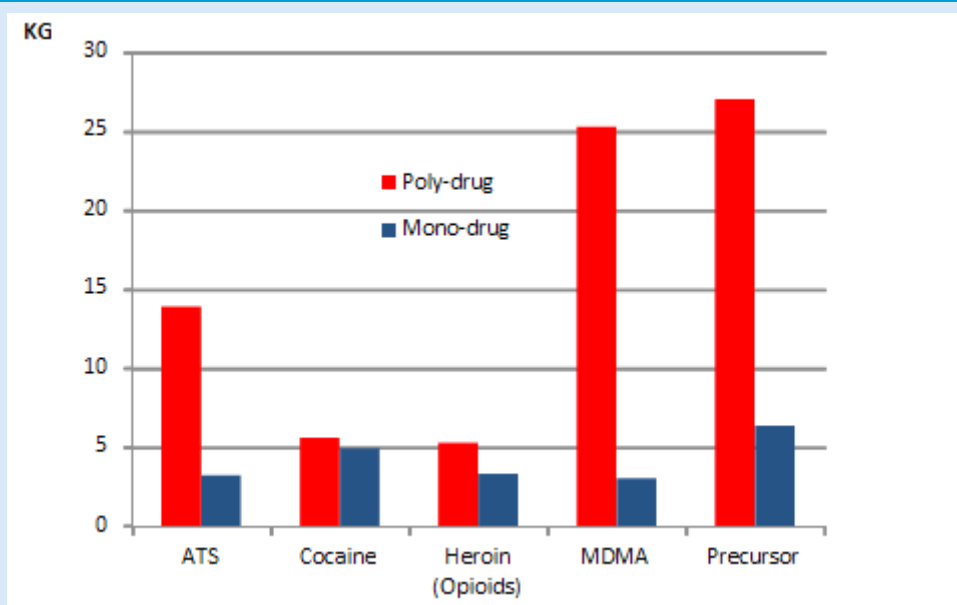


Figure 4.10 shows the median weight of seizures of each of the five main drug classes during the observation period. Precursors tended to be the heaviest of both poly-drug and mono-drug seizures. This was partly an artefact of what weight was determined to be a commercial seizure for each of the drug classes; however, comparison between poly-drug and mono-drug seizures for each drug class is justified. That comparison revealed that the median weights of all major drug groups seized in poly-drug seizures tended to be greater than the relevant mono-drug seizure median. The difference was relatively small in the case of cocaine and heroin (opioid) seizures but large for ATS, MDMA and precursors.

Figure 4.10 Median weight of drugs seized 1999–2012, poly-drug versus mono-drug seizures



Finally, the relative weight share of drug types in poly-drug seizures was considered to determine whether poly-drug seizures tend to be comprised of one large seizure and one small seizure or two relatively equal seizures. Table 4.1 outlines the makeup of each poly-drug seizure where only two drugs are involved in relation to each drug's share of the seizure's total weight. In over a third (13) of the 36 two-drug seizures, weight was roughly equally shared—ie each drug comprised 40–60 percent of the combined weight of the seizure. In the remaining cases the weight of one drug was at least 60 percent of the combined weight. In a fifth (7) of the two-drug seizures one drug dominated; its weight was 90 percent or more of the total weight. In 44 percent (16) of two-drug seizures the weight of one drug was 61–89 percent of the combined weight. It can therefore be said there was marked diversity in the weight composition of poly-drug seizures. Furthermore, MDMA and ATS were both more likely to be major drugs than minor drugs, whereas the reverse was true for cocaine and heroin (opioids). There were some seizures, however, in which the weight of cocaine and heroin was 61–89 percent of total weight.

Table 4.1 Weight share of drugs in poly-drug seizures containing two drug types

	MDMA	ATS	Cocaine	Heroin	Precursor		MDMA	ATS	Cocaine	Heroin	Precursor	%
Major drug ≥ 90% of weight	4	2	0	0	1	Minor drug	2	3	1	1	0	19.4
Major drug 60–89% of weight	2	9	3	2	0	Minor drug	1	3	7	3	2	44.4
Major drug 51–59% of weight	3	5	3	1	1	Minor drug	2	4	3	3	1	36.1

The weight shares in the five three-drug seizures are also of interest. There were four seizures involving ATS, cocaine and MDMA. In the two most recent of these, in 2011 and 2012, MDMA comprised less than 10

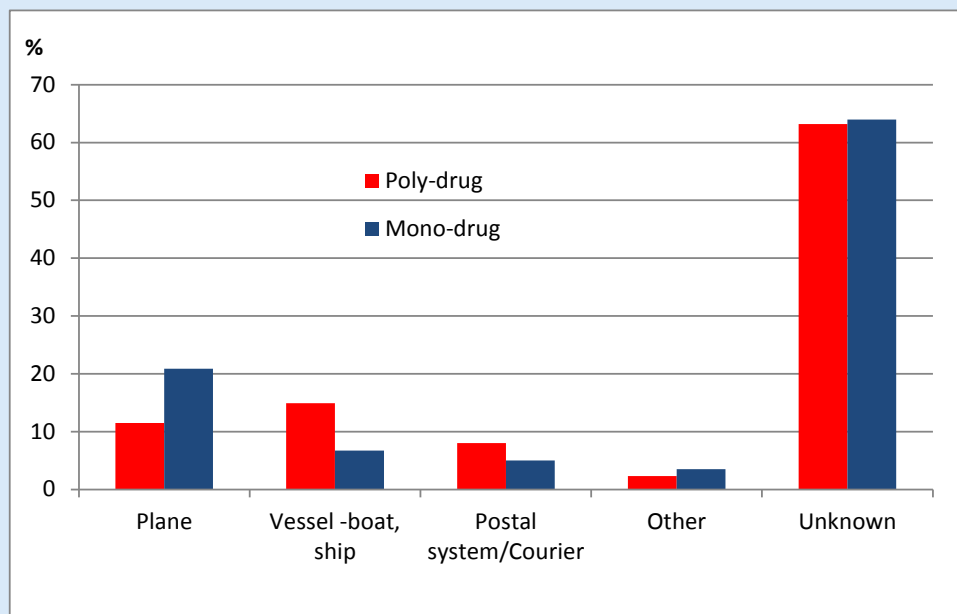
percent by weight. ATS was the major drug in one seizure, and cocaine in the other. The earlier two seizures of this type occurred in 2008; MDMA comprised at least 30 percent of the total weight of both—it was the dominant drug in one, and cocaine in the other. The remaining three-drug seizures contained ATS, cocaine and precursors, with precursors the major drug.

Mode of transport

How seized drugs are transported into Australia is of interest. Unfortunately, for over 60 percent of these seizures, the mode of transport was unknown. Figure 4.11 compares the modes of transport of poly-drug and mono-drug seizures. In poly-drug seizures, different modes of transport may be associated with each drug. This study presents the mode of transport associated with each of the 87 drugs in the 41 seizures.

Where documented, the most common mode of transport of mono-drug seizures was by plane (20.9%). In contrast, where documented, the most common method of transport for drugs seized in poly-drug seizures was boat or ship (15%), plane (12%) and by postal system or courier (8%). Mono-drug shipments seized were almost twice as likely to arrive in Australia by plane and somewhat more likely to arrive through the postal system or by courier, while poly-drug shipments seized were almost twice as likely as mono-drug seizures to arrive by ship.

Figure 4.11 Mode of transport, poly-drug versus mono-drug seizures



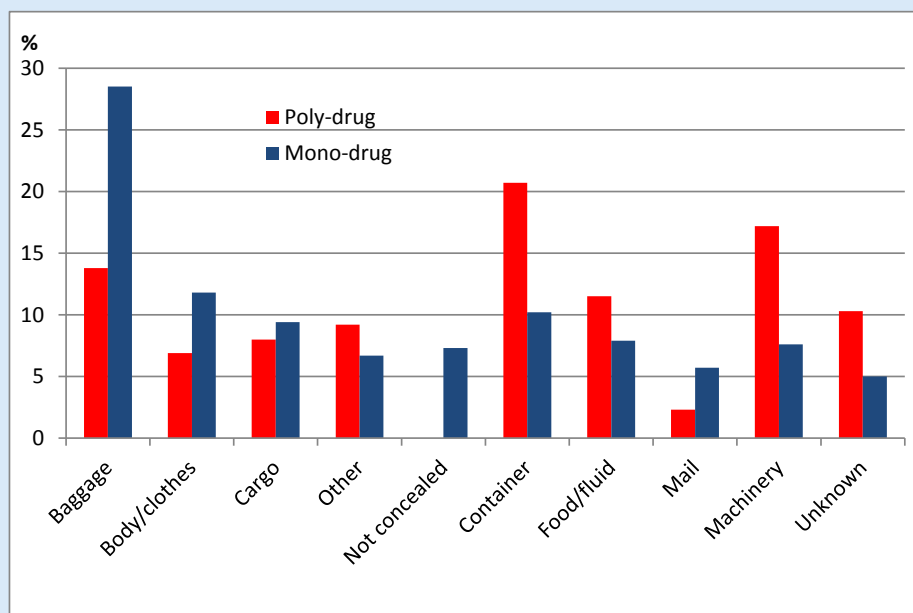
Method of concealment

The method of concealment for most seizures was recorded, and coded into the following categories:

- in baggage;
- on the body/in clothes (including in footwear, clothing or strapped to someone's body);
- in cargo, including in clothing, containers and mail in the cargo;
- not concealed;
- in a container;
- in food and/or fluid, including in food in baggage;
- by mail;
- in machinery (including in appliances and furniture, and in deliveries of these by mail); and
- other (not defined).

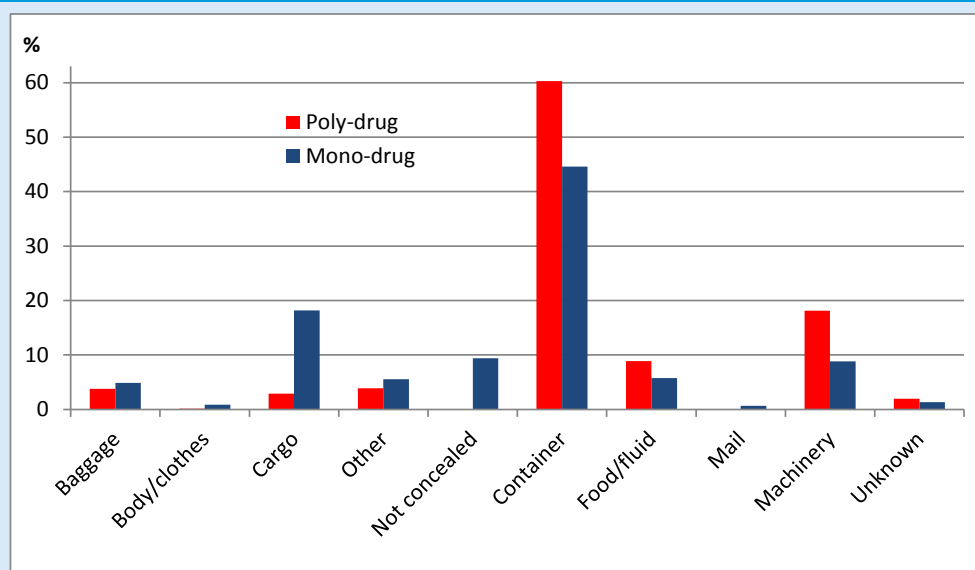
Over the period as a whole, close to 30 percent of mono-drug seizures were concealed in baggage (Figure 4.12). The next most frequently used method of concealment was on the body or in clothes (12%) and 10 percent were concealed in containers. In contrast, drugs seized in poly-drug seizures were most frequently concealed in containers (21%), machinery (17%) and baggage (12%). This is consistent with the finding that poly-drug seizures were predominantly found on boats or ships and mono-drug seizures on planes.

Figure 4.12 Method of concealment: poly-drug versus mono-drug seizures



The method of concealment was then considered in relation to the total weight of seizures (Figure 4.13). By this measure, the most likely method of concealment for both poly-drug and mono-drug seizures was in containers. Sixty per cent of the total weight of poly-drug seizures was concealed in containers, compared with 45 percent of the weight of mono-drug seizures. The next most likely method of concealment for poly-drug seizures was in machinery (18%), whereas for mono-drug seizures it was in cargo (18%). Unfortunately there were too many unknowns in the mode of transport data to determine whether this difference was related to mode of transport.

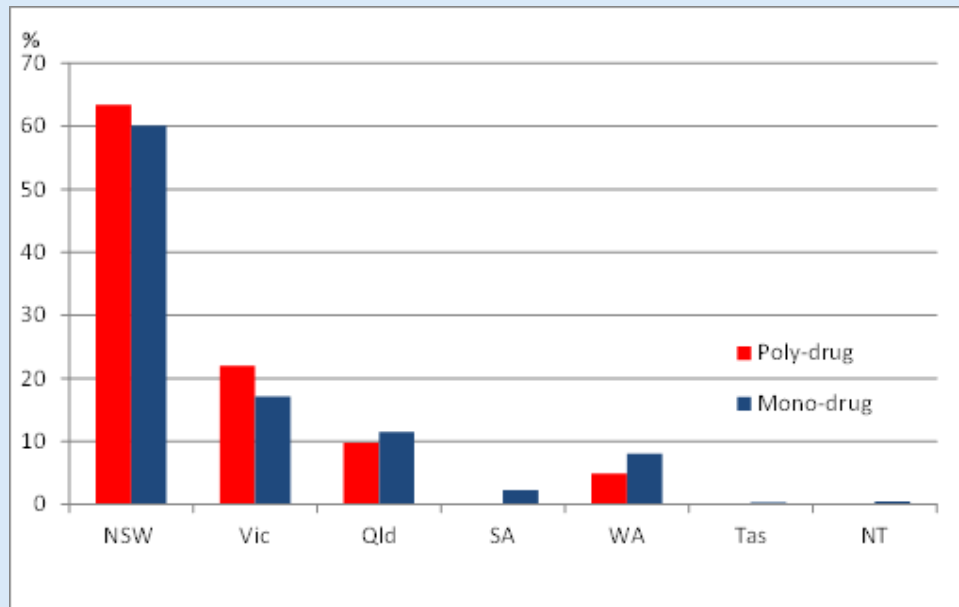
Figure 4.13 Total weights of seizures by method of concealment, poly-drug versus mono-drug seizures



State where seizure was made

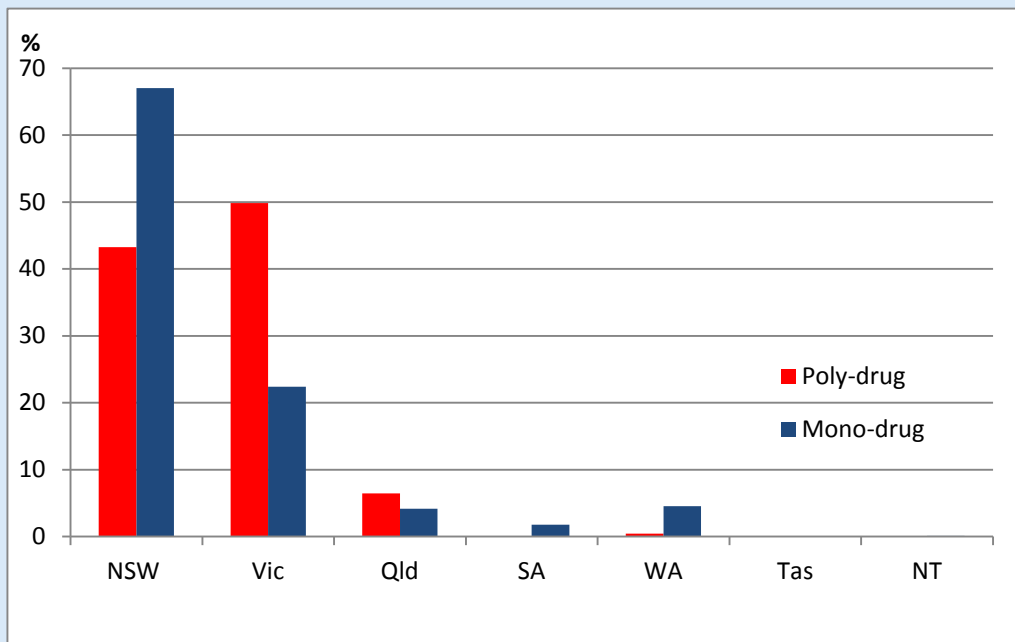
The dominant entry point, by number, for mono-drug and poly-drug seizures was New South Wales (Figure 4.14). Victoria, Queensland and Western Australia were next most important, respectively, for both types of seizures.

Figure 4.14 State where seizure was made, poly-drug versus mono-drug seizures



However, New South Wales was the dominant state for mono-drug seizures by total weight of seizures over the observation period, whereas Victoria was the dominant state for poly-drug seizures (Figure 4.15).

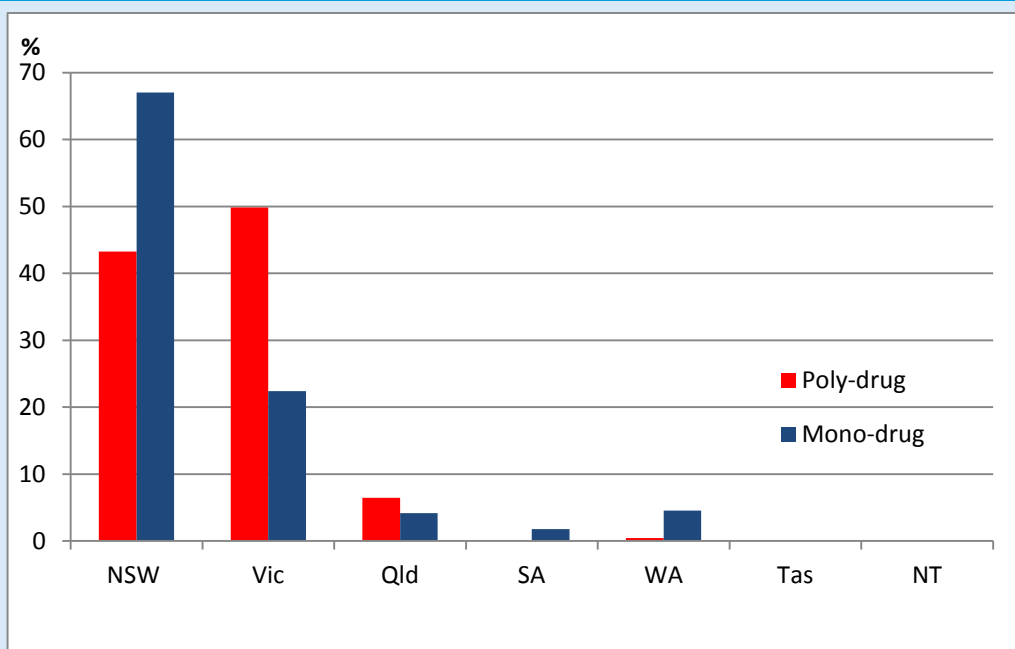
Figure 4.15 Total weights of seizures by state where seizure was made, poly-drug versus mono-drug seizures



Country of embarkation of seizures

The country of embarkation of around half of the seizures was unknown. The major point of difference between the two types of seizures was that poly-drug seizures were most likely to come from Canada, whereas mono-drug seizures most often arrived from countries in East and South-East Asia (Figure 4.16). Seized shipments embarking from Central America and the Caribbean were more likely to be poly-drug than mono-drug.

Figure 4.16 Country of embarkation, poly-drug versus mono-drug seizures



While there were only a small number of poly-drug seizures, these can be distinguished from mono-drug seizures in a number of key ways. In particular, poly-drug seizures were much more likely to involve ATS, to weigh more, to arrive by boat or ship, to be concealed in containers and to have embarked from Canada.

Trends: poly-drug versus mono-drug seizures

Trends over the observation period were analysed. There were insufficient poly-drug seizures to consider trends on an annual basis, so this report presents data on both poly-drug and mono-drug seizures for three periods: 1999–2003; 2004–08 and 2009–2012 (two five-year periods and a four-year period). Eight (19.5%) poly-drug seizures were made in the first period; 13 (31.7%) in the second and 20 (48.8%) in the third period. The comparable figures for mono-drug seizures were 30 percent, 30 percent and 40 percent, respectively. Figures showing the annual trends for mono-drug seizures can be found in Appendix B.

Distribution of number of drugs seized

The distribution of the major drug groups varied markedly across the period. As Figure 4.17 shows, the major structural change in mono-drug seizures was the declining number of MDMA seizures and increase in ATS and precursor seizures. Almost half of all seizures in the first period were MDMA seizures; the proportion of MDMA seizures fell to a quarter in the second period and only two percent in the third period. Since 2008 there have been relatively few MDMA seizures.

In contrast, the proportion of ATS seizures increased from nine percent in the first period to 16 percent in the second period and 32 percent in the third period. Comparable proportions for precursor seizures were four percent, 14 percent and 22 percent respectively. In 2012, ATS seizures comprised almost half of all seizures.

The proportion of cocaine and heroin (opioid) seizures changed little from period to period; cocaine ranged from 16 percent to 23 percent, and heroin (opioids) from 18 percent to 23 percent.

Figure 4.17 Number of mono-drug seizures by drug seized and year of seizure, periods 1 to 3

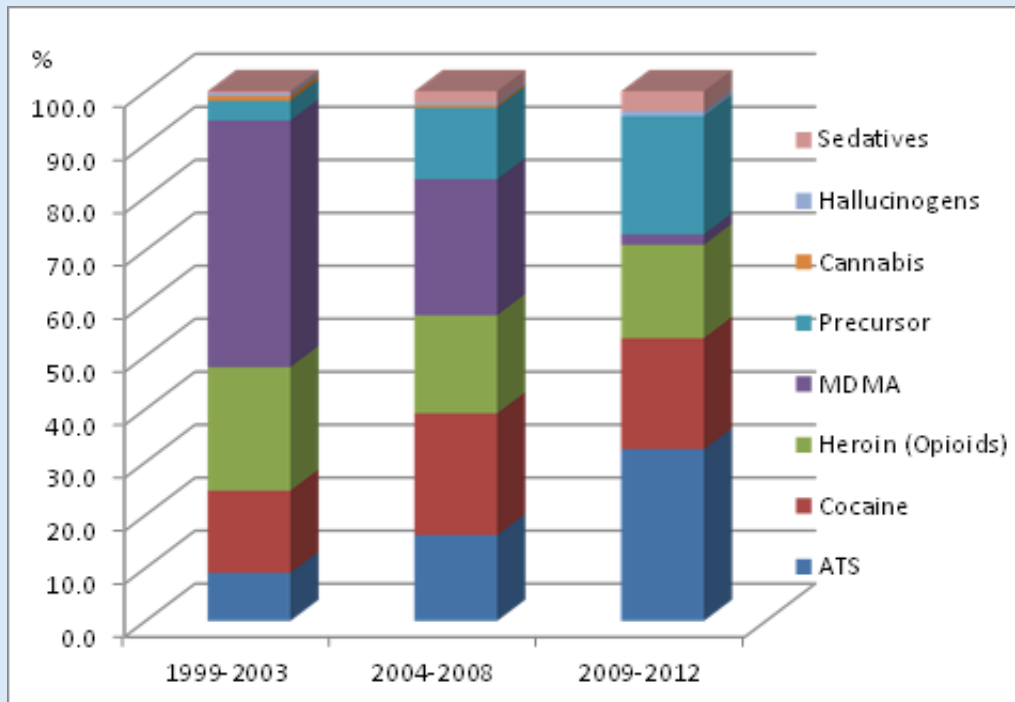
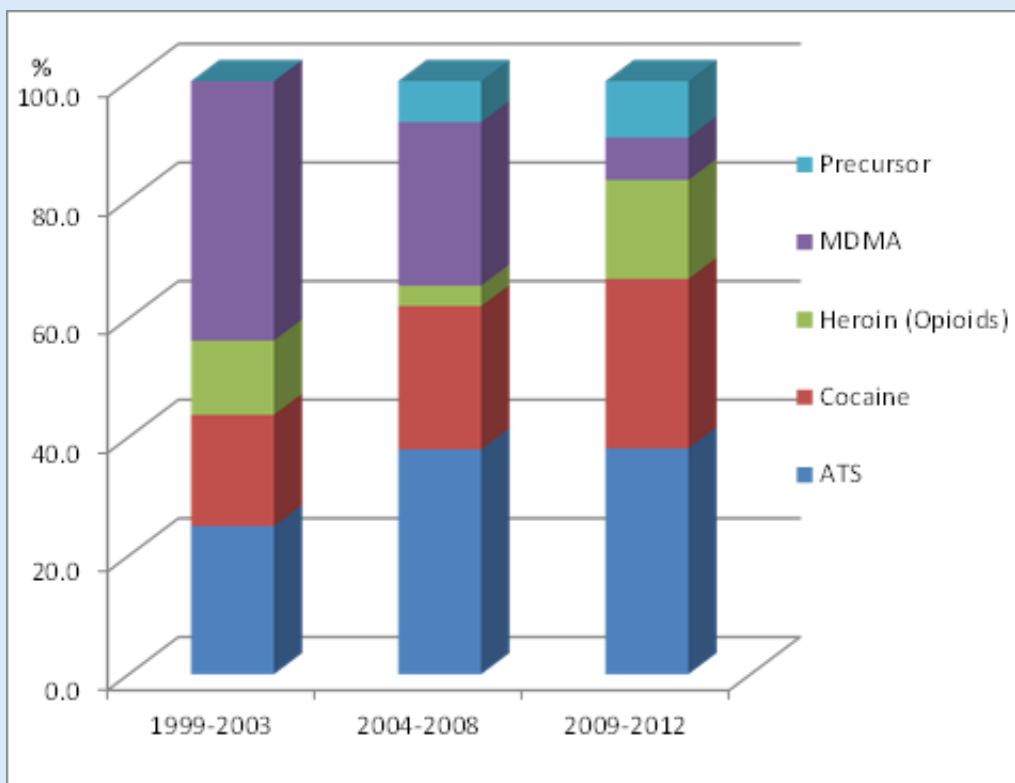


Figure 4.18 presents the time trend of drugs involved in poly-drug seizures. As with mono-drug seizures, MDMA was numerically most common in the first period; but its prevalence declined over the next two periods, when it was replaced by ATS and precursors. Precursors were only found in poly-drug seizures post 2005, with less evident growth than in mono-drug seizures. Finally, the prevalence of cocaine in poly-drug seizures increased slightly across all three periods.

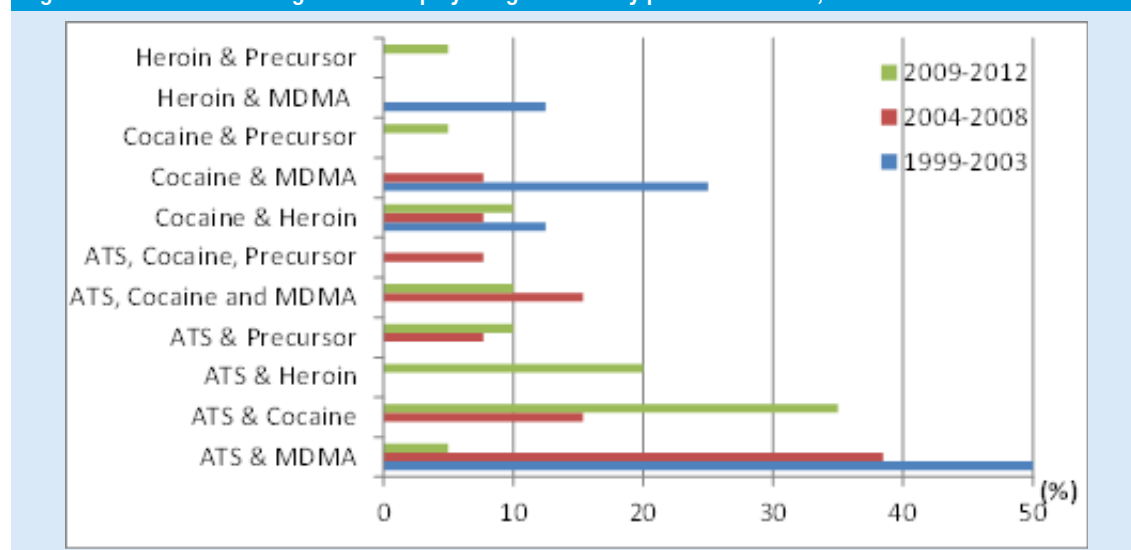
Figure 4.18 Number of drugs seized in poly-drug seizures by period of seizure, 1999–2012



The study next considered how these changes in the types of drugs seized manifested in the combinations of drugs found in poly-drug seizures (Figure 4.19). In the first period there were eight seizures; in the second, 13; and in the third, 20. All eight seizures in the first period involved two drugs, of which four were of ATS and MDMA; two were of cocaine and MDMA, one was of heroin and MDMA, and one was of cocaine and heroin. The second period saw the emergence of two types of three-drug seizures—ATS and cocaine were common to both. Two also included MDMA and other precursors. The second period also saw an expansion in the types of two-drug seizures: ATS and cocaine plus ATS and precursors. The third period saw even more diversity, with precursors appearing in four seizures together with heroin, cocaine and ATS.

ATS accounted for an increasingly large component of poly-drug seizures. They were found in four out of eight of the first period's seizures, 11 of the 13 seizures in the second period and 16 of the 20 seizures in the third period. Unsurprisingly, MDMA's importance has diminished; it was found in seven of the first period seizures, eight of the second period seizures, and only three of the third period seizures. Cocaine's presence has grown slightly, presenting in three of the first period seizures, seven of the second and 12 of the third.

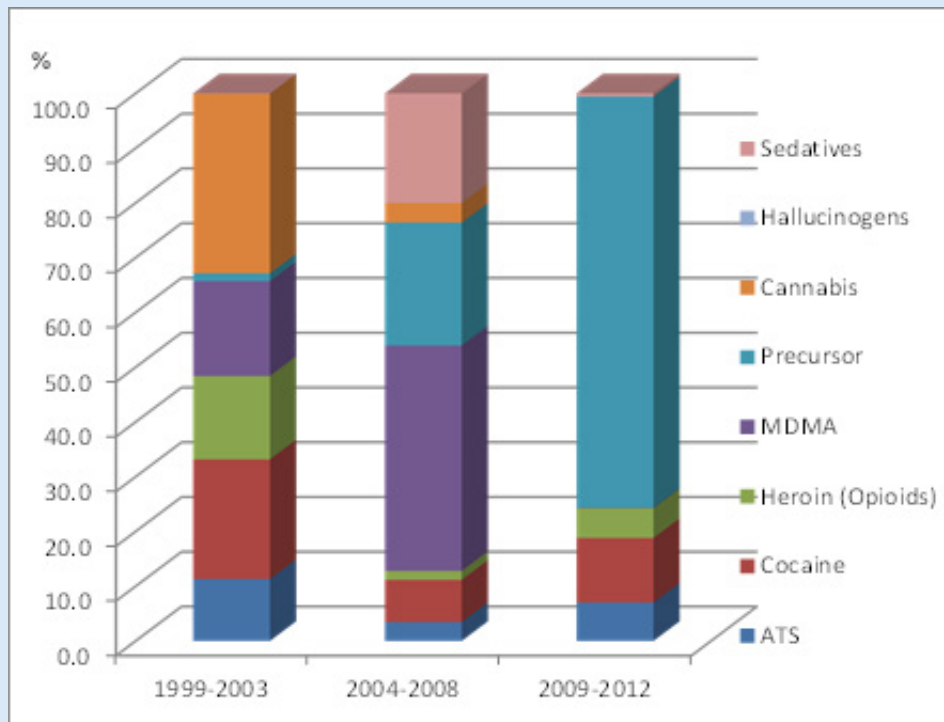
Figure 4.19 Number of drugs seized in poly-drug seizures by period of seizure, 1999–2012



Weight distribution of drugs seized

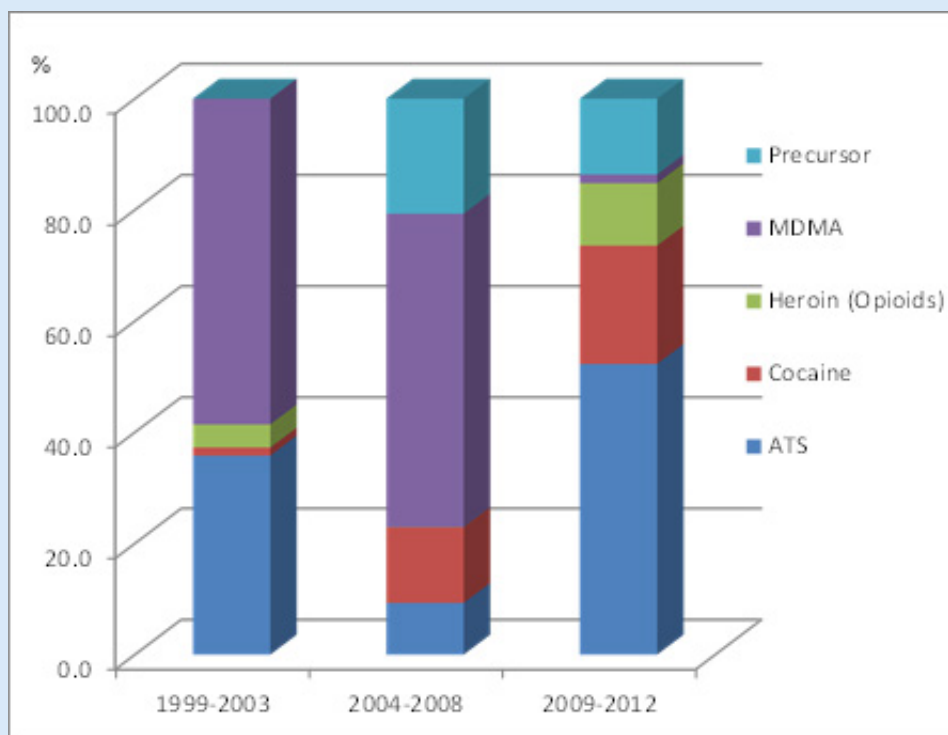
The distribution of the weights of drugs seized has changed greatly over the period (Figure 4.20). In the first period, the drugs that comprised the largest proportion of mono-drug seizures by total weight were cannabis and cocaine. Cannabis comprised 33 percent of the total weight of drugs seized in mono-drug seizures, and cocaine 22 percent. The three remaining drugs seized, MDMA, heroin (opioids) and ATS, comprised similar proportions of the total weight: 17 percent, 15 percent and 11 percent respectively. In the second period, MDMA was the dominant drug by weight and the relative proportion of precursors increased, while the relative proportions of cannabis, cocaine, heroin (opioids) and ATS each greatly diminished. In the third period, MDMA's share of total weight dropped significantly again, with less than 1kg of MDMA seized. Instead, there was a large increase in proportion of precursors by weight seized and a slight increase in the relative weights of cocaine and ATS.

Figure 4.20 Total weights of mono-drug seizures by main drug type and period



As Figure 4.21 shows, there were some similarities and differences in poly-drug seizures over time. In the first period there were two dominant drug types: MDMA and ATS. They comprised 59 percent and 36 percent respectively of the total weight of drugs seized. No cannabis was seized, and heroin (opioids) and cocaine together comprised a little over five percent of weight. In the second period, MDMA's dominance increased slightly, precursors appeared as a relatively large weight, and cocaine's relative proportion grew.

Figure 4.21 Total weights of poly-drug seizures by drug types and period of seizure



In contrast, the relative proportion of ATS fell markedly and no heroin (opioids) was seized. While, as with mono-drug seizures, there was a large drop in the amount of MDMA seized in the third period, the proportionate weight of precursors seized fell slightly. Instead, there was a very large increase in the proportionate weight of ATS seized and slight increases in the proportionate weight of heroin (opioids) and cocaine.

This indicates that, while the relative weight of MDMA increased in both mono-drug and poly-drug seizures in period 2, there was a marked divergence in period 3. Mono-drug seizures saw a shift to precursors, while poly-drug seizures saw a shift to ATS.

Overall weight of drugs seized

In terms of overall weight of drugs seized, poly-drug seizures comprised 8.5 percent overall: 3.8 percent in the first period, 14 percent in the second and 5.8 percent in the third (Table 4.2). The very large poly-drug seizure of MDMA, together with less than 1kg of ATS, occurred in the second period. If that seizure is instead categorised as a mono-drug seizure, the poly-drug seizure share is 6.2 percent overall and 8 percent in the second period.

Consistent with the finding that, weight-wise, poly-drug seizures have been dominated by MDMA and ATS, the study found that a quarter of the weight of ATS seized was seized as part of a poly-drug seizure and 17 percent of the weight of all MDMA seized was seized in poly-drug seizures. In contrast, 10 percent or less of the total weight of cocaine, heroin (opioids) and precursors seized was seized in poly-drug seizures.

There have, however, been changes over time. With regard to weight, ATS was more likely to be seized as part of a poly-drug seizure in the second and third periods than in the first period. Whereas ATS seized through poly-drug seizures comprised 11 percent of the total weight of ATS seized in period one, it comprised over 30 percent in the second and third periods. Likewise heroin seized in poly-drug seizures made up 11 percent in the third period but 1.1 percent or less in earlier periods. In contrast, weight-wise, poly-drug cocaine seizures were most important in the second period, when they comprised 22 percent of all cocaine seized. In the most recent period they comprised 10 percent of the weight of cocaine seized.

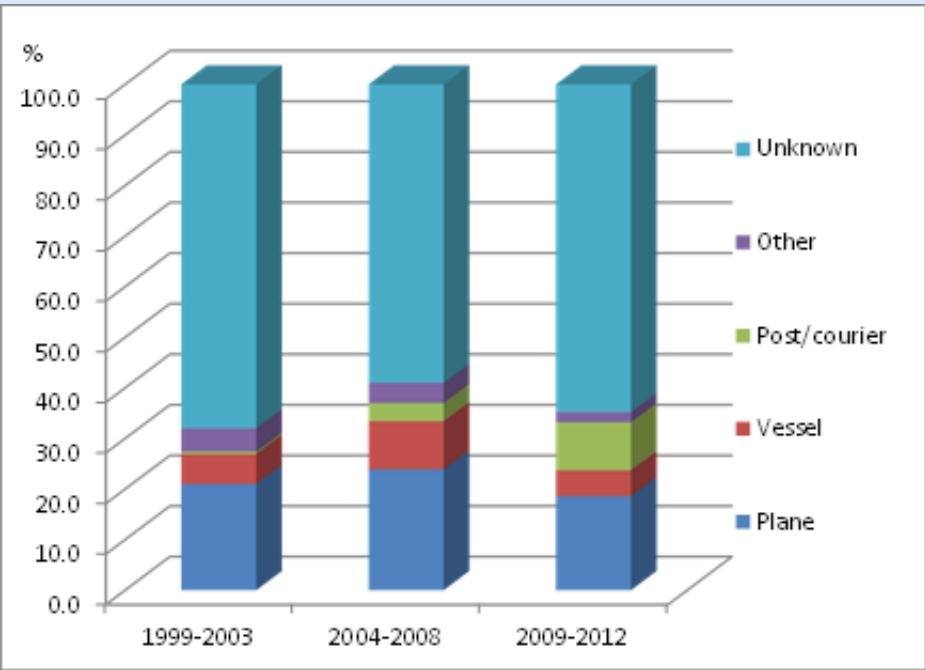
Table 4.2 Proportion by weight of poly-drug seizures, by drug seized and period of seizure

Seizure Year	ATS (%)	Cocaine (%)	Heroin (Opioids) (%)	MDMA (%)	Precursor (%)	All drugs (%)
1999–2003	11.1	0.3	1.1	11.8	0.0	3.8
2004–08	30.4	22.3	0.3	18.2	13.0	14.0
2009–2012	31.4	9.9	11.2	49.7	1.1	5.8
All years	25.3	10.0	5.3	17.1	3.6	8.5

Mode of transport

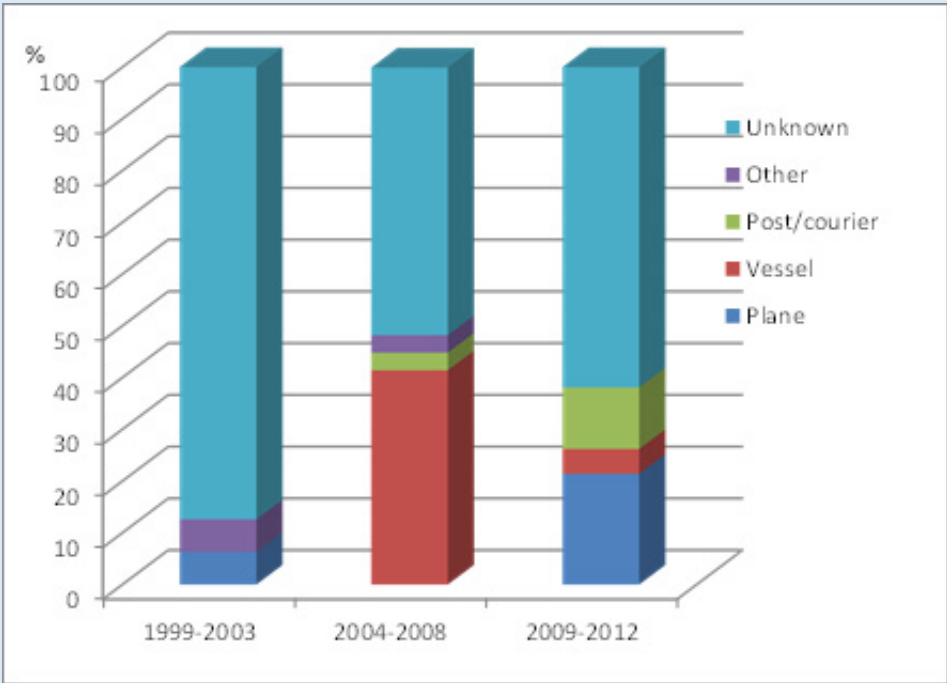
As Figures 4.22 and 4.23 reveal, it is difficult to identify trends over time in modes of transport because the proportion of seizures using unknown modes varied from year to year. Amongst mono-drug seizures, the dominant form of transport was by plane in the first two periods (Figure 4.22). The use of the postal system and/or a courier as a mode of transport was not seen until 2003, but this mode's relative importance increased in the third period, taking over from boat or ship transport as the second most common mode of transport.

Figure 4.22 Number of mono-drug seizures by mode of transport: 1999–2012



During the second period, the most frequent method of importation for poly-drug shipments seized was by boat or ship (Figure 4.23). However, during the third period the most common mode of transport was by plane, followed by post and/or courier and boats or ships.

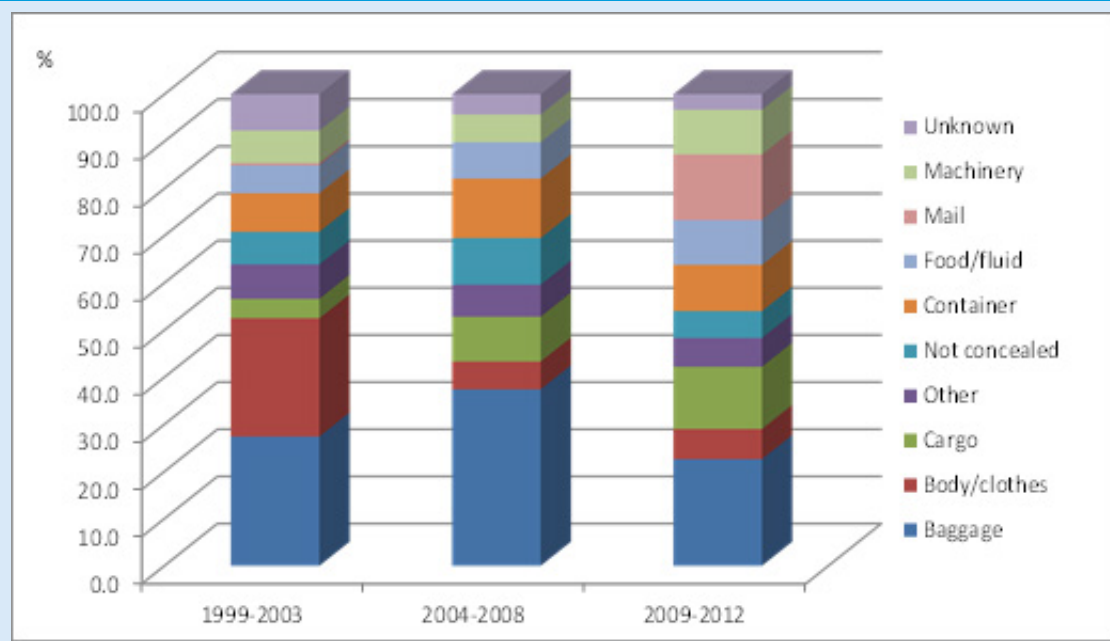
Figure 4.23 Number of poly-drug seizures by mode of transport, 1999–2012.



Method of concealment

Baggage as a method of concealing drugs in mono-drug seizures was relatively important in all three periods, more so in the second period than the other two. Concealment on the body or in clothes was slightly more common during the first period (Figure 4.24). Over half the seizures were concealed in baggage, or on the body and in clothes in the first period. However, in the second and third periods there was a decline in the use of the body or clothes as a concealment method. The third period saw the emergence of mail as a relatively common method of concealment, beginning in 2012. Over the three periods, around 40 percent of drugs were concealed in machinery, furniture, food and containers.

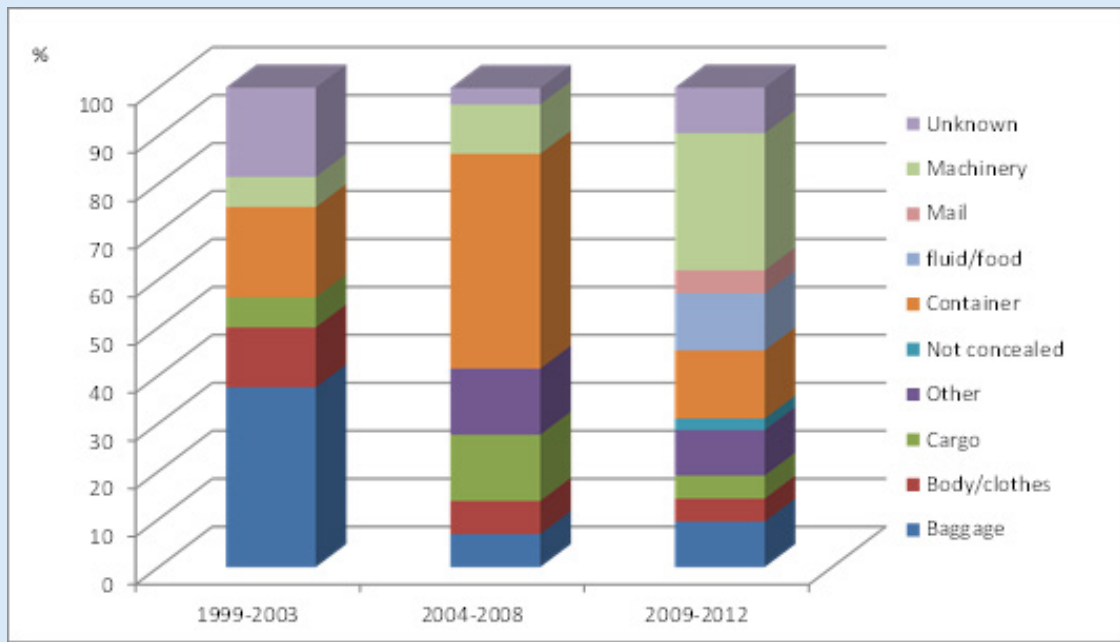
Figure 4.24 Number of mono-drug seizures by method of concealment



There is some indication of a structural shift in methods of concealment of poly-drug seizures. Baggage as a form of concealment was relatively common in the first period but its use, at least as a proportion of intercepted consignments, appears to have declined since that time; so too did the prevalence of concealment on the body and/or in clothes (Figure 4.25).

In contrast, containers increased in relative use in the middle period and machinery in the third. This reflects the increased weights of poly-drug seizures between periods 1 and 2, from an average of 46kg in period 1 to an average of 208kg in period 2 (or 122kg, excluding the extremely large seizure of MDMA). The shift from containers to machinery may also reflect the reduction in the average weight of seizures in period 3, to 63kg.

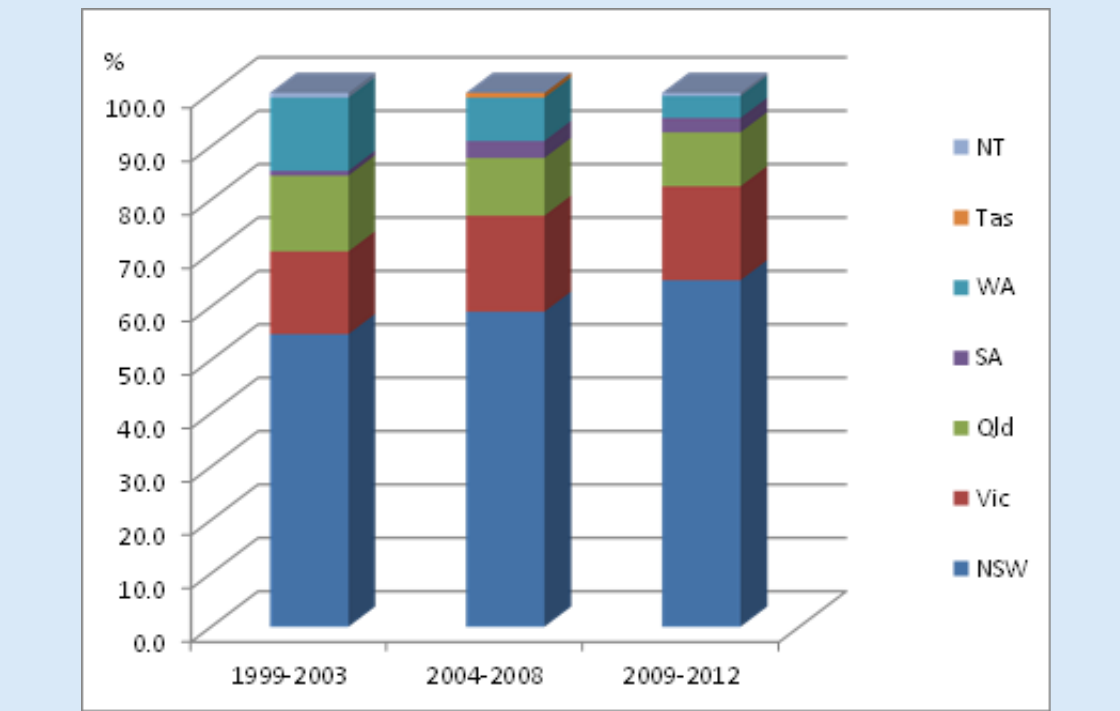
Figure 4.25 Number of poly-drug seizures by method of concealment



State where seizure was made

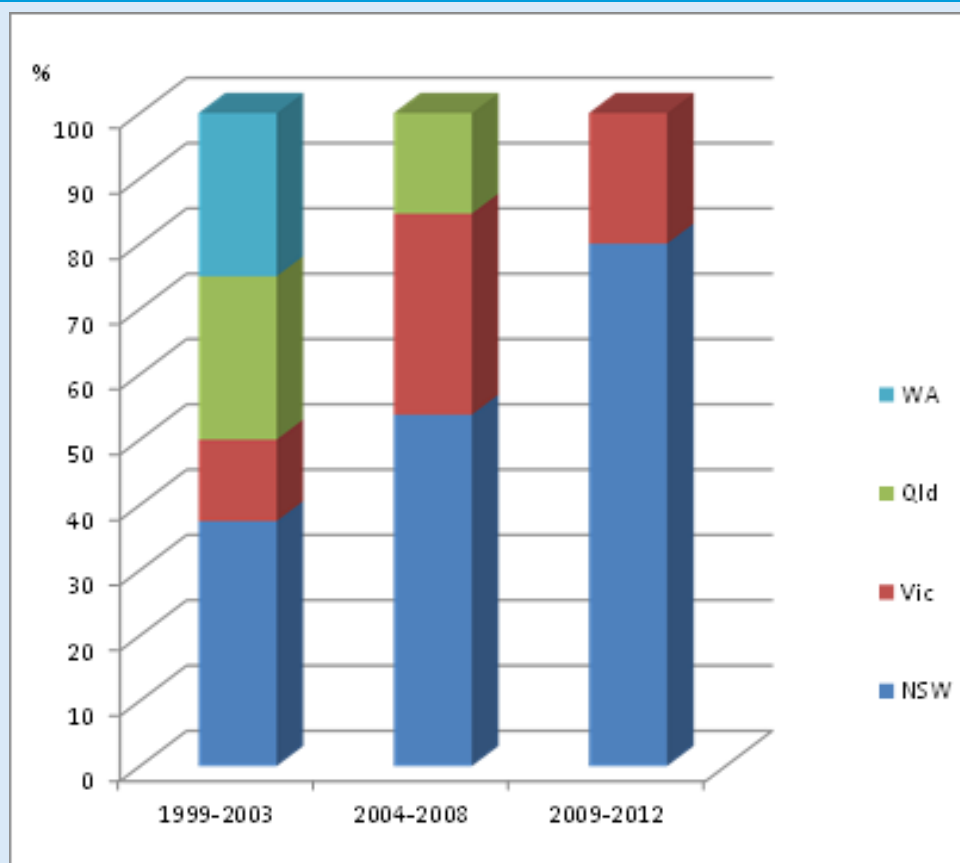
New South Wales was the most utilised entry point for mono-drug shipments seized during the observation period; close to half of all seizures were made in New South Wales in the first period, and close to 60 percent in the third. This was associated with a reduction in the number of seizures made in Western Australia (Figure 4.26).

Figure 4.26 Number of mono-drug seizures by state where seizure was made



Over time, proportionately more poly-drug seizures were made in New South Wales; around a third of seizures were made in New South Wales in the first period compared with three-quarters in the third period. The remaining third period seizures were all made in Victoria (Figure 4.27). In contrast, poly-drug seizures were made in Western Australia in the first period but not in more recent periods, and in Queensland in periods 1 and 2 but not thereafter.

Figure 4.27 Number of poly-drug seizures by state of importation



Country of embarkation

Although the findings do not allow for strong statements about trends in the country of embarkation of seizures, with 'unknowns' comprising over 50 percent of embarkations in the first two periods, some observations can be made (Figures 4.28 and 4.29). East and South-East Asian countries were an important source of both poly-drug and mono-drug seizures over the entire period. Europe gradually became less likely to be a source country for both types of seizures over the observation period. In contrast, shipments from Canada increased. It appears both mono-drug and poly-drug seizures were sourced from a more diverse range of countries in period 3; for example, Africa and the near and Middle East emerged as source countries in the third period.

Figure 4.28 Number of mono-drug seizures by country of embarkation

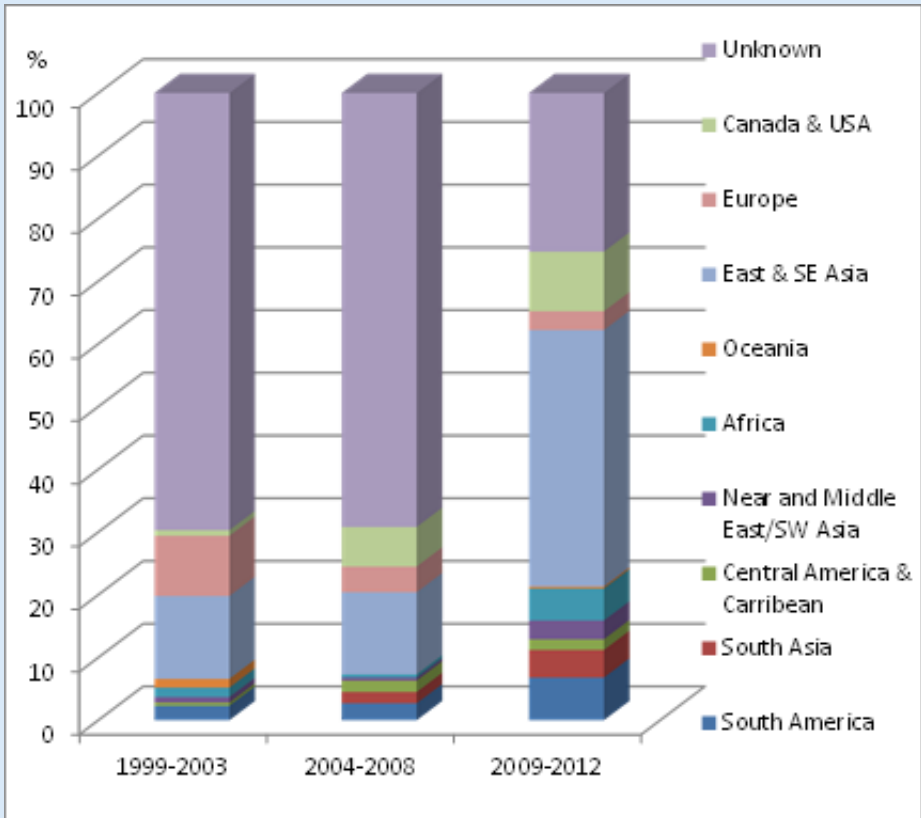
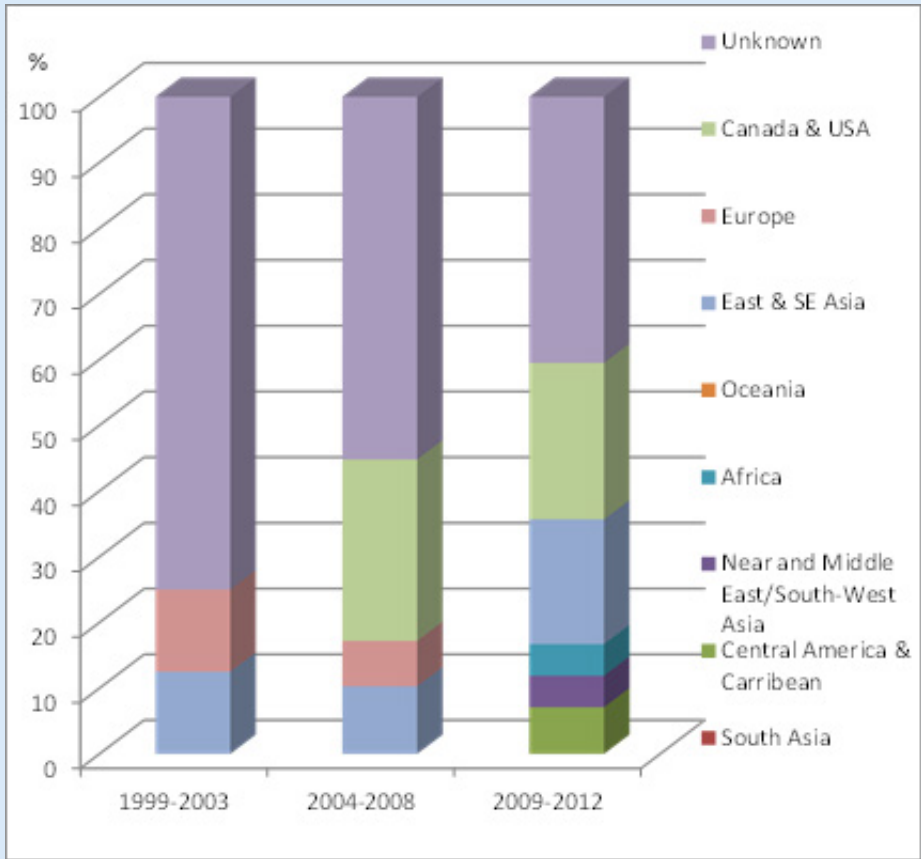


Figure 4.29 Number of poly-drug seizures by country of embarkation



The project also considered country of embarkation by weight of drugs seized in relation to the five main drug types included in poly-drug seizures (Table 4.3). Given the high number of unknown countries of embarkation, and evidence of increasing diversity in country of embarkation for both poly-drug and mono-drug seizures, they were combined for this analysis, enabling the study to ascertain some interesting trends by specific country. This analysis incorporated information on missing data pertaining to two seizures, using information gleaned through the case study analysis in Chapter 6, for which country of embarkation data was missing (4.4 tonnes of MDMA from Naples in 2007 and 150kg of cocaine from Colombia in 2008).

As described above, ATS is a relatively common component of poly-drug seizures and increasing relative amounts (by weight) of ATS have been seized in poly-drug seizures. As Table 4.3 shows, over time ATS has been shipped from a wider range of locations around the world. China was the most commonly reported country of embarkation in the first period, and remained a relatively common country of embarkation for the next two periods. However, Canada proved to be the most important country of embarkation in the second period. In the third period, Canada was still an embarkation point of some significance, although Thailand and Mexico emerged as equally significant embarkation points.

Heroin (opioids) was predominantly sourced from Asia in all periods; however, within Asia there has been significant change. China was the primary point of embarkation in the first period but has since then played a minor role. Singapore and its neighbours, including Thailand, Malaysia and Vietnam, were more frequently reported in the second period. In the third period, India and Pakistan were more frequently reported; Afghanistan and Iran also emerged as embarkation points, although where this was recorded the opioid seized was opium, not heroin. It is unsurprising that Central America and South America are consistently common embarkation points for cocaine throughout the three periods. China and Hong Kong were relatively frequently recorded in the second period and Canada was of some significance in the second and third periods.

In the first two periods, when MDMA seizures were more common, Europe (particularly the Netherlands and Italy) was the main point of embarkation. Interestingly, small amounts of MDMA were also shipped from Mexico and Canada in those periods. In the most recent period, the only reported points of embarkation were Mexico and Canada.

Points of embarkation for precursors have shifted significantly from the first period, when they were centred on the US (one large seizure), Vietnam and Thailand. The second period saw the emergence of China and Hong Kong, as well as India, Indonesia and Korea, as commonly reported embarkation points. The third period was dominated by the extremely large seizure of hypophosphorous acid, which was shipped from China. Beyond that Vietnam, Thailand, Hong Kong and India continue to be common countries of embarkation.

Table 4.3 Weight share of seizures, by country of embarkation, for main drug group and period (%)

Main drug group and year of seizure							Country of embarkation					
ATS		Unknown	China ¹	Canada	Mexico	Thailand	Other					
1999–2003		79.6	16.9	0	0	0	3.5					
2004–2008		64.7	6.1	24.7	0	0	4.5					
2009–2012		49.3	14.3	5.2	13.5	14.4	3.3					
Cocaine		Unknown	China, Hong Kong	South America	Central America	Canada	Other					
1999–2003		82.1	0	16.4	0	0	1.5					
2004–2008		45.1	25.9	10.1	11.8	6.6	0.5					
2009–2012		22.8	0.2	48.1	20.3	4.3	4.3					

Heroin (opioids)	Unknown	China ¹	India, Pakistan	Afghanistan, Iran ²	Thailand, Malaysia, Vietnam	Singapore etc ³	Other
1999–2003	64.9	28.9	0	0.2	0.3	5.5	0.2
2004–2008	79.3	0.9	1.9	0	6.8	9.1	2
2009–2012	5.5	1.8	7.8	24.5	48.3	6.4	5.7
MDMA	Unknown	Netherlands	Italy	Mexico	Canada	Singapore, Indonesia	Other
1999–2003	79.5	9.4	0	0.2	0	6.5	4.4
2004–2008	20.3	5	67.6	0.2	5.6	0	1.3
2009–2012	20.7	0	0	43.9	35.4	0	0
Precursor	Unknown	China, Hong Kong	USA	Vietnam	India	Indonesia, Korea	Other
1999–2003	11.2	0	74.2	10.3	0	0	4.3
2004–2008	36.0	13.2	0	33.6	6.9	8.3	2.0
2009–2012	2.1	91.1	0	3.4	2.2	0	3.7

1. Includes China, Hong Kong and Taiwan

2. Predominantly opium

3. Includes Singapore, Korea, Cambodia and Indonesia

While it is of some significance whether poly-drug seizures share common points of embarkation with mono-drug seizures, there is limited information on the embarkation points of poly-drug seizures in the first and second periods. Frequently the point of embarkation of only one of the drugs seized was recorded.

However, there is full information on the majority of seizures in the third period. The analysis reveals seized shipments of ATS (43% of total weight), cocaine (30%) and even MDMA (88% of a relatively small amount) often embarked from Mexico. A large shipment from Mexico containing all three drugs was seized in 2011. Also of interest was the finding that precursors from Afghanistan were seized along with heroin (opioids). This was the second major seizure from Afghanistan; the first, a mono-drug seizure of opioids, occurred in 2009.

Table 4.4 Weight share of poly-drug seizures, by country of embarkation of main drug group 2009–12 (%)

Main drug group	Country of embarkation						
	Unknown	Hong Kong	Canada	Mexico	South Africa	Afghanistan	Thailand
ATS	39.5	1.2	13.6	43.1	2.6	0	0
Cocaine	54.7	0.7	13.8	29.7	0	0	1.1
Heroin	22.8	0	0	0	7.0	69.5	0.7
MDMA	11.7	0	0	88.3	0	0	0
Precursor	29.4	0	0.4	0	0	69.1	1.1

Summary and conclusions

Over the 14-year period from 1999 to 2012, poly-drug seizures comprised 5.3 percent of the number of commercial seizures and 8.5 percent of the weight of all commercial seizures. While this measure of poly-drug trafficking implies poly-drug seizures are relatively minor, this should be considered against the analysis of the relative importance of poly-drug seizures using case and linked-case data (see Chapter 5).

One interesting finding was that there were poly-drug seizures every year except 2002 and 2003. This suggests that poly-drug importations are not uncommon, contrary to the extant literature and

law enforcement reports. There is some suggestion that the number of poly-drug seizures is trending upward; likewise, they are increasing as a proportion of total seizures. There is however no evidence of a corresponding increase in the proportion by weight of poly-drug seizures, but there was evidence of increased weight during peak periods, including 2011–12. Moreover, while poly-drug seizures predominantly involved just two drug classes, the study noted the advent of poly-drug seizures involving three drug classes in 2008.

There were a number of clear differences in the characteristics of poly-drug and mono-drug seizures. None of the poly-drug seizures included cannabis, hallucinogens or sedatives; instead, the drugs observed in poly-drug seizures were ATS, cocaine, heroin (opioids), MDMA and precursors. Moreover, by number, ATS was over-represented in poly-drug seizures relative to mono-drug seizures; precursors, MDMA and heroin (opioids) were under-represented, as were cannabis, hallucinogens and sedatives. Reflecting this difference, ATS comprised a much larger proportion of the total weight of poly-drug seizures than of mono-drug seizures. Poly-drug seizures also tended to weigh more than mono-drug seizures. Furthermore, the component drugs also weighed more than mono-drug seizures, particularly ATS, MDMA and precursors.

Acknowledging the largely unknown transportation methods for seized shipments, the findings show poly-drug seizures were more likely to arrive by boat and ship than mono-drug seizures, which were more likely to arrive by plane than poly-drug seizures. This is consistent with the finding that mono-drug seizures were lighter and more likely to be concealed in baggage and on the body or in clothes, and poly-drug seizures in containers, machinery and food. The majority of seizures were made in NSW and Victoria (around 80%). Poly-drug seizures were slightly more likely to be made in these states than mono-drug seizures. No poly-drug seizures were made in South Australia, Tasmania or the Northern Territory; they were limited to the states bordering the eastern and western coastlines. For those seizures where country of embarkation was known, most embarked from East and South-East Asia, Europe and North America. Poly-drug seizures were most likely to come from Canada, while mono-drug seizures were most likely to leave from East and South-East Asia.

Examination of trends in poly-drug and mono-drug seizures was limited by the need to analyse trends over three periods, rather than annually, and also by the gaps in data for a number of variables, particularly during the earliest period of analysis. Despite this, the analysis made a number of findings.

There were some common trends in drug types; for example, in period 2 there was a shift away from MDMA towards ATS and/or precursors and a drop in heroin seizures; this shift was reversed in period 3. MDMA was common in mono-drug seizures for the first five years of the observation window (1999–2003) but was later superseded by precursors and ATS. While this pattern was also evident in poly-drug seizures, precursors were nowhere near as important in these. These shifts are broadly indicative of changes in the Australian drug market including the decline in heroin availability during the mid-2000s and the rise and subsequent fall in the availability of MDMA. It is also worth noting that some drugs appeared to be popular in all periods, most notably cocaine.

Observed trends in the total weight of seizures also suggest that, in 2009–2012, poly-drug and mono-drug seizures became more divergent, with mono-drug seizures more often found to contain precursors and poly-drug seizures more often containing ATS and cocaine (or ATS and heroin). In terms of total weight, poly-drug seizures were dominated by MDMA in 1999–2003 and 2004–08. While ATS made up 30 percent of weight in the first period it was almost absent in the second period, re-emerging in 2009–2012, when it comprised almost 60 percent of the total weight of poly-drug seizures. In contrast, ATS comprised a relatively small proportion by weight of mono-drug seizures. In the most recent period mono-drug seizures by weight predominantly consisted of precursors, with cocaine more prevalent by weight than ATS. This indicates changes over time, particularly between 2009 and 2012.

Given the paucity of data on modes of transport, it is difficult to infer trends in these. Noting that no mode of transport was recorded for 70 percent of seizures in the third period, the study found an increase in the proportion of seizures arriving by post or courier in the third period. In terms of concealment methods, there was a reduction in the likelihood of both mono-drug and poly-drug seizures being concealed in clothes or on the body from the first period. Concealment in baggage also became less prevalent in poly-drug seizures. This could be explained by the fact that concealment in containers, machinery and/or furniture became more

common with the increased size of seizures in the second period, particularly those involving MDMA. In the third period, concealment in mail became more common for both types of seizures although, as almost half of all seizures still arrived in cargo, containers, furniture and machinery, this was not a predominant trend.

During the observation period there was a reduction in the proportion of seizures made in states other than Victoria and New South Wales. In the most recent period, poly-drug seizures were only made in New South Wales and Victoria, despite the growing number of these seizures. Moreover, although the lack of data hampered efforts to discern trends in country of embarkation, there is tentative evidence of diversification in both mono-drug and poly-drug seizures. Heroin (opioids) has branched out from China in the first period to other ports in South-East Asia and even countries closer to the source such as India, Afghanistan and Iran. Cocaine tends to arrive from Central and South America. Europe was an important embarkation point for MDMA, but shipments of MDMA from Europe have all but disappeared. In the most recent period, MDMA was sent from Mexico and Canada, two important embarkation points for ATS; hence the connection between these three drugs in poly-drug seizures. Precursors have come from across the world. There was also some tentative evidence of a more recent decrease in poly-drug seizures of shipments sent from Europe and a rise in poly-drug seizures of shipments sent from Central America (including Mexico) and the near and Middle East. This may be, in part, an artefact of reporting, as data on this specific variable was more limited for earlier periods.

Chapter 5: Profiles of Australian poly-drug and mono-drug traffickers

Introduction

In this chapter we used unit-record AFP data to:

- explore whether there are additional insights to be gained into Australian poly-drug and mono-drug traffickers by using entire cases and linked cases, as opposed to single seizures alone; and
- build a quantitative and qualitative profile of Australian poly-drug versus mono-drug trafficking networks, including their potential harmfulness to the Australian community.

Consistent with the literature (Europol 2013; Fowler et al. 2007; Malm et al. 2010; National Drug Intelligence Center 2012; Rubin et al. 2013; UNODC 2014a) this study hypothesised that poly-drug traffickers would pose more harm—that is, traffic in more drugs—and engage more in other crime, but that analysis at the seizure level might miss some poly-drug traffickers or obscure the potential extent and nature of their criminal activity.

What is a case?

Analysis of drug trends and drug trafficking often concentrates on the volume of seizures. This chapter, however, focuses on AFP cases and linked cases. The definitions of these are therefore pertinent.

- A *seizure* is a quantity of drugs detected at a specific location at a specific time; it may be comprised of multiple items (units or packets containing the drugs). A seizure can include items detected over a period of up to seven days (eg multiple items detected in the mail).
- A *case* is an entire criminal investigation including all persons of interest (defined as offenders and suspects) and actions taken (eg drugs, money and assets seized). On average most cases take from two to three months, but some continue for two or three years, depending upon the nature of the case and prosecution. A drug case can include a single seizure or up to 1,000 seizures. Analysis at the case level can show pertinent details of the total weight of drugs seized across all seizures attached, the number of offenders and suspects involved and whether weapons were involved.

Method

The data used in this chapter are Extract 2 from the AFP PROMIS database, outlined in Chapter 3. This commenced with 10 mono-drug and 10 poly-drug commercial seizures, matched on seizure year and drug type; data were then extracted at two levels. Data was first extracted for the entire drug case the seizure was associated with (including any other seizures linked to the case). This is referred to as case data.

Data was then extracted for all other criminal investigations connected to the primary drug case by offenders or suspects associated with the original drug case. This is referred to as linked-case data. (For a diagram of the extraction process, see Figure 3.1 in Chapter 3).

While linked cases could include any type of crime against the Commonwealth, they were grouped into three categories:

- drug (import, export, trafficking);
- economic (fraud, money laundering, counterfeit currency, transnational economic crime); and
- other crime (human trafficking, people smuggling, terrorism, child pornography, importation of firearms).

The final level of analysis carries particular significance for this project as it brings in all known criminal alliances of those involved in the original case, including other drug importers and money launderers. This is the first time this type of analysis has been undertaken and reported in the public domain, and it is assumed it will better capture alliances across and between criminal groups, whether high-level mono-drug or poly-drug importers or other criminal offenders: '[L]oose, shifting and overlapping teams and networks...that vary with the task at hand' (Fowler et al. 2007: 102, 104).

All of the 10 poly-drug and 10 mono-drug seizures occurred between 2000 and 2009. No cases occurring between 2010 and 2012 were extracted as part of the final sample; during this period there was a large rise in the number of poly-drug seizures (44% of those detected from 1999–2012). This was partly due to the need to exclude seizures connected to ongoing investigations. Nevertheless, it means that the patterns may be more reflective of trafficking during earlier time periods. The linked cases occurred at any point from 1991 to 2013.

Data from the primary and linked cases were extracted for the following variables:

- total quantity of drug seized, by drug;
- total value of drug seized (AFP drug harm index; \$M);
- estimated monies involved (\$);
- total value of proceeds of crime (POC) forfeited (\$);
- number of cases involving weapons;
- number of identified offenders and suspects;
- number of criminal cases by crime group (linked cases only); and
- date of earliest and latest linked case (linked cases only).

Once extracted, the original group of 10 mono-drug and 10 poly-drug commercial seizures were reclassified, firstly as mono-drug or poly-drug cases.

- Poly-drug cases were single investigations relating to commercial-weight seizures of two or more different drugs (eg ATS, MDMA and cocaine). These may have been seized on the same or different days.
- Mono-drug cases were single investigations of commercial-weight seizures of only one drug type (eg ATS). In some instances small amounts of other drugs were also seized.

All linked cases were then further classified as either mono-drug or poly-drug.

- Poly-drug linked cases were those involving a series of criminal investigations of commercial-weight seizures of two or more different drugs (eg ATS, MDMA and cocaine).
- Mono-drug linked cases were those involving a series of criminal investigations of commercial-weight seizures of only one drug type (eg ATS).

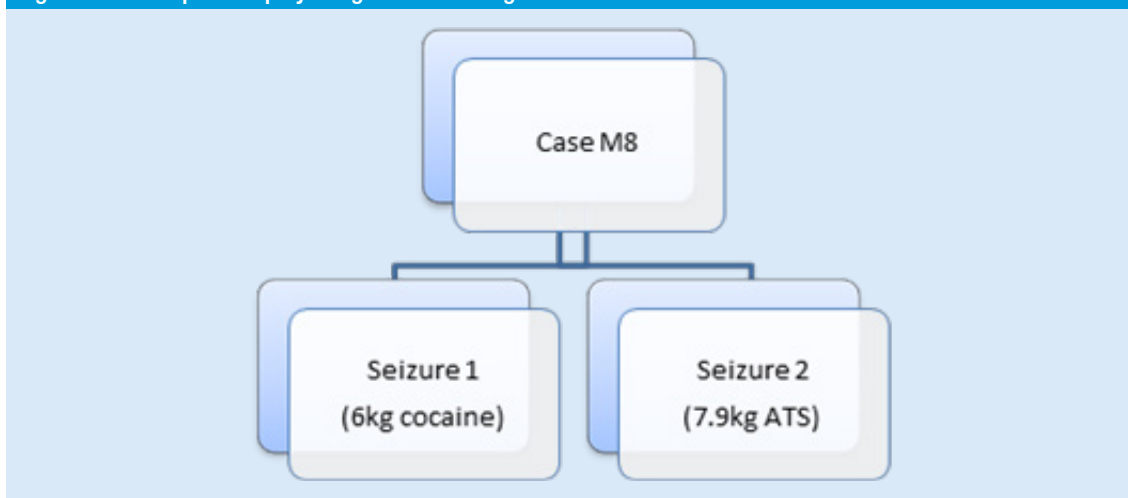
Estimates of the scale of poly-drug trafficking were then compared using seizure data (Extract 1) and case and linked-case data (Extract 2). Following this, poly-drug trafficking cases were compared with mono-drug trafficking cases, and poly-drug linked cases were compared with mono-drug linked cases in terms of such indicators as the types and total weight of drugs seized and the extent of links to other criminal activities. Finally, network maps showing the links between linked cases were constructed.

The scale of Australian poly-drug trafficking using seizures, vs cases, vs linked cases

Extract 1 indicated that 5.3 percent and 8.5 percent of commercial seizures during the period 1999–2012 were poly-drug seizures (by number and weight respectively). As hypothesised, detailed analysis of a subset of 20 seizures, 20 cases and their linked networks (Extract 2) showed many more instances of poly-drug trafficking. For example, as shown in Figure 5.1, one extracted commercial seizure involved six kilograms of cocaine; this was a mono-drug seizure. But this seizure was connected to another commercial seizure

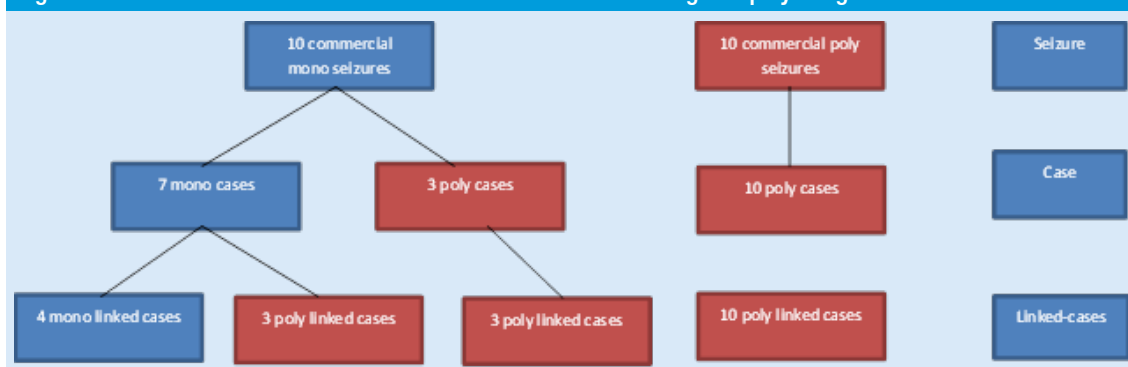
involving a different drug, 7.9kg of ATS. This meant that when analysed at the case level, was redefined as a poly-drug case—that is, a case involving the commercial importation of multiple drugs.

Figure 5.1 Example of a poly-drug case involving two seizures



Analysis based on the total sample of 20 seizures, 20 cases and 20 linked cases (including data on 390 cases) is depicted diagrammatically in Figure 5.2.

Figure 5.2 Schemata of data extractions of commercial mono-drug and poly-drug seizures



Extrapolating this to the Extract 1 sample of seizures, this suggests that 30 percent of mono-drug commercial seizures can be defined as poly-drug cases, and 60 percent if poly-drug is defined at the linked-case level. This leads to the conclusion that between 35 percent and 65 percent of all commercial border seizures are connected to poly-drug traffickers, and that the level of poly-drug trafficking may be greatly underestimated if case and linked-case data are not examined.

Poly-drug versus mono-drug profiles

Chapter 4 revealed a number of differences between poly-drug and mono-drug seizures. These are summarised below.

- The drugs seized in poly-drug seizures tended to weigh more.
- Poly-drug seizures were more likely to contain ATS and cocaine.
- By weight, MDMA and ATS were more prevalent in poly-drug than mono-drug seizures.
- Poly-drug shipments seized were more likely to be imported via vessels.
- Poly-drug shipments seized were more likely to be concealed in containers and machinery/furniture and far less likely to be concealed in baggage.

- Poly-drug shipments seized were more likely to be imported via Canada.
- Most poly-drug seizures entered through NSW ports, but those seized in Victoria weighed more.

This section will examine the similarities and differences between poly-drug and mono-drug cases and linked cases.

The sample as a whole

The primary drug cases (20 drug cases) involved a total of 410 persons of interest (offenders and suspects), drug seizures weighing a total of 1,979kg and money seizures of \$1.5m. They were connected to a total of 370 other cases (criminal investigations) in the AFP database including 260 drug cases, 71 economic cases and 36 other cases.

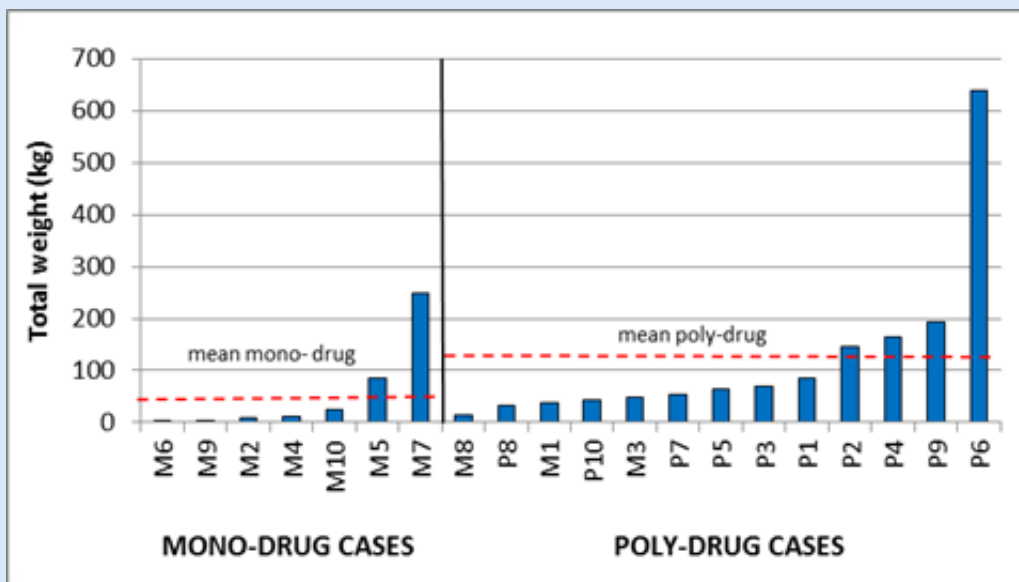
The average case of commercial drug importation involved 20 different persons of interest and drug seizures weighing a total of 99kg, and the three drugs most commonly involved were cocaine, precursors and MDMA. On average, each drug case also led to the seizure of \$73,162 in cash and the forfeiture of \$167,704 in proceeds of crime. Weapons were involved in one quarter of the cases.

Each case of drug importation was connected to an average of 18.5 other criminal cases including 13 drug cases, 3.6 economic cases and 1.8 other cases. Each linked case took an average of 12 years and was linked to 890kg of seized drugs, \$37m in seized cash and \$6m in proceeds of crime forfeited.

Comparison of poly-drug and mono-drug cases

Consistent with these findings, poly-drug cases differed from mono-drug cases in a number of ways. Greater weights were seized in the 13 poly-drug cases: an average of 122.5kg per case, compared with 55kg for mono-drug cases. Despite this, there was considerable variation across the cases, as shown in Figure 5.3. For example, the two cases involving the heaviest weights were a poly-drug case (P6) and a mono-drug case (M7) involving 638kg and 249kg respectively. Excluding these two cases, the total weight of drugs seized in poly-drug cases exceeded the total weight for those seized in mono-drug cases by approximately three times.

Figure 5.3 Total weight of drugs seized, by individual mono-drug and poly-drug cases^a



a: The numbers (eg M6) denote the individual case ID of each mono-drug and poly-drug case

In terms of the specific drugs seized poly-drug cases were more likely to involve precursors, with 35 percent of the total weight involving precursors (see Figure 5.4). Analysis of individual cases showed only one poly-drug case involved precursors, and that it was a very large seizure (554.6kg)—five times the weight of the average drug trafficking case. This seizure was related to two other commercial-weight seizures of ATS (48.2g) and cocaine (34.9kg). Excluding this seizure (see Figure 5.5), the most prevalent drugs by weight in poly-drug cases were MDMA (39%), cocaine (35%) and ATS (24%). Compared with mono-drug cases, poly-drug cases were more likely to involve MDMA and ATS; whereas mono-drug cases were more likely to involve cocaine or heroin. This is broadly consistent with the findings from Chapter 4, with the exception that there was the incidence of cocaine in poly-drug seizures was not high, and mono-drug seizures were more likely to involve precursors (see Figure 4.9).

Figure 5.4 Type of drugs seized, poly-drug versus mono-drug cases, by weight

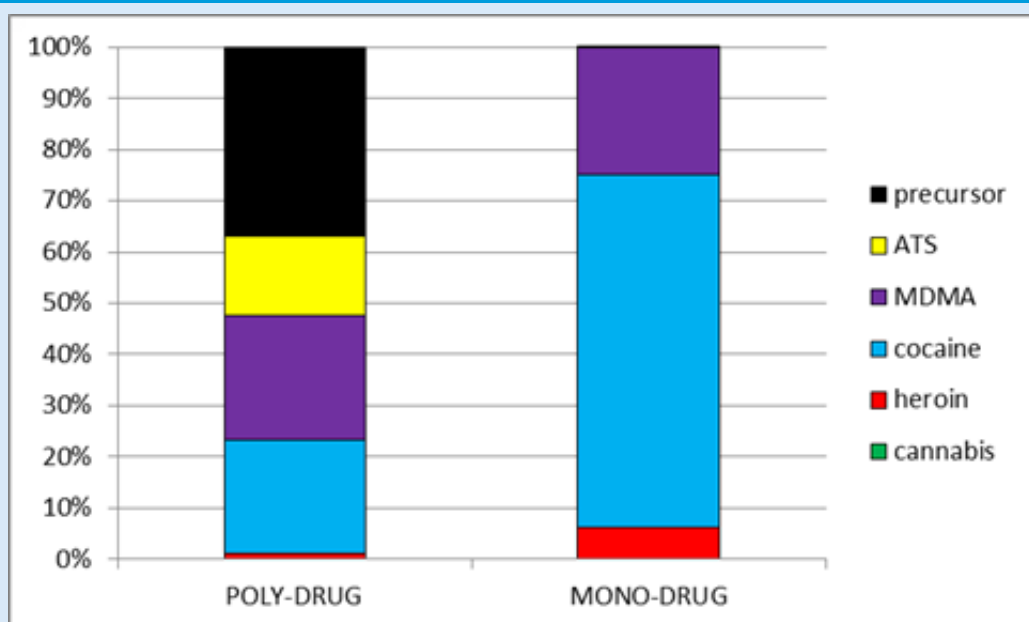


Figure 5.5: Type of drug seized, poly-drug versus mono-drug cases, by weight, excluding 550kg precursor seizure

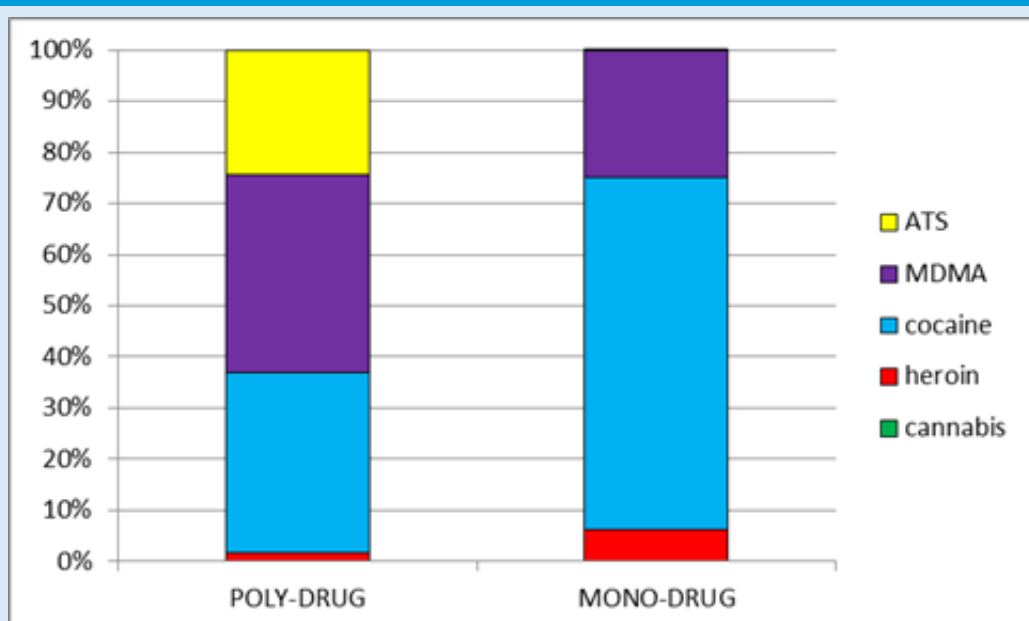
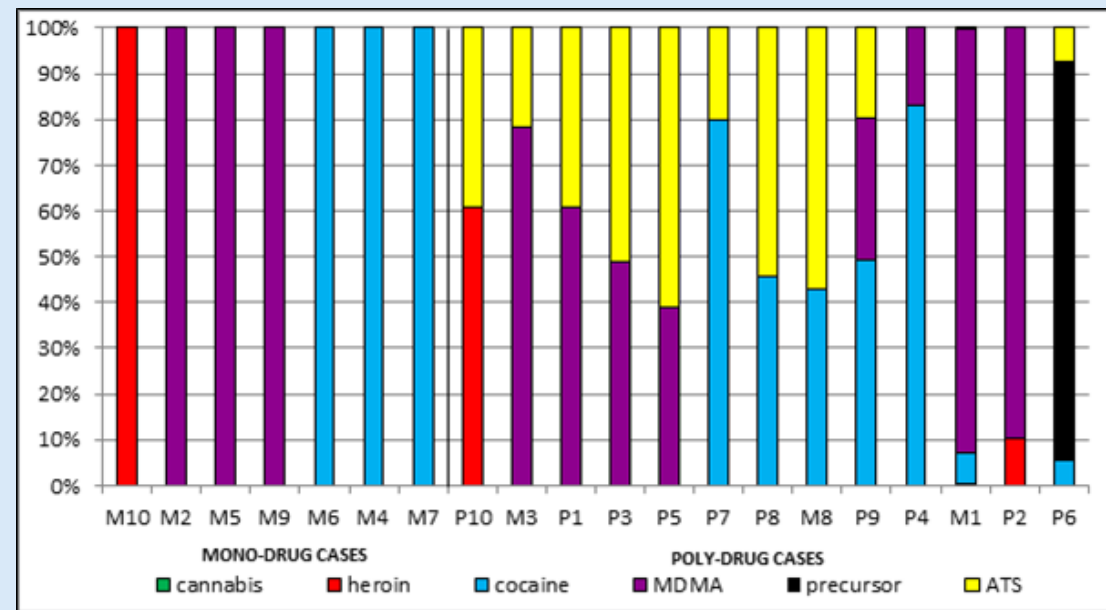


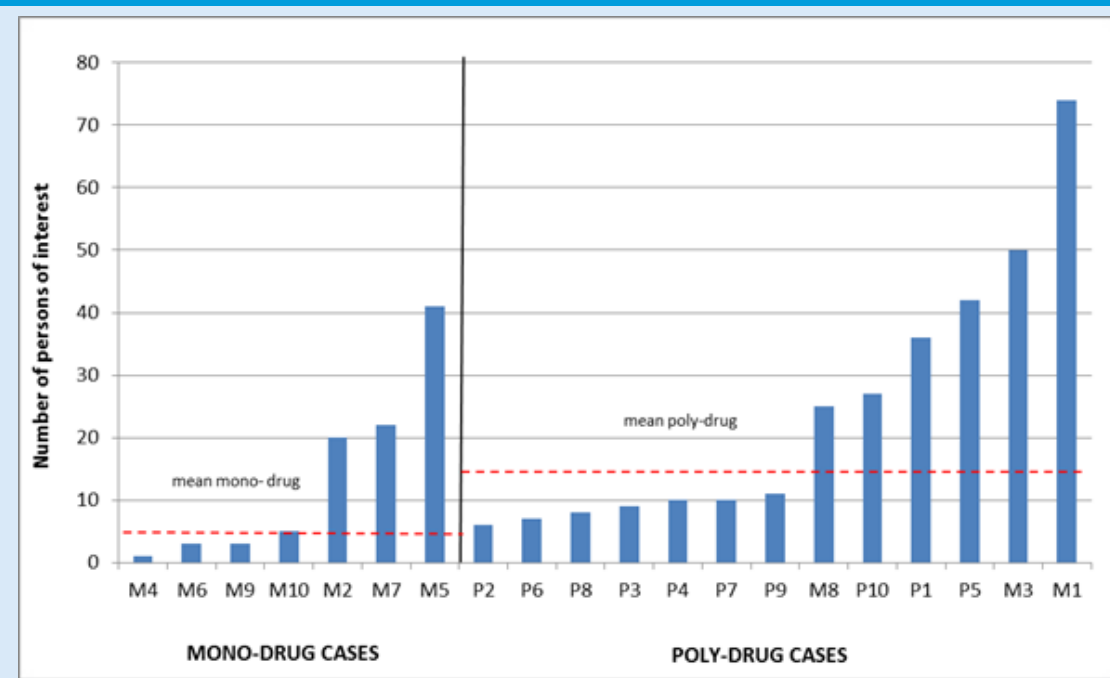
Figure 5.6 shows the analysis of the type of drugs seized by individual case. Seventy-seven percent of poly-drug cases involved ATS, whereas none of the mono-drug cases did. The next most common drug type was MDMA, which was found in 62 percent of poly-drug cases, compared with 43 percent of mono-drug cases. Most of the poly-drug cases involved only two different types of drugs (85%), with three-drug seizures remaining rare (15%). The most common pairings were ATS and MDMA (31%) and ATS and cocaine (23%). Finally, both of the poly-drug cases where three different drugs were seized involved ATS and cocaine; the first involved ATS, cocaine and MDMA (case P9) and the second ATS, cocaine and precursors (case P6). These findings are consistent with the findings described in Chapter 4 (see Figure 4.8) and suggest that poly-drug seizures and poly-drug cases are more likely to involve ATS and MDMA than mono-drug seizures and cases.

Figure 5.6 Type of drug seized in individual poly-drug and mono-drug cases, by weight^a



a: The numbers (eg M10) denote the individual case ID of each mono-drug and poly-drug case

Poly-drug cases had a higher AFP drug harm index (\$42.8m, compared with \$24.7m for mono-drug cases). This reflects the larger total quantity and greater involvement of ATS. They also involved more persons of interest (offenders and suspects). For example, poly-drug cases involved an average of 24 persons of interest—1.8 times more than the average of 13 involved in mono-drug cases (see Figure 5.7). There was, however, variation; six poly-drug cases and three mono-drug cases involved more persons of interest than their respective averages. Interestingly, the poly-drug cases involving three drugs (P6 and P9) involved a smaller number of persons of interest—seven and 11 respectively. Finally, all poly-drug cases involving large seizure weights (P6, P9, P2 and P4) involved a lower-than-average number of persons of interest (6–11 persons).

Figure 5.7 Number of persons of interest in poly-drug and mono-drug cases^a

a: The numbers (eg M10) denote the individual case ID of each mono-drug and poly-drug case

Poly-drug cases were also associated with the seizure of larger quantities of money: approximately four times more than the mean seized in mono-drug cases. However, contrary to expectations, the proceeds of crime forfeited (\$134,389 for poly-drug cases and \$229,576 for mono-drug cases) and extent of weapons involvement was greater for the mono-drug cases (42%, compared with 15% of poly-drug cases). The key findings are summarised in Table 5.1.

Table 5.1 Summary of similarities and differences for poly-drug and mono-drug cases

	Poly-drug case	Mono-drug case
Quantity of drug seized, mean	122kg (37.7–638.2kg)	55kg (3.5–249.7kg)
Number of persons of interest, mean	24 (6–74)	13 (1–41)
Drug Harm Index, mean	\$42.8m (4.9–215.3)	\$24.7m (1.1–115.1)
Money seized, mean ^a	\$100,292 (0–1,200,000)	\$22,778 (0–102,700)
Proceeds of Crime forfeited, mean ^b	\$134,389 (0–1,000,000)	\$229,576 (0–1,547,033)
Weapons involvement (% cases)	15%	42%

a: Excludes money converted into other assets eg cars, houses

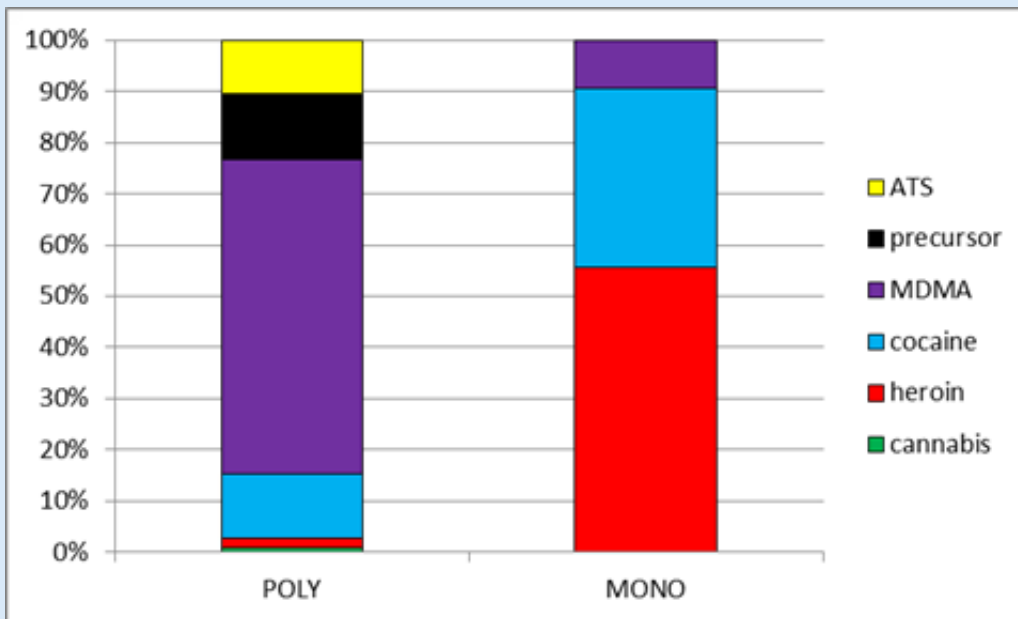
b: This excludes proceeds of crime that were restrained but not forfeited

Comparison of poly-drug and mono-drug linked cases

When linked cases are compared, more differences between the poly-drug and mono-drug cases were observed. This is primarily because a number of mono-drug cases involving large seizures of drugs, money and proceeds of crime, and with weapons involvement, were linked to drug cases involving seizures of multiple illicit drug types. As such, they were classified as poly-drug linked cases; one such example was case M7. Equally importantly, analysis at the level of linked cases incorporated a much larger number of criminal cases.

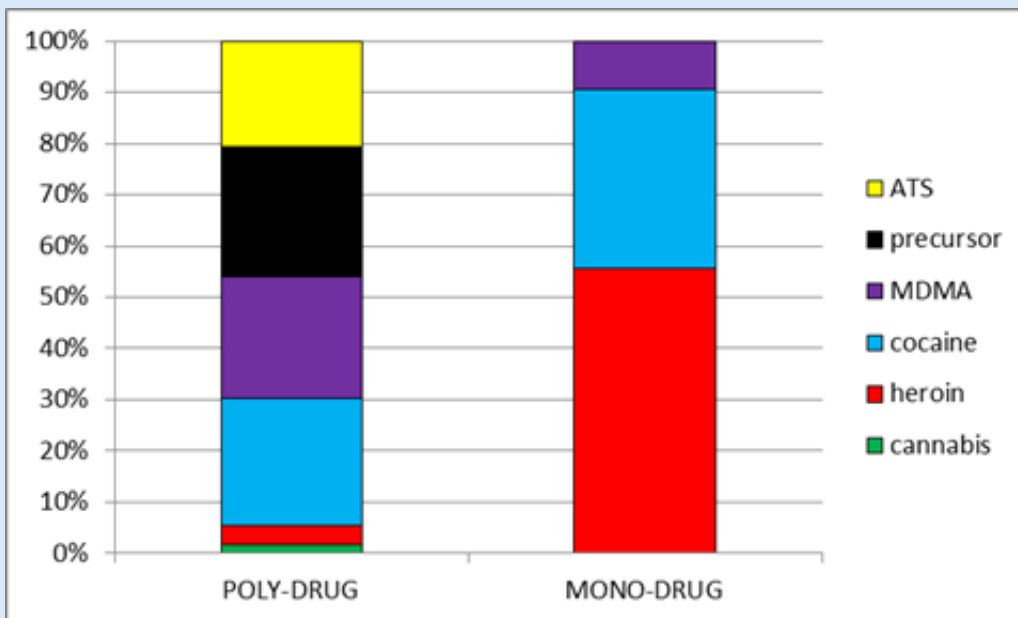
Poly-drug linked cases were again more likely than mono-drug cases to involve ATS or precursors; the most commonly trafficked drug, by weight, was MDMA (see Figure 5.8). In contrast, mono-drug networks were more likely (by weight) to be involved in trafficking heroin or cocaine. Similarly, with the analysis of cases, the data were skewed by a large seizure of MDMA (4.4 tonnes) to which two poly-drug cases, M5 and M8, were connected.

Figure 5.8 Type of drugs seized, poly-drug versus mono-drug linked cases, by weight

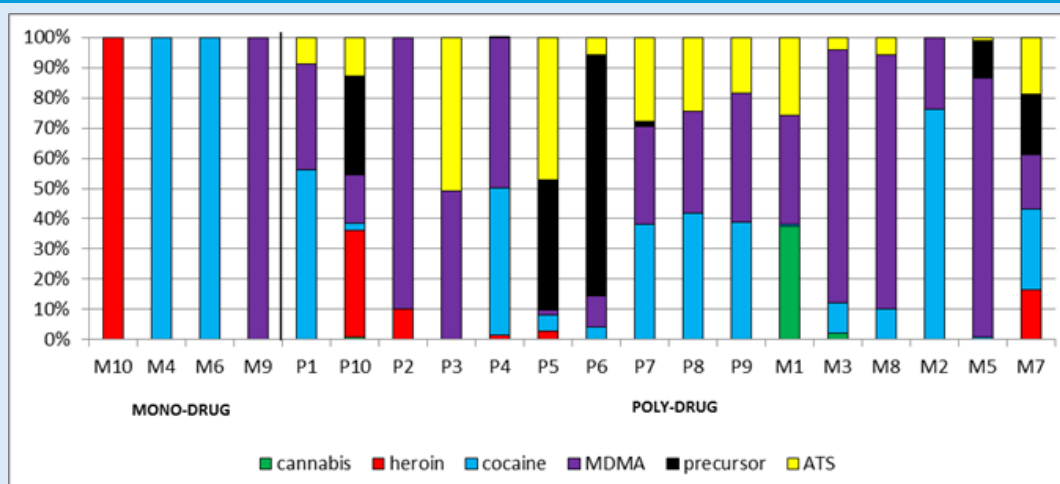


Even when this large seizure is excluded (see Figure 5.9), poly-drug linked cases were more likely involve MDMA, ATS and precursors, and less likely to involve cocaine and heroin, than mono-drug cases. However, this also indicates there may not be a single most-common drug. Instead, there may be four equally common drugs: MDMA, ATS, precursors and cocaine.

Figure 5.9 Type of drugs seized, poly-drug versus mono-drug linked cases, by weight, excluding 4.4 tonne MDMA seizure



Comparison of all linked cases shows the three most-common drugs trafficked in poly-drug linked cases were MDMA (100%), ATS (81%) and cocaine (75%; see Figure 5.10). In contrast, precursor involvement was less common, in 31 percent of poly-drug linked cases. Precursor involvement may be a more recent trend. In comparison with the case level, poly-drug linked cases were associated with the importation of more drug types. For example, four (25%) involved the importation of five or six different drug types, although most poly-drug linked cases involved the importation of three different drug types (25%) or four different drug types (31%). The most common combination of drugs in poly-drug seizures was ATS, MDMA and cocaine (25%).

Figure 5.10 Type of drug seized in individual poly-drug and mono-drug linked cases, by weight^a

a: The numbers (eg M10) denote the individual case ID of each mono-drug and poly-drug linked case

Poly-drug linked cases exhibited a significantly greater total weight seized—an average of 1,109.7kg per linked case compared to 11.4kg for mono-drug linked cases, or 97 times as much. As shown in Table 5.2, there were four poly-drug linked cases (M5, M8, P1 and P5) comprising very large quantities, ranging from 1,023kg to 5,462kg. The average quantity for the remaining poly-drug linked cases was 368kg, or 32 times more than for mono-drug linked cases. Consistent with these findings, the AFP drug harm index was also much higher for poly-drug than for mono-drug linked cases (\$342.3m, compared to \$8.5m).

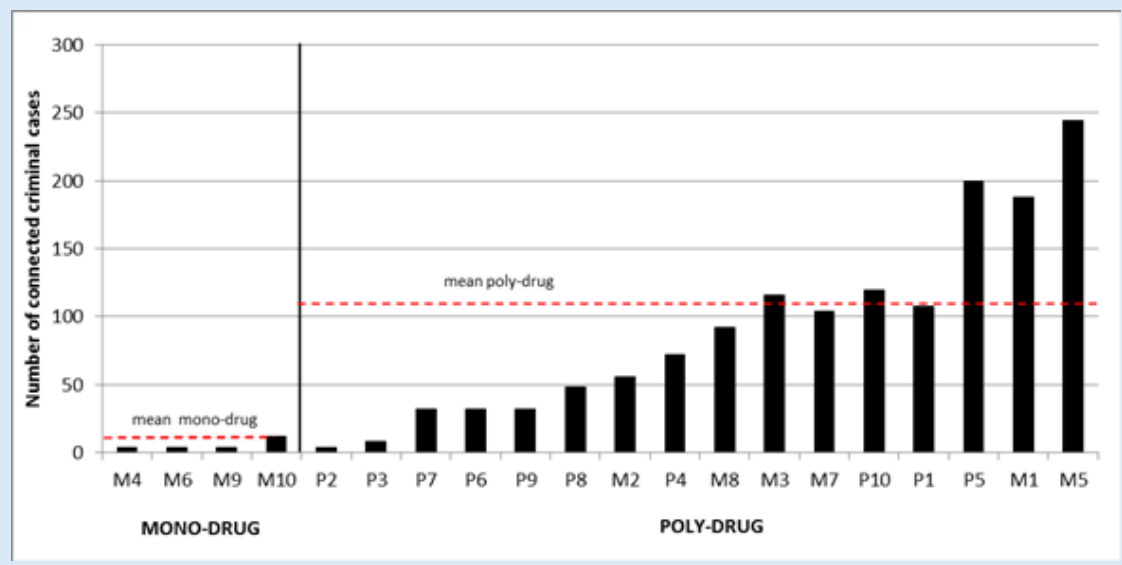
Table 5.2 Quantity of drug seized in each linked case by drug type and total (kg)

Case ID	ATS	Cannabis	Cocaine	Heroin	MDMA	Precursor	Total
Mono-drug linked cases							
M6	-	-	3.5	-	-	-	3.5
M9	-	-	-	-	4.3	-	4.3
M4	-	-	12.4	-	-	-	12.4
M10	-	-	-	25.4	0.0	-	25.4
Poly-drug linked cases							
P3	35.3	-	-	0.0	34.0	-	69.3
M2	-	0.0	100.7	-	31.2	-	131.9
P2	-	-	-	15.0	131.6	-	146.6
M3	10.4	5.2	25.2	0.1	208.7	-	249.5
P7	76.0	0.0	104.2	0.4	89.4	4.5	274.4
P10	35.1	2.2	7.2	97.4	43.8	91.0	276.7
P4	0.5	0.0	136.7	4.5	138.9	-	280.7
P9	65.3	0.0	136.3	-	149.1	-	350.6
M1	102.4	148.4	2.7	0.1	141.1	-	394.7
P8	114.1	0.3	194.2	-	155.1	-	463.7
P6	48.2	0.3	34.9	0.1	84.1	658.1	825.8
M7	179.9	0.1	257.0	157.5	171.2	192.6	958.4
P1	90.8	0.3	574.6	1.1	356.6	-	1,023.4
P5	727.5	0.5	83.0	43.6	24.7	658.1	1,537.3
M8	303.0	3.1	540.0	0.0	4,454.1	9.9	5,310.2
M5	61.8	0.4	41.1	0.1	4,693.6	664.9	5,462.0

Analysis at the linked-case level also provided insight into the extent of offenders' involvement in other types of crime. Poly-drug linked cases differed in a number of ways. Poly-drug linked cases were related or linked to a larger number of criminal cases. For example, poly-drug linked cases were connected to an average of 23 criminal cases, compared with 1.5 for mono-drug linked cases. It is also important to note that two poly-drug linked cases were connected to only one or two criminal cases (see Figure 5.11).

A positive association between the number of persons of interest at the case level and the number of criminal cases related to poly-drug linked cases was observed. For example, cases M1, M3, M5, and P5 involved the largest number of persons of interest (between 41 and 74), and three of these cases were also those with the largest number of connected criminal cases (M5, P5 and M1). However, there were also differences. For example, case P4 involved only a small number of persons of interest at the case level (10) but was connected to a moderate number of connected criminal cases (17).

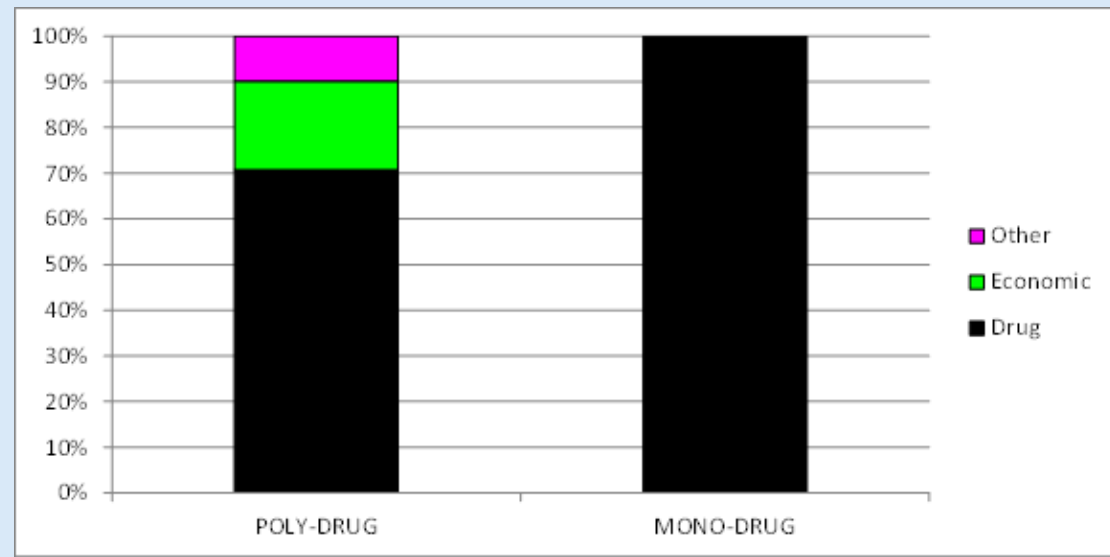
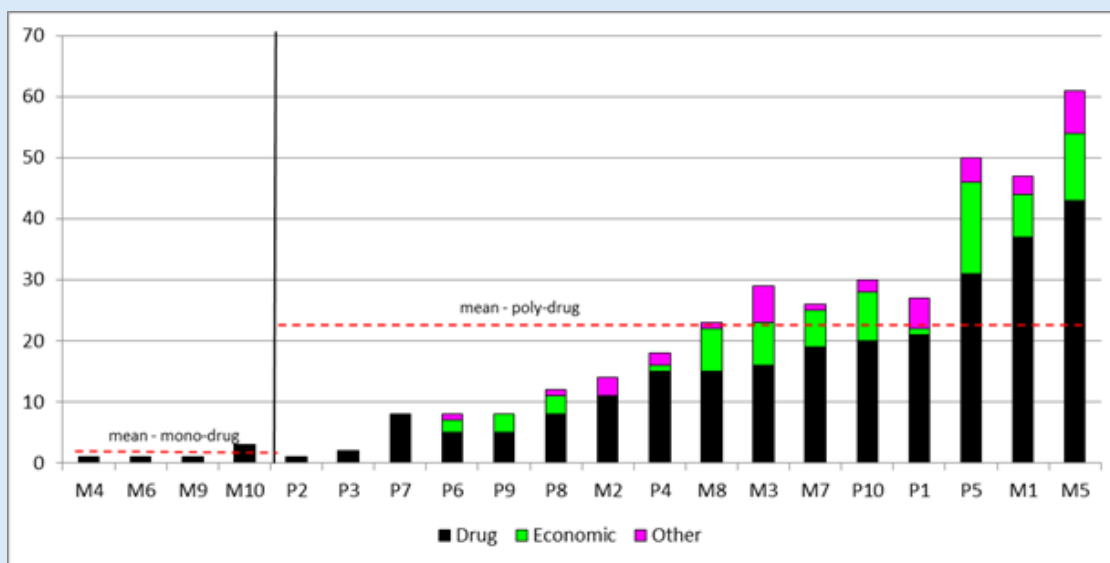
Figure 5.11 Number of connected criminal cases, by individual poly-drug and mono-drug linked case^a



a: The numbers (eg M4) denote the individual case ID of each mono-drug and poly-drug linked case

Poly-drug linked cases also appeared to be associated with more diverse criminal portfolios. While 100 percent of the criminal cases connected to mono-drug linked cases were drug offences, 19.4 percent of criminal cases related to poly-drug linked cases were economic and 9.8 percent involved other crimes (see Figure 5.12). Poly-drug linked cases were moreover related to an average of seven criminal cases involving non-drug offences—four economic and three other criminal cases. Two linked cases, P5 and M5, were involved in many more: 19 and 18 non-drug criminal cases respectively. Analysis at the level of individual linked cases showed that most poly-drug linked cases were connected to both types of criminal activity (see Figure 5.13). Accordingly, 69 percent of poly-drug linked cases were connected to both economic and other crime. Offsetting that were three (19%) poly-drug linked cases (P2, P3, P7) that were only connected to drug crimes.

Figure 5.12 Type of criminal cases (drug, economic or other), poly-drug versus mono-drug linked cases

Figure 5.13 Type of criminal cases (drug, economic or other), by individual poly-drug and mono-drug linked case^a

a: The numbers (eg M4) denote the individual case ID of each mono-drug and poly-drug linked case

In addition, poly-drug linked cases were associated with a much higher case value. They also forfeited larger amounts of proceeds of crime. They showed greater evidence of weapons involvement: 69 percent, compared with 25 percent for mono-drug linked cases. A final difference considered was the length of operation. Poly-drug linked cases operated for an average of 13 years, compared with four years for mono-drug linked cases. This is consistent with the hypothesis of added resilience; for example, two linked cases were recorded as having operated for 21 years, and 68 percent of the poly-drug linked cases for 10 or more years. Key findings for poly-drug and mono-drug linked cases are summarised in Table 5.3.

Table 5.3 Summary of similarities and differences between poly-drug and mono-drug linked cases

	Poly-drug cases	Mono-drug cases
Weight of drug seized, mean	1,109.7kg (69.3–5462.0)	11.4kg (4.3–25.4)
No of persons of interest, mean	NA	NA
Drug harm index, mean	\$342.3m (18.2–1,503.4)	\$8.5m (1.1–25.6)
Money seized, mean	\$46,191,401 (0–168,747,042)	\$14,186 (0–37,450)
Proceeds of crime forfeited, mean	\$7,552,296 (0–67,843,539)	\$0 (NA)
Network involvement in drug, economic and other crime	68%	0%
Years in operation, mean	13	4
Weapons involvement	69%	25%
No of criminal cases, mean	23 (1–61)	1.5 (1–3)
Type of criminal cases		
Drug	70.7%	100%
Economic	19.4%	0%
Other	9.8%	0%

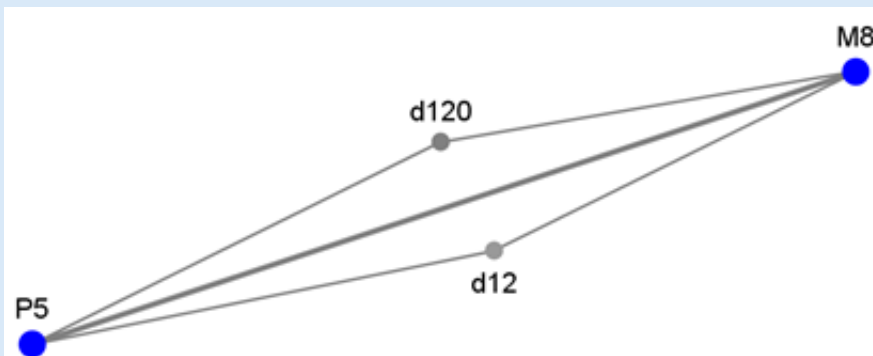
Connections between linked cases

This final section turns from examining individual cases and linked cases to explore the connections between them. In particular, the study sought to explore which of the cases and linked cases (both mono-drug and poly-drug) were connected. This study further sought to explore whether the likelihood or nature of these connections differed between poly-drug and mono-drug linked cases, including whether, as suggested by the extant literature, poly-drug linked cases were more likely to be interconnected. The attributes of the most and least connected cases were then examined, including the total quantity of drugs seized.

Social network analysis was used as an analytic strategy for this examination. The examination began by determining the linking process and diagrams. The initial sample for this analysis included 16 poly-drug cases and four mono-drug cases, and 370 other criminal cases linked to these primary cases (the poly-drug cases are coloured blue and the mono-drug cases red in the accompanying figures). The study then identified common connections between the poly-drug and mono-drug linked cases. For example, one of the poly-drug cases, P5, was directly connected to another poly-drug case (M8), as illustrated in Figure 5.14 by the darker line between cases P5 and M8. This connection indicates that an offender or suspect in P5 was also an offender, suspect or associate in M8. However, P5 and M8 were also connected to two other drug cases, d120 and d12. This means that both cases P5 and M8 involved an offender or suspect who was an offender, suspect or associate in case d120. This may or may not be the same person (the same is also true for d12). Together, this indicates that cases P5 and M8 had a number of common connections. Where those cases are drug cases they are coloured blue; where they are economic, green; and where other crime, pink.

Two points should be emphasised: first, a connection always refers to a common case or investigation, not necessarily a common offender. This is because cases were connected on the basis of a 'common case'. This differs from the analysis described in Chapter 6, which specifically looks at connections between individual offenders. Second, this study only considered whether the linked cases were connected based on the offenders and suspects involved in the original poly-drug and mono-drug cases. For example, in reference to Figure 5.11, the study examined whether d120 included an offender or suspect from the original poly-drug case P5. The study did not include an additional level of linkage: whether d120 had other offenders or suspects who were unrelated to P5 but related (i.e. persons of interest) to d12.

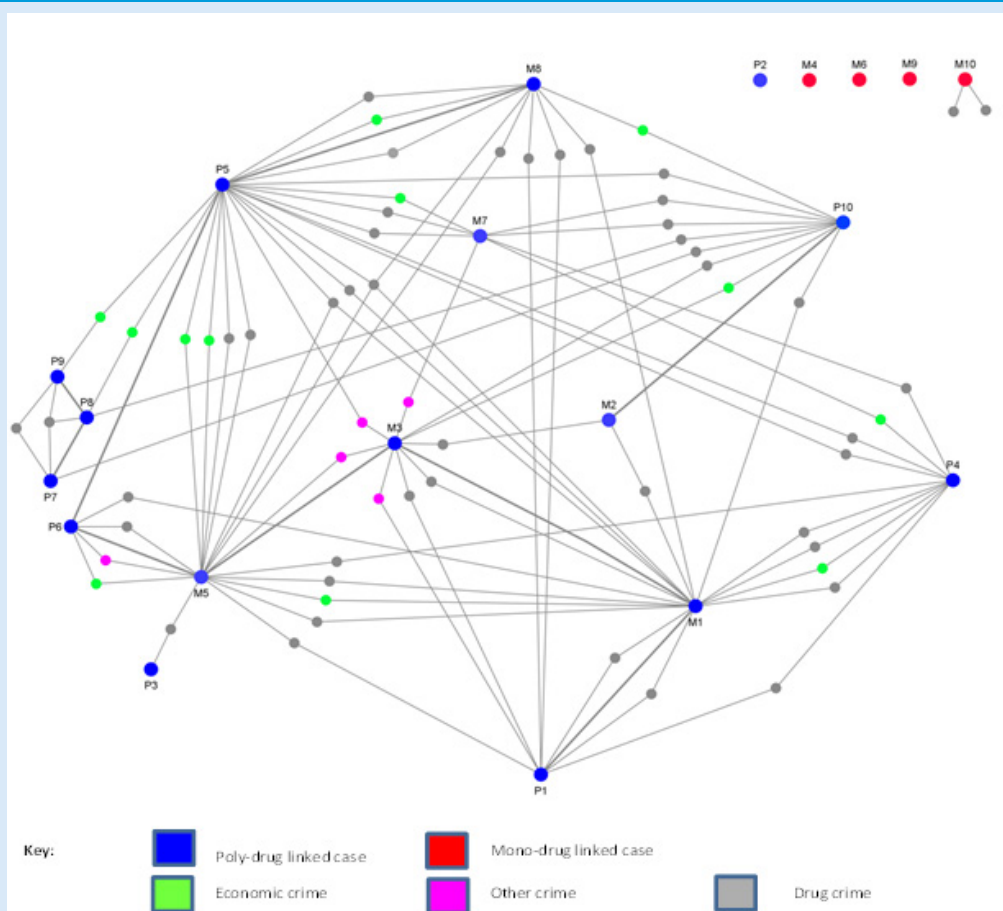
Figure 5.14 Example of linking process



A large number of interconnections were identified. Indeed, there were nine direct links (that is, links between the original 20 drug cases) and 119 indirect links (that is, links to shared cases). All direct and indirect connections between poly-drug and mono-drug cases and linked cases are included herein.

Figure 5.15 shows a very clear difference between the mono-drug and poly-drug linked cases. All but one poly-drug linked case (P2) had connections to other cases. In contrast, only one of the four mono-drug linked cases had connections to other cases (M10). This suggests that, as hypothesised, poly-drug linked cases are much more interconnected. However, there was heterogeneity in the number of links with poly-drug networks. For example, P3 had only one connection and M2 three connections, whereas all of the others had 19 or more different connections: P5 (21 connections), M5 (20 connections) and M1 (19 connections). The possible reasons for these differences are explored below.

Figure 5.15 Connections between poly-drug and mono-drug cases and linked cases

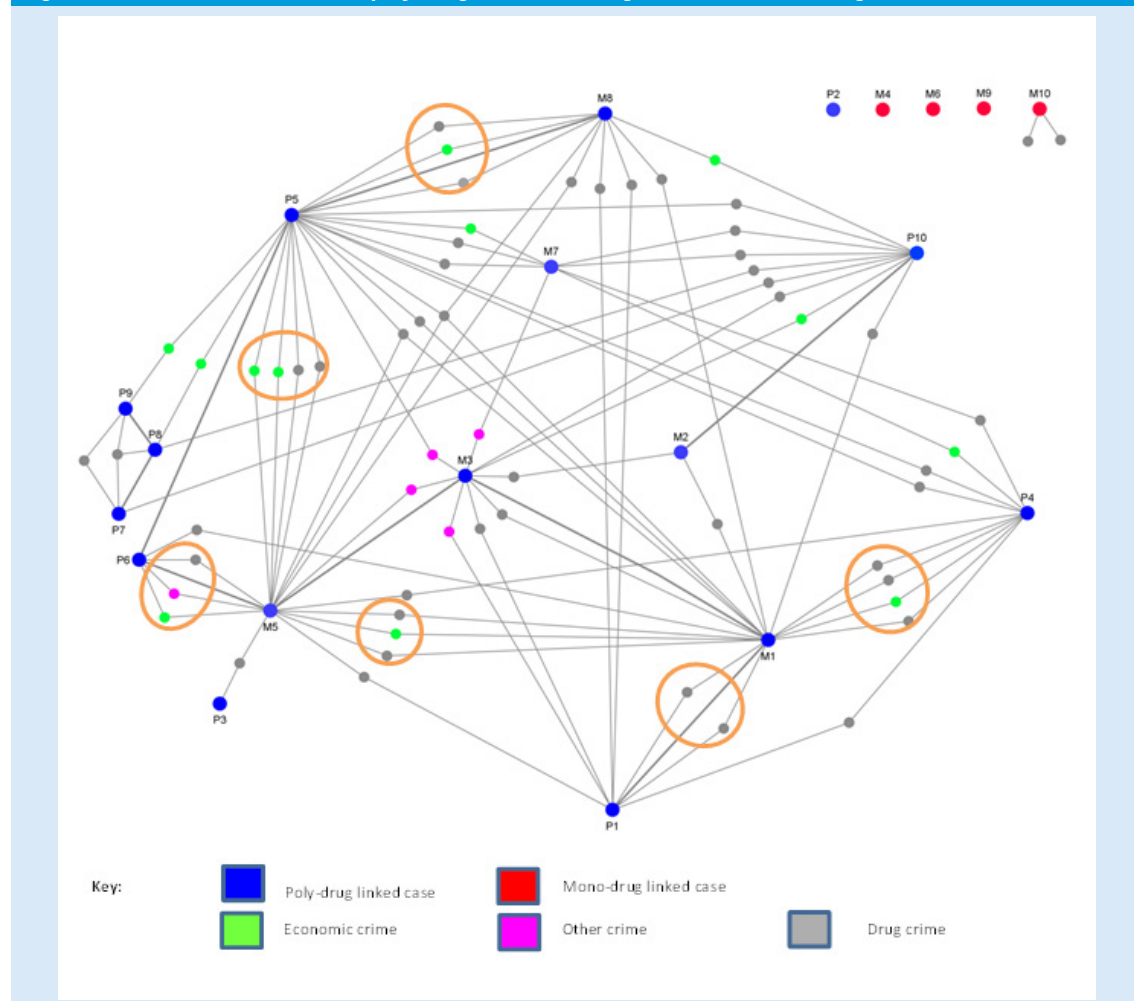


The majority of the connections appeared to involve drug cases. For example, 89 percent of the cases connected to case M1 were drug-related, as were 80 percent of those connected to cases M8 and P10; but cases M3 and P5 differed, with only 54 percent and 66 percent, respectively, of connections being to drug crimes. Instead, M3 had a large number of connections to other crimes (36%), and P5 had a large number connected to economic crimes (28%). This suggests these networks may have provided specialist skills to other drug networks.

Many of the poly-drug linked cases shared multiple connections rather than only one. This is illustrated in Figure 5.16, indicated by the orange circles. For example, cases M1 and P4 shared four connections. Many of the shared connections, moreover, were to economic as well as drug crimes.

A few poly-drug linked cases had a series of single connections to multiple different networks—for example, M7 and P10. This may highlight differences in the nature of the connections, ie long-term strategic connections compared to one-off opportunistic connections (see discussion below).

Figure 5.16 Connections between poly-drug and mono-drug linked cases, showing shared links



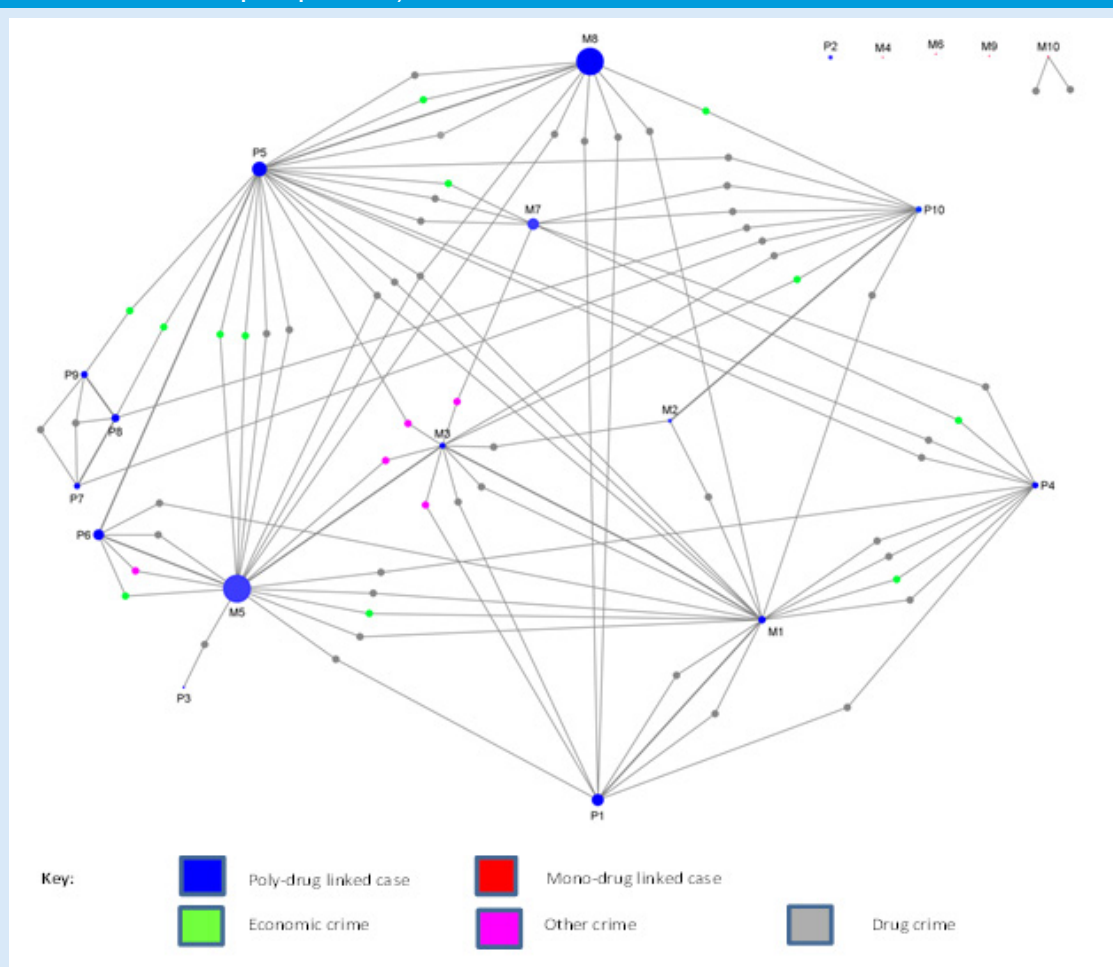
The causes and effects of these differences are examined, particularly:

- the length of operation;
- the quantity of drugs seized;
- the amount of money/assets seized;
- the number and patterns of drugs trafficked; and
- engagement in other crime.

The length of the operation appeared to be positively associated with the number of connections. Consider the cases with a relatively short history: M4, M6, M9 and P3, for example, all operated for approximately one year and M10, P7, and P8 for five years or less. These cases had a maximum of four connections. This, perhaps unsurprisingly, suggests that alliances take time to develop.

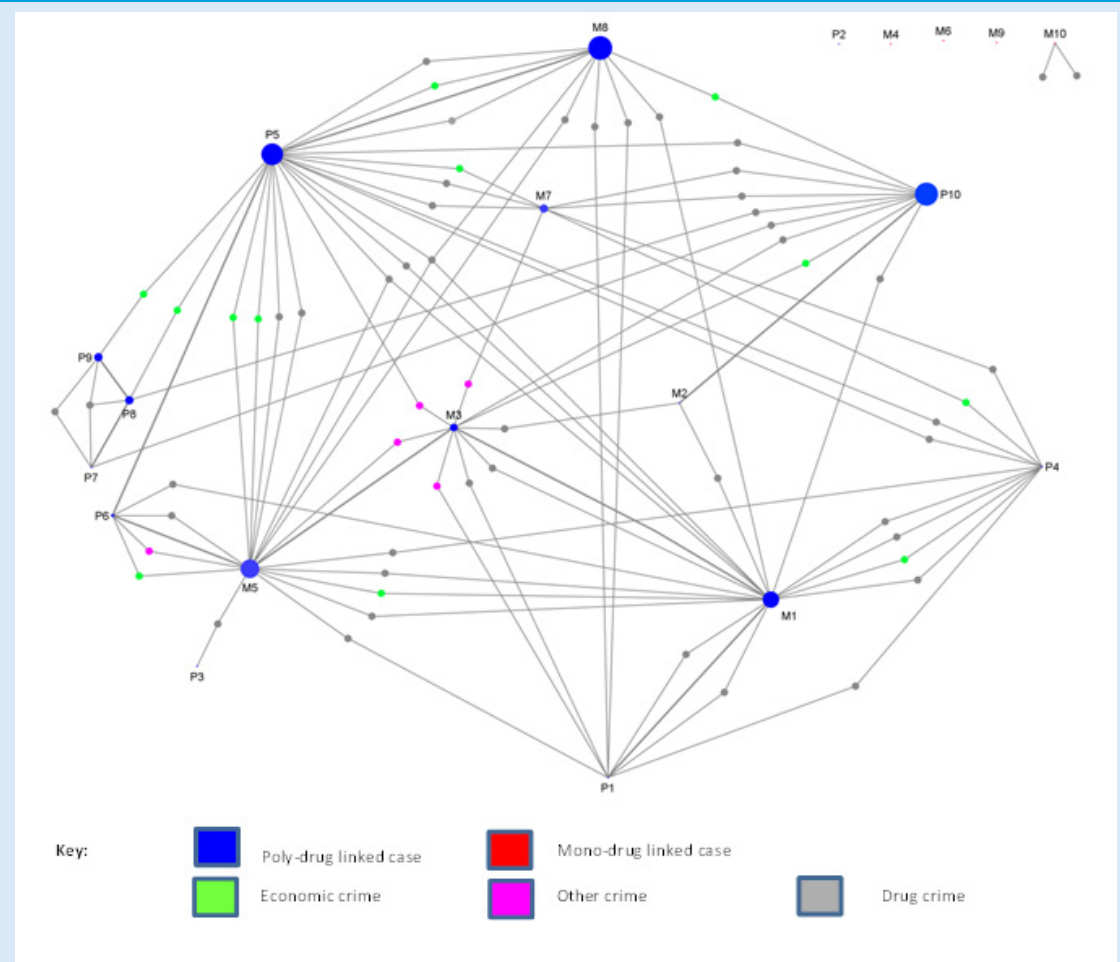
The total weight of drugs seized appeared to be positively associated with the number of connections (see Figure 5.17). For example, M8, M5, P5 and P1 had the largest total quantities of drugs seized (1,023–5,462kg) and all had a high number of connections (shown by the size of the circle representing the principal case). Conversely, those where smaller quantities of drugs were seized tended to have fewer connections (see, for example, P3, M2, P9, P8 and P7). Exceptions to this were M1, P10 and P4, which had large numbers of connections but smaller quantities seized (277–395kg).

Figure 5.17 Total quantity of drugs seized in each poly-drug and mono-drug linked cases (shown by variation in size of the principal nodes)



There appeared to be a positive association between the amount of money and/or assets seized and the number of connections. For example, as shown in Figure 5.18, M8, P10, P5 and M1 had the largest quantities of cash seized, and showed a large number of interconnections (the amount of cash seized is indicated by the size of the circle representing the principal case). However, there are exceptions to the rule. For example, P1 and P4 had large numbers of connections but only small amounts of cash seized.

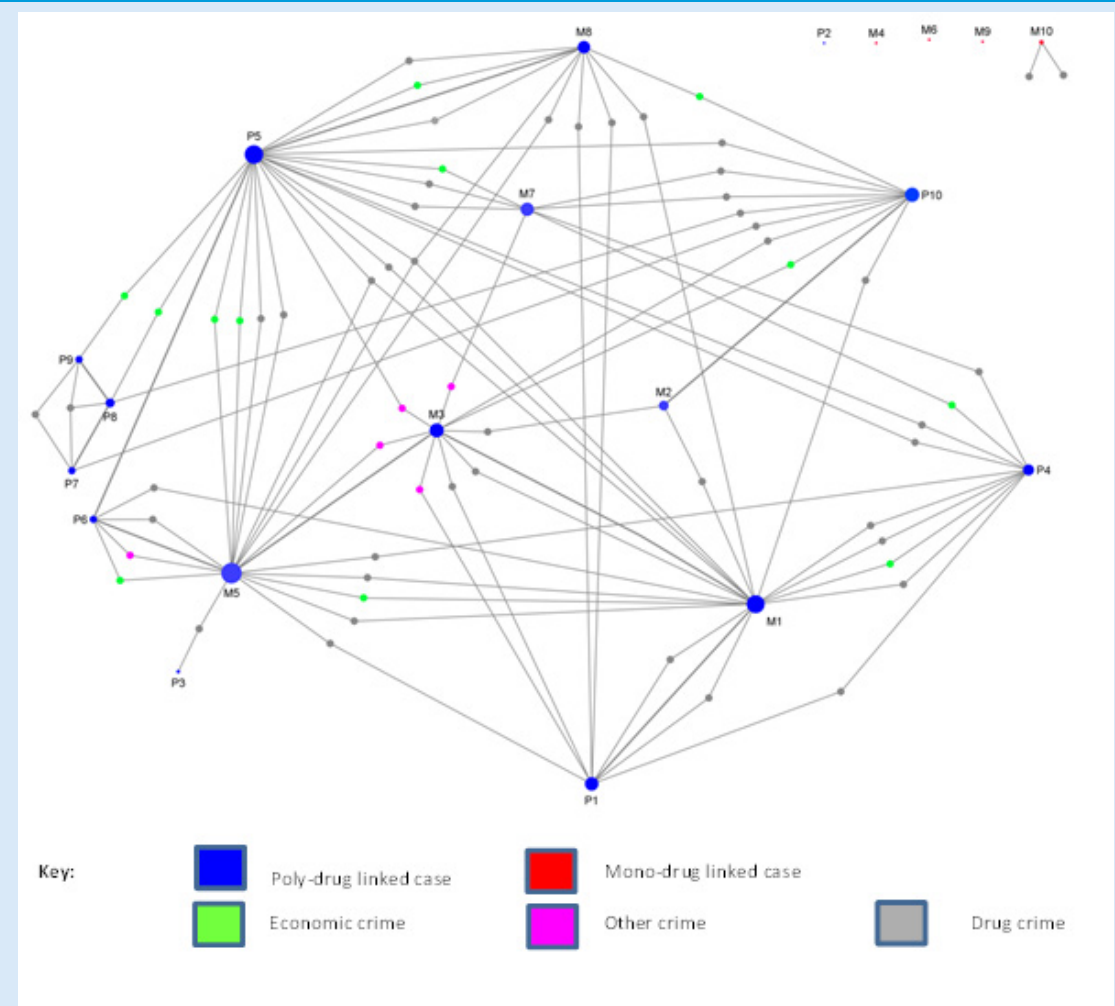
Figure 5.18 Total quantity of cash seized by each poly-drug and mono-drug linked case (shown by variation in size of the principal nodes)



A high number of criminal cases (an indicator of potentially larger criminal histories) was positively associated with the number of connection—for example M5, P5 and M1, all of which were connected to 40 or more cases (see Figure 5.19). Those involving poly-criminal activity were also more connected than those which did not (see, for example, M3). Equally importantly, there was some evidence that level of involvement in poly-criminal activity also affected the type of connection, to either drug or non-drug cases. For example,

while most of the connections were to drug-related crimes, three poly-linked cases had a high number of connections to economic and other crimes: P5 was connected to six economic cases; M5 to four economic and two other crimes; and M3 to four other crimes.

Figure 5.19 Total number of crimes connected to each poly-drug and mono-drug linked case (shown by variation in size of the principal nodes)



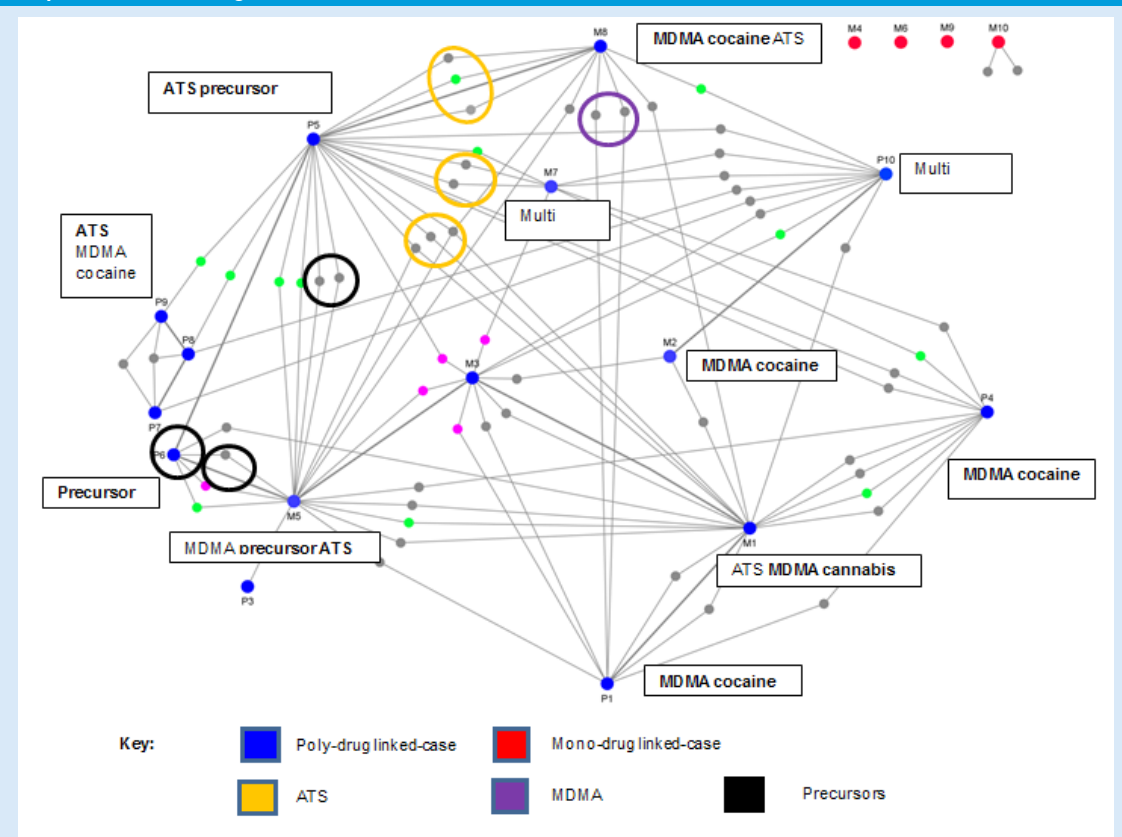
The nature of the interconnections appeared to be related to the type of drugs trafficked. To illustrate this, in Figure 5.17 the dominant drugs trafficked in each linked case and the specific flows of drugs have been labelled where known. It is important to note that the extract did not include details of every drug trafficked, something that would assist in future analyses of linked cases. However, the study identified that some key seizures, by drug type, were known. In Figure 5.20, precursors are indicated by black circles, ATS by orange circles and MDMA by purple circles. On the right-hand side all the cases involving MDMA and cocaine are shown, and on the left-hand side those involving ATS and/or precursors. The ability to distinguish these two sets of cases, each with a high level of connectedness, suggests the nature of these connections is not random. This was only observed after the social network analysis was conducted. In general, those trafficking in MDMA and cocaine were more connected with those who trafficked in the same commodities; likewise, those trafficking predominantly in ATS and precursors were more connected with those who trafficked in these commodities.

A minority of poly-drug traffickers were connected with traffickers involved with different drug types. For example, P5, involving ATS and precursor trafficking, was connected to M8, which involved a group trafficking predominantly in MDMA and cocaine, albeit also involved in ATS. The high number of connections between P5 and P8 suggests that they may have been sharing ATS. A key limitation of this analysis is that the specific

time the crimes took place is not known, but the findings of Chapter 4 suggest this could have occurred at the time of the decline in availability of MDMA (post 2007). It can also be seen that P5, which predominantly involved ATS (end-product importation), was directly linked to P6 (a case involving precursor importation).

A final observation pertaining to drug type is that the linked cases with diverse single-drug connections identified earlier (M7 and P10) were characterised by the trafficking of four or five different drugs in sizeable amounts. For example, M7 involved trafficking in cocaine, MDMA, methamphetamine, precursors and heroin and P10 involved heroin, MDMA, methamphetamine and precursors. In contrast, the linked cases with multiple shared connections appeared to be concentrated on a smaller array of drugs—usually two, but sometimes three: ATS and precursors (P5) and MDMA and cocaine (P1). One hypothesis is that this may reflect different *modus operandi*, eg opportunistic short-term alliances (for whatever drug can be obtained) versus longer-term strategic alliances to grow business in a subset of specialist areas. There is, however, no way of testing this with the current data.

Figure 5.20 Connections between poly-drug and mono-drug linked cases, showing main drug types and suspected/known drug flows



Note: Multi refers to poly-drug linked cases that trafficked in large quantities of four or five different drugs: eg heroin, cocaine, MDMA, ATS, and precursors (M7). As noted above, this was rare.

Summary and conclusions

This chapter reveals a number of key findings which have both methodological and practical implications. Consistent with the study's hypotheses, the scale and nature of poly-drug trafficking is shown to differ markedly depending on whether the data are analysed at the level of seizure (a specific location at a specific time point), case (over a series of locations or months) or linked case. Analysis using cases and linked cases reveals a much greater scale of poly-drug trafficking than shown in Chapter 4—namely, that 35–65 percent of commercial border seizures may be connected to poly-drug traffickers. Given the small sample

size, caution is warranted around the use of such estimates, and the lower estimate (35%) is probably more reliable. Nevertheless, this indicates poly-drug traffickers may constitute a significant minority of those involved in commercial importation in Australia. Equally importantly, it suggests most poly-drug trafficking occurs separately—that is, not in the same shipment.

Analysis at the case and linked-case level also provided important insight into the number of offenders and suspects involved in poly-drug trafficking networks, the links between poly-drug trafficking and poly-criminal activity, the extent of weapons involvement and the potential profitability of this form of activity. While each of the indices has some limitations—for example, the amount of drugs and cash seized is known, but the actual profit involved in the poly-drug trafficking case or linked case is not—they afford much greater insight into the seriousness of this form of criminal activity. Finally, analysis of linked cases also afforded insight into the connections between poly-drug traffickers. It is possible that there are different ways the linkages could be improved upon; by, for example, including the dates and times of seizures and cases. This could enable more insight into the extent to which poly-drug traffickers change drug types over time. Nevertheless, this methodology appears to have considerable merit for the analysis of poly-drug trafficking.

Analysis across seizures, cases and linked-cases indicate some consistent differences between poly-drug and mono-drug traffickers. For example, it was found that Australian poly-drug traffickers were involved with greater quantities of drugs. They were also much more involved in shipments of stimulants—particularly ATS, MDMA and cocaine—differences that were consistent across the three data lenses.

The different lenses of the data further suggest that traffickers and networks involved in poly-drug linked cases are larger and more resilient, have more connections to other criminal activity (particularly economic crimes such as money laundering and fraud), offer greater case value and harm potential, have greater involvement in weapons and may be associated with somewhat more sophisticated methods of drug importation (particularly importation via vessel and the concealing of drugs in containers and machinery). This suggests that, as hypothesised, they may be more likely to cause more harm. There were also some important differences between the poly-drug cases and linked cases. For example, some poly-drug traffickers were associated only with small quantities of drugs. Others had no connections to other forms of criminal activity or no association with weapons.

Analysis of the connections between linked cases was by far the most exploratory part of this project. Given the analysis focused on links between cases, rather than people, this is difficult to interpret. But this shows that, consistent with predictions, poly-drug traffickers were more interconnected than their mono-drug counterparts. Some links appear more opportunistic (akin to the model of forming links and doing business with anyone), but others appear more strategic (suggesting alliances to build business in specific areas, such as by opening new trade routes). Finally, this analysis suggests that connections may assist poly-drug traffickers. For example, the most interconnected poly-drug traffickers were more likely to have more drugs seized, to have higher case values and to be involved in other crime. However, the analysis was relational, not causal; this means further study is necessary to examine issues of causality between the poly-drug trafficking and connections.

Chapter 6: Social network analysis of Australian poly-drug and poly-criminal trafficking networks

Introduction

In this chapter the results of the social network analysis (SNA), constructed using judges' sentencing comments, of three Australian high-level poly-drug and poly-criminal trafficking networks are shown. The objective was twofold—first, to explore how product diversification is managed in poly-drug and/or poly-criminal syndicates, and second, to provide insight into the potential benefits of and costs to traffickers of poly-drug and poly-criminal trafficking. Consistent with the literature on the structure of mono-drug trafficking syndicates (Calderoni 2012; Kenney 2007; Varese 2013) it was hypothesised that:

- poly-drug and poly-criminal networks would be comprised of a number of largely non-overlapping subgroups involved in trafficking different commodities (eg MDMA but not cocaine);
- the subgroups would be connected via key brokers; and
- the subgroups would share some skills, resources and members.

Method

As outlined in Chapter 3, SNA is a technique for identifying and characterising relationships between actors in criminal networks (and other types of social networks), including the presence or absence of interconnections and their nature and significance (eg Bright & Delaney 2013; Bright et al. 2012; Calderoni 2012; Heber 2009; Kenney 2007; Malm & Bichler 2011; Morselli 2009; Morselli & Petit 2007). The SNA was begun by selecting networks for analysis, then constructing comprehensive maps of each network. The network features were then analysed and compared.

Network selection

Network selection involved a number of steps. First, an initial list of high-level poly-drug and poly-criminal networks was compiled, drawing on Australian Crime Commission and other police annual reports, advice from the project reference group (PRG) of drug law enforcement advisors, and targeted searches of the Australian Legal Information Institute (Austlii) database. In particular, Austlii was searched for poly-criminal cases involving drug trafficking, money laundering, organised crime, firearms, terrorism, and/or outlaw motorcycle gangs, and poly-drug cases involving drug trafficking, importation, manufacture and/or cultivation, as well as heroin, methamphetamine, MDMA, cocaine and/or precursors. This led to the identification of 29 criminal networks.

Second, inclusion and exclusion criteria were applied. Networks were excluded if they involved less than five identified persons of interest; this was to ensure sufficient data for analysis. They were also excluded if the network operated earlier than 2000 (providing 'old' networks) or if any investigation, prosecution, sentencing hearing, or appeal was ongoing. This was necessary as the primary data source was court sentencing transcripts.

Finally, a sub-sample of seven networks was forwarded to our police project reference group and three networks were chosen for detailed mapping. The original intention was to examine only one network;

however, the scoping revealed clear differences in their size (measured by the number of known actors in the network) and nature (whether they were poly-drug only or poly-drug and poly-criminal, and the extent of any international connections). Three networks were therefore chosen for analysis:

- one medium-sized domestic poly-drug network;
- one medium-sized international poly-drug and poly-criminal network; and
- one large international poly-drug and poly-criminal network.

One limitation is that the only criminal activities identified in the poly-criminal networks were drug trafficking and money laundering. Some recent poly-criminal networks were involved in other activities as well as drug trafficking, for example motorcycle gangs and gun trafficking (see for example Australian Federal Police 2013), but these were excluded as the relevant cases were ongoing at the time of analysis.

Data sources

The primary data used to construct the networks were judges' sentencing comments. Judges' sentencing comments are written remarks provided by a judge at the time of sentencing; they include a review of the facts in the case and the circumstances of offending, as well as the reasons for sentencing. They also include details of the illicit activities in which the offender was engaged, the offender's role, details of where the crimes occurred, the names and roles of other people involved in the commission of the crime (ie co-offenders) and their relationships (who knew who and who worked with who, and under what circumstances). For example, one sentencing transcript (unrelated to the syndicates examined) included the following:

The charge of trafficking in a drug of dependence relates to your involvement in a drug syndicate established to manufacture and/or sell methylamphetamine (known colloquially as 'ice') and ephedrine (a precursor chemical for the manufacture of ice). It was alleged, and you accept, that your involvement spanned between [date] and [date] (the date of your arrest). Throughout the time of your involvement in the drug ring, the others who were also involved were [XX, YY and ZZ]...

Each member of the drug group had a role. [XX] was the leader and organiser. He also financed the activities and recruited members to the group. [YY], a science graduate from Melbourne University, was the principal manufacturer ('cook') of the drugs and taught others, along with yourself, techniques for making methylamphetamine...

You commenced your involvement on about [date] by assisting in the removal of items from the laboratory operating at [address], to the house at [address]. At that address, the group, including [XX, YY, ZZ] and yourself, set about making methylamphetamine. You also supervised [ZZ] in some of his activities and you were taught how to participate in the chemical processes for making the drugs' (The Queen v Lowe [2014] VSC 543 [27 October 2014]).

Sentencing transcripts have been proven to provide sufficient detail to construct social network maps and analyse network features (Bright & Delaney 2013; Bright et al. 2012; Le 2013). They also have the added advantage of being free and publicly accessible. In Australia they are publicly available through legal databases, including the Austlii database and LexisNexis AU. For each of the three syndicates, both these databases were searched.

Following the database searches, a total of 12 transcripts were collected for Syndicate 1, eight transcripts for Syndicate 2, and 17 transcripts for Syndicate 3. A single transcript could pertain to one or multiple offenders, depending on whether they were being co-sentenced. The documents ranged between six and 42 pages in length; each was read in full by one of the researchers (CH).

The sentencing transcripts were then supplemented with Australian and international news media items that were extracted using targeted searches of Factiva for mentions of the offenders and co-offenders. The rationale for this was twofold: it allowed triangulation of the primary data source and overcame a potential limitation in the use of Australian court sentencing records, namely that these may exclude, or be biased against the inclusion of, offending that occurred outside Australian borders. Between one and 60 media

articles relating to each of the networks were identified and read (neither the transcripts nor media items are referenced to avoid identifying those involved).

Network construction and analysis

Network construction commenced with the identification of all actors in each of the syndicates. For example, starting with a court transcript, all actors noted in that were identified; then a search was made for all other court transcripts involving this group of actors and the actors mentioned within such cases. Once saturation was reached, and the network boundary established, each actor was allocated an alphanumeric identifier to ensure their anonymity. Information on connections between actors, the roles each played, and resource flows (information, drugs, and money) was extracted. In particular, the specific criminal activity each individual was involved in (for example, trafficking in heroin or trafficking in methamphetamine) was identified. Then for each commodity (eg the trafficking of heroin) the individuals directly linked to each other were identified. Social network analysis software (Visone version 2.7.1; Brandes & Wagner 2004) was then used to construct a comprehensive map showing involvement and connections between different commodities. Finally the network map (the unit of analysis) was used to identify network features including:

- the number of actors in the whole network;
- the number and type of subnetworks (eg drug or crime specific or mixed networks);
- roles including manager, supplier, trafficker and resource provider;
- the management structure (if any); and
- differences and similarities in the structure and features of subnetworks.

Two actor-level network measures were then used to examine key players in the networks: degree centrality and betweenness centrality. Degree centrality measures the number of direct connections each actor has with other actors in the network (Freeman, White & Romney 1992). High scores on degree centrality are typically associated with those who hold influential and powerful positions within social networks. Betweenness centrality is calculated measuring the number of times an actor is on the shortest path between other pairs of actors (Freeman et al. 1992). Therefore, betweenness centrality represents the ability of actors to control (or broker) the flow of connectivity—information, resources etc—within the network or to connect otherwise disconnected (sub)groups. These measures were computed both for the entire network (eg the poly-drug network involving MDMA, methamphetamine and cannabis) and for each subnetwork (eg the MDMA subnetwork).

Analysis of poly-drug and poly-criminal syndicates

Syndicate 1: Victorian poly-drug syndicate

The first syndicate was a poly-drug syndicate that operated from 2005 to 2006 and included three interrelated drug businesses: the trafficking of MDMA (the primary business), the manufacture and trafficking of methamphetamine, and the smaller-scale trafficking of cannabis. At the point that police arrested the final syndicate members (16 people), the syndicate was also in the process of expanding its cannabis business; it had just purchased and set up a grow house for the cultivation of hydroponic cannabis but had yet to produce its first crop.

The syndicate was described by the judge as involving ‘energetic and knowledgeable drug traffickers, out for vast profits, and for whom manufacturing and selling methyl amphetamine and ecstasy was a way of life’ (to protect the anonymity of the participants, all quotes from the judge are unreferenced). The syndicate operated across Victoria, including in Melbourne and three large regional cities. It also had links to Sydney (the site MDMA was imported from) and sold in wholesale amounts to mid-level traffickers. For example, MDMA was sold in quantities of hundreds, thousands or up to 5,000 pills.

As shown in Chapter 4 and in other data, the syndicate operated during a period in which MDMA was in high demand, of high purity and easy availability (Scott & Burns 2011). Methamphetamine precursors were also easily available in Victoria, as the syndicate operated prior to the national roll-out of Project STOP, a program introduced in 2007 to track pseudoephedrine-based medication sales in pharmacies and reduce their diversion to methamphetamine manufacture (Ransley et al. 2012).

In the next section the size and structure of the network as a whole is examined, undifferentiated by drug type; then the subnetworks for MDMA, methamphetamine and cannabis.

Structure of the poly-drug trafficking network as a whole

The syndicate included 19 known members. The number of actors in this and the other networks analysed was identified from judges' sentencing comments and news media. There may have been other actors attached to the network who were not identified. Consistent with the upper-level drug trafficking literature, which states that drug traffickers tend to work with people they have established connections with (Dorn et al. 2005; Matrix Knowledge Group 2007; Pearson & Hobbs 2001), many of the members were known to each other through work, marriage or family prior to setting up or joining the network. Many also maintained legitimate businesses on the side, often as small business owners/operators; for example, some operated wholesale car dealerships, others panelbeating or plumbing businesses.

As shown in Table 6.1, the network comprised two principals, K1 and K2. There were also three importers/producers/wholesale suppliers, nine mid-level traffickers and five resource providers who provided access to resources such as precursor chemicals, a pill press or financial advice. Some players, however, had multiple roles including, importantly, K2 who was both a principal and a back-up wholesale supplier.

This network was characterised by a wheel-like structure (otherwise known as a hub or star network; see Figure 6.1). This is contrary to much of the literature that suggests that criminal networks tend toward decentralised leadership (Morselli 2009; Natarajan 2006; Williams 2001). The star structure means that drugs, resources and communication were managed and flowed through the two principals, K1 and K2. Indeed, K1 had a hands-on role in all three aspects of the business—sourcing drugs and resources, organising and encouraging sales, and seeking out new business opportunities—evidenced by the large number of phone calls made by K1 to other members. Drugs were sourced via the importers/producers and wholesale suppliers (K3, K4 and K5, and sometimes K2—a back-up supplier), passed on to K1 and then distributed to traffickers for sale to the lower-level traffickers who covered different parts of the state: city, region 1, region 2 etc. Within this network, the two most central players were the principals, K1 and K2; however the most important for brokerage were K1 and one of the suppliers, K3. This reflected in large part the fact that K3 was the sole connection to K4, an importer. Consistent with the study's hypothesis the network's structure, management and roles differed across the three drugs in the poly-drug trafficking network.

Figure 6.1 Syndicate 1: The poly-drug network as a whole, undifferentiated by drug type

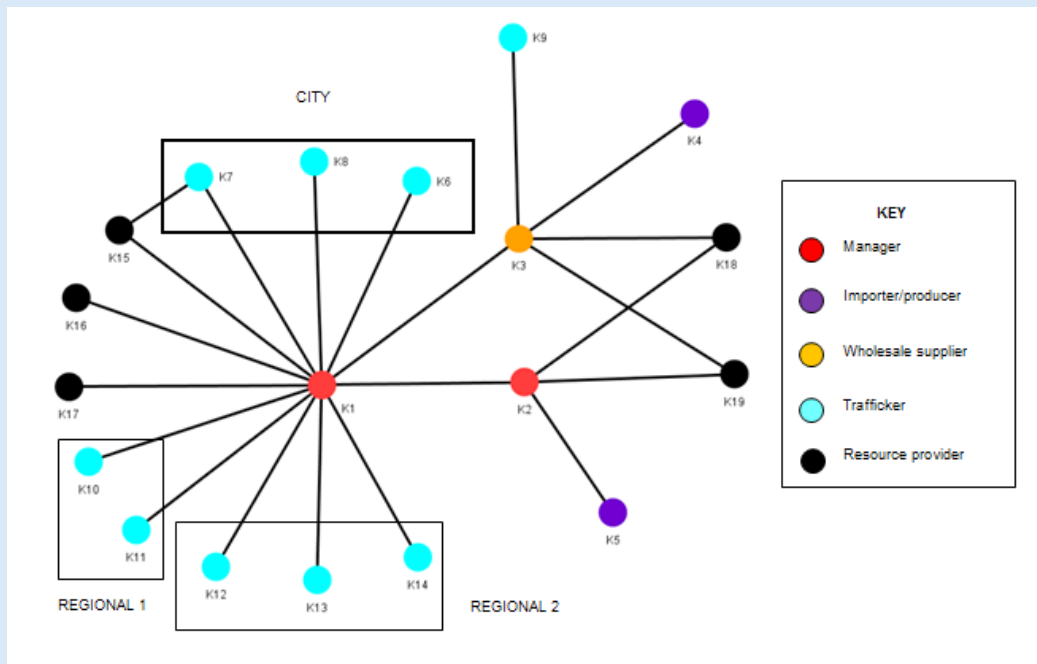


Table 6.1 Members of the Victorian poly-drug syndicate and their roles

Key	Role	Responsibilities
K1	Principal	Network oversight; purchase and sale of MDMA, meth and cannabis. Managed establishment of cannabis grow house; purchased property, sourced crop, financed scheme.
K2	Principal	Manager of meth supplies: sourced end-product meth, then sourced meth precursors and pill press and oversaw establishment and production from meth clan lab. Backup MDMA supplier.
K3	Wholesale supplier	Principal MDMA supplier: sourced high-purity product from Sydney. Also established meth clan lab & manufactured small quantities of meth.
K4	Importer	Imported large quantities of high-purity MDMA into Sydney.
K5	Manufacturer	Meth clan lab operator.
K6	Trafficker	Trafficking MDMA, meth & cannabis (city).
K7	Trafficker	Trafficking MDMA, meth & cannabis. Helped install equipment in cannabis grow house (city).
K8	Trafficker	Trafficking MDMA & meth. Backup meth supplier (city).
K9	Trafficker	Trafficking MDMA (city).
K10	Trafficker	Trafficking MDMA & cannabis. Backup MDMA supplier (regional).
K11	Trafficker	Trafficking meth & cannabis (regional).
K12	Trafficker	Trafficking MDMA & cannabis. Principal MDMA trafficker (regional).
K13	Trafficker	Trafficking meth & cannabis (regional).
K14	Trafficker	Trafficking meth (regional).
K15	Resource provider	Skilled plumber: led establishment of cannabis grow house, including installation of equipment. Short-term cannabis grow house sitter.
K16	Resource provider	Cannabis grower: provided cannabis plants.
K17	Resource provider	Financial adviser: negotiated sale of cannabis grow house.
K18	Resource provider	Provided meth precursor chemicals.
K19	Resource provider	Provided meth pill press.

Structure of the subnetworks

Figure 6.2 shows the involvement of members in trafficking MDMA, methamphetamine and cannabis. Figure 6.3 differentiates the three drug-trafficking subnetworks, including roles in trafficking each drug separately. A comparison of Figure 6.2 with Figure 6.3 shows significant overlap in member participation across the three drug subnetworks or businesses. Indeed, almost half (47%) of all members were involved in more than one subnetwork; and if members whose involvement was transitory (eg a lawyer who negotiated the sale of a house, a cannabis plant provider or a pill press provider) are excluded, two-thirds (64%) of the members were involved in more than one subnetwork. On the face of it, and contrary to expectations, this suggests a high degree of overlap in the subnetwork membership for this poly-drug network.

Analysis of member roles, however, suggested there was demarcation of roles between the subnetworks, particularly in the supply and distribution of the two main drugs. The principal supplier of MDMA was K3, who sourced large quantities (around 20,000 pills) from a Sydney importer (K4). In contrast, the principal supplier of methamphetamine was K2. Initially K2 supplied end-product methamphetamine (from an unidentified source), but later sourced precursor chemicals and a pill press, and oversaw the establishment and production of a methamphetamine clan lab and cook (K5). The principal, K1, thus received the main supplies of the two drugs from different 'arms' or businesses. This indicates that initially methamphetamine and MDMA were sourced from different international suppliers, and the supply chain converged in Australia. Then, when the syndicate began producing methamphetamine themselves, they obtained precursors from inside Australia.

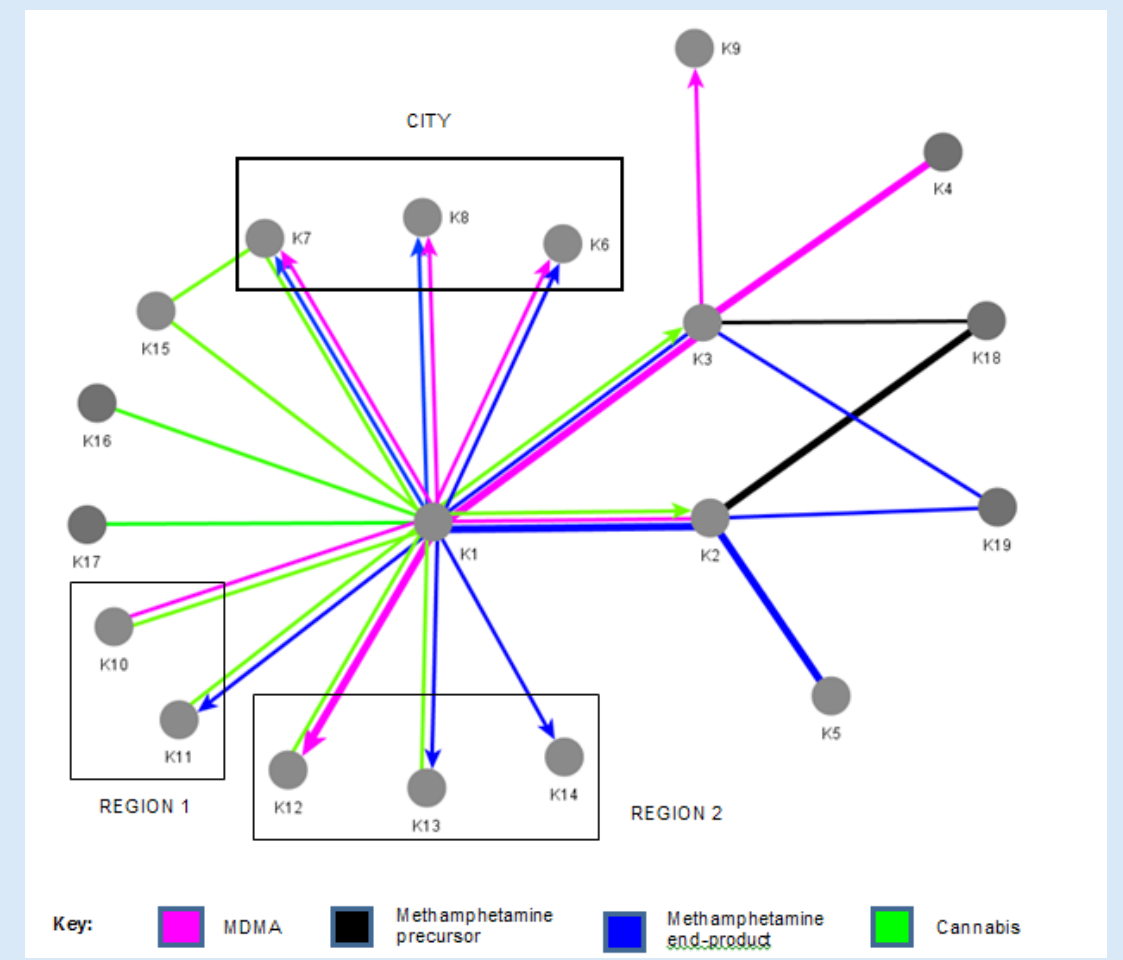
It is worth noting that, while the presence of two alternative supply chains has previously been identified as beneficial to upper-level drug traffickers, increasing their ability to maintain and expand their supply (Matrix Knowledge Group 2007), the difference with this particular network is that each of the supply chains supplied different drugs.

There were also examples of complementarity in the distribution and trafficking of the different illicit drugs due to the geographically dispersed distribution. For example, K12 was the primary trafficker of MDMA in region 2, receiving very high quantities of MDMA for on-sale (5,000 pills). In contrast, other traffickers in the region primarily received methamphetamine for on-sale. This suggests that, although the subnetworks for MDMA, methamphetamine and cannabis were not entirely independent, there were some demarcations between them.

A striking feature of the network overall was that most of the players assisted in the drug subnetworks if the opportunity arose and/or when requested to by the principals. In a clear example of this, K2 was the principal supplier of methamphetamine and a backup supplier of MDMA. Similarly, K3 was the principal supplier of MDMA but also a backup producer of methamphetamine. This was by virtue of their access to two different international supply chains, which proved highly beneficial for risk management (see below). More generally, most of the traffickers could sell all three drugs when required.

Revenues from the sales made by one drug subnetwork were reinvested in the other drug subnetworks, and skills were also shared between the different subnetworks. For example, revenue from selling MDMA was used to pay for the establishment of a methamphetamine clan lab, and the precursor chemical obtained by K2 was shared not only with the clan lab operator, K5, but also with K3. This was critical to enabling K3 to establish the backup methamphetamine clan lab. One member who trafficked MDMA and methamphetamine and, more rarely, cannabis (K7), used his skills, together with a co-worker (K15), to install hydroponic cannabis equipment in a new cannabis grow house. This drew on their legitimate business skills in plumbing and enabled the network to expand into cannabis production, showing the high level of cooperation across the subnetworks.

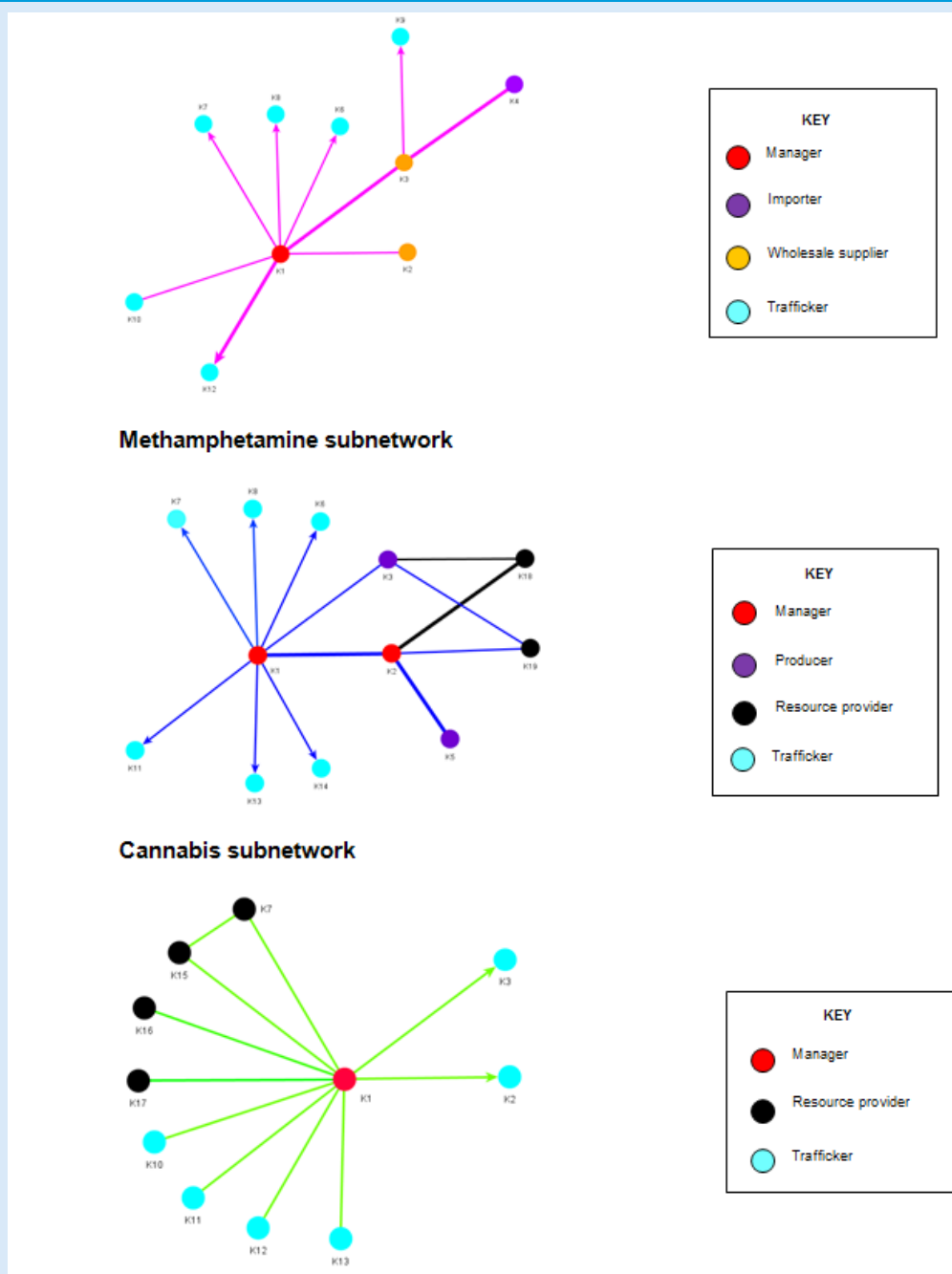
Figure 6.2 Syndicate 1—The poly-drug network, showing involvement in MDMA, methamphetamine and/or cannabis



The process for managing this network, particularly the distribution of drugs and resources, was highly centralised in the two principals K1 and K2; but they also assumed responsibility for individual drugs. For example, K2 played a key managerial and oversight role in manufacturing and trafficking methamphetamine, while K1 played a lesser role in this subnetwork. In contrast, K1 played a much more managerial role in the trafficking of MDMA, and K2 only a supporting role; this appeared to be a mutually beneficial arrangement. In the cannabis subnetwork, K1 was the lead—for example, establishing the cannabis grow house.

This illustrates that the poly-drug network, while not operating completely independent subnetworks that dealt exclusively in one drug, did involve some different and complementary roles across the different drug trafficking businesses. There was centralised decision-making about what drugs were sold and when this would occur. People, resources and skills were shared across the entire network; revenue from one subnetwork was reinvested into others; there was cross-pollination of ideas and the risks of importation were shared (eg a methamphetamine supplier who could obtain MDMA and vice versa).

Figures 6.3 Syndicate 1—The MDMA, methamphetamine and cannabis subnetworks



Benefits of poly-drug trafficking

Involvement in poly-drug trafficking appeared to offer this network a number of benefits. It increased the network's ability to adapt for new opportunities. For example, when K2 procured methamphetamine precursor the network rapidly expanded from trafficking end-product methamphetamine to manufacturing and trafficking their own product. Indeed, while MDMA trafficking was initially the principal business, by the time the network ceased operation, methamphetamine had become a close second.

Poly-drug trafficking also increased the network's resilience to the impact of supply fluctuations. While the network had multiple potential suppliers and access to different supply chains (which acted as insurance against supply changes) it is apparent that the multiple drugs being supplied and trafficked further increased

this resilience. While it is not known why this network expanded into methamphetamine, this expansion coincides with the decline in MDMA supply (particularly of high-purity MDMA) to Australia (see Chapter 4). This suggests the syndicate successfully built up supplies of methamphetamine in the face of decreasing supplies of MDMA.

Success in trafficking MDMA and methamphetamine ultimately provided resources to expand the cannabis business from sale to production. In this way, while it was suggested by the court that the other drug businesses were designed to build up or support the main MDMA business—‘to build up your MDMA trafficking business’—it is also clear that poly-drug trafficking had mutual benefits, such as providing capital for the methamphetamine business and, ultimately, for the cannabis business.

This success also increased the network’s resilience to drug law enforcement. One clear example of this followed a series of arrests of the two suppliers, K2 and K3. The principal MDMA supplier, K3, was arrested, which might have been expected to significantly disrupt the network through the loss of core product. However, in this case the principal methamphetamine supplier (and backup MDMA supplier) K2 commenced sourcing MDMA. This allowed the supply of MDMA to continue. When the principal MDMA supplier was released on bail and the principal methamphetamine supplier K2 was arrested, the principal MDMA supplier, K3, reassumed both MDMA supply and methamphetamine production. Again, this meant that methamphetamine supplies continued. In both instances, the network was much more resistant to drug law enforcement because key roles within the network could be assumed by others. It is worth noting the syndicate may not have been as resilient if both drugs had been sourced through the same supplier—that is, this resilience is attributable to both the poly-drug network structure and the particular business structure of its subnetworks.

Finally, a notable feature of the network or syndicate as a whole was the high level of cooperation not only between, but also within, its subnetworks. Indeed, cooperation appeared to be a feature across all three trafficking businesses. For example, many of the traffickers would sell or pass product back to the principal for redistribution to other traffickers in the network. Similarly, in the absence of a principal cannabis supplier, the entire cannabis supply and sales business was dependent upon sharing. Indeed, even those involved in sourcing MDMA or organising the manufacture of methamphetamine—highly important roles in the functioning of the network—were sometimes involved in trafficking cannabis or other drugs, although this was less common. This indicates a highly cooperative approach to trafficking both across and within the different drug subnetworks, suggesting that one added benefit of poly-drug trafficking may be the fostering of more cooperative forms of trafficking.

Interestingly, Syndicate 1 reinvested revenue in the purchase of drugs, rather than in expanding into other crime or legitimate business. In this way, they were not as diverse as they could have been. They instead put all their eggs in the ‘drug basket’. Despite this, poly-drug trafficking appeared to bring multiple advantages to Syndicate 1, the most important of which was allowing the maintenance and expansion of supply in the context of a marked change in the Australian and international illicit drug market.

Syndicate 2: Small-scale international poly-drug and poly-criminal syndicate

The second syndicate analysed was a small-scale international poly-drug and poly-criminal syndicate that operated from 2005 to 2006 and was involved in the importation and trafficking of heroin and crystal methamphetamine (or ice) and money laundering. The syndicate operated in Sydney, Melbourne and Vietnam, importing heroin from Vietnam and transferring it, along with methamphetamine, to Melbourne for on-sale. It is estimated that the syndicate laundered more than \$15 million. It operated at a time (2005–06) when demand for heroin appeared low, but demand for crystal methamphetamine was high (with high availability and high purity; Roxburgh, Ritter, Grech, Slade & Burns 2011).

The court noted the syndicate’s high level of organisation: ‘The syndicate seems to have been well organised and very productive, carrying on the business of importing and then trafficking in drugs as efficiently as if they

were dealing in a legitimate product such as apples. It is apparent that the...co-conspirators had no regard whatsoever for the nature of the commodity they were involved in, apart from the fact, of course, that it was highly valuable.' This suggests they imported and sold more heroin than the average syndicate.

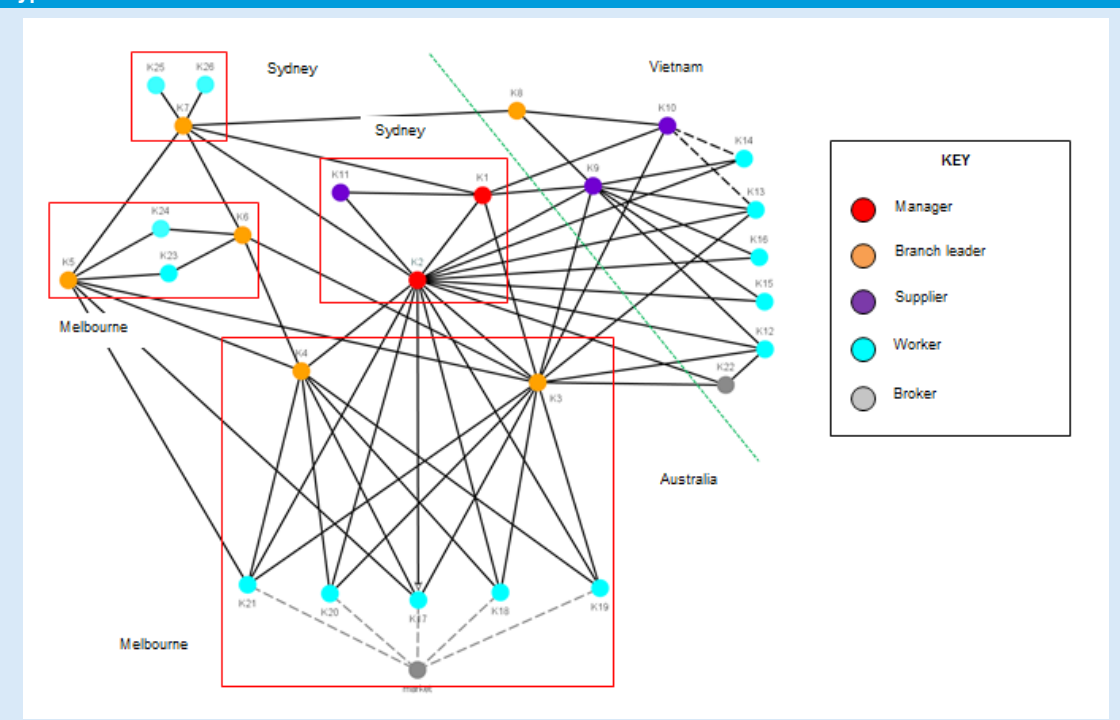
The syndicate as a whole is first examined, undifferentiated by drug or crime type; then the individual heroin, methamphetamine and money-laundering subnetworks are examined, and finally the intersections between these.

Structure of the poly-drug and poly-criminal network as a whole

Syndicate 2 included 26 members, almost all of whom were of Vietnamese origin (96%). Most of the core members were known to each other: they were married, family members, friends or colleagues. Many had legitimate jobs, especially those in the money remittance business.

As shown in Figure 6.4, there were multiple connections between members of this syndicate, with a number of clear 'hubs' with higher numbers of connections. Two hubs were located in Sydney and two in Melbourne. Like Syndicate 1, this network had two lead organisers, but it also had five 'branch' leaders. As shown in Figure 6.4, the branch leaders assumed managerial responsibility in different geographic regions, but also separated the lead organisers from much of the distribution and/or laundering activities. Accordingly, each of the hubs had its own branch leader(s) and a series of workers (defined here as members who did the day-to-day work for the drug and/or money laundering businesses). This network was more like a hybrid network as described in much of the literature (eg Bright & Delaney 2013; Bright et al. 2012; Calderoni 2012; Morselli 2009; Varese 2013). The most connected members, or those with the highest degree of centrality, were the lead organisers (K1 and K2). The members with the greatest brokerage capacity were K2, K7 and K3. Importantly, four of the key members (K1, K2, K3 and K7) were branch leaders who bridged the network between Australia and Vietnam.

Figure 6.4 Syndicate 2—Poly-drug and poly-criminal network as a whole, undifferentiated by drug or crime type



Structure of the subnetworks

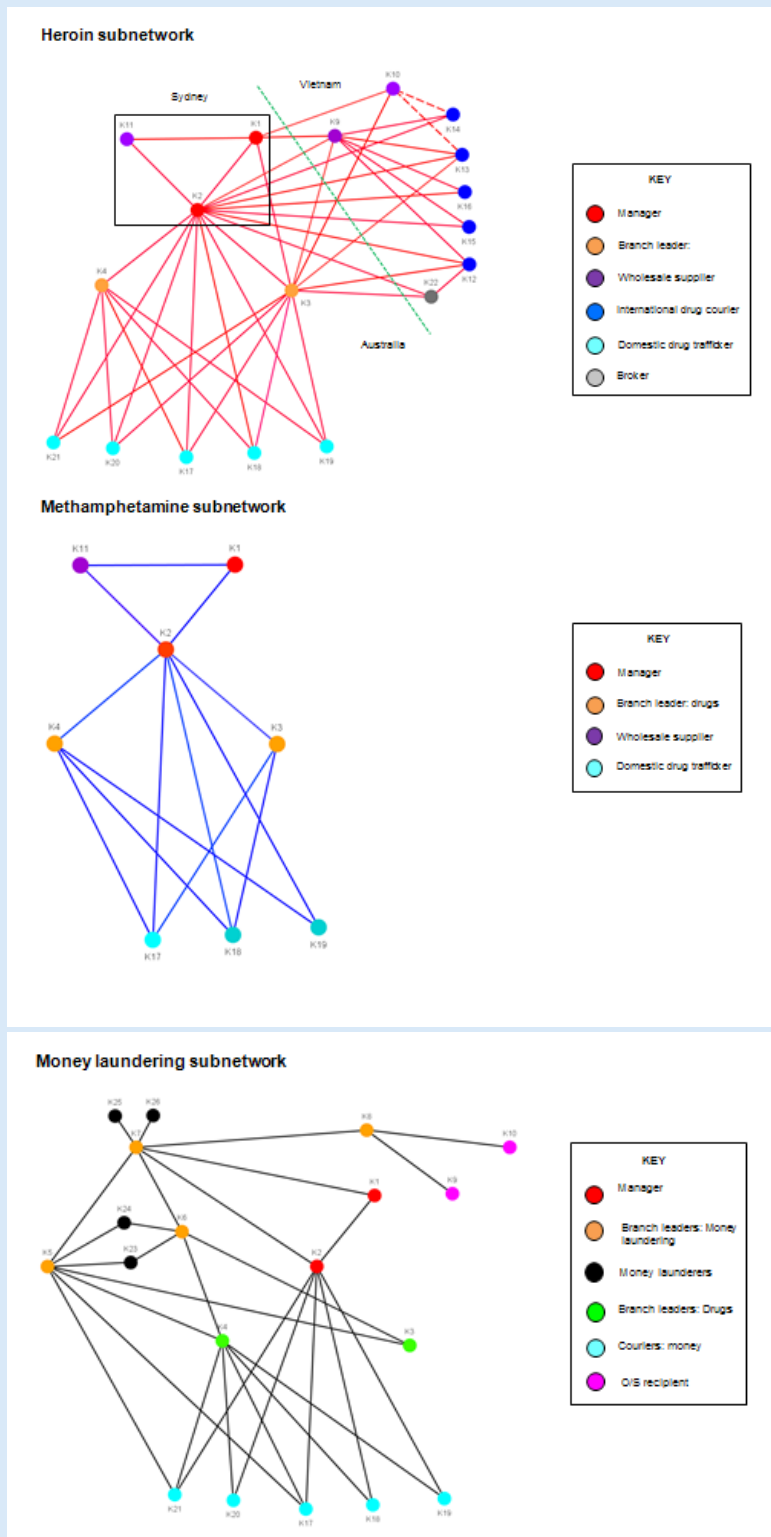
Figure 6.5 shows the different subnetworks and the roles played (see also Table 6.2 for more details). The heroin network comprised 18 members in total; there was a large hub in Vietnam comprised of two international heroin suppliers and a group of drug mules, and two separate hubs in Sydney and Melbourne. The Sydney hub was responsible for importing heroin from Vietnam via drug mules, and/or purchasing heroin from domestic suppliers. This was warehoused in Sydney until buyers in Melbourne were identified, then couriered to Melbourne by a different set of traffickers for retail sale, using commercial airline flights or car.

As shown in Figure 6.5, the heroin subnetwork was managed by two principals located in Sydney, K1 and K2. K1 had more of a role in operational planning, leaving K2 to undertake the day-to-day management. In a key role, K2 liaised with the three heroin suppliers in Vietnam and Sydney and oversaw the international couriers; K2 was also involved in courier hire; advised on the quantity and size of packages to be imported, the timing and location of delivery and how couriers were to behave; and arranged taxis to meet the couriers on arrival. The two branch leaders in Melbourne, K3 and K4, had much more central roles in sales, negotiating where and when to deliver the drugs, and in risk management when there were problems with sales (such as when the quality of heroin was deemed too inferior). For example, they would occasionally warehouse product or traffic it themselves if it could not be sold. There is some suggestion that rather than sell inferior quality heroin to their usual customers they may have sold it elsewhere, thereby helping maintain their reputation as suppliers of quality product. Most of the time the drugs were taken directly to mid-level traffickers for resale. The most central members were thus the second-in-charge, K2, and K3, both of whom had international connections. K2 and K3, along with the principal heroin supplier K9, also scored highest on brokerage.

Unsurprisingly, the smaller methamphetamine subnetwork only included eight members. It did not import methamphetamine; rather, this was obtained from the domestic supplier (from an unknown source) and transported to Melbourne for on-sale. The subnetwork was also likely to have sourced its methamphetamine from Vietnam, albeit using a different supply chain. Its set-up was almost identical to that of the Australian arm of the heroin subnetwork (see Figure 6.5). Again, the second-in-charge, K2, had a key role in the methamphetamine subnetwork. Indeed, K2 was both the most connected member and the member with the highest brokerage.

Finally, the money-laundering subnetwork was made up of 19 members. There were two clear money-laundering nodes in Melbourne and Sydney, as well as international money launderers. When drugs were sold in Melbourne, money was either transferred back to Sydney via the couriers or, more commonly, deposited with Melbourne-based money remittance businesses and sent to Sydney-based money remittance businesses for collection by the principals, or transferred to Vietnam to pay for a new supply of heroin. The most connected players were K2, K4, K7 and K5, who were all managers or branch leaders. However, the money-laundering branch leaders from Melbourne and Sydney, K7 and K5, had the highest brokerage.

Figure 6.5 Syndicate 2—The heroin, methamphetamine and money laundering subnetworks



Finally, Figure 6.6 shows the involvement of syndicate members across the three different subnetworks, heroin, methamphetamine and money laundering. Compared with Syndicate 1, this poly-drug and poly-criminal network offered much more evidence of subgroups or discrete subnetworks based on the particular drug and or criminal activity. Unsurprisingly, since heroin was sourced in Vietnam and imported to Australia

via drug mules, K12, K13, K14, K15, K16, K17 and K22 were involved only with heroin. On the other hand K5, K6, K7, K23, K24, K25 and K26 were involved only with money laundering. It is also clear that within each of these larger networks there were nodes concentrated in the different geographic areas in which the network operated; for example, there was a money-laundering node in Melbourne and a money-laundering node in Sydney.

These discrete subnetworks make it apparent that the management structure adopted, with two managers and multiple branch leaders, was prudent, as it enabled each subnetwork to focus on their specialist areas (drugs, money laundering), while simultaneously ensuring communication and coordination across the different commodities.

There were also overlaps across all three subnetworks. In particular, four key members were involved in all three subnetworks: two were the managers, K1 and K2, and two were the Melbourne-based drug branch leaders K3 and K4. These four members had key roles in linking the overall network. For example, K1 was the organiser for the entire poly-drug and poly-criminal network, and K2 undertook day-to-day tasks for K1. K3 and K4 served as critical junctures across the entire network, ensuring the revenue from the trafficked drugs was laundered. The best example of crossover between the subnetworks was the drug/money couriers. They clearly engaged in poly-drug trafficking, with many couriers heroin and methamphetamine to Melbourne at the same or different times. Equally importantly, these couriers were also used to collect and deposit drug revenue in accounts so that it could be laundered. An added benefit of this approach was that the branch leaders oversaw, but rarely had to handle, the drugs or money themselves. There were exceptions when there were problems, such as drugs being of inferior quality or excess drugs delivered, requiring warehousing and/or trafficking.

Figure 6.6 Syndicate 2—Poly-drug and poly-criminal network, showing involvement in heroin and methamphetamine trafficking and/or money laundering

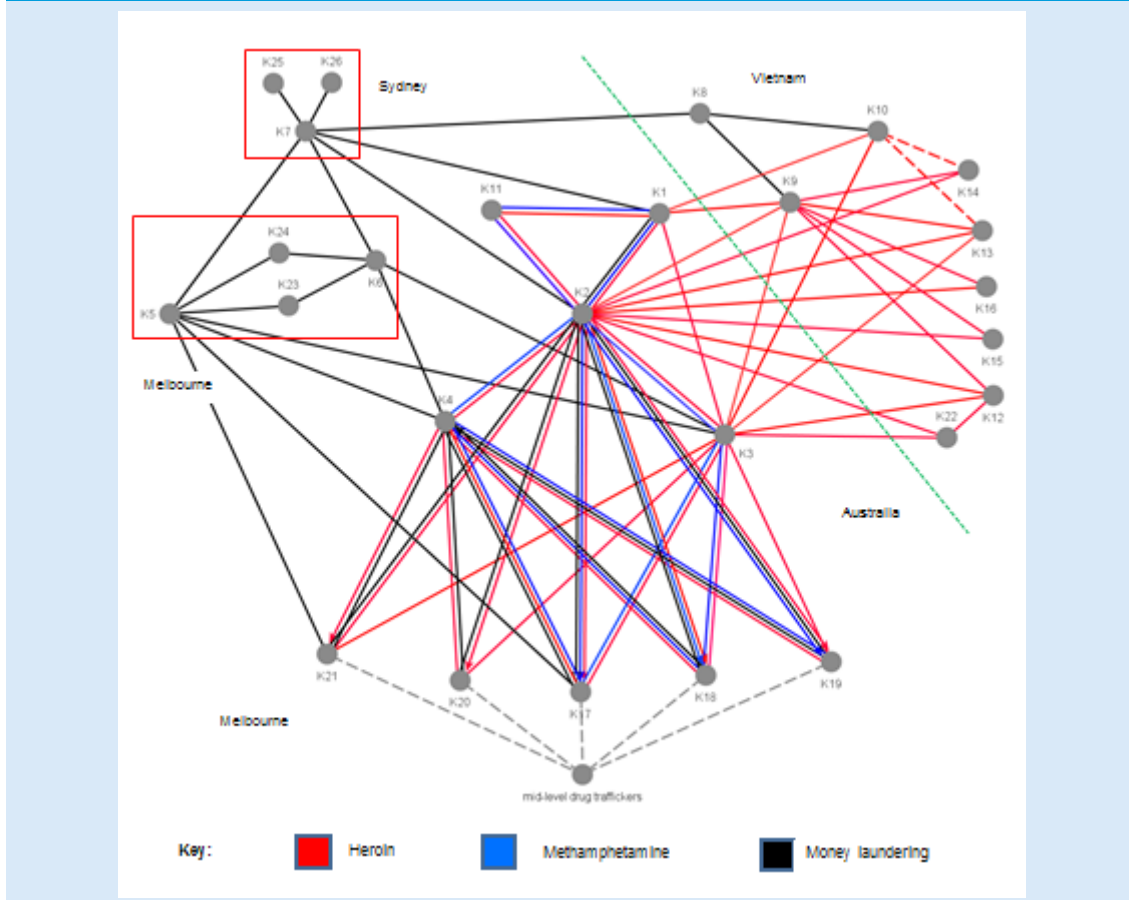


Table 6.2 Members of the international poly-drug and poly-criminal syndicate and their roles

Key	Roles	Responsibilities
K1	Principal	Head of syndicate: organised supply and sale of heroin and meth and money laundering between Melbourne, Sydney and Vietnam. Lived in Sydney.
K2	Second in charge	Sydney based 2IC: hands-on role in all three businesses. Organised domestic and international drug couriers; including courier hire, the quantity and size of packages, timing and location of delivery, risk mitigation and funds remittance. Assisted in money laundering; collected money from Sydney remittance businesses and transferred funds to Vietnam.
K3	Branch leader (drug)	Melbourne-based branch leader: arranged and facilitated delivery of drugs to Melbourne and collected and deposited drug money (from couriers and buyers) into Melbourne remittance businesses. Brokered link with Vietnamese heroin supplier and negotiated price, quantities and courier arrangements.
K4	Branch leader (drug)	Melbourne-based branch leader: arranged and facilitated delivery of drugs to Melbourne with K3, and collected and deposited drug money (from couriers and buyers) into Melbourne remittance businesses.
K5	Branch leader (money)	One of two principal operators of money remittance business in Vic through which money was laundered.
K6	Branch leader (money)	One of two principal operators of money remittance business in Victoria through which money was laundered.
K7	Branch leader (money)	Head money remittance branch in NSW.
K8	Branch leader (money)	Head money remittance branch in Vietnam.
K9	Supplier	Vietnamese heroin supplier: principal supplier of heroin.
K10	Supplier	Vietnamese heroin supplier: backup supplier.
K11	Supplier	Sydney-based supplier: heroin and methamphetamine.
K12	International courier	International courier: heroin. Not of Vietnamese descent.
K13	International courier	International courier: heroin.
K14	International courier	International courier: heroin.
K15	International courier	International courier: heroin. Also domestic heroin supplier.
K16	International courier	International courier: heroin.
K17	Trafficker	Domestic trafficking: heroin and methamphetamine. Money laundering.
K18	Trafficker	Domestic trafficking: heroin and methamphetamine. Courier: drug money.
K19	Trafficker	Domestic trafficking: heroin. Courier: drug money.
K20	Trafficker	Domestic trafficking: heroin and methamphetamine. Courier: drug money.
K21	Trafficker	Domestic drug courier: heroin. Money laundering.
K22	Broker	Mutual contact of K3 and K12: brokered connection with K12.
K23	Money launderer	Money laundering.
K24	Money launderer	Money laundering.
K25	Money launderer	Money laundering.
K26	Money launderer	Money laundering.

Benefits of poly-drug and poly-criminal trafficking

There were a number of benefits of product diversification. The first benefit was reducing the risks of a loss of supply. For example, while heroin was the principal drug sourced, the ability to also source methamphetamine meant that if heroin supplies were interrupted or decreased in purity, some form of drug trafficking could continue. This was important, as some of the heroin was low purity; and the middle-market traffickers it was sold on to sometimes refused the sales. As with Syndicate 1, the secondary drug business began at an opportune time, when demand for methamphetamine, and methamphetamine purity, was high. In response to the changing heroin market, the syndicate was thus able to increasingly rely upon the secondary drug, thereby maintaining a regular trade.

Another benefit was reducing the risks of law enforcement intervention. One feature of this network was the use of drug mules to bring heroin into Australia. While many mules were used, some on multiple occasions, this was nevertheless a more risky strategy. This was demonstrated by the arrest of a few overseas drug mules; also, one task of the members overseeing drug mule arrangements (K2 and K3) was attending to 'courier demeanour'. However, because this was a poly-drug network, drug supply could continue despite the arrest of drug mules, albeit of methamphetamine rather than heroin.

There was also the mutual benefit of the money-laundering and drug businesses working together—namely, as suggested by the extant literature, the drug businesses obtained cleaned funds, and the money launderers gained additional income. There is some evidence that the explicit decision to launder the funds may have helped the syndicate to evade detection for longer, as this particular syndicate was detected through its money-laundering activities rather than its drug activities. This suggests that, in spite of the loss of some overseas drug mules, the drug businesses remained quite covert.

Additionally, there was the sharing of infrastructure and approaches to distributing drugs, including through warehousing and the trafficking of a number of drugs to Melbourne. Equally importantly, there were a number of curiosities of this network—the decision to traffic all drugs to Melbourne rather than distribute them in Sydney, and the specific quantities trafficked. These decisions may have been informed by Australian drug-trafficking laws. For example, the international couriers/drug mules were bringing in about 250g of heroin per trip (in 24 balloons). This amount is under the commercial threshold for border controlled drugs—defined as 1.5kg of pure heroin in the Criminal Code Regulations 2002. (This amount would also not have shown up in this study's earlier analysis.) After warehousing, the drugs were transported from Sydney to Melbourne in 350g lots of heroin and 500–1,000g lots of methamphetamine. Examination of drug-trafficking thresholds in NSW and Victoria (under Schedule 11 of the Victorian *Drugs, Poisons and Controlled Substances Act 1981* and Schedule 1 of the NSW *Drugs Misuse and Trafficking Act 1985*) suggests these quantities may have been deliberate. For example, in both states the commercial threshold for heroin and methamphetamine trafficking is 1,000g. However, the commercial threshold for heroin and methamphetamine is considerably lower in NSW than in Victoria, at 250g and 500g respectively. Consequently, traffickers were carrying amounts of drugs that fell below the large commercial threshold, and anyone who was detected doing so would avoid the harshest penalties (potentially life imprisonment for anyone with a large commercial quantity). Equally importantly, in Victoria—the state in which traffickers would arguably be at greatest risk of detection—the quantities of heroin transported (350g) were below the Victorian commercial threshold (500g). Anyone detected transporting and distributing this amount would have a reasonable chance of avoiding prison; while 98.8 percent of people sentenced for trafficking a large commercial quantity of drugs in Victoria were imprisoned, the rate of imprisonment for those carrying a non-commercial quantity is much lower at 49 percent (Sentencing Advisory Council 2013a, 2013b, 2013c). The specific quantities distributed thus reduced the potential risk to traffickers, if detected. Given this network was formed on the basis of kinship, this may have been important.

In conclusion, Syndicate 2 had a very different approach to Syndicate 1, with a clear alliance between the drug businesses and the moneylaundering businesses and an overarching management structure. This appeared to aid specialisation and also helped with coordination. Trafficking in two different drugs also appeared to offer particular advantages including, as with Syndicate 1, the pooling of resources and the ability to maintain supplies despite fluctuations in the purity of the principal drug (in this case, heroin). A particular added advantage for this syndicate was offsetting of some of the risks of loss of supply, by importing drugs via drug mules.

It is interesting to consider the specific drugs being trafficked. Given the low demand for heroin, the choice of drugs trafficked is interesting, but in this case it would appear to reflect an opportunity—the syndicate had the means to obtain this drug from Vietnam. This is a clear example of the role of globalisation and immigration in facilitating poly-drug trafficking.

Syndicate 3: Large-scale international poly-drug and poly-criminal syndicate

Syndicate 3 was a high-level syndicate that operated during 2007–08 and was involved in the importation and trafficking of MDMA (the primary business), cocaine and precursors (pseudoephedrine and MSG), as well as money laundering. Three syndicate members were also involved in the attempted murder of another member, in retaliation or as an ‘anti-corruption’ strategy. This syndicate operated across six countries—Australia, Belgium, Colombia, India, Singapore and Hong Kong—and trafficked drugs across five states: Victoria, NSW, Tasmania, South Australia and the ACT.

The exact scale of the operation was difficult to measure but the syndicate successfully imported over 1.2 million MDMA pills from Europe, purportedly supplying MDMA to 60 percent of the country and laundering over \$11 million. However, the syndicate was most infamous for its involvement in an attempt to import 4.4 tonnes of MDMA, worth an estimated \$440m on the street. The drugs were transported in a shipping container from Belgium to Melbourne, but were detected by drug law enforcement agents in Melbourne. Two subsequent attempts to import cocaine and precursors were also detected in Australia once they landed. The syndicate was thus associated with three very sizeable seizures:

- 4.4 tonnes of MDMA (from Belgium, via Naples, Italy);
- 150kg of cocaine (from Colombia); and
- 99kg of precursor (from India).

All three seizures were included in the analysis of AFP seizure data described in Chapter 4, and accounted for much of the MDMA seized in 2007.

In spite of its huge losses (\$10m in MDMA alone), the network still made a profit over this period of at least \$1.75m. The Victorian Supreme Court’s summary describes the network as involving ‘international organised crime connections, extraordinarily large amounts of drugs, continuing persistent offending (and) large scale money laundering.’ Moreover, the court noted it was ‘run as a business, a pure commercial enterprise, concerned only with making the highest possible profit in shortest possible time’; the syndicate involved offending that was ‘possibly the most serious of its kind ever in Australia.’ The study examines the syndicate as a whole (without differentiating between its drug and criminal networks), then the individual subnetworks (MDMA, money laundering, cocaine and precursors) and finally the intersections between these.

Structure of the poly-drug and poly-criminal network as a whole

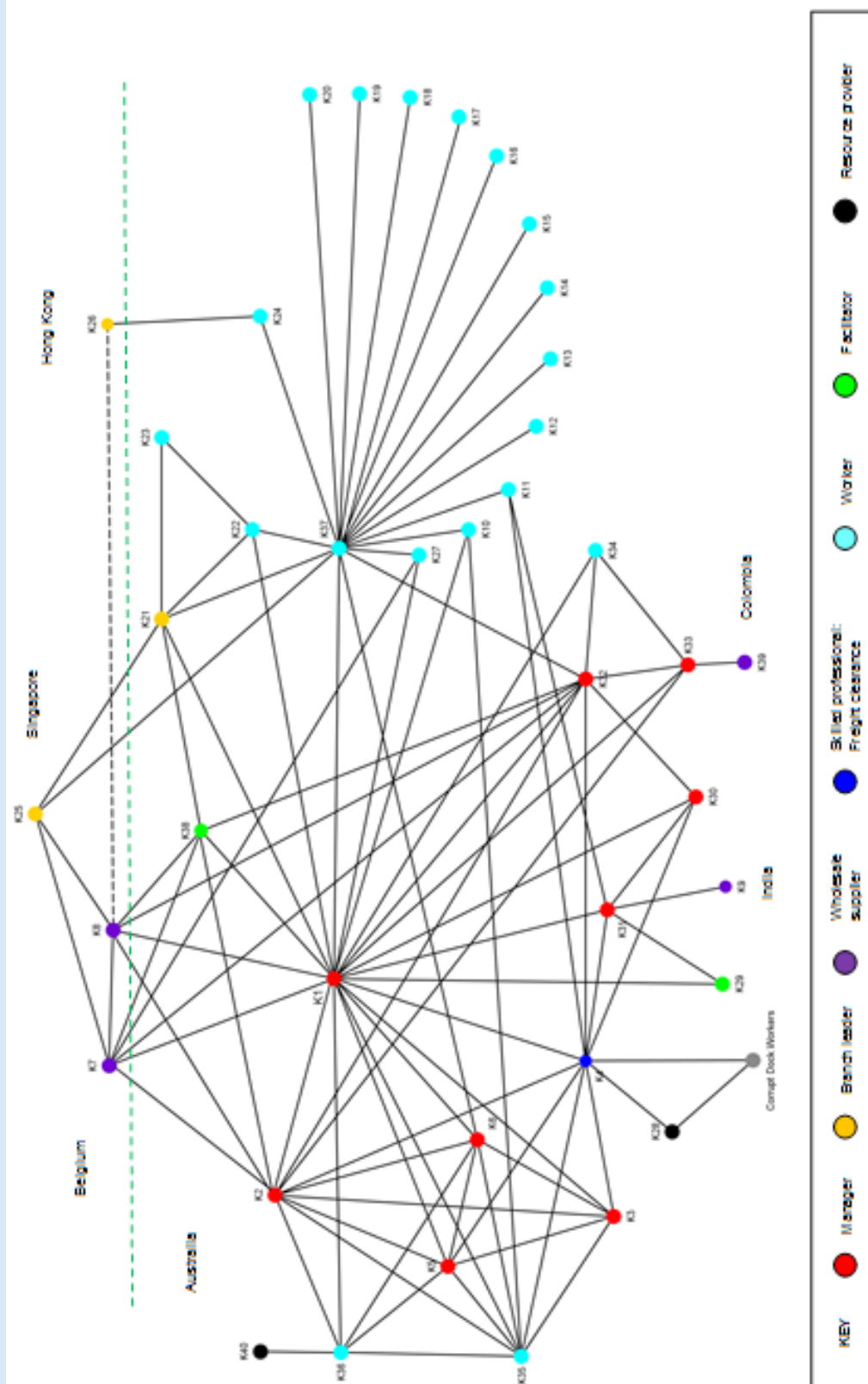
Syndicate 3 was made up of 40 identified members. Many of these, particularly the managers and partners, were of Calabrian descent; they knew each other as relatives and/or friends before joining the network. By ethnic background, 38 percent of the syndicate members were of Italian descent, 10 percent were Belgian or Dutch and 15 percent were Indian. Compared with the other syndicates, particularly Syndicate 2, this group was ethnically diverse. A number of the principal players also came from other crime groups including outlaw motorcycle gangs (particularly K3, K5 and K28). In this way this syndicate appeared to represent a loose alliance formed for mutual benefit, which made it distinct from the other two syndicates. The key positions of management, oversight and brokerage were filled predominantly by the Italian members. As with the other two networks many of the members, particularly the managers, ran legitimate enterprises including large-scale farming, retail and freight-forwarding/logistics businesses.

Syndicate 3 was a loosely connected network characterised by a limited number of connections across and between members (see Figure 6.7). However, just as for Syndicate 2, there were also hubs of distinct activities with greater numbers of connections. One hub consisted almost entirely of managers and organisers; indeed, across the network there were a large number of managers and organisers—two labelled as principals by the court, a ‘lead organiser’ (K1) and a second in charge (K2), and seven or eight other managers and/or organisers—one member, K4, was both a skilled professional and an organiser/partner—and three branch leaders. This reflects, in part, the very large scale of the attempted importations and consequent need for a high level of planning. However, as noted in subsequent sections, it also appears to reflect a decision to use different managers for different commodities.

The lead organiser K1 was one of the most connected members, with a high degree of centrality, in the syndicate. The most connected member was K37, the girlfriend of K1 and gofer; she likely faced a greater risk of being caught. These two members were, again, high on brokerage potential, but K2 and K4 were also high on brokerage. This is no doubt because K2 was a manager—the second in charge of the network, undertaking liaison with the international suppliers—and that K4 had specialist skills, namely expertise in freight forwarding at the Melbourne docks. That these players had low centrality but high brokerage suggests they had key roles in the syndicate.

The roles of other members were diverse, including international wholesale supply, wholesale trafficking, international funds remittance, domestic money laundering and resourcing; some members had expertise in truck-driving and creating false passports (see Table 6.3 for full details). The study also examined the structure of the syndicate’s subnetworks.

Figure 6.7 Syndicate 3—The poly-drug and poly-criminal network as a whole, undifferentiated by drug or crime type



Structure of the subnetworks

The MDMA subnetwork was the largest and had a total of 26 members, most of whom were located within Australia (see Figure 6.8). There were a number of clear hubs—one involved in management and planning, one in international supply, one in liaison and/or importation of drugs, and a large hub involved in distribution and sales across Australia. In particular, there was evidence of much interaction between the managers, who had numerous meetings and phone calls planning the best way to get MDMA into the country. While the large 4.4 tonne MDMA shipment was ultimately detected and seized, the importation was regarded by the courts as a very sophisticated operation. The MDMA was imported using the piggyback method, a known way of minimising the likelihood of illicit goods being detected (Basu 2013). The illicit drugs were hidden in the container of a legitimate freight-transfer company—in this case one transporting tinned tomatoes. The drugs were put into tomato tins which had been deliberately weighted to be equivalent to the expected weight of the tinned tomatoes. The container was then relabelled with contact numbers for the syndicate, so that upon arrival in Melbourne the container and its contents would be diverted to a person whose contact details had been provided and, when safe, the container would be removed from the dock and taken elsewhere to be unloaded, stored and then distributed. This whole process took place without any detected involvement of the legitimate consignee.

The distribution of the drugs occurred through a separate hub. This meant management had very little involvement in the actual drug distribution, a known strategy for minimising the risk of detection and/or sanction (Bouchard 2007; Caulkins et al. 2009). The most connected players (ie those with the highest degree of centrality) were the two principals, K1 and K2, and K1's gofer, K37, who distributed the drugs to the drug traffickers. Only K2 actually handled the drugs. The members with the highest brokerage were, again, the principal K1 and K1's gofer K37, but also included the skilled professional who provided access through the ports (K4).

The money-laundering subnetwork included 24 members, including members in three overseas countries (see Figure 6.9) but the majority of the activity occurred within Australia. One hub in particular was involved in collecting drug money, a role undertaken by K37. The second hub laundered funds using the 'cuckoo smurfing' method, whereby drug money was transferred through the accounts of innocent third parties receiving international money transfers for legitimate transactions. For example, the family of an international student studying in Australia provided cash to an overseas remitter, informing the Australian money remitter of the amount and the details of the bank account the deposit was to be made to. The Australian money remitter then informed the money-laundering network and an equivalent amount of 'dirty' drug money was deposited into the account, allowing the original 'clean' cash to be collected by syndicate members from the overseas remitter.

Here there were two different money-laundering hubs. The primary hub involved an Australian branch leader, K21, and two money launderers, K22 and K23, whose role was to liaise with the drug network representative and K1's gofer, K37, to collect the drug funds and deposit them into multiple bank accounts, according to the directions of the branch leader. Deposit slips were then sent to the international branch leader, K25, for collection and transfer to the Belgium suppliers K7 and K8. The most connected players in this subnetwork—those with the highest degree of centrality—were thus the money-laundering branch leader, K21, and the drug network liaison K37. The latter also had high brokerage, reflecting their key role of transferring drug funds; but so did the Singapore funds remitter K25.

Figure 6.8 Syndicate 3—The MDMA importation and trafficking subnetwork

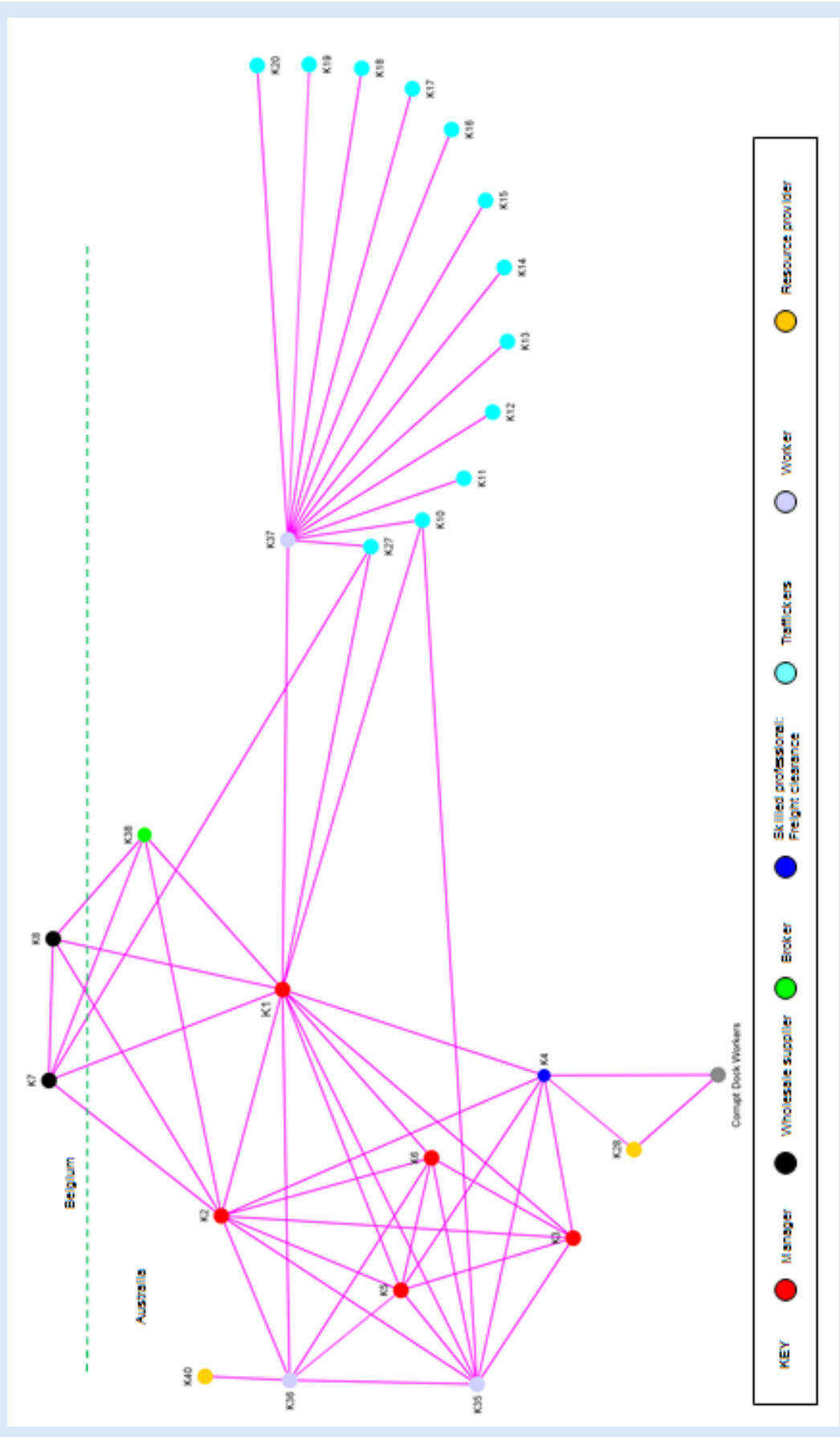


Figure 6.9 Syndicate 3—The money-laundering subnetwork

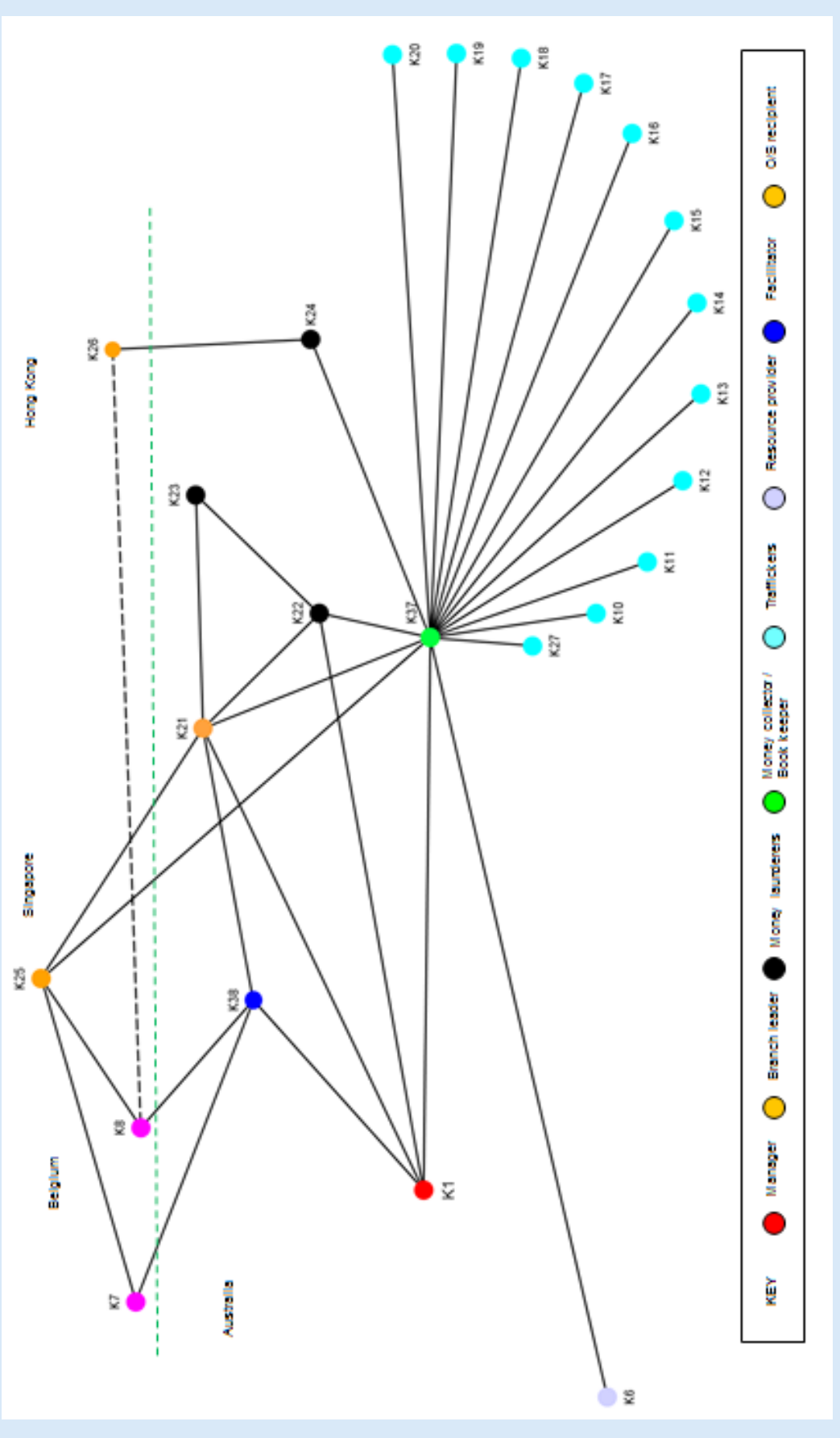


Figure 6.10 Syndicate 3—The cocaine importation subnetwork

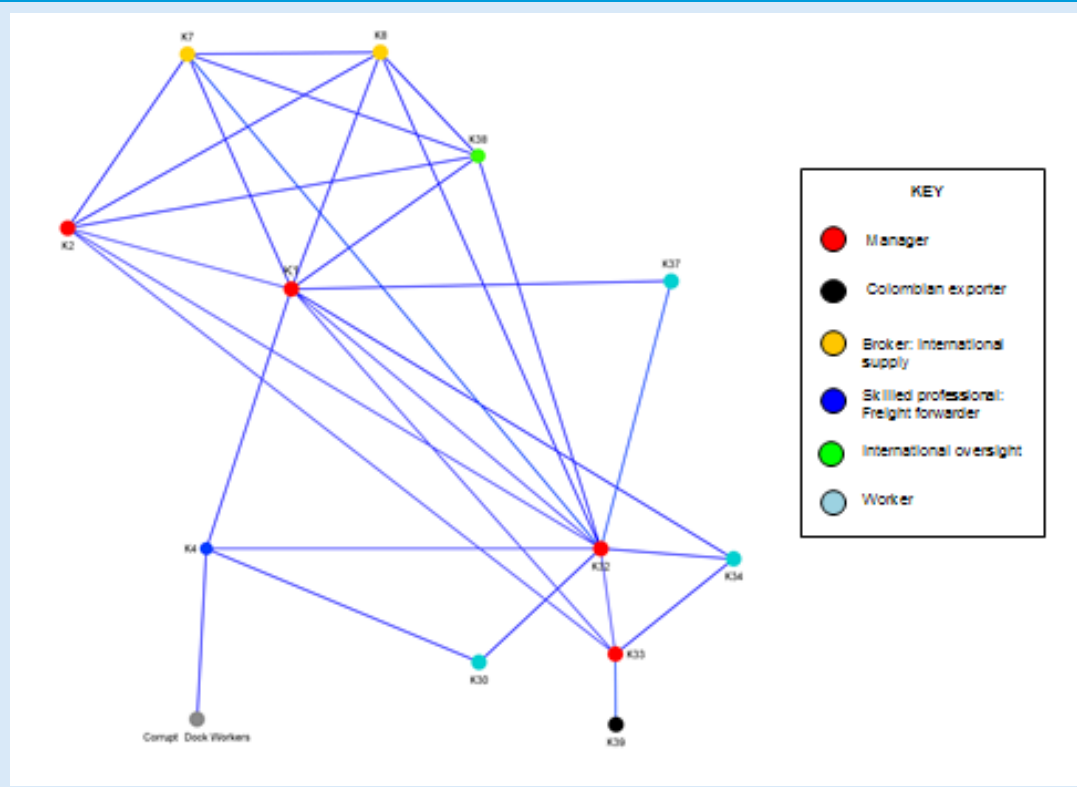
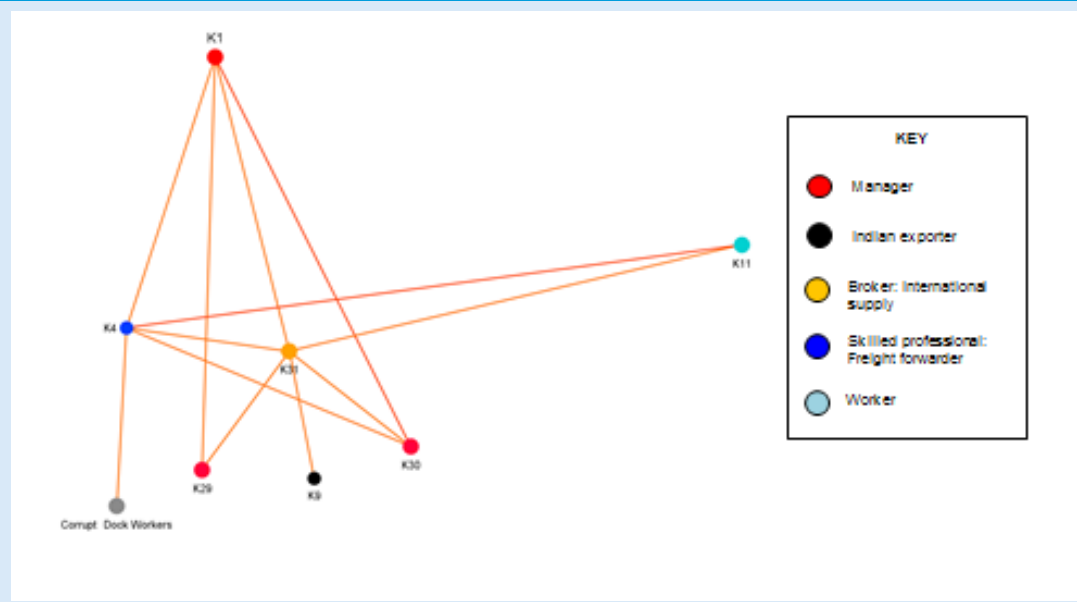


Figure 6.11 Syndicate 3—The precursor importation subnetwork



The cocaine and precursor subnetworks were much smaller, with 12 and seven members respectively, and had largely similar structures involving a number of managers, exporters, international supply brokers and a professional freight forwarder. Within the cocaine network the most connected players were two of the managers, K32 and K1 (see Figure 6.10). K32 had a particularly important role in this network, arranging meetings and even flying to meet the Belgian suppliers to negotiate access to the cocaine. Both K32 and K1 also had key roles in brokerage; the freight forwarder K4 also had a key role in brokerage, as did K33, who liaised with the Colombian cocaine exporters. Within the precursor network, K1 was both the most connected

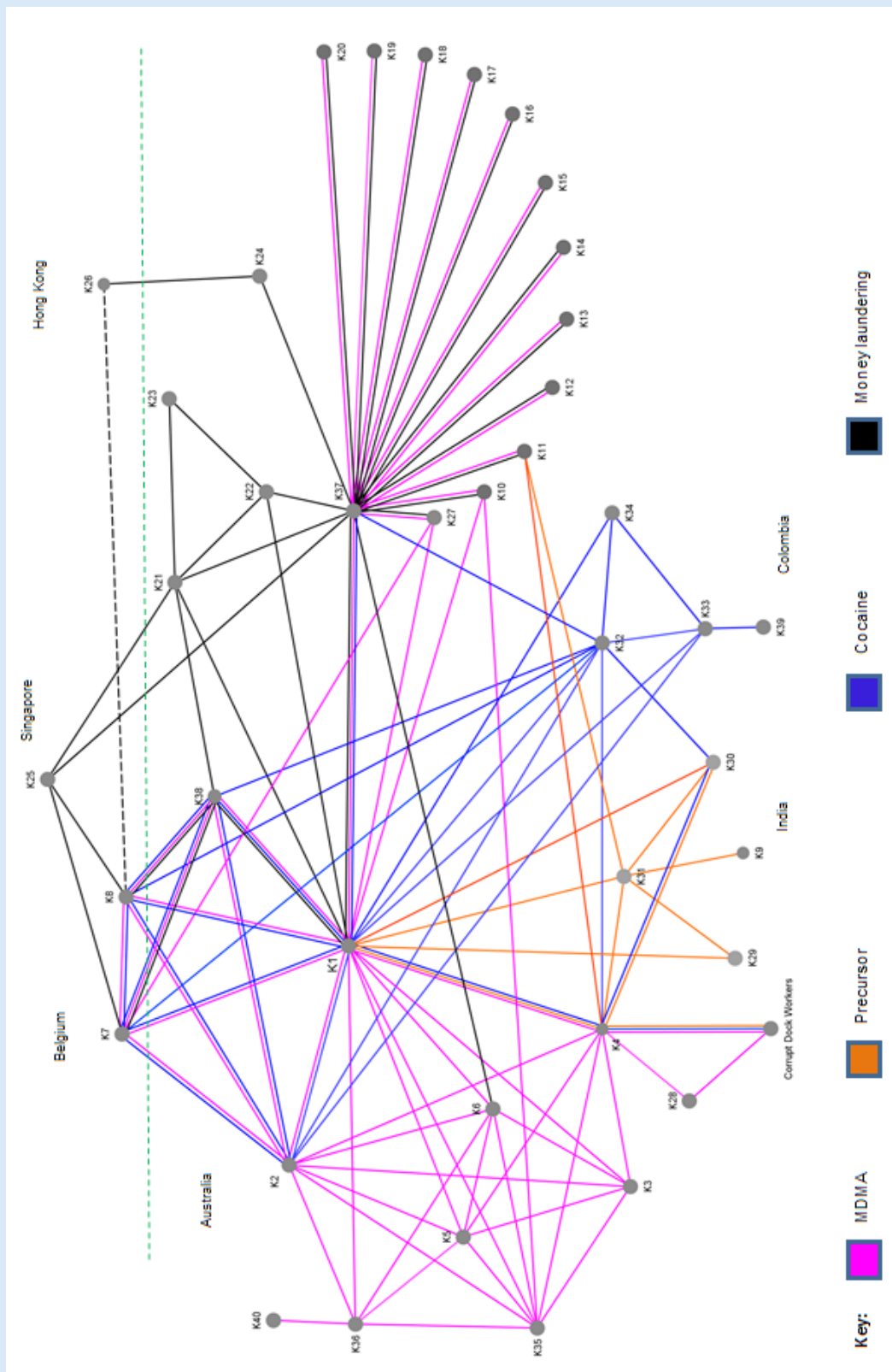
player and undertook a great deal of brokerage (see Figure 6.11). However, K31 also undertook brokerage and was the sole member with contacts in India for the importation of pseudoephedrine.

Looking at the poly-drug and poly-criminal network as a whole, it is clear that these four subnetworks were largely discrete (see Figure 6.12); there was heavy emphasis upon outsourcing roles and responsibilities to different groups. Consequently, compared to Syndicates 1 and 2, there was far less overlap across the subnetworks. This may have been driven by necessity because activities were occurring in tandem, or it may have been a deliberate management approach. One limitation of examining this network is that neither methamphetamine nor cocaine were successfully imported or distributed. If these drugs had been imported, however, there would probably have been overlap in the distribution arm as with Syndicates 1 and 2.

Again, a number of members of the syndicate operated across multiple subnetworks. Of particular note was the principal K1 who was involved in all four subnetworks and served as the key organiser and planner for the entire poly-drug and poly-criminal network. Other key members were the Belgian suppliers K7, K8 and K38, the skilled freight forwarder K4 and K1's girlfriend or gofer K37. Each of these members played particularly important roles, sharing skills or resources across the broader network. In particular, the Belgian suppliers provided wholesale access to both MDMA and cocaine. The skilled freight forwarder advised all three drug subnetworks on how to evade detection at the ports. It is notable that all three drug subnetworks employed the piggyback method of importation. K1's girlfriend operated as a gofer and a liaison between the drug subnetworks and money launderers, collecting drug money and ensuring it could be laundered. In many ways, she carried the maximum risk as she transferred the drugs and the drug money. These provide clear examples of both the use of largely non-overlapping subnetworks, and of the sharing of key personnel, skills and resources across the network.

Other than these critical players, there were other lesser examples of resource or skill sharing. For example K5, who was involved only with MDMA, helped another member (K37) obtain a false passport in order to meet the overseas money remitters. This was an essential step in facilitating the money laundering. The attempted murder of K28 also drew on shared skills. This incident was motivated by the belief that K28 had tipped off the police about the MDMA importation; K1 therefore attempted to coordinate their murder (with K17 and K20, two MDMA traffickers), drawing upon K20's skills as a 'gun for hire'.

Figure 6.12 Syndicate 3—The poly-drug and poly-criminal syndicate showing involvement in MDMA, methamphetamine precursors, cocaine and/or money laundering



Benefits/costs of poly-drug and poly-criminal trafficking

Syndicate 3 showed some clear benefits of poly-drug and poly-criminal trafficking. In particular, there were synergies between the two principal businesses of MDMA trafficking and money laundering, with both providing mutual benefits. As noted by the Victorian Supreme Court, ‘the money laundering was a central aspect of, and indeed vital to, the functioning of the criminal syndicate.’ Diversification into multiple drugs, moreover, offered the opportunity to exploit links with existing suppliers and drug distribution subnetworks. This is particularly the case as it is likely that, if the cocaine or precursors had evaded detection, the cocaine and resultant methamphetamine would have been distributed via the established MDMA trafficking networks. Trafficking cocaine could have proven much more valuable than MDMA; for example, the 150kg of cocaine ‘cost about \$600,000 but was worth about \$40 million’, a 66-fold increase. This is a much higher mark-up than MDMA attracts.

Nonetheless, the syndicate’s efforts to expand beyond MDMA into cocaine and precursors were ultimately unsuccessful. While the reason for this is unclear, it is arguable that a key reason was that entry into these new products was rash and hurried, because product diversification—that is, trafficking in other illicit drugs—only became attractive after the seizure of the 4.4 tonnes of MDMA and resulting need to recoup losses. Accordingly, while poly-drug trafficking and/or poly-criminal activity was a deliberate and considered strategy for Syndicates 1 and 2, this was not the case for Syndicate 3. This is supported by the fact that both the cocaine and precursor importation ventures occurred simultaneously and involved some new previously untested alliances, including in India. This suggests that, just as in the legitimate business world, rash decision-making may lead to poor business decisions; poly-drug trafficking may bring challenges if entry into the business is too fast or unplanned.

There were other features of this syndicate that may also have impeded its capacity to expand into other illicit drug markets. It was structured as a set of loose alliances. While the extant literature, particularly from law enforcement bodies, implies that loose alliances are beneficial (EMCDDA and Europol 2013; Fowler et al. 2007; UNODC 2014a), the circumstances of this network suggest they may also pose new challenges, particularly for managing poly-drug and poly-criminal networks. For example, the drug-trafficking businesses of some syndicate members were clearly in competition—K28 headed a separate methamphetamine business—which may have created tensions around loyalty. These alliances were probably less problematic than the rapid entry into poly-drug trafficking. The syndicate also dealt with very large one-off amounts of drugs and/or money. By contrast, the other syndicates imported and distributed smaller amounts more frequently. This suggests there may be some added benefits in smaller-scale, more frequent poly-drug trafficking.

In summary, Syndicate 3 was a much more complex network. It offered the greatest evidence of subnetworks, ie participants involved solely in money laundering or who dealt in one drug only, although it still offered evidence of skills and resource-sharing. Ultimately, however, while this poly-drug and poly-criminal network stood to gain huge amounts, its forays into poly-drug trafficking were less successful, which may reflect the business approach.

Table 6.3 Members of the international poly-drug and poly-criminal syndicate and their roles

Key	Role	Responsibilities
K1	Manager	Leader, financier and main organiser of the importation and trafficking of MDMA, cocaine and precursors, and of money laundering. Conspired to murder one syndicate member (K28; NSW).
K2	Second in charge	Right-hand man/lieutenant to K1; directed and coordinated MDMA and cocaine importation and MDMA trafficking. Met international drug suppliers on behalf of K1 (NSW).
K3	Partner	Partner in MDMA importation. History of successful poly-drug trafficking. Brokered access to K4, then served as intermediary (Vic).
K4	Partner/freight forwarder	Partner in MDMA importation. Legitimate freight forwarder. Facilitated clearance of MDMA, cocaine and precursors using contacts at docks (Vic).
K5	Partner	Partner in MDMA importation. Provided half of the funds for import, and had a key role in planning and decision-making (SA).
K6	Partner	Partner in MDMA importation. Resource provider: obtained false passport for K12 so K12 could travel to Singapore to meet overseas money remitters.
K7	Supplier	Wholesale international supplier: cocaine and MDMA (Belgium).
K8	Supplier	Wholesale international supplier: cocaine and MDMA (Belgium).
K9	Supplier	Wholesale international supplier: precursors (India)
K10	Trafficker	Wholesale MDMA trafficking. Also the intended recipient of much of the (seized) 4.4 tonnes of MDMA (Vic).
K11	Trafficker	Wholesale MDMA trafficking. Also assisted in planning the importation of MDMA and precursors (Vic).
K12	Trafficker	Wholesale MDMA trafficking (Vic).
K13	Trafficker	Wholesale MDMA trafficking (Vic).
K14	Trafficker	Wholesale MDMA trafficking (Vic).
K15	Trafficker	Wholesale MDMA trafficking (Vic).
K16	Trafficker	Wholesale MDMA trafficking (Vic).
K17	Trafficker	Wholesale MDMA trafficking. Also conspired to murder K28 (Vic).
K18	Trafficker	Wholesale MDMA trafficking. (SA).
K19	Trafficker	MDMA trafficking. (NSW).
K20	Trafficker	MDMA trafficking. Conspired to murder K28. (Tas)
K21	Branch leader: Money laundering	Leader of Australian money-laundering subnetwork with K22 and K23. Had sole contact with K1. Liaison for Singapore funds remitter (K25; Vic).
K22	Money launderer	Money launderer: collected money from members of drug-trafficking syndicate then deposited into accounts (as per the directions of K21; Vic).
K23	Money launderer	Money launderer: deposited drug funds into accounts and notified K21 (Vic).
K24	Money launderer	Money launderer: Received drug money and deposited into accounts, and notified Hong Kong contacts.
K25	International funds remitter	International funds remitter: Singapore.
K26	International funds remitter	International funds remitter: Hong Kong.
K27	Facilitator	Facilitator: alerted K1 to business operation for MDMA importation. Trafficked MDMA (NSW).
K28	Resource provider	Resource provider: had contacts at the docks. Involved in attempted MDMA importation. Perceived to be cause of failed MDMA importation. Intended murder victim (Vic)

K29	Facilitator	Broker: provided introductions for importation of precursor chemicals from India. Partner in subsequent activity (ACT).
K30	Partner	Partner: precursor importation. Also involved in cocaine importation (SA).
K31	Partner	Partner: precursor importation. Provided pre-existing contacts from India (Vic).
K32	Partner	Partner: cocaine importation. Flew to Europe with K2 to meet European syndicate, arranged meetings and obtained shipping documentation (NSW).
K33	Partner	Partner: cocaine importation. Key liaison with Colombian exporters.
K34	Worker	Assisted in planning cocaine importation.
K35	Worker	'Foot soldier' in MDMA importation. Chauffeur for K1 and other partners. Obtained and passed on information (NSW).
K36	Worker	'Foot soldier' in MDMA importation. Responsible for arranging meetings and general liaison between partners. Also liaised with third parties to arrange means of obtaining contents of the MDMA container (Vic).
K37	Worker & accounts keeper	Girlfriend and gofer for K1. Distributed MDMA pills to traffickers. Maintained business records of drug sales, liaised with money launderers (including in Singapore) and collected and gave drug money to money launderers. Assisted in planning cocaine importation (Vic).
K38	International liaison	Representative of European drug syndicate: sent to Europe to oversee money laundering and assist in the trafficking of MDMA and cocaine to Australia.
K39	Colombian exporter	Exporter of cocaine. Liaised with K33 about methods and delivery timeline.
K40	Resource provider	Truck driver. Organised to pick up container of MDMA and delivery to another place.

Summary and conclusions

This chapter examined how three high-level poly-drug and poly-criminal syndicates managed product diversification and what the potential benefits of this form of criminal activity are to poly-drug traffickers.

These analyses were limited in a number of ways. First, they were based on failed (ie detected) networks. This limitation is less problematic if information on how the networks successfully operated prior to the events that triggered their detection can be gathered. In that regard, there is very good information on Syndicates 1 and 2, as both operated successfully for some time as poly-commodity networks. It is harder to compare Syndicate 3, given its efforts to diversify into cocaine and ATS trafficking were unsuccessful. Second, only poly-drug networks were analysed, rather than both poly-drug and mono-drug networks. However, the study's conclusions were drawn in the context of the extant literature, which has examined in detail mono-drug trafficking networks, including some of the author's own analyses (eg Bright & Delaney 2013; Bright et al. 2012; Calderoni 2012; Heber 2009; Kenney 2007; Malm & Bichler 2011; Morselli 2009; Morselli & Petit 2007). Third, only what the police know and what is presented as evidence in court can be analysed, making it possible that some people could be missing from the analysis. Any persons missed, however, are much more likely to be peripheral to the operation, rather than essential players. Fourth, there is an inherent risk in social network analysis using criminal justice data that those identified as the most central persons may reflect the focus of law enforcement rather than true connectedness. Berlusconi (2013) has however shown that degree and betweenness centrality are quite robust; that is, they identify the key players and lines of brokerage even where there is some amount of missing data. Fifth, little is known about the syndicates before the police started observing them, limiting how much can be known about why or how the networks first became poly-drug or poly-criminal. Limitations aside, this analysis nevertheless provides key insights into the process of product diversification.

This analysis of three different poly-drug and poly-criminal syndicates suggests there are many potential ways for product diversification to occur: in-house production of multiple products (Syndicate 1), collaboration with another syndicate (Syndicate 2), or outsourcing and cooperation with other syndicates (ie alliances) and creating new ones (Syndicate 3). All these provide a means to take advantage of changing markets and emerging

opportunities. The three syndicates were also structured in different ways ranging from a hierarchical wheel structure to hybrids with subgroups that overlapped to varying degrees, connected via key brokers. That three quite different organisational approaches emerged from a random sample was unexpected and noteworthy and suggests there is no one simple method for achieving product diversification.

In spite of their differences, all the syndicates showed a number of commonalities. First, all of the networks managed the different commodities by using subgroups (eg people who worked on MDMA but not ATS) or role divisions (ie different responsibilities across commodities). This suggests some form of specialisation in particular commodities is necessary. All had a very clear management structure, with one or two different levels of delegated decision-makers for the network. The apparent necessity of management systems in poly-drug and poly-commodity trafficking is contrary to much of the social network literature regarding drug trafficking or criminal offending more generally, which increasingly refers to the rise in shared decision-making across the entire network (Heber 2009; Malm & Bichler 2011; Morselli 2009; Williams 2001). It is, however, more consistent with the structure of Mafia networks (Calderoni 2012; Varese 2013). This would suggest, albeit tentatively, that hierarchy may be necessary for poly-drug and poly-commodity traffickers, enabling coordination across different commodities.

Many of the participants had legal jobs; many also had prior experience in management positions. This suggests that social capital, particularly business skills, may be important in poly-drug and poly-criminal trafficking, perhaps more so than in mono-drug trafficking. This is somewhat counter to the dominant literature about the ease of entry into the drug trade (Caulkins et al. 2009; Matrix Knowledge Group 2007; Reuter & Haaga 1989). This is not to imply that all network participants were highly skilled in practice; most were caught and some of their decisions appear questionable. But it does suggest that business skills may be a prerequisite for this type of drug trafficking, particularly for those in management positions or positions of key brokerage. Many of the syndicates also piggy-backed on legitimate businesses, such as money remittance or transportation.

A number of potential benefits of poly-drug and poly-criminal trafficking have become apparent:

- increased flexibility/adaptability to changes in supply (eg drops in purity);
- ability to reinvest revenue across drug/crime businesses;
- cross-pollination of ideas;
- risk sharing;
- increased resilience to law enforcement;
- greater responsiveness to changes in demand; and
- increased ability to adapt the network to new opportunities or be ahead of the game.

The most important benefit appears to be a reduction in the risk of loss of supply. This was clearly demonstrated in both Syndicates 1 and 2: even in the face of marked change in the Australian and international illicit drug market, namely a decline in MDMA purity and poor purity/lack of supply of heroin, they were able to maintain and expand supplies by increasing their trade in other drugs.

Another key advantage for these poly-drug syndicates was their ability to capitalise on existing infrastructure (eg brokers, suppliers or trade routes). The networks appeared to develop around one drug before expanding into other drugs or commodities, often by replicating common methods. This is consistent with Basu (2013: 323) who noted that in many ways importation, or drug trafficking generally, is about learning or acquiring a 'core competency' or skill that can be expanded upon. A final added, and unexpected, benefit appeared to be the fostering of a more cooperative approach to doing business. Many of these benefits are in line with the existing literature on the purported benefits of product diversification, whether into drugs or other commodities (Morselli et al. 2011; Rubin et al. 2013; Shelley 2012). For the first time, however, some apparent risks can also be seen, particularly where product diversification is unplanned or too rapid—eg expanding from trafficking one product to four products simultaneously, or bringing in multiple new alliances). This suggests that, consistent with the observation noted in Chapter 5, product diversification may not benefit all drug traffickers, and successful product diversification may require particular skills and/or management approaches.

Chapter 7: Discussion and implications

This project provided the first detailed examination of poly-drug and poly-commodity trafficking in Australia, including of the scale of poly-drug trafficking at the borders, the nature and potential seriousness of high-level poly-drug trafficking as opposed to mono-drug trafficking, insights into how product diversification is managed and the potential benefits of this form of criminal behaviour to poly-drug traffickers. It is also the first international study to provide a detailed examination of poly-drug trafficking. As such, it provides unique insight into how high-level drug traffickers diversify into other drugs and criminal commodities.

Research on illicit activity is fraught with difficulty; there are inherent limitations in conducting this type of research. These challenges are magnified in research into new areas. Prior to discussing the findings of this study, this chapter will briefly outline these limitations for the reader.

Research limitations

The first and foremost limitation of this research is that, as an exploratory project, the study required a number of decisions be made about what data should be extracted from the PROMIS database and how to analyse it. Some decisions were constrained by data availability; others, such as which poly-drug and poly-criminal syndicates should be subject to social network analysis, were informed by law enforcement advisors. Still others were based on the research aims and/or the decisions of the researchers, such as defining what constituted a poly-drug or mono-drug seizure and determining the process for extracting a sub-sample of seizures for linkage. It is unknown whether a different set of decisions would have led to the same findings. The estimated extent of poly-drug trafficking may have been different if poly-drug trafficking had been examined using a larger number of illicit drug types (using minor drug type, rather than major drug type) or if the analysis had taken purity into account. The authors suspect the profiles of poly-drug and mono-drug traffickers would be less likely to change. Nevertheless, the consistency in the analyses' findings despite the use of different data sources and different methods warrants confidence in their robustness (Hagan 1997). Another limitation is that, by definition, all of the analyses were of failed importation and trafficking attempts. It is possible that successful drug importations and traffickers who have not been convicted differ in important ways from those analysed. Despite this, many of these traffickers could be regarded as successful, based on both their history of successfully trafficking large quantities of drugs and laundering large sums of money, and on the expert assessments of the judges. A related limitation is that it is impossible to fully determine, using criminal justice data, to what extent the findings reflect the actions and priorities of law enforcement agencies rather than those of the traffickers, whether poly-drug or mono-drug.

The final limitation is that the AFP data are focused on Commonwealth crime and therefore bounded by their relationship to the Australian border; they do not provide information on what happened abroad. Some information about offshore seizures or links to foreign suspects may be missing: that is, some transnational activity and connections may have been missed. Some links to onshore criminal cases may also have been excluded, as were links to state and territory crimes including assault, kidnapping, murder and theft. The study's estimates of the links between drug traffickers and other forms of criminal activity (Chapter 6) should therefore be viewed as an underestimate, or indeed a lower bound. The authors have no sense of whether this could adversely bias the comparison of poly-drug and mono-drug traffickers.

Limitations aside, the data provide rich insight into the scale and nature of poly-drug and poly-commodity trafficking at the Australian border, particularly given the approach of using multiple lenses to analyse the issue—seizures, cases, linked cases and networks—and the comparative research design which employed both poly-drug and mono-drug traffickers. The noted exception to this was the analysis of poly-drug networks. There was however a large body of existing research on mono-drug networks, including the authors' own studies (eg Bright, Hughes & Chalmers 2012).

Key findings

The scale of commercial poly-drug trafficking at Australian borders

Over the 14-year period from 1999 to 2012, 5.3 percent of commercial seizures (by number) involved more than one type of drug, or were poly-drug seizures (by weight, poly-drug seizures comprised 8.5%). Analysis of entire cases and linked cases suggests the scale of poly-drug trafficking may be much greater: between 35 percent and 65 percent of commercial border seizures may be connected to poly-drug traffickers. Given the small sample size, it is suggested the lower estimate is probably more reliable. This leads to the conclusion that approximately 35 percent of commercial importation seizures at the Australian border may be connected to poly-drug trafficking, a significant minority of drug trafficking associated with commercial importation in Australia.

Nature of poly-drug trafficking

The majority of Australian poly-drug traffickers did not import multiple drugs in the same seizure. This was clear from the difference between estimates of poly-drug trafficking based on seizures and estimations based on cases, and also from the syndicates examined in Chapter 6 who imported drugs using different supply chains. Whether analysed in terms of a poly-drug seizure (of drugs imported at the same time) or a poly-drug case or linked-case (with drugs imported at different times), poly-drug traffickers differed from their mono-drug counterparts in a number of salient ways.

Poly-drug trafficking was associated with greater weights of drugs seized and more frequent trafficking of ATS, MDMA and cocaine, compared with other drugs. Seized poly-drug shipments were more frequently imported via vessels and in containers or machinery. By comparison with mono-drug commercial seizures, which were more often associated with importation via baggage and mail, this suggests that poly-drug shipments were imported using better planned or more sophisticated methods. Poly-drug seizures also differed by identified transit routes; they were more likely to arrive via Canada through the eastern seaboard, particularly through NSW ports (by number) or Victorian ports (by weight). Analysis of cases and linked cases showed poly-drug traffickers were associated with larger networks, longer periods of operation, the seizure of more money, a higher incidence of weapons involvement and greater involvement in other criminal activities, including drug crime, economic crime such as money laundering, and other crime.

One unexpected finding was of heterogeneity among poly-drug traffickers. For example, in some poly-drug linked cases low weights of drugs were seized and there was no involvement in economic or other crime. The implications of this are explored below.

This study provides the first comprehensive evidence that, consistent with the extant literature and predictions of law enforcement agencies, poly-drug traffickers who operate across Australia's borders appear to be associated with more serious and potentially harmful patterns of drug trafficking and higher levels of poly-criminal behaviour (Beittel 2012; Europol 2013; Fowler et al. 2007).

Many of the methods and approaches of poly-drug traffickers appear strategic. This study found stimulants played an elevated role in poly-drug trafficking. This is consistent with a number of other studies including that of Pearson and Hobbs (2001) who found poly-drug traffickers dealt mainly in combinations of either (1) amphetamine and ecstasy or (2) amphetamine, ecstasy and cocaine, and Fowler et al. (2007) who reported increased poly-drug trafficking involving ecstasy, cocaine, methamphetamine or amphetamine. (This was based on interviews with Australian law enforcement officers.)

However, this finding conflicts with the studies of the Matrix Knowledge Group (2007) and Malm et al. (2011), who found poly-drug trafficking to be dominated by the pairings of heroin and cocaine, and cocaine and

cannabis, respectively. The Australian focus on stimulants may be deliberate and strategic, as the National Drug Strategy Household Survey consistently shows that ATS, MDMA and cannabis (which is, by and large, domestically produced) are the top three illicit drugs consumed in Australia (Australian Institute of Health and Welfare, 2001, 2005, 2008, 2011, 2014). Trade in ATS, MDMA and cocaine can thus be seen as making good business sense. Similarly, while importing drugs via containers on vessels (rather than through the post or in baggage) requires more technical skill, it has been shown to bring multiple benefits to would-be traffickers, enabling larger quantities to be imported at one time, bringing higher returns and reducing the risk of detection (Caulkins et al. 2009). Australian data confirms the rate of inspection of sea consignments is lower than that of mail or parcels (Australian Parliament 2012). Finally, the two states targeted by poly-drug traffickers for importation via vessel handle the lion's share of Australian sea trade. For example, in 2012–13 Victoria and NSW received 35 percent and 28 percent, respectively, of all incoming sea cargo (Ports Australia 2013). Importation through these states would thus appear to be a deliberate strategy to further reduce the risk of detection, particularly by piggybacking on other, legitimate, trade.

Trends in poly-drug trafficking

Poly-drug trafficking in Australia does not appear to be a new phenomenon; poly-drug seizures were made in the first year of analysis, 1999, and almost every subsequent year. This finding conflicts with some of the extant literature, particularly with police reports that poly-drug trafficking is a 'new threat' (Europol 2013). The analysis of trends in poly-drug trafficking was limited by the small number of poly-drug seizures, and focused on seized poly-drug shipments imported at the same time. While not new, poly-drug seizures do appear to be an increasing and/or somewhat more complex phenomenon in Australia, involving three rather than two drugs per poly-drug seizure.

From 1999 to 2012 a number of other shifts in the nature of poly-drug seizures were observed. Key among these were drug type, method of concealment and state into which seized poly-drug shipments were imported. For example there was a shift, by seizure weight, away from end-product ATS and MDMA (1999–2003) to MDMA and precursors (2004–2008), then a return to end-product ATS and cocaine with almost no MDMA (2009–2012). The dominant method of concealing poly-drug shipments changed from baggage and on the body or in clothes to via containers and cargo, and then finally to machinery. Finally, poly-drug seizures have become increasingly concentrated in NSW, shifting away from the other states. These trends differ from those observed for mono-drug seizures. For example, during all three periods baggage was the primary or secondary method of concealment for seized mono-drug shipments; and 30–50 percent of mono-drug seizures were consistently made outside NSW.

What is driving these shifts in poly-drug trafficking is unclear but, consistent with the literature, there appear to be at least six different factors shaping the trends including supply, demand, laws and regulations, levels of corruption, law enforcement behaviour and globalisation (Morselli et al. 2011; Rubin et al. 2013; Trautmann 2013). For example, the shift away from MDMA coincided with the drop in its purity in Australia and corresponding drop in use (Scott & Burns 2011). The shift from end-product ATS to precursors coincided with a rise in the domestic production of methamphetamine (Ritter, Bright & Gong 2012). Finally, the most recent period coincided with the strengthening of precursor controls in Australia and apparent re-emergence of high-purity ATS imports (Ransley et al. 2012). Changes in methods of concealment may plausibly be attributed to a response to law enforcement; that is, they are adaptations intended to reduce the perceived risk of detection (Basu 2013; Caulkins et al. 2009). Given this study's analysis was based on seizures, all attempts at concealment were ultimately unsuccessful; seizures are however often regarded as indicative of successful attempts at importation (Kilmer, Pacula, Hunt & Rabinovich 2010). An alternative explanation is that seizures reflect a rise in law enforcement attention; however, given the same trend was not observed for mono-drug seizures, this seems unlikely.

It is plausible that the increasing concentration of poly-drug seizures in NSW is attributable to the higher levels of corruption on the NSW waterfront revealed by the Australian Crime Commission (ACC) in 2012 (ACC 2012). Organised criminals had targeted and exploited workers on the waterfront and in the broader cargo supply

chain, which directly aided the importation of drugs and other illicit goods into Australia. New responses have since been implemented (Australian Customs and Border Protection Service 2013).

Finally, the study found that for both poly-drug and mono-drug seizures there was an apparent increase in diversity in countries of embarkation in 2009–2012, which included the emergence of African and near and Middle Eastern countries. This may be a spurious trend, given that country of embarkation was largely unknown in earlier years. However, it may also indicate the impact of globalisation, with drug traffickers capitalising on diverse trade routes and increased immigration. Indeed, two of the three poly-drug and poly-criminal trafficking syndicates provided clear evidence of the role of ethnicity in enabling international connections. If this diversity is a consequence of globalisation, the analysis suggests poly-drug traffickers are unlikely to be the only traffickers taking advantage of it. It may nevertheless be a contributing force.

The how and why of product diversification

Analysis of linked cases showed that poly-drug traffickers were much more interconnected than their mono-drug counterparts. This indicates that, as hypothesised by the extant literature, connections and alliances are core to the modus operandi of poly-drug traffickers (Europol 2013; UNODC 2014a, 2013). Equally importantly, there was evidence that these links were not random. For example, many of the poly-drug linked cases shared multiple connections, often based around particular drug types. This is suggestive of a more strategic, as opposed to opportunistic, relationship—such as one developed through growing the business or expanding a trade route (Basu 2013).

The analysis of three different poly-drug and poly-criminal syndicates suggests there are a number of ways to diversify products—in-house production of multiple products (Syndicate 1), collaboration with another syndicate (Syndicate 2) or outsourcing (Syndicate 3). All provide an apparent means to take advantage of changing markets and emerging opportunities. The three syndicates were also structured in different ways, ranging from a hierarchical wheel structure to hybrids with subgroups that overlapped to greater or lesser extents, connected via key brokers. The emergence of these differences was unexpected and noteworthy, and suggests there is no one simple method of product diversification.

In spite of these differences, all three syndicates showed a number of commonalities. In particular, they all had a clear management structure with one or two different levels of delegated decision-makers for the network (ie a hierarchical management structure). The apparent necessity of hierarchical systems of management for poly-drug and polycommodity traffickers is contrary to much of the existing literature on network structure which emphasises horizontal rather than vertical systems of power and reciprocal relationships (Bouchard 2007; Heber 2009; Malm & Bichler 2011; Morselli 2009; Williams 2001). It is however more consistent with the structure of mafia networks (Calderoni 2012; Varese 2013). Based on these findings the authors conjecture that a hierarchical management structure may be something that is specific and necessary for poly-drug and poly-crime traffickers, in order to enable coordination across the different commodities.

Another commonality of the poly-drug networks was that many of the participants operated legitimate businesses at the same time as they were trafficking drugs. This has some similarities to the research of Desroches (2005) who found 33 percent of his sample of high-level Canadian traffickers (of whom 93% were mono-drug traffickers) had legitimate business experience. However, many of those involved in the current Australian syndicates also had prior experience in positions of management. This suggests that legitimate business skills, particularly managerial skills, may be important for poly-drug trafficking, perhaps more so than for mono-drug trafficking. Such an observation is counter to the dominant literature that emphasises the ease of entry into the drug trade (Caulkins et al. 2009; Matrix Knowledge Group 2007; Reuter & Haaga 1989) and leads to the hypothesis that entry into mono-drug trafficking may be easy, but entry into poly-drug trafficking may require more specialist skills, notably legitimate business skills.

A number of potential benefits of product diversification emerged from our analysis of three different poly-drug and poly-criminal syndicates: the sharing of resources and skills; expanded opportunities to reinvest profits and grow the business; the sharing of existing infrastructure such as trafficking routes, suppliers and brokers;

increased risk-management ability, such as resilience in response to drug-supply fluctuations and the actions of drug law enforcement; and increased ability to respond to changes in demand. Many of these benefits are consistent with the existing literature on the purported benefits of product diversification, whether into drugs or other commodities (Morselli et al. 2011; Rubin et al. 2013; Shelley 2012). Unique to this project is the identification of some of the risks of diversification, particularly if insufficiently planned or too rapid. This further suggests that poly-drug trafficking is not without risk for traffickers and that specialist skills in management may be required.

Further research

This exploratory project leaves some questions unanswered, particularly those around pathways into poly-drug trafficking and the adaptability of poly-drug traffickers to changes in the market and in law enforcement.

Given the striking differences between poly-drug traffickers and mono-drug traffickers this project identified, more attention to the conditions under which poly-drug trafficking arise is warranted. How do traffickers get into poly-drug trafficking? How long does it take people to transition to this form of behaviour? What skills are required to be a poly-drug trafficker—business skills or particular styles of management? Are any skills, as conjectured here, specific to poly-drug trafficking? Such research is important not only to better understand the conditions under which poly-drug trafficking arises but also the broader question, will there be a cap on the number of poly-drug traffickers at the Australian border?

A second, more general question is: what is enabling the international—albeit limited in Australia—rise and shift in poly-drug trafficking? To what extent is it driven by factors within Australia's control, such as levels of corruption, versus factors seemingly outside Australia's control, such as international changes in illicit drug supply routes or broader shifts in globalisation and the expansion of licit trade routes? Determining to what extent poly-drug trafficking is enabled by the expansion of licit trade routes carries particular importance in the context of increasing regional integration and economic development in Asia (UNODC 2015).

The unexpected finding that not all poly-drug traffickers pose the same level of risk creates a need to better understand what causes these differences. For example, why do some poly-drug traffickers import larger quantities? Why are some highly connected with other types of crime but others not? While it is suggested this may be a reflection of a different business model or a more opportunistic approach, their business skills, and the particular drugs being trafficked, warrant greater attention, particularly to inform future policing responses about what factors can be targeted to reduce net harm from Australian poly-drug traffickers.

This study has provided some evidence that, by creating portfolios of trade, poly-drug traffickers may adapt more easily than their mono-drug counterparts to law enforcement and the vagaries of the market. For example, clear shifts in poly-drug shipments seized from 1999 to 2012 were noted, including in drug types, sites of importation and methods of concealment. There were changes in drug production by some syndicates in response to shifts in supply and/or purity (especially by syndicates 1 and 2). However, many questions remain, particularly around how much the drugs imported by poly-drug traffickers will change in response to changes in supply, demand or law enforcement. Future studies could examine poly-drug trafficking over time, matching changes in commodities with observed changes in the market. Replicating the approach taken in this study of linking cases and combining this with information on the dates and times of seizures and cases may be one feasible way of examining this issue.

While this study has focused on the scale of poly-drug and polycriminal trafficking at the Australian border, there is a real need to supplement the findings with more specific studies within states and territories, particularly to explore the extent to which poly-drug trafficking occurs within the Australian borders. In addition, it is important to examine the scale of poly-drug trafficking involving non-commercial quantities at the Australian border, something likely to have become particularly popular with the rise of the dark web (Barratt & Lenton 2013).

One of unexpected themes, a finding common to all of the analyses, was the heightened role of ATS in poly-drug trafficking. In particular, ATS was the main distinguishing feature of poly-drug seizures, by weight.

ATS also played an elevated role in cases and linked cases, as well as in two of the syndicates analysed in Chapter 6. It is therefore interesting to note that shifts to methamphetamine trafficking were noted in three of the international examples of poly-drug trafficking in Europe, South East Asia and Africa (Chapter 2). Two examples are those of South East Asian organised crime groups diversifying from simple cannabis production into methamphetamine production and trade (EMCDDA 2014), and shift of organised crime groups in Africa from trafficking cocaine and heroin into methamphetamine (Luna 2014). This raises the question of whether ATS may be a 'gateway' drug for poly-drug trafficking. Particular features of ATS that may make it more attractive than heroin, the drug of choice for mono-drug traffickers, are that there are many ways to produce it, that it can be produced in many parts of the world thereby opening up trade routes, and that it is the second most used illicit drug type in the world (UNODC 2014b). Indeed, despite large amounts of missing data, in 2009–2012 ATS was being sourced in sizeable quantities from a number of diverse locations including China, Thailand, Mexico and Canada.

Policy implications

This project provides the first comprehensive evidence that poly-drug trafficking occurs in Australia. It also shows that, consistent with predictions, poly-drug traffickers are in general more harmful than mono-drug traffickers. This was evident in terms of multiple indices including quantities and types of drugs trafficked, size of networks and connections with other types of crime.

However, it also suggests that some fears around poly-drug traffickers may have been overstated. For example, poly-drug trafficking is not a new phenomenon, nor is it rapidly expanding. However, it does appear to be increasing in complexity, with more than two drugs involved in most instances. There was also clear heterogeneity among poly-drug traffickers, whereas the dominant accounts classify all poly-drug traffickers as harmful. While connections and alliances between poly-drug traffickers were core to the modus operandi of poly-drug or poly-criminal activity, the links appear to be long-term, strategic and considered, and are often based on kinship networks. This is in contrast to much of the literature about such networks' new 'connectedness' and willingness to link up with any offender or group (Fowler et al. 2007: 102, 104). These different accounts may reflect the nature of the business—namely the added complexity that comes from working across multiple commodities. But regardless of the cause this is good news, particularly for drug law enforcement, as it suggests poly-drug traffickers may be somewhat less dynamic than previously thought.

In any case the scale and potential seriousness, particularly of the 'high harm' poly-drug traffickers, indicates that Australian poly-drug and poly-criminal traffickers clearly warrant the increased attention of police, policymakers, data providers and researchers to, for example, improve capacity to track or monitor trends in Australian poly-drug trafficking and better consider the implications of an interconnected drug-trafficking market.

By using and comparing three different types of AFP data (drug seizures, cases and linked cases) this project demonstrates that existing police data can be used to monitor trends in, and the harms of, poly-drug trafficking. It also suggests that data on individual seizures can be useful in monitoring trends but are likely to underestimate the scale of poly-drug trafficking in Australia and miss or obscure many harms. This is because poly-drug trafficking does not always occur at the same time or in the same shipment, and because individual seizure data exclude other pertinent variables such as the extent and nature of links to non-drug crime. It is therefore recommended that Australian drug law enforcement agencies supplement analysis of police seizure data with analysis of case and linked-case data. Linked cases offer the greatest level of insight; however, modifications to the linking process and extent of data extracted would have numerous benefits, not only for analysing and capturing poly-drug traffickers but also for better capturing the scale, breadth and harmfulness of Australian mono-drug traffickers.

More generally, this suggests a need for improved monitoring of drug trends across drugs: that is, for a move beyond aggregation by drug type. This has particular implications for the Illicit Drug Data Report, the most cited source of information on changes in drug arrests, seizures and emerging trends and threats

in the Australian illicit drug market (ACC 2014). As argued by the ACC (2014: 2–3): ‘The report provides governments, law enforcement agencies, policy makers, academia, and interested stakeholders with a robust picture of the Australian illicit drug market’ and ‘informs prioritisation and decision making’. In the absence of attention to the intersections and cross-overs in the market, such claims are increasingly problematic. Future analyses should endeavour to incorporate the cross-overs between markets.

Finally, this research indicates that poly-drug traffickers pose particular challenges for drug law enforcement. It is important to emphasise that more research is required to fully understand the implications of poly-drug trafficking for law enforcement (including its true level of adaptability). Nevertheless, this research has three key implications for Australian law enforcement agencies. It suggests that, given their added harmfulness, poly-drug traffickers should be a target priority for law enforcement attention—more so than mono-drug traffickers—yet the very factors that make them more harmful may also make them harder to deter or disrupt. It also suggests that regulatory responses or law enforcement aimed at one drug may be short-sighted, as they may lead to increases in other problems such as other crimes or violent behaviour. If traffickers are engaged in trafficking multiple drugs, they may have more capacity to expand or modify their businesses when the market changes, either to capitalise on new opportunities or to make up for potential losses. This may, in turn, create added problems for drug law enforcement. For example, it is clear that Syndicate 1 increased the amount of methamphetamine it trafficked and began manufacturing methamphetamine at the time MDMA declined. In this case, the implications were not only a shift in the type of drug but also a change of site, from the importation of offshore products to domestic production with one and then two different clan labs—arguably creating a far greater challenge for domestic drug law enforcement agencies and the Australian community (Ritter et al. 2013).

To conclude, in providing the first detailed examination of poly-drug and poly-commodity trafficking in Australia, this study makes it clear that poly-drug trafficking does occur and that, on average, it is more harmful than mono-drug trafficking and more likely to be connected to other forms of crime. While some fears about poly-drug traffickers have been overstated, these results suggest that poly-drug and poly-criminal traffickers warrant greater attention. More generally, the results call for a new way of thinking about the Australian illicit drug market, one that moves beyond seeing each drug in isolation and is more attentive to the ways the market and market players may modify their businesses, ultimately increasing the capacity of policymakers to foresee and prevent the most harmful adaptations.

References

- Abele G 2003. *Synthetic Drugs Trafficking in Three European Cities: Major Trends and the Involvement of Organised Crime*. Turin, Italy: Gruppo Abele
- Andelman DA 1994. The Drug Money Maze. *Foreign Affairs* 73(4): 94–108
- Attewell R & McFadden M 2008. Measuring the benefits of drug law enforcement: The development of the Australian federal police drug harm index. *Bulletin on Narcotics* 60(1–2): 45–58
- AUSTRAC 2011. *Money laundering in Australia 2011: Australian Transaction Reports and Analysis Centre*. http://www.austrac.gov.au/sites/default/files/documents/money_laundering_in_australia_2011.pdf
- Australian Bureau of Statistics 2013. *Federal Defendants, Australia, 2011–12*. Canberra: Australian Bureau of Statistics
- Australian Crime Commission 2012. *Waterfront task forces*. <https://www.crimecommission.gov.au/organised-crime/joint-task-forces-and-initiatives/waterfront-task-forces>
- Australian Crime Commission 2013a. *Organised Crime Groups Fact Sheet*. Canberra: Australian Crime Commission
- Australian Crime Commission 2013b. *Organised crime in Australia–2013*. Canberra: Australian Crime Commission
- Australian Crime Commission 2014. *Illicit Drug Data Report 2012–13*. Canberra: Australian Crime Commission.
- Australian Customs and Border Protection Service 2013. *Blueprint for Reform 2013–2018*. Canberra: Australian Customs and Border Protection Service
- Australian Federal Police 2010. *Case Categorisation and Prioritisation Model (CCPM)*. <http://www.afp.gov.au/~media/afp/pdf/c/ccpm-may-2010-pdf.ashx>
- Australian Federal Police 2013. *Australian Federal Police Annual Report 2012–13*. Canberra: AFP
- Australian Institute of Health and Welfare 2001. *2001 National Drug Strategy Household Survey: detailed findings*. Canberra: AIHW
- Australian Institute of Health and Welfare 2005. *2004 National Drug Strategy Household Survey: detailed findings*. Canberra: AIHW
- Australian Institute of Health and Welfare 2008. *2007 National Drug Strategy Household Survey: detailed findings*. Canberra: AIHW
- Australian Institute of Health and Welfare 2011. *2010 National Drug Strategy Household Survey report*. Canberra: AIHW
- Australian Institute of Health and Welfare 2014. *2013 National Drug Strategy Household Survey supplementary data: tobacco, alcohol and illicit drugs*. Canberra: AIHW
- Australian Senate 2012. Senate Standing Committee on Legal and Constitutional Affairs Question on Notice No 109 (Australian Customs and Border Protection). Canberra: Parliament of Australia
- Barratt M & Lenton S 2013. Drugs and the internet. In Ritter A, King T & Hamilton H (eds), *Drug Use in Australian Society*. South Melbourne: Oxford University Press: 272–293
- Basu G 2013. The role of transnational smuggling operations in illicit supply chains. *Journal of Transportation Security* 6: 315–328
- Beittel JS 2012. Mexico's drug trafficking organizations. *Trends in Organized Crime* 15: 64–74
- Berlusconi G 2013. Do all the pieces matter? Assessing the reliability of law enforcement data sources for the network analysis of wire taps. *Global Crime* 14(1): 61–81
- Blickman T 2004. *The Global Ecstasy Industry: Exploring the Global Market*. TNI Briefing Series. Amsterdam: TransNational Institute
- Bouchard M 2007. On the resilience of illegal drug markets. *Global Crime* 8(4): 325–344.
- Bouhours B 2006. *Adolescent sex offending: An analysis of judicial sentencing remarks*. Honours thesis. Griffith University, Brisbane.
- Brandes U & Wagner D 2004. Visone—Analysis and Visualization of Social Networks. In Jiinger M & Mutzel P (eds), *Graph Drawing Software*. Berlin Heidelberg: Springer-Verlag: 321–339
- Bricknell S 2008. Criminal use of handguns in Australia. *Trends & Issues in Crime and Criminal Justice* no 361. <http://www.aic.gov.au/publications/current%20series/tandi/361-380/tandi361.html>

- Bricknell S 2012. *Firearm trafficking and serious and organised crime gangs*. Research and Public Policy series no 116. <http://www.aic.gov.au/publications/current%20series/rpp/100-120/rpp116.html>
- Bright D & Delaney JJ 2013. Evolution of a drug trafficking network: Mapping changes in network structure and function across time. *Global Crime* 14(2–3): 238–260
- Bright D & Greenhill C 2013. Dismantling and disrupting criminal networks: A research perspective. Paper presented at the Organised Crime and Criminal Networks Workshop, University of New South Wales, 22 Feb
- Bright D, Greenhill C, Reynolds M, Ritter A & Morselli C 2014. The use of actor-level attributes and centrality measures to identify key actors: A case study of an Australian drug trafficking network. *Journal of Contemporary Criminology*, Advance online publication. doi: 10.1177/1043986214553378
- Bright D, Hughes C & Chalmers J 2012. Illuminating dark networks: A social network analysis of an Australian drug trafficking syndicate. *Crime, Law and Social Change* 57(2): 151–176. doi: DOI: 10.1007/s10611-011-9336-z
- Calderoni F 2012. The structure of drug trafficking mafias: the 'Ndrangheta and cocaine. *Crime, Law and Social Change* 58: 321–349
- Carley KM 2006. Destabilization of covert networks. *Computational & Mathematical Organization Theory* 12: 51–66
- Caulkins JP, Burnett H & Leslie E 2009. How illegal drugs enter an island country: insights from interviews with incarcerated smugglers. *Global Crime* 10(1–2): 66–93
- Chapman S & Alpers P 2013. Gun-Related Deaths: How Australia Stepped Off "The American Path". *Annals of internal medicine* 158(10): 770–771
- Curtis R, & Wendel T 2000. Toward the Development of a Typology of Illegal Drug Markets. In Natarajan M & Johnson BD (eds), *Illegal Drug Markets: From Research to Prevention Policy*. Monsey, NY: Criminal Justice Press:121–152
- Dandurand Y & Chin V 2004. *Links between terrorism and other forms of crime*. Vancouver: International Centre for Criminal Law Reform and Criminal Justice Policy
- David F 2012. Organised crime and trafficking in persons. *Trends and Issues in Crim and Criminal Justice* no 436. <http://www.aic.gov.au/publications/current%20series/tandi/421-440/tandi436.html>
- Decker S & Chapman M 2008. *Drug Smugglers on Drug Smuggling: Lessons from the Inside*. Philadelphia PA: Temple University Press
- Degenhardt L, Day C, & Hall W 2004. *The causes, course and consequences of the heroin shortage in Australia*. Hobart: National Drug Law Enforcement Research Fund
- Desroches F 2005. *The crime that pays: Drug trafficking and organized crime in Canada* Toronto: Canadian Scholars' Press
- Desroches F 2007. Research on upper level drug traffickers: A review. *Journal of Drug Issues* 7(4): 827–844
- Dorn N, Levi M & King L 2005. *Literature review on upper level drug trafficking*. London: Home Office
- EMCDDA 2009. *Polydrug use: patterns and responses*. Luxembourg: Office for Official Publications of the European Communities
- EMCDDA 2014. *European Drug Report 2014: Trends and developments*. Lisbon: EMCDDA
- EMCDDA and Europol 2013. *EU drug markets report: a strategic analysis*. Lisbon: EMCDDA.
- Escobar R 2010. *Escobar*. United Kingdom: Hodder & Stoughton General Division
- Europol 2011. *EU organised crime threat assessment: OCTA 2011*. The Hague: Europol Analysis and Knowledge Unit
- Europol 2013. *EU Serious and Organised Crime Threat Assessment*. The Hague: Europol
- Fowler G, Kinner S & Krenske L 2007. *Containing ecstasy: analytical tools for profiling an illegal drug market*. NDLERF Monograph no. 27. Hobart: NDLERF
- Freeman LC, White DR & Romney AK (eds) 1992. *Research Methods in Social Network Analysis*. New Brunswick: Transaction Publishers
- Haken J 2011. *Transnational Crime in the Developing World*. Washington DC: Global Financial Integrity
- Gong W, Ritter A, Bright D & Doran C 2012. How profitable is methamphetamine dealing in Australia? *Drug and Alcohol Dependence* 122(3): 208–212. doi: <http://dx.doi.org/10.1016/j.drugalcdep.2011.09.028>
- Gordon S 2001. Technology impacts on drug production in Asia: The role of amphetamines in Asia's growing drug problem. *Platypos Magazine* 72: 17–22.
- Hagan FE 1997. *Research Methods in Criminal Justice and Criminology*. Needham Heights, MA: Allyn and Bacon

- Heber A 2009. The networks of drug offenders. *Trends in Organized Crime* 12(1): 1–20
- Higginson A 2011. *Fraud against the Commonwealth: An analysis of serious and complex economic fraud investigated by the Australian Federal Police*. Brisbane: University of Queensland
- Hutchinson S & O'Malley P 2007. A Crime-Terror Nexus? Thinking on Some of the Links between Terrorism and Criminality. *Studies in Conflict & Terrorism* 30(12): 1,095–1,107
- Insulza JM 2013. *The drug problem in the Americas: studies—The economics of drug trafficking*. Washington DC: Organization of American States
- Judicial Commission of New South Wales 2012. *Sentencing Bench Book: Update 38*. http://www.judcom.nsw.gov.au/publications/benchbks/sentencing/drug_misuse_and_trafficking_act.html
- Keelty M 2001. The Global Economy of Illegal Drugs. Paper presented to the Queen Elizabeth II Conference Centre, London, 25–26 June. <http://www.afp.gov.au/~media/afp/ppt/the-global-economy-of-illegal-drugs-presentation.ashx>
- Kenney M 2007. The Architecture of Drug Trafficking: Network Forms of Organisation in the Colombian Cocaine Trade. *Global Crime* 8(3): 233–259
- Kilmer B, Pacula RL, Hunt P & Rabinovich L 2010. Indicators for understanding supply-reduction efforts. In Kilmer B & Hoorens S (eds), *Understanding illicit drug markets, supply-reduction efforts, and drug-related crime in the EU*. Santa Monica: RAND:45–82
- Kleiman M 2004. *Illicit drugs and the terrorist threat: causal links and implications for domestic drug control policy*. Congressional Research Service Report for Congress, RL32334. Washington: The Library of Congress.
- Larsen JJ, Renshaw L, Gray-Barry S, Andrevski H & Corsbie T 2012. *Trafficking in persons monitoring report: January 2009–June 2011*. Monitoring report no 19. <http://www.aic.gov.au/publications/current%20series/mr/1-20/19.html>
- Le VKT 2013. *Understanding the operational structure of Southeast Asian drug trafficking groups in Australia*. PhD thesis. Brisbane: Queensland University of Technology
- Le VKT & Lauchs M 2013. Models of South-East Asian organised crime drug operations in Queensland. *Asian journal of criminology* 8(2): 69–87
- Lichtenwald TG, Perri FS & MacKenzie P 2009. Smuggling multi-consignment contraband: Isolated incidents or a new trend? *Inside Homeland Security* Summer: 17–31
- Luna DM 2014. Trans-African Security: Combating Illicit Trafficking Along the Crime-Terror Continuum. Paper presented to AFSEC 14, Casablanca, Morocco, 25–27 February <http://www.state.gov/j/inl/rls/rm/2014/222591.htm>
- Makarenko T 2004. The crime-terror continuum: tracing the interplay between transnational organised crime and terrorism. *Global Crime* 6(1): 129–145.
- Makarenko T 2012. Foundations and evolution of the crime-terror nexus. In Allum F & Gilmour S (eds), *Routledge Handbook of Transnational Organized Crime*. London: Routledge: 234–249
- Malm A & Bichler G 2011. Networks of Collaborating Criminals: Assessing the Structural Vulnerability of Drug Markets. *Journal of Research in Crime and Delinquency* 48: 271–297
- Malm A, Bichler G & Nash R 2011. Co-offending between criminal enterprise groups. *Global Crime* 12(2): 112–128
- Malm A, Bichler G & Van De Walle S 2010. Comparing the ties that bind criminal networks: Is blood thicker than water? *Security Journal* 23(1): 52–74
- Massari M 2005. Ecstasy in the city: Synthetic drug markets in Europe. *Crime, Law & Social Change* 44(1): 1–18
- Matrix Knowledge Group 2007. *The illicit drug trade in the United Kingdom*, 2nd ed. London: Home Office
- McAtamney A & Willis K 2009. *Polydrug use among cannabis users*. Criminal justice bulletin series no. 5. <http://aic.gov.au/publications/current%20series/ncpic/1-10/ncpic05.html>
- McFadden M 2006. The Australian Federal Police Drug Harm Index: A New Methodology for Quantifying Success in Combating Drug Use. *Australian Journal of Public Administration* 65(4): 68–81
- McFadden M, O'Flaherty M, Boreham P & Haynes M 2014. *Targeting the profits of illicit drug trafficking through Proceeds of Crime Action*. Canberra: National Drug Law Enforcement Research Fund
- McKetin R, McLaren J & Kelly E 2005. *The Sydney methamphetamine market: Patterns of supply, use, personal harms and social consequences*. Sydney: National Drug and Alcohol Research Centre
- McSweeney T, Turnbull PJ & Hough M 2008. *Tackling drug markets and distribution networks in the UK: A review of the recent literature*. London: United Kingdom Drug Policy Commission
- Moliterno TP & Mahony DM 2011. Network theory of organization: A multilevel approach. *Journal of Management* 37(2): 443–467

- Monteleone C, Caruso R & Locatelli A 2014. Some Insights on the Link between Terrorism, Organised Crime and 'New Wars'. In Caruso R & Locatelli A (eds), *Understanding Terrorism: A Socio-economic Perspective*. Bradford, UK: Emerald Group Publishing Limited: 237–254
- Morselli C 2009. *Inside criminal networks*. New York: Springer
- Morselli C & Giguere C 2006. Legitimate strengths in criminal networks. *Crime, Law & Social Change* 45(3): 185–200
- Morselli C, Giguère C & Petit K 2007. The efficiency/security trade-off in criminal networks. *Social networks* 29(1): 143–153
- Morselli C & Petit K 2007. Law enforcement disruption of a drug importation network. *Global Crime* 8(2): 109–130
- Morselli C, Turcotte M & Tenti V 2011. The mobility of criminal groups. *Global Crime* 12(3): 165–188
- Natarajan M 2006. Understanding the structure of a large heroin distribution network: a quantitative analysis of qualitative data. *Journal of Quantitative Criminology* 22: 171–192
- Natarajan M, Clarke RV & Johnson BD 1995. Telephones as Facilitators of Drug Dealing: A Research Agenda. *European Journal of Criminal Policy and Research* 3: 137–154
- National Drug Intelligence Center (2012). *National Drug Threat Assessment 2011*. Washington DC: National Drug Intelligence Center
- Paoli L 2008. Organized crime: new label, new phenomenon or policy expedient? *Annales Internationales de Criminologie-International Annals of Criminology-Anales Internacionales de Criminologia* 46(1–2): 37–60
- Pearson G & Hobbs D 2001. *Middle market drug distribution*. London: Home Office
- Piazza JA 2011. The illicit drug trade, counternarcotics strategies and terrorism. *Public Choice* 149: 297–314
- Ports Australia 2013. *Containerised Trade (mass tonnes) for 2012/2013*. Sydney: Ports Australia
- Quek LH et al. 2013. Concurrent and simultaneous polydrug use: latent class analysis of an Australian nationally representative sample of young adults. *Frontiers in public health* 1(61): 1–9
- Ransley J et al. 2012. *Reducing the Methamphetamine Problem in Australia: Evaluating Innovative Partnerships between Police, Pharmacies and Other Third Parties*. NDLERF Monograph no. 39. Canberra: NDLERF
- Reuter P, Crawford J & Cave J 1988. *Sealing the Borders: The Effects of Increased Military Participation in Drug Interdiction*. Santa Monica, CA: RAND
- Reuter P & Greenfield V 2001. Measuring Global Drug Markets: How good are the numbers and why should we care about them? *World Economics* 2(4): 159–173
- Reuter P & Haaga P 1989. *The Organization of High-Level Drug Markets: An Exploratory Study*. Santa Monica, CA: Rand Corporation
- Reuter P & Stevens A 2007. *An Analysis of UK Drug Policy*. London: United Kingdom Drug Policy Commission
- Ritter A, Bright D & Gong W 2012. *Evaluating drug law enforcement interventions directed towards methamphetamine in Australia*. NDLERF Monograph no. 44. Canberra: National Drug Law Enforcement Research Fund.
- Roxburgh A, Ritter A, Grech K, Slade T & Burns L 2011. *Trends in drug use and related harms in Australia, 2001 to 2011*. Sydney: National Drug and Alcohol Research Centre
- Rubin J, Pardal M, McGee P & Culley D 2013. 'Polymorphous criminal networks': considering criminal groups' engagement across markets. In Trautmann F, Kilmer B & Turnbull P (eds), *Further insights into aspects of the EU illicit drugs market*. Luxembourg: European Commission- Directorate-General for Justice:361–387
- Schloenhardt A, Beirne G & Corsbie T 2009. Trafficking in Persons in Australia—Myths and Realities. *Global Crime* 10(3): 224–247
- Schneider S 2004. Organized crime, money laundering, and the real estate market in Canada. *Journal of Property Research* 21(2): 99–118
- Scott LA & Burns L 2011. Has ecstasy peaked? A look at the Australian ecstasy market over the past eight years. *EDRS Drug Trends Bulletin* (Apr)
- Seddon T 2008. Drugs, the informal economy and globalization. *International Journal of Social Economics* 35(10): 717–728
- Sentencing Advisory Council 2013a. *Snapshot 161: Sentencing Trends for Trafficking in a Non-Commercial Quantity of Drugs in the Higher Courts of Victoria, 2008–09 to 2012–13*. Melbourne: Sentencing Advisory Council
- Sentencing Advisory Council 2013b. *Snapshot 162: Sentencing Trends for Trafficking in a Commercial Quantity of Drugs in the Higher Courts of Victoria, 2008–09 to 2012–13*. Melbourne: Sentencing Advisory Council

- Sentencing Advisory Council 2013c. *Snapshot 163: Sentencing Trends for Trafficking in a Large Commercial Quantity of Drugs in the Higher Courts of Victoria, 2008–09 to 2012–13*. Melbourne: Sentencing Advisory Council
- Shearer J, Johnston J, Kaye S, Dillon P & Collins L 2005. *Characteristics and dynamics of cocaine supply and demand in Sydney and Melbourne*. Research summary no. 14. Sydney: National Drug Law Enforcement Research Fund
- Shelley L 2012. The relationship of drug and human trafficking: A global perspective. *European Journal on Criminal Policy and Research* 18: 241–253
- Shelley LI 2006. Border Issues: Transnational Crime and Terrorism. In Caparini M and Marenin O (eds), *Borders and Security Governance Managing Borders in a Globalised World*. Geneva: DCAF: 255–269
- Sindicich N & Burns L 2014. *Ecstasy and Related Drugs Reporting System (EDRS) National Report 2013*. Sydney: National Drug and Alcohol Research Centre
- Smithson M, McFadden M & Mwesigye S 2005. Impact of Federal drug law enforcement on the supply of heroin in Australia. *Addiction* (8): 1,110–1,120
- Stafford J & Burns L 2014. *Illicit Drug Reporting System National Report 2013*. Sydney: National Drug and Alcohol Research Centre
- Stamp J & Walker J 2007. Money laundering in and through Australia, 2004. *Trends & issues in crime and criminal justice* no. 342. <http://www.aic.gov.au/publications/current%20series/tandi/341-360/tandi342.html>
- Steele LR 2014. *Disability at the margins: diversion, cognitive impairment and the criminal law*. PhD Thesis. University of Sydney, Sydney. <http://ses.library.usyd.edu.au/handle/2123/12012>
- Sweeney J & Payne J 2011. Poly-drug use among police detainees. *Trends & Issues in Crime and Criminal Justice* no. 425. <http://www.aic.gov.au/publications/current%20series/tandi/421-440/tandi425.html>
- Trautmann F 2013. Exploring trends in the illicit drugs market and drug policy responses in the EU. In Trautmann F, Kilmer B & Turnbull P (eds), *Further insights into aspects of the illicit EU drugs market*. Utrecht: Trimbos Institute:447–494
- UNODC 2010. *The globalization of crime: A transnational organized crime threat assessment*. Vienna: UNODC.
- UNODC 2011. *Estimating illicit financial flows resulting from drug trafficking and other transnational organised crime*. Vienna: UNODC
- UNODC 2011. *Estimating illicit financial flows resulting from drug trafficking and other transnational organized crimes*. Vienna: UNODC
- UNODC 2014a. *The illicit drug trade through South Eastern Europe*. Vienna: UNODC
- UNODC 2014b. *World Drug Report 2014*. Geneva: UNODC
- UNODC 2013. *Transnational organised crime in West Africa: A threat assessment*. Vienna: UNODC
- UNODC 2015. *The Challenge of Synthetic Drugs in East and South-East Asia and Oceania: Trends and Patterns of Amphetamine-type Stimulants and New Psychoactive Substances*. Vienna: UNODC
- Varese F 2013. The Structure and the Content of Criminal Connections: The Russian Mafia in Italy. *European Sociological Review* 29(5): 1–11
- Victoria Police 2014. *Offences recorded by Offence Code 2004/05–2013/14*. Melbourne: Victoria Police
- Von Lampe K 2012. Transnational organized crime challenges for future research. *Crime, Law and Social Change* 58: 179–194
- Weatherburn D 2011. *Uses and abuses of crime statistics*. Sydney: NSW Bureau of Crime Statistics and Research
- Weatherburn D & Lind B 1997. The impact of law enforcement activity on a heroin market. *Addiction* 92(5): 557–569
- Williams P 1995. Transnational criminal organisations: strategic alliances. *The Washington Quarterly* 18(1): 57–72
- Williams P 2001. Transnational criminal networks. In Arquilla J & Ronfeldt D (eds), *Networks and Netwars: The Future of Terror, Crime, and Militancy*. Santa Monica: RAND Corporation: 61–97
- Wilson L & Stevens A 2008. *Understanding drug markets and how to influence them*. London: The Beckley Foundation
- Zaitch D 2002. *Trafficking Cocaine: Colombian Drug Entrepreneurs in the Netherlands*. The Hague: Kluwer Law International

Appendix A: Likelihood of drug traffickers engaging in other criminal activities in Australia

The likelihood that groups involved in drug trafficking in Australia are involved in other crimes may differ from the likelihood that groups in other parts of the world are. For example, Table A1 outlines the number of finalised federal offences (offences against Commonwealth law) in Australian higher courts in 2011–12 (Australian Bureau of Statistics 2013). Other than drug trafficking, the most common offences of these groups involved fraud and other economic crime. In contrast, only 32 offences involved sex trafficking or sex slavery, and none involved weapons trafficking.

Table A1 Federal offences finalised in the higher courts 2011–12, by offence type

Offence category	Number of offences	Offence inclusions
Drug trafficking	464	Importation, manufacture, supply and use of drugs and other substances ^a
Fraud	901	Insurance, social security, superannuation, tax and trademarks
Financial	267	Improper handling of finance, such as bankruptcy, money laundering and the improper use of public money
People smuggling	160	Organised movement of people into Australia illegally
Human sex trafficking	32	Sex tourism and sexual slavery
Illegal use or importation of weapons	0	Illegal use or removal of firearms, other weapons and explosives

a: This is likely to reflect drug-supply offences specifically, as possession and use offences are extremely unlikely to be heard in the higher courts

Source: Australian Bureau of Statistics, 2013

While these data reflect detected rather than undetected crimes, the broader literature supports the argument that the incidence of human trafficking or weapon trafficking is relatively low in Australia. For example studies into human trafficking in Australia, whether involving sexual exploitation, forced labour or domestic servitude, find that Australia's remote location, lack of land borders and strict immigration controls deter interest in human trafficking (Schloenhardt, Beirne & Corsbie 2009). Moreover, the trafficking that does occur tends to involve less overt coercion, with more people recruited or volunteering from low socioeconomic status countries (Larsen, Renshaw, Gray-Barry, Andrevski & Corsbie 2012). Accordingly, the consistently low rate of detections by police authorities—for example, between 2003–04 and 2007–08 there was an average of 20 investigations conducted by the AFP each year—is deemed to reflect a much smaller scale of problem in Australia (Larsen et al. 2012). There is no evidence of any connection in Australia between human trafficking and drug trafficking or organised crime (David 2012).

Studies into firearms suggest that use of firearms in Australia is uncommon compared with countries such as the USA, due to a tightening of the gun control laws introduced in the wake of the Port Arthur massacre in 1996 (a mass shooting in which 35 people were killed). As outlined by Chapman and Alpers, 'in the 12 days after this event, Australia's 6 states, 2 territories, federal government, and opposition parties agreed to enact a comprehensive suite of firearm law reform' (2013: 770), including banning civilian ownership of semi-automatic long guns, introducing a gun buyback scheme and requiring proof of a genuine reason for firearm possession and registration of all firearms (Chapman & Alpers 2013). This is supported by statistics such as the ownership rate of weapons among offenders (only 5% of police detainees possessed a handgun; Bricknell 2008), and analysis of the ACC's National Firearm Trace Database of firearms seized by federal, state and territory police which shows a total of 2,750 unregistered firearms were seized across Australia from 2002 to

2011 (an average of 305 per year; Bricknell 2012). The data also show that only 62 percent were seized in connection with serious and organised crime. That said, where there was a known connection to serious and organised crime, the weapons were more often seized from people 'involved in the illicit drug market' than from members of outlaw motorcycle gangs or from people with connections to violent crime (Bricknell 2012: 43). More generally, the data and other studies suggest that the trafficking of illicit firearms in Australia is not highly organised. Some traffic guns as a sideline business and others broker the occasional deal, sometimes in connection with drugs, but this is less common than in many other parts of the world.

In contrast, the scale of money laundering and fraud in Australia is relatively large. Moreover, a recent analysis using AFP data of the offender profiles of those detected engaging in fraud against the Commonwealth showed they tended to differ from the stereotypical white-collar fraudster (Higginson 2011). In particular, many were involved in low-value but ongoing welfare fraud and operated alone. However, there was heterogeneity within the group; some committed very high-value crimes (averaging almost \$10 million per suspect). This sub-type of fraudsters operated in groups averaging 10 suspects, undertaking tax fraud or customs and excise fraud. While their connections to other crimes were not examined, this group may potentially be involved in drug-trafficking crimes.

It is important to note the difficulty of estimating the scale of economic crimes (money laundering and fraud) with any rigor (Higginson 2011; Stamp & Walker 2007). Estimates suggest the extent of money laundering in Australia, defined as processing illicit profits in ways which mask ownership and make the funds appear to have come from legitimate sources, may be between \$2.8b and \$6.3b per year, much of which is attributable to fraud and illicit drug trafficking (Stamp & Walker 2007). However, many of the laws and powers that allow the tracking of money laundering in Australia were only introduced in 2010. In particular, the Australian Transaction Reports and Analysis Centre (AUSTRAC 2011) notes this expansion of powers occurred after money laundering was singled out in the classified *Organised crime threat assessment* as a threat to Australia. Subsequently, in 2010, unexplained wealth laws were added to the *Proceeds of Crime Act 2002* (Cth); a Criminal Assets Confiscation Taskforce, led by the AFP, was established to facilitate a coordinated and integrated approach to federal criminal asset confiscation and a new National Criminal Intelligence Fusion Capability centre was launched to aid the whole-of-government approach to sharing data and information about serious and organised crime. After the introduction of these new powers, the amount of assets restrained doubled in 2011–12, compared with the previous year. However, the continuing challenge for police is that the nature of money laundering keeps changing. For example, money laundering has long been undertaken by concealing money or property domestically (for example, by purchasing high-value goods and real estate, gambling, and putting money into legitimate businesses), or by moving money across borders (for example, via international funds transfers; AUSTRAC 2011), but there are a range of other, more novel methods that can be harder to trace including the use of false invoices, the over- and under-invoicing of goods creating a legitimate need to send money overseas, or cuckoo smurfing (transferring money through accounts of innocent parties who are expecting transfers for legitimate transactions; AUSTRAC 2011). This inevitably makes it harder not only for police to detect such crimes, but also for researchers to attribute causal links.

Appendix B: Trends in Australian importation seizures, by major drug groups

Appendix B illustrates the annual changes in total weight and number of seizures for the five main drugs seized. To aid comparability, two graphs are provided for MDMA and precursors, the second of which is set on the same scale as for heroin, cocaine and ATS (Figure B4 and B7).

Figure B1 Heroin—annual total weight and number of seizures, 1999–2012

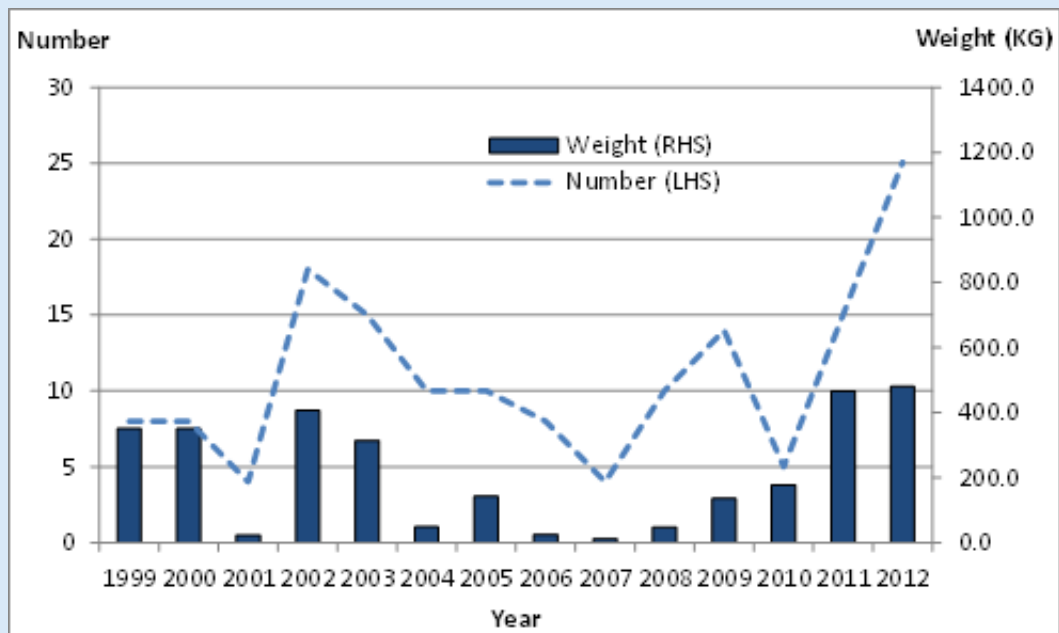


Figure B2 Cocaine—annual total weight and number of seizures, 1999–2012

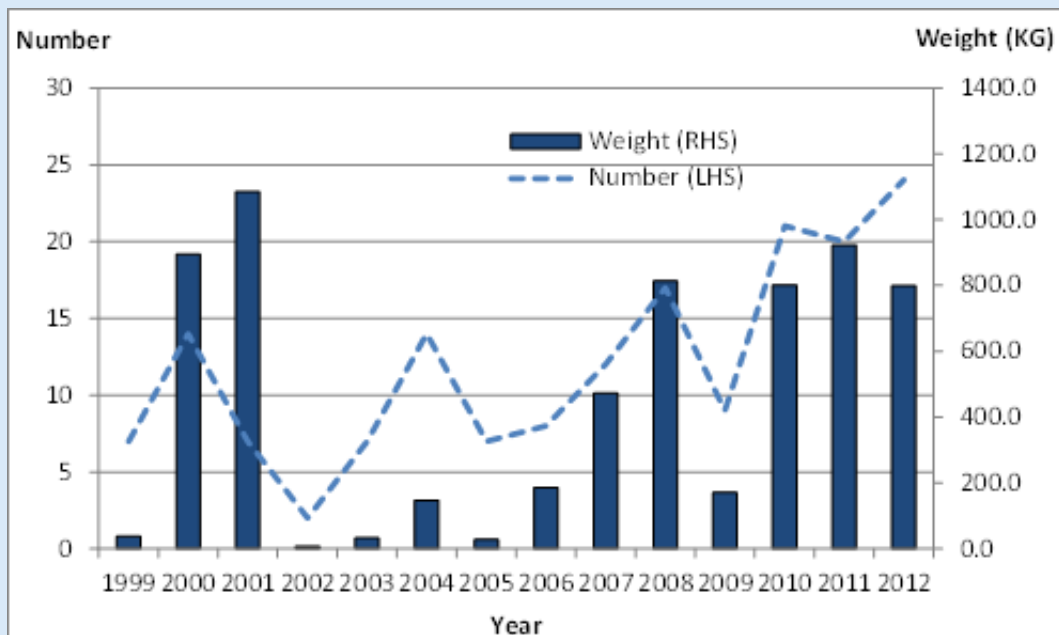


Figure B3 MDMA—annual total weight and number of seizures, 1999–2012

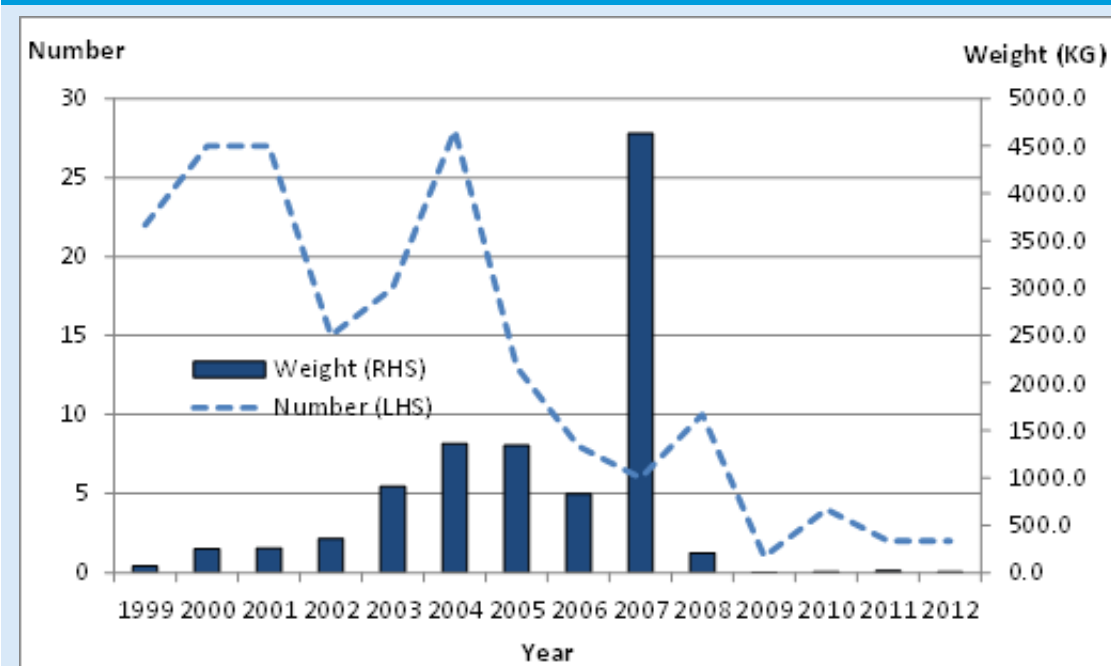


Figure B4 MDMA—annual total weight and number of seizures, 1999–2012, adjusted scale

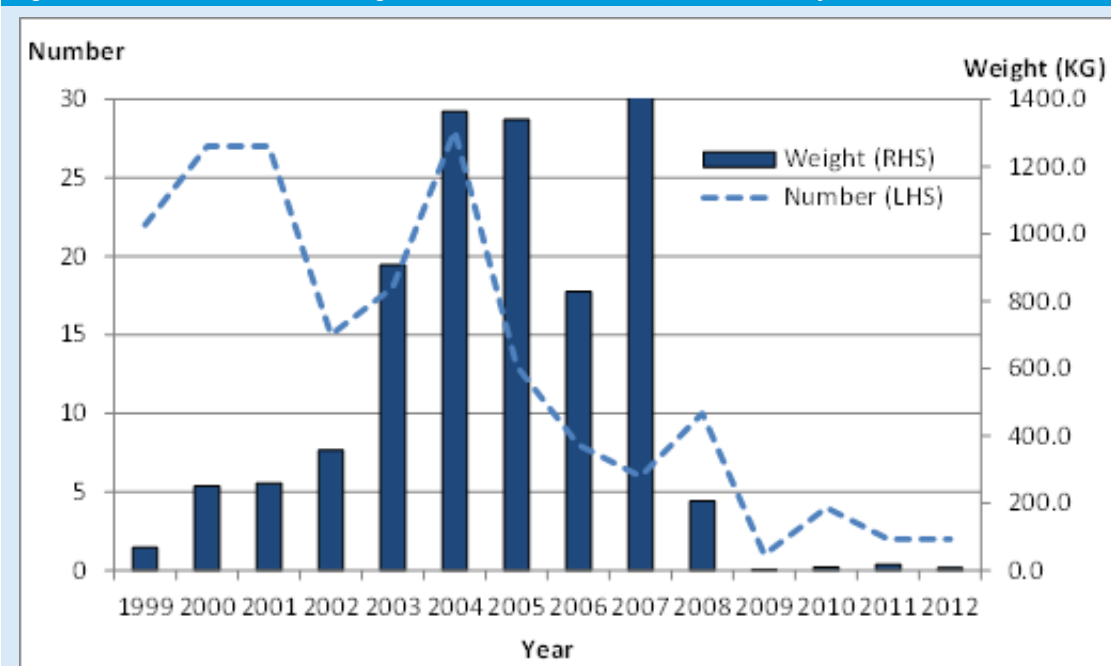


Figure B5 ATS—annual total weight and number of seizures, 1999–2012

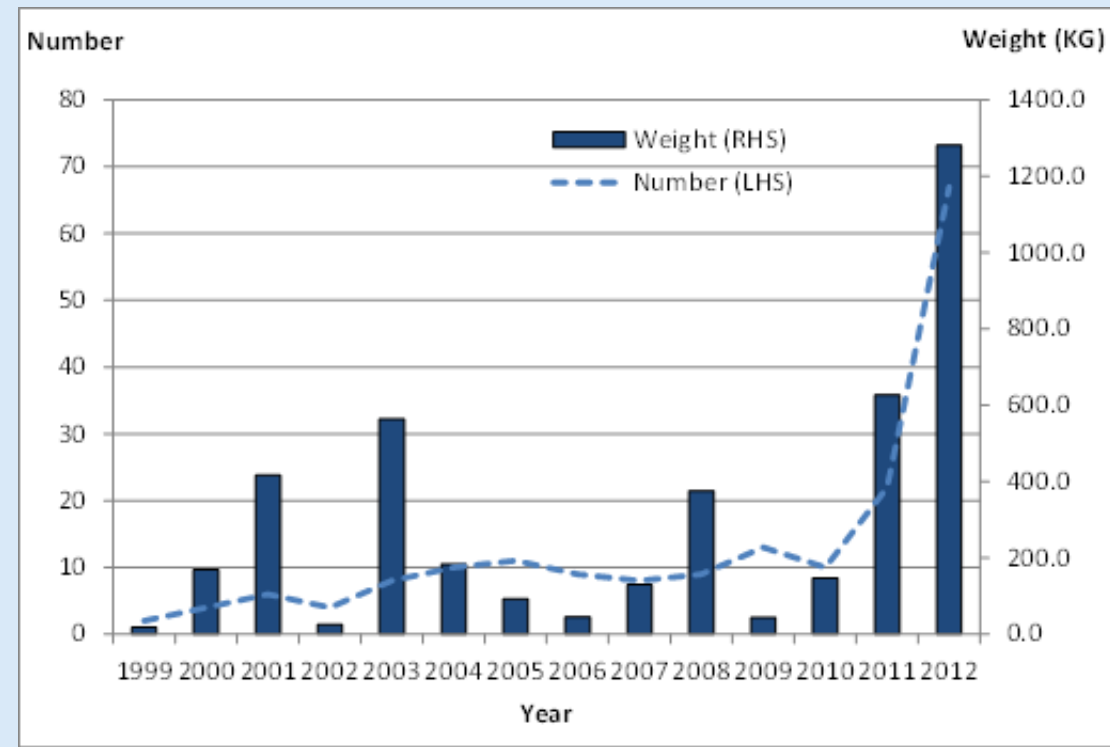


Figure B6 Precursors—annual total weight and number of seizures, 1999–2012

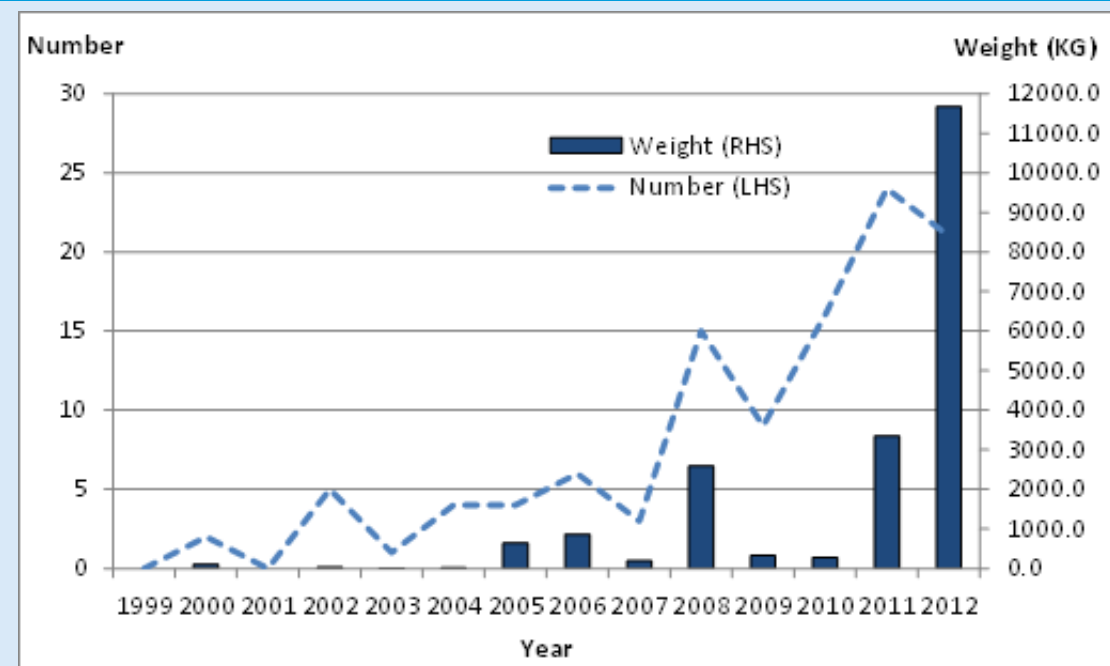
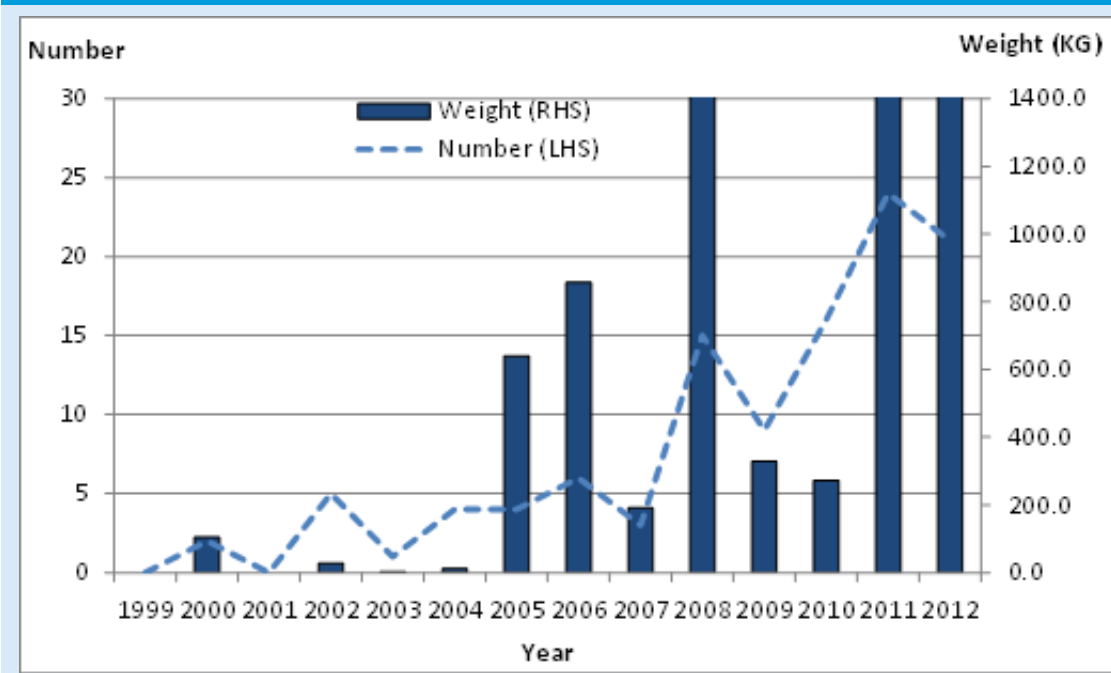


Figure B7 Precursors—annual total weight and number of seizures, 1999–2012, adjusted scale



Appendix C: Annual trends in mono-drug seizures, 1999–2012

Figure C6 Number of mono-drug seizures by drug seized and year of seizure, 1999–2012

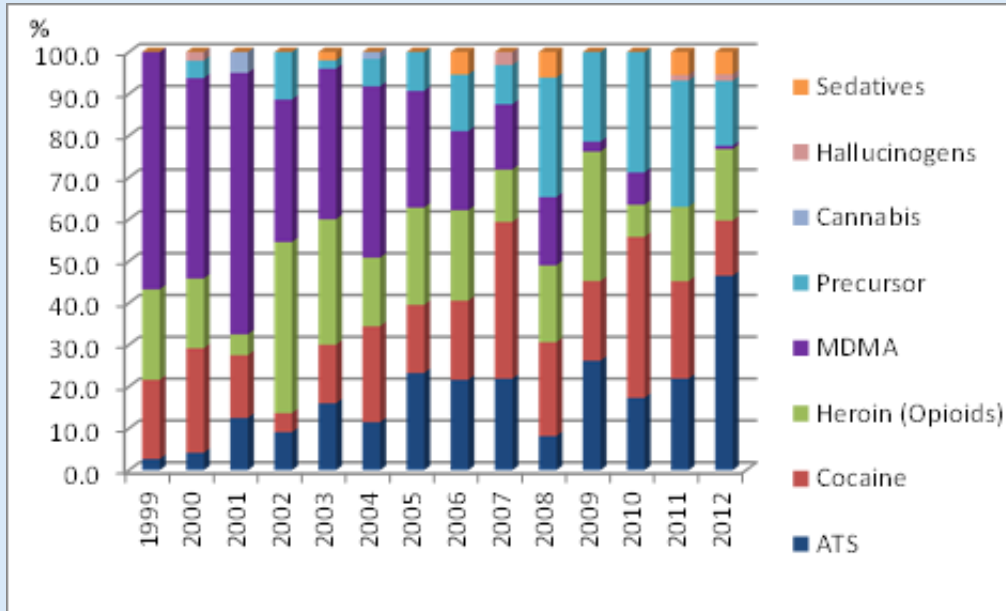


Figure C7 Total weight of mono-drug seizures by main drug type and year of seizure, 1999–2012

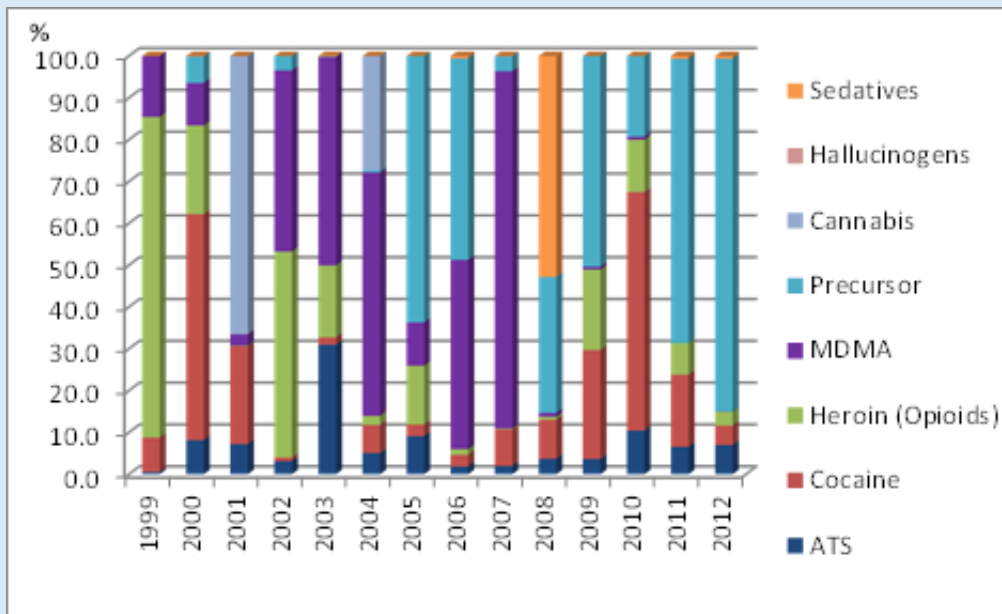


Figure C8 Number of mono-drug seizures by mode of transport and year of seizure, 1999–2012

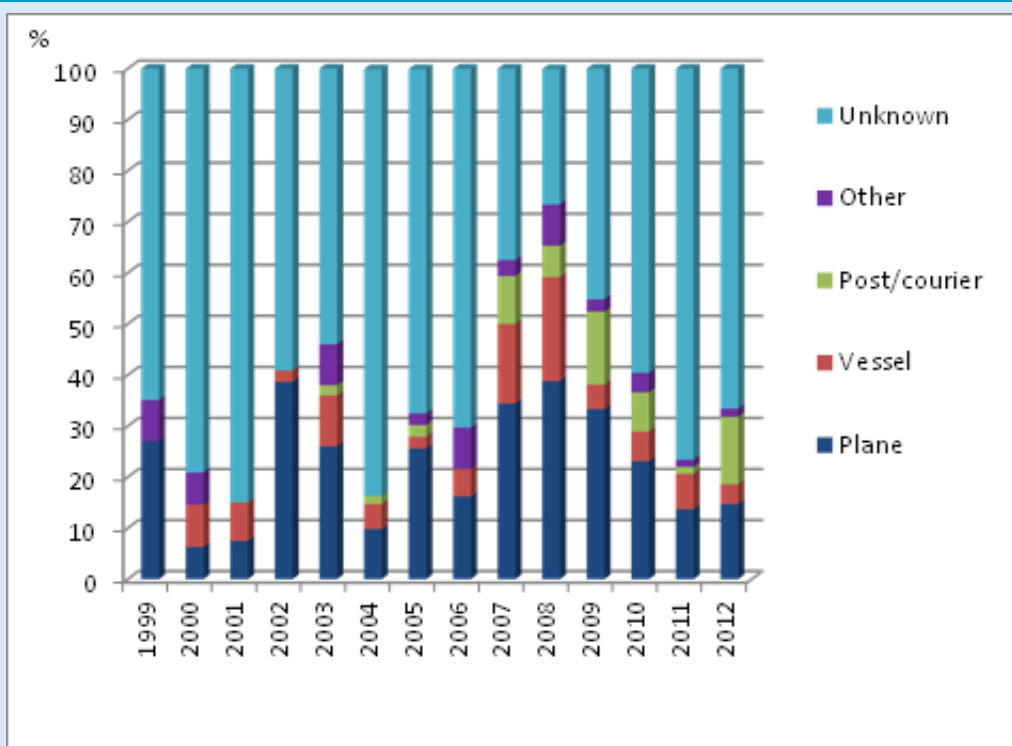


Figure C9 Number of mono-drug seizures by method of concealment and year of seizure, 1999–2012

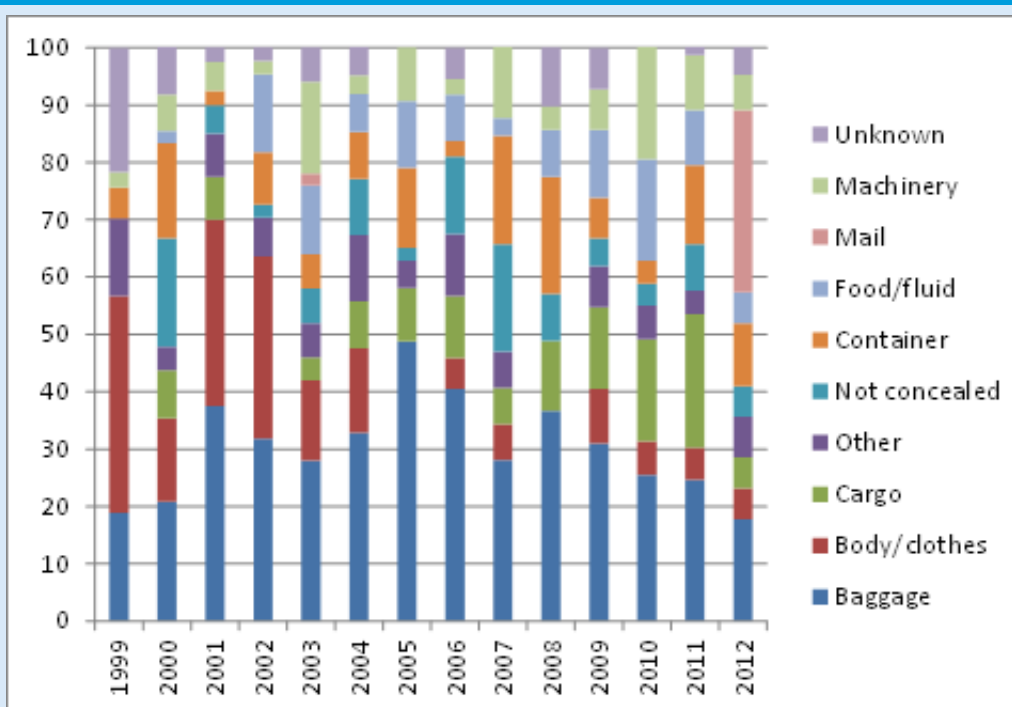


Figure C10 Number of drugs seized in mono-drug seizures by country of origin and year of seizure, 1999–2012

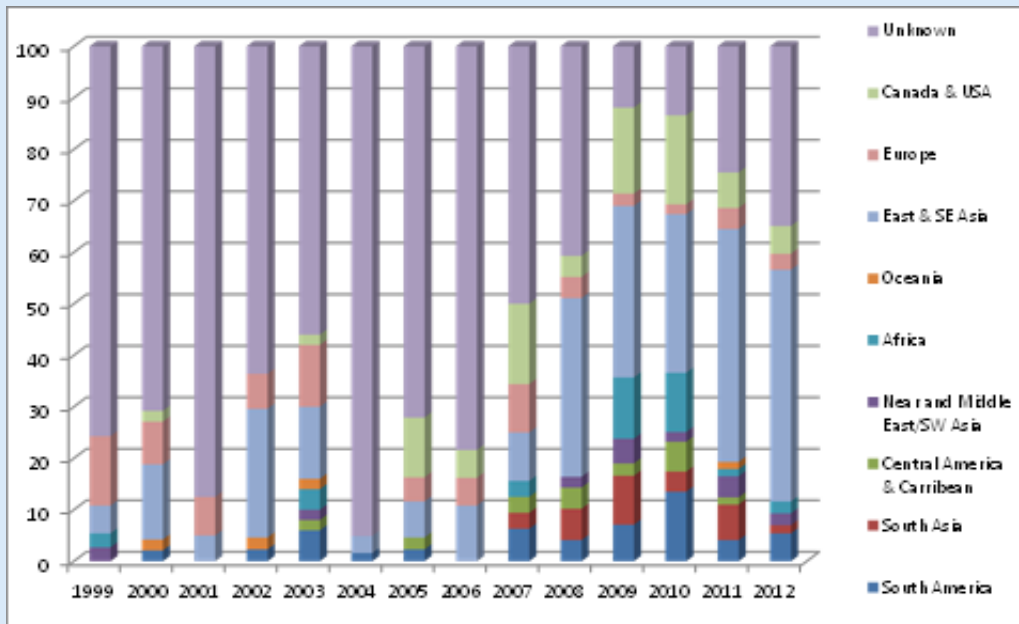


Figure C11 Number of mono-drug seizures by state where seizure was made and year of seizure, 1999–2012

