Coroners Court of Victoria

Asia Pacific Coroners Society Conference 2014

Prescription drugs: Too much of a good thing?

Chair
Coroner Audrey Jamieson

Background presentation
Dr Jeremy Dwyer

Expert panel
Assoc Prof Morris Odell
Mr Sam Biondo
Dr Matthew Frei
Mr Irvine Newton OAM

Asia Pacific Coroners Society Conference 2014

Fatal overdoses involving pharmaceutical drugs in Victoria

Dr Jeremy Dwyer

Case Investigator
Coroners Prevention Unit
Coroners Court of Victoria

Annual frequency of fatal overdose Victoria 2009-2013

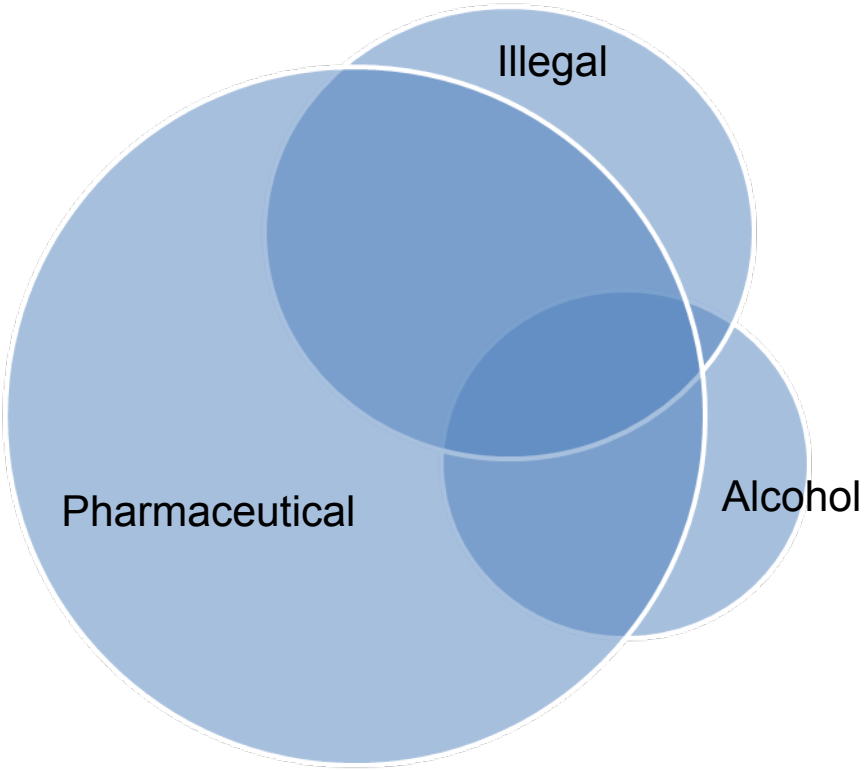
Year	Single drug overdose	Poly-drug overdose	All overdose	Possible overdose
2009	128	252	380	23
2010	122	220	342	41
2011	133	229	362	23
2012	115	253	368	42
2013	117	262	379	70
Total	**615**	**1216**	**1831**	**199**

Fatal overdose by contributing drugs

Drug type	Single drug overdose (n = 615)	Poly-drug overdose (n = 1216)	All overdose (N = 1831)
Pharmaceutical	285 (46.3%)	1171 (96.3%)	1456 (79.3%)
Illegal	235 (38.2%)	513 (42.2%)	748 (40.7%)
Alcohol	95 (15.5%)	346 (28.5%)	441 (24.0%)

Pharmaceutical	Single drug overdose	Poly-drug overdose	All
Benzodiazepines	19 (3.1%)	900 (74.0%)	919 (50.1%)
Pharmaceutical opioids	105 (16.9%)	805 (66.2%)	910 (49.6%)
Antidepressants	48 (7.7%)	557 (45.8%)	605 (33.0%)
Antipsychotics	15 (2.4%)	330 (27.1%)	345 (18.8%)
Non-benzodiazepine anxiolytics	24 (3.9%)	164 (13.5%)	188 (10.2%)
Non-opioid analgesics	22 (3.5%)	152 (12.5%)	174 (9.5%)
Anticonvulsants	9 (1.5%)	83 (6.8%)	92 (5.0%)

Pharmaceutical-illegal-alcohol nexus

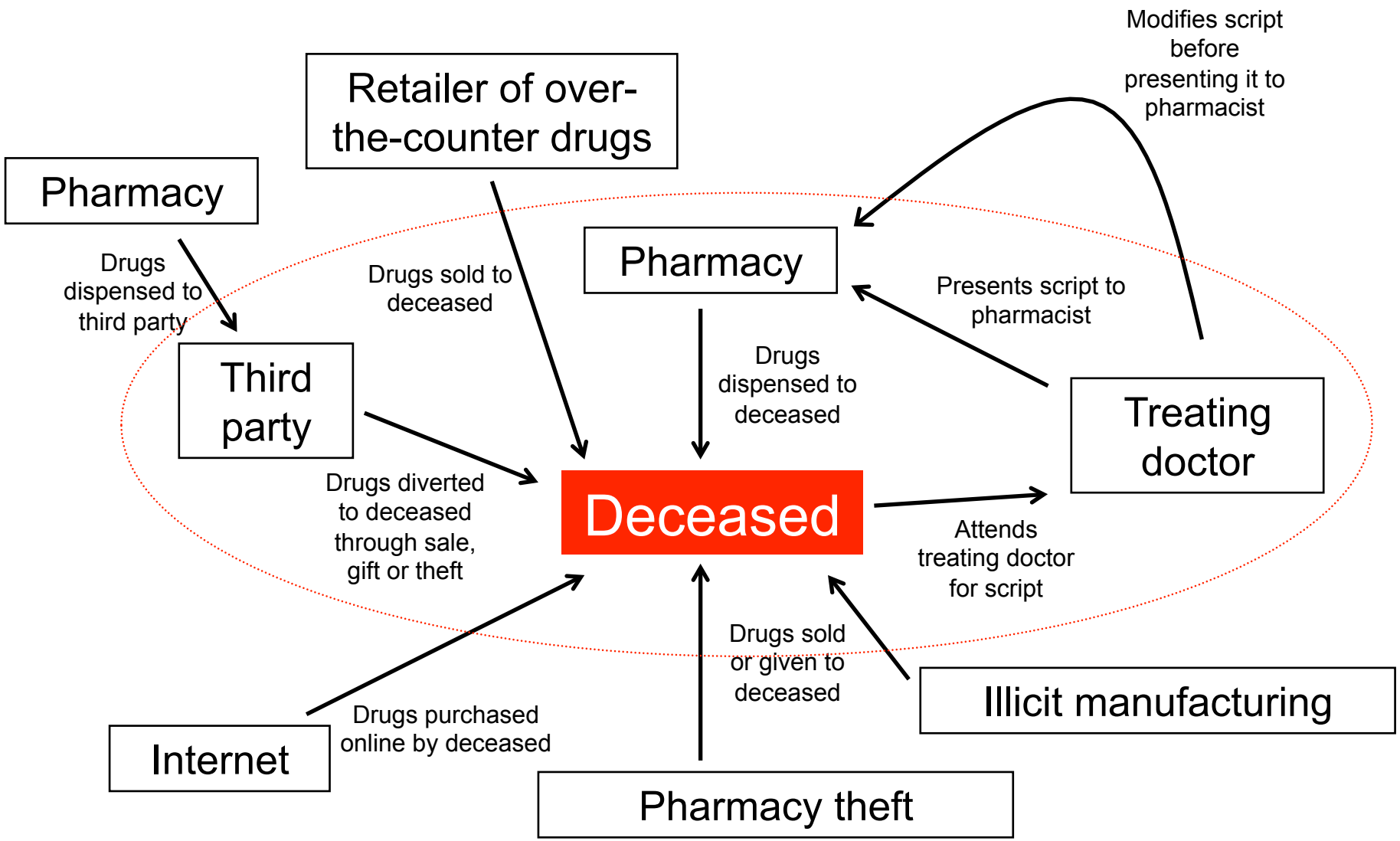


42%	Pharmaceuticals only
20%	Pharmaceuticals and illegal drugs
14%	Illegal drugs only
12%	Pharmaceuticals and alcohol
6%	Alcohol only
5%	Pharmaceuticals, illegal drugs and alcohol
1%	Alcohol and illegal drugs

Most frequent individual contributing drugs

Drug type		Single drug overdose	Poly-drug overdose	All overdose
Heroin	Illegal	208	430	638
Diazepam	Pharmaceutical	1	632	633
Alcohol	Alcohol	95	346	441
Codeine	Pharmaceutical	8	355	363
Methadone	Pharmaceutical	36	287	323
Alprazolam	Pharmaceutical	1	261	262
Oxycodone	Pharmaceutical	26	207	233
Quetiapine	Pharmaceutical	5	176	181
Paracetamol	Pharmaceutical	22	135	157
Temazepam	Pharmaceutical	8	149	157
Methamphetamine	Illegal	19	134	153
Oxazepam	Pharmaceutical	1	138	139
Amitriptyline	Pharmaceutical	16	114	130
Mirtazapine	Pharmaceutical	1	122	123
Citalopram	Pharmaceutical	4	105	109

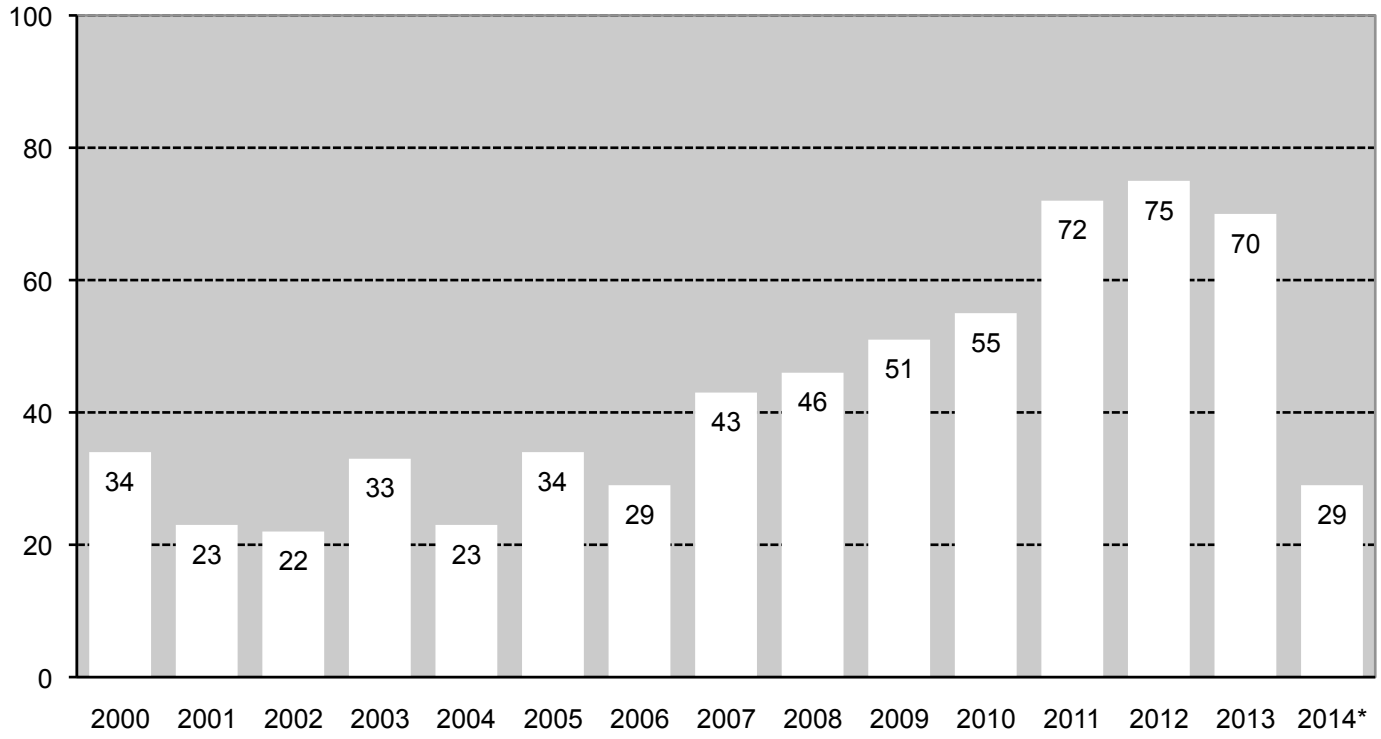
Pharmaceutical drugs and the deceased



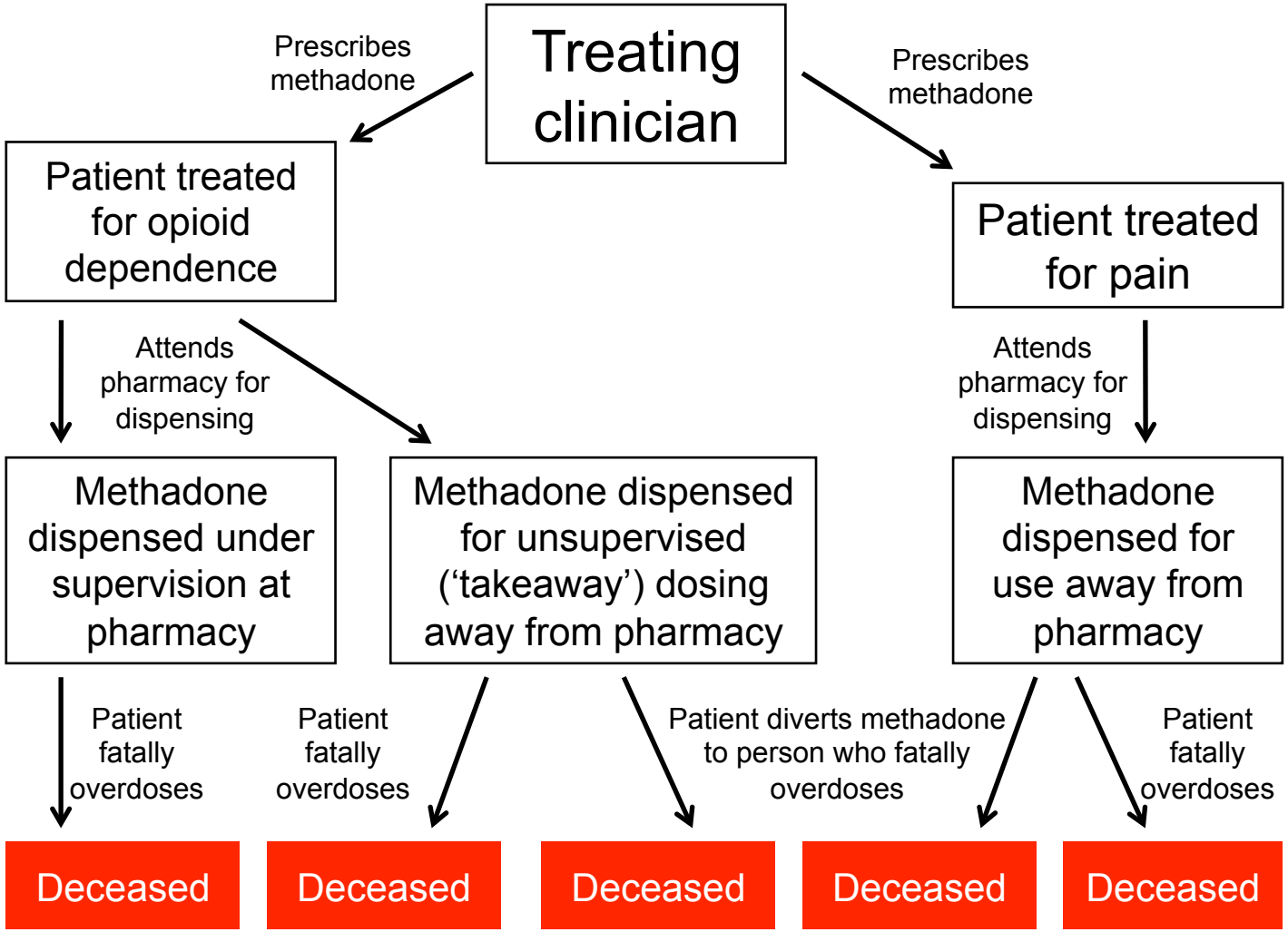
Fatal overdoses involving methadone

Annual Victorian overdose deaths involving methadone, 2000-2014*

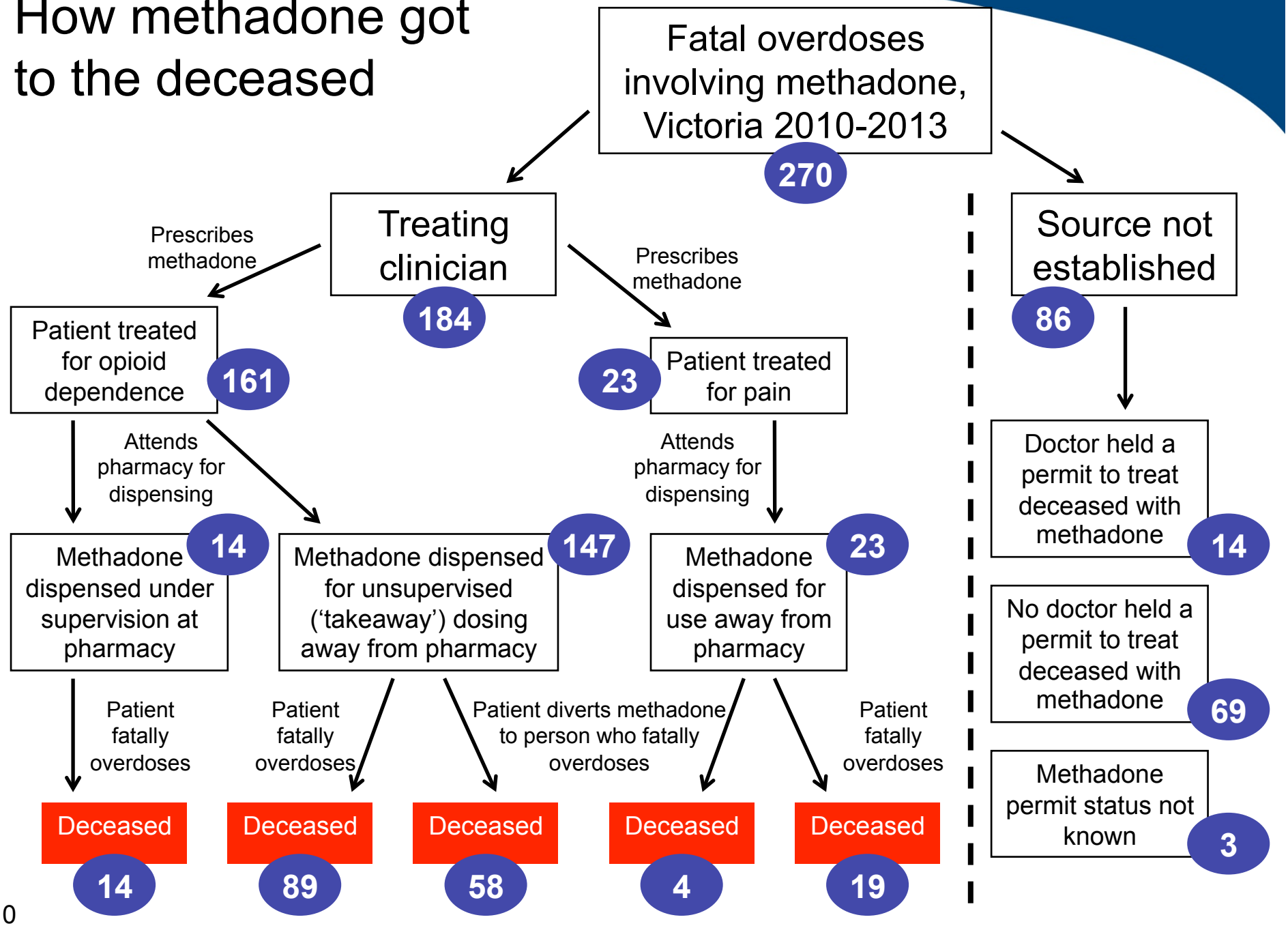
* 2014 data is part-year January to June



How methadone can get to the deceased



How methadone got to the deceased



Prevention-focused questions

- Why are ORT patients allowed takeaway methadone?
- How do doctors determine patient eligibility for takeaway methadone in ORT?
- How do pharmacists safely dispense takeaway methadone to ORT patients?
- What measures are in place to prevent ORT patient misuse of takeaway methadone?
- What measures are in place to prevent ORT patient diversion of takeaway methadone?
- What can we change about takeaway dosing in ORT to reduce methadone overdose deaths?

Progress towards getting answers

Coroner Jacinta Heffey, finding in the death of Helen Maree Stagoll, case 1624 of 2010, published 29 October 2013.

Coroner Audrey Jamieson, finding in the death of Shannon Lees, case 2254 of 2012, published 16 July 2014.

Deceased intent in fatal overdose, Victoria 2009-2010

Intent	%
Unintentional	56.8%
Unable to be determined	21.7%
Intentional self-harm (suicide)	21.5%

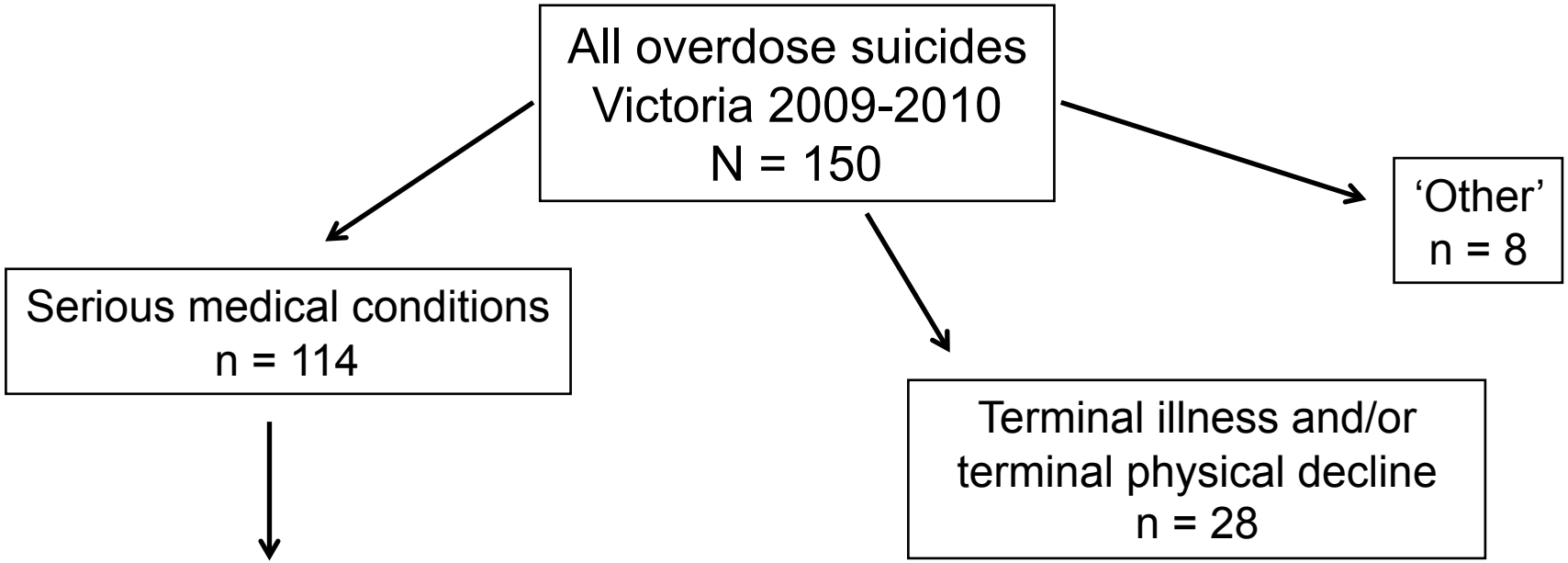
Drug involvement in fatal overdose by intent

Drug types	Deceased intent		
	Unintentional	Unable to be determined	Intentional self-harm
Illegal	57.3%	29.3%	9.7%
Pharmaceutical	68.0%	84.7%	96.1%
Alcohol	28.8%	25.5%	13.5%
Benzodiazepines	47.6%	43.3%	42.6%
Opioid analgesics	45.1%	47.1%	41.3%
Antidepressants	23.9%	35.0%	48.4%
Antipsychotics	14.4%	19.1%	24.5%
Non-benzodiazepine anxiolytics	5.6%	8.3%	17.4%
Non-opioid analgesics	4.6%	6.4%	14.2%

Drug combinations in fatal overdose by intent

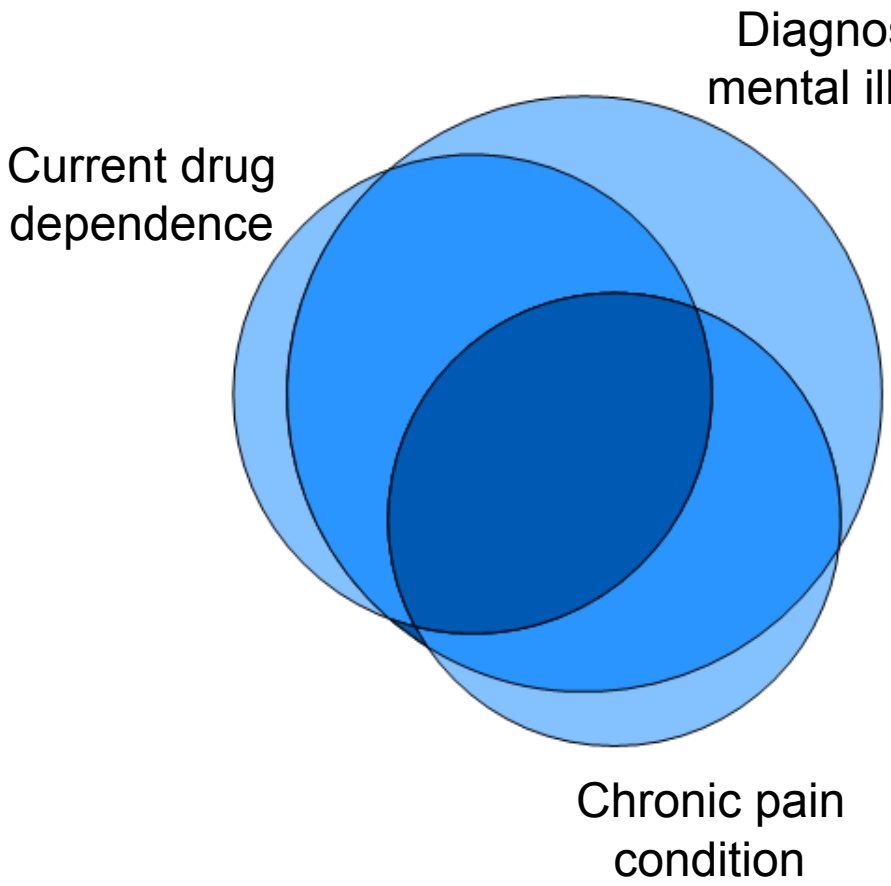
Drug combinations	Deceased intent		
	Unintentional	Unable to be determined	Intentional self-harm
Illegal only	20.0%	8.3%	2.6%
Illegal and pharmaceutical	25.1%	17.2%	6.5%
Illegal, pharmaceutical and alcohol	8.8%	2.5%	0.6%
Illegal and alcohol	3.4%	1.3%	0.0%
Pharmaceutical only	26.1%	49.0%	76.8%
Pharmaceutical and alcohol	8.0%	15.9%	12.3%
Alcohol only	8.5%	5.7%	0.6%
Illegal only	20.0%	8.3%	2.6%

Intentional overdose: Groupings and themes



Medical condition	Frequency
Diagnosed mental illness	102
Chronic pain condition	66
Current drug dependence	59

Intentional overdose: Overlap between themes



Mental illness and pain condition	30
Mental illness, pain and drug dependence	29
Mental illness and drug dependence	23
Mental illness only	20
Drug dependence only	5
Pain condition only	5
Drug dependence and pain condition	2
All deaths	**114**

Suicide frequency by length of medical condition history

History of medical condition	Medical condition		
	Drug dependence	Chronic pain	Mental illness
< 1 year	3	1	1
1 to 2 years	1	6	3
3 to 5 years	11	6	13
6 to 10 years	4	8	17
> 10 years	**23**	**26**	**49**
Unknown	17	19	19
Total	59	66	102

Inter-related medical conditions

"A cervical disc protrusion required hospitalisation and neurosurgery, and [deceased] kept requesting stronger and stronger analgesia and eventually developed a marked dependence on such drugs. Despite several attempts to withdraw even with the assistance of drug rehabilitation centre she persisted in doctor shopping and buying prescription drugs off the street."

Statement of general practitioner.

"My initial formulation of [deceased] was that he suffered from depression with a strong anxiety component. He had developed a pattern of trying to manage his anxiety by using alcohol. Unfortunately this both maintained and exacerbated his problems."

Statement of psychiatrist.

"As a result of her illicit drug use the deceased had been diagnosed as suffering from drug induced paranoia and depression."

Coroner's finding.

Pharmaceutical failure to ‘cure’

“Intervention wise she had been treated with a variety of antidepressants, including escitalopram, citalopram, mirtazapine, venlafaxine, duloxetine, dothiepin and subsequent trials with desvenlafaxine, fluvoxamine and paroxetine. She had in addition attempted potentiation with mood stabilisers, both lithium carbonate and sodium valproate, and potentiation with atypical antipsychotics without success.”

Statement of psychiatrist.

“I did not prescribe any antidepressants as [the deceased] stated he had been on them all and [they were] ineffective.”

Statement of general practitioner.

“She used antipsychotic, antidepressant and anxiolytic medication [...]. She continued to have increased anxiety, lowered mood and difficulty withdrawing from benzodiazepine medication. She continued on antipsychotic, anxiolytic and antidepressant medication after terminating contact with [treating psychiatrist]. I do not recall [deceased] ceasing psychiatric medication at any point.”

Statement of general practitioner.

Despair

“These past eight months have been horrific. I have tried everything + most to no avail. No need for details. It's just been bad luck. The pain is relentless + I'm now very, very tired + depleted.”

Suicide note.

“To all my family, I'm sorry for what I have done to everybody. But I can't live like this anymore. I have nothing and I am sick of being sick. So don't despair I know what I am doing and I feel that it's the best thing I can do.”

Suicide note.

“I'm sick of doctors, pain and this depression.”

Suicide note.

“Now I look into the mirror at 24 with drug addiction, no qualifications, no money and no hope or will to continue fighting. [...] All my memories are painful, I can never in my life remember being happy unless under the influence of drugs and alcohol. I cannot see a future for me.”

Suicide note.

Engagement in care

Locus of care in most recent care episode	Proximity to suicide of most recent care episode							
	<1 week	1 to 6 weeks	6 wk to 6 m	6 m to 1 yr	1 yr to 2 yrs	UK	No care	Total
General medicine								
General practitioner	23	33	7	1		3		67
Emergency department	1		1					2
Hospital-based (inpatient)					1			1
Mental health services								
Community	12	13	1		1	1		28
Residential	1							1
Supported accommodation	1							1
CATT								0
Hospital-based (inpatient)	1	1						2
AOD services								
Community								0
Residential								0
Supported accommodation								0
Hospital-based (inpatient)								0
Other								
Other health services								0
Unknown						11		11
No evidence of care							1	1
Grand Total	**39**	**47**	**9**	**1**	**2**	**15**	**1**	**114**

Fatal overdose using drugs prescribed to treat medical conditions

All overdose suicides of people suffering serious medical conditions
N = 114

Overdose using drugs prescribed to deceased to treat medical conditions
n = 88 (77.2%)

Overdose using 'other' drugs
n = 26 (22.8%)

Selected 'other' drug sources	Frequency
Heroin (opioid-dependent deceased)	7
Alcohol (alcohol-dependent deceased)	6
Over-the-counter pharmaceuticals	5
Drugs sourced in the workplace	4

Prevention

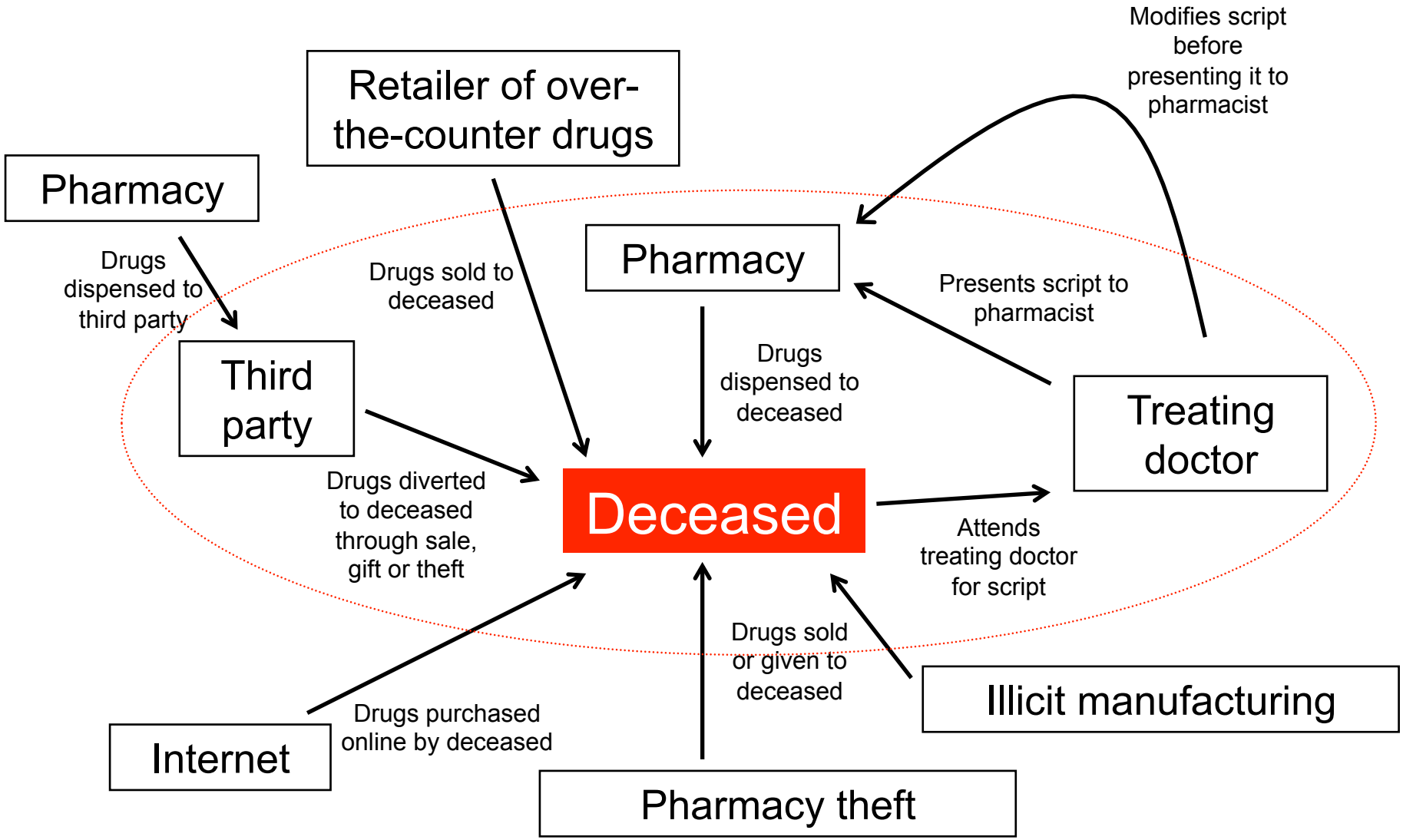
‘Traditional’ approaches to intentional overdose:

- Restrict patient access to potentially lethal drugs
- Substitute more toxic drugs for less toxic drugs of similar clinical efficacy
- Improve engagement and retention in treatment

Questions suggested by the stories of the deaths:

- How is care integrated between drug dependence, chronic pain and mental illness?
- Why have the long histories of engagement in treatment failed to halt the decline toward suicide?

The critical contribution of experts



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Panel discussion: Prescribing

Associate Professor Morris Odell

Head
Division of Clinical Forensic Medicine
Victorian Institute of Forensic Medicine

Adjunct Associate Professor of Forensic Medicine
Monash University

“I was not aware …”

“At inquest, Dr Chronas testified that she never suspected that Ms Brain was obtaining scripts from other doctors and was therefore not concerned about it. She trusted her patient and expected that Ms Brain would have told her about the methadone therapy.”

State Coroner Judge Ian Gray, death of Anne Brain, case 4797 of 2011, published 30 October 2014.

“There appeared to be some mis-understanding and lack of knowledge about the prescription of certain medications. Dr Doswell never wrote to Dr Blombery and consequently Dr Blombery did not know both were prescribing OxyContin at the same time.”

Coroner Jacqui Hawkins, death of Georgia Cheal, case 4603 of 2006, published 15 May 2014.

“Dr Wong was not aware of Mr Ardern obtaining drugs from any other doctors when he attended on 14 June 2012.”

Coroner Audrey Jamieson, death of Kirk Ardern, case 2254 of 2012, published 7 April 2014.

“Dr Thai Chin Lim, who prescribed large quantities of benzodiazepines and opioid analgesics to David, confirmed he was also unaware that David was obtaining prescription medications from other doctors, and therefore was unable to use this information to inform his own practices.”

Coroner Audrey Jamieson, death of David Trengrove, case 4042 of 2008, published 18 May 2012.

Questions

Is real-time prescription monitoring capacity by itself likely to be effective in reducing the harms and deaths associated with pharmaceutical drugs?

What else could be done?

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Panel discussion: Dispensing

Mr Irvine Newton OAM

Chair
Harm Minimisation Committee
Pharmaceutical Society of Australia

Safe dispensing of pharmaceutical drugs

Pharmacists should not dispense a prescription without satisfying themselves that it is safe, appropriate and lawful to supply the medication. Findings by VCAT and the Pharmacy Board have endorsed the view that this responsibility cannot be ignored simply because a prescription is presented.

Victorian Department of Health, “Intervening to Ensure Safe, Appropriate and Lawful Supply: Information for Pharmacists”, April 2014.

The challenge of safe dispensing

"I just spoke to the next of kin in this case and she stated that she has found a lot of medication for [the deceased] all prescribed on the same day. She said she rang the pharmacist to ask why they dispensed all this medication to him and the pharmacist said that he would threaten them unless they did so."

File note of Coronial Investigator.

Questions

What role should pharmacists play in ensuring drugs are safely dispensed?

Where might there be opportunities to improve drug dispensing practices and reduce pharmaceutical drug related harms?

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Panel discussion: Alcohol and other drugs sector

Mr Sam Biondo

Executive Officer
Victorian Alcohol and Drug Association

Drug dependence among overdose deceased, Victoria 2013

Contributing drugs in fatal overdose	All deceased	Drug dependent deceased	Injecting drug user deceased
Pharmaceutical only	145	36 (24.8%)	21 (14.5%)
Pharmaceutical and illegal	86	76 (88.4%)	75 (87.2%)
Pharmaceutical and alcohol	56	24 (42.9%)	7 (12.5%)
Pharmaceutical, illegal and alcohol	25	22 (88.0%)	21 (84.0%)
Illegal only	54	48 (88.9%)	45 (83.3%)
Illegal and alcohol	1	1 (100.0%)	1 (100.0%)
Alcohol only	12	6 (50.0%)	0 (0.0%)
All deceased	379	213 (56.2%)	170 (44.9%)

Implications of interventions for the AOD sector

"[…] the referral pathways to specialist services need to be established while ensuring primary, secondary and tertiary services have the capacity for the potentially large number of patients that may be identified by a prescription monitoring program. Many community and specialist drug treatment services already operate at capacity and/or have substantial waiting lists. Well-known geographic challenges to treatment exist in regional and rural areas, locations in which pharmaceutical use is known to be most problematic."

Nielsen S and Bruno R, "Implementing real-time prescription monitoring: Are we ready?" *Drug and Alcohol Review*, September 2014, p.464.

Question

What should be done to ensure drug dependent people are appropriately supported, when designing and implementing interventions to reduce harms associated with pharmaceutical drugs?

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Panel discussion: Policy-making

Dr Matthew Frei

Clinical Director
Turning Point Alcohol and Drug Centre
Eastern Health

President
Australasian Chapter of Addiction Medicine
Royal Australasian College of Physicians

Benzodiazepines as ubiquitous co-contributors

Contributing drug type	All Overdoses (N = 1831)	Overdoses where benzodiazepines co-contribute
Pharmaceutical opioids	910	622 (68.4%)
Illegal drugs	748	370 (49.5%)
Antidepressants	605	434 (71.7%)
Alcohol	441	233 (52.8%)
Antipsychotics	345	258 (74.8%)

A recommendation to address benzodiazepine prescribing

Recommendation: To reduce the harms and death associated with benzodiazepine use in Victoria, the Royal Australian College of General Practitioners should update its guidelines for appropriate prescribing of benzodiazepines in the context of general practice within 12 months.

Coroner Audrey Jamieson, death of David Trengrove, case 4042 of 2008, published 18 May 2012.

The RACGP confirms that the Coroner's recommendations will be implemented. The College agrees that the 2000 benzodiazepines guidelines do not reflect current advances in evidence and has therefore removed these from the website until they can be updated.

Prof Claire Jackson, Royal Australian College of General Practitioners, 20 August 2012.

Another recommendation to address benzodiazepine prescribing

Recommendation: To reduce the harms and death associated with benzodiazepine use in Victoria, within 12 months the Therapeutic Goods Administration of the Australian Government Department of Health and Ageing should move all benzodiazepines into Schedule 8 of the Standard for the Uniform Scheduling of Medicines and Poisons.

Coroner Audrey Jamieson, death of David Trengrove, case 4042 of 2008, published 18 May 2012.

Seventy public pre-meeting submissions were received.

Fifty-two of those submissions were against the rescheduling of benzodiazepines on the grounds of negative impact to business. The main impacts related to increased administrative burden and the need to increase security for those who administer or dispense benzodiazepines, such as aged care facilities and pharmacies.

Sixteen submissions were in support of rescheduling benzodiazepines in Schedule 8 citing public health concerns associated with the abuse and trafficking of these substances.

Therapeutic Goods Administration, Interim decisions and reasons for decisions by delegates, May 2013.

Questions

What factors might influence the likelihood that a coroner's recommendation in the area of pharmaceutical drug misuse is implemented?

What considerations beyond risk and harm reduction underpin policymaking in health settings?

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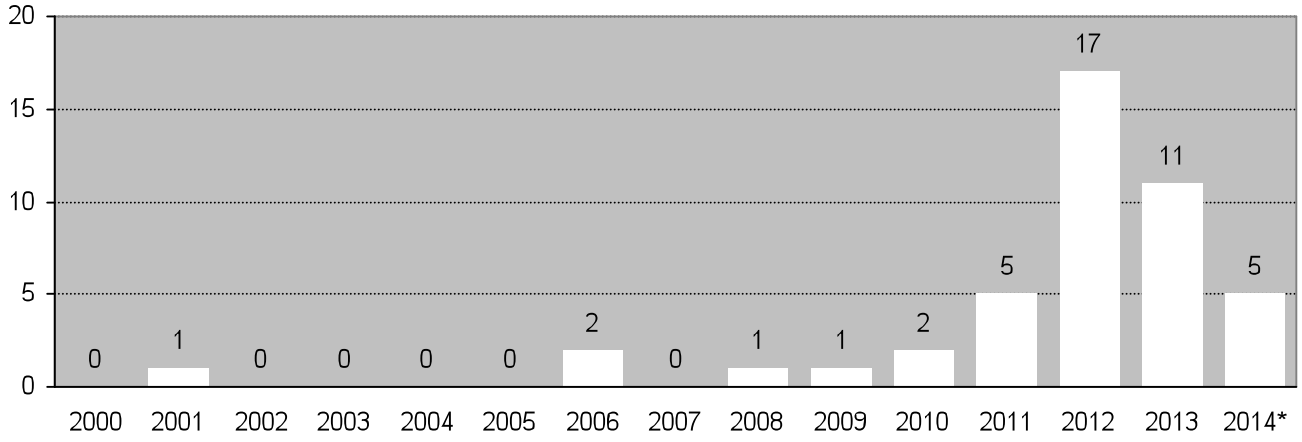
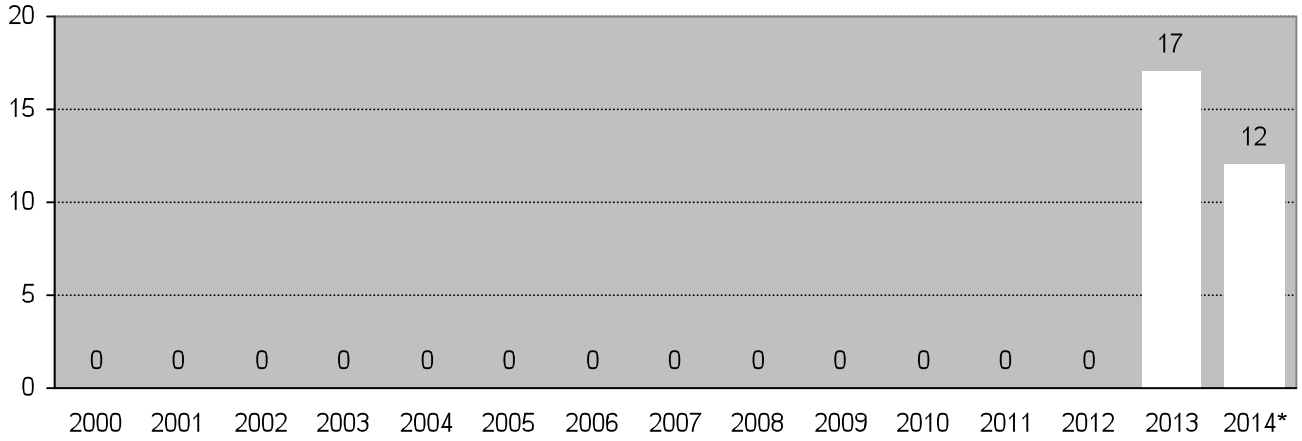
Panel discussion: Conclusion

All

Emerging drug issues



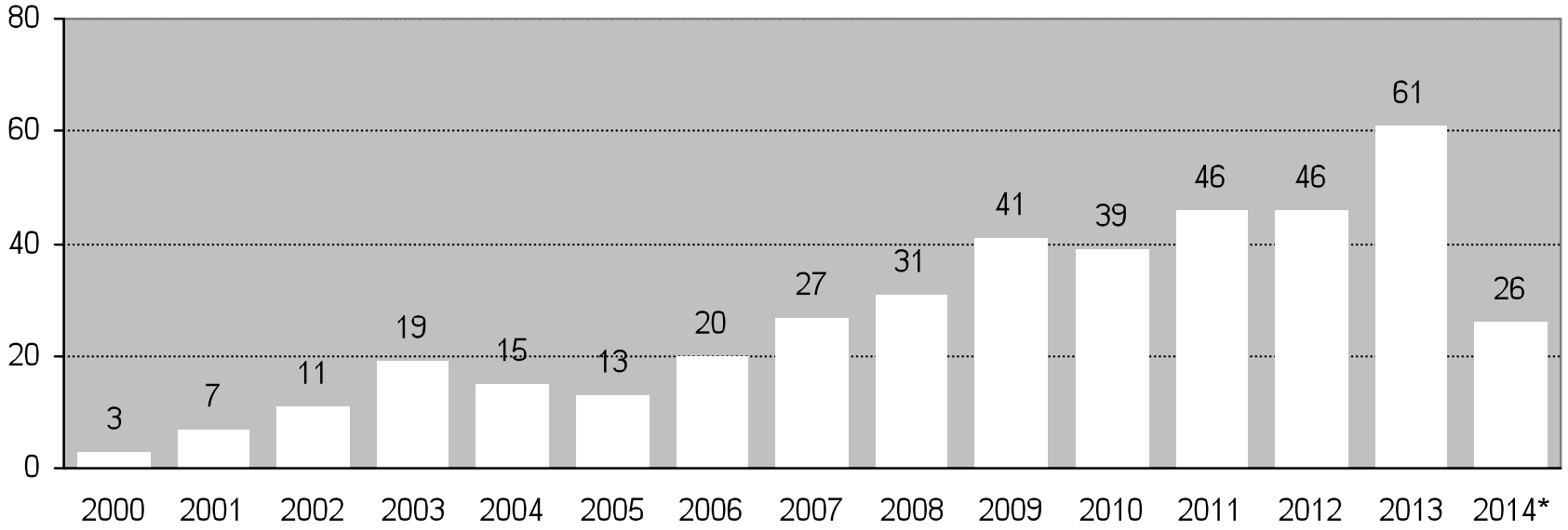
Annual Victorian overdose deaths involving fentanyl, 2000-2014*



Annual Victorian overdose deaths involving pregabalin, 2000-2014*

* 2014 data is part-year January to June

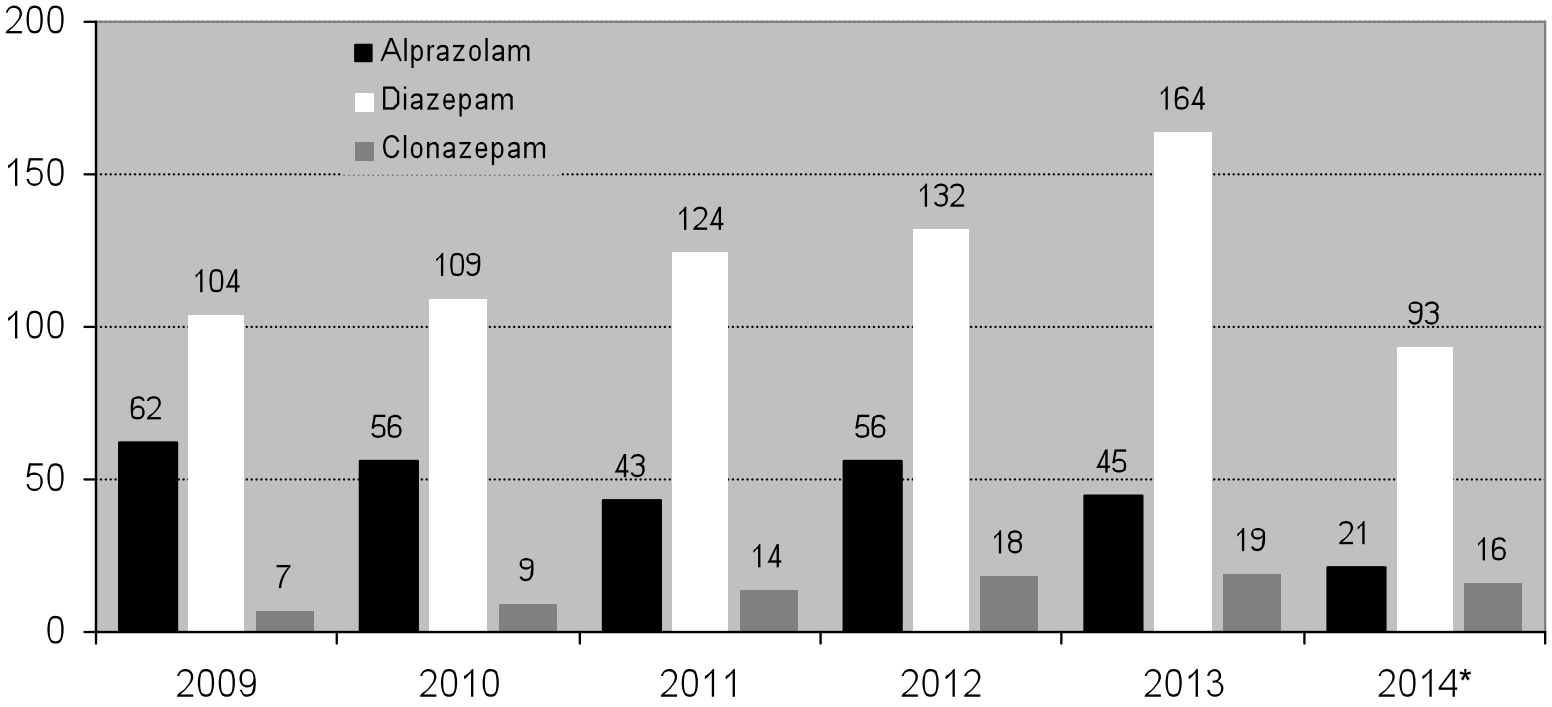
What everybody wants to prevent



Annual Victorian overdose deaths involving oxycodone, 2000-2014*

* 2014 data is part-year January to June

Shifts between drugs in class



Annual Victorian overdose deaths involving alprazolam, diazepam and clonazepam, 2009-2014*

* 2014 data is part-year January to June

Question

What needs to be considered in formulating a response to potential emerging concerns with a pharmaceutical drug?

Thank you

Coroners Court of Victoria