Risk factors for overdose among clients entering residential rehabilitation for opioid use

Chloe J. Haynes[1], Alison Beck[1], Peter J. Kelly[1], Robert Stirling[2], Mei Lin Lee[2], Michele Campbell[2], Briony Larance[1]

[1]School of Psychology, University of Wollongong, Australia.
[2]Network of Alcohol and Other Drug Agencies (NADA), Sydney, Australia.

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Opioid Use & Treatment

- Opioids are leading drug in drug-related deaths in Australia
- ‘Gold standard’ treatment → opioid agonist treatment (e.g., methadone) in combination with psychosocial support
- Residential treatment:
  - Associated with reductions in substance use, mental ill-health, criminal activity
  - Emphasises **comprehensive care**

Assessing overdose risk

- Period immediately following treatment → high risk of relapse or overdose
- Risk factors for overdose → male, aged 35-44, lower socioeconomic status, unemployment, emotional distress, chronic pain, living outside major cities
- Clients with **more concurrent demographic risk factors** at treatment entry have a higher risk of post-treatment substance use
- People who use opioids also commonly use other substances, e.g., alcohol, cannabis, stimulants, benzos

Aims

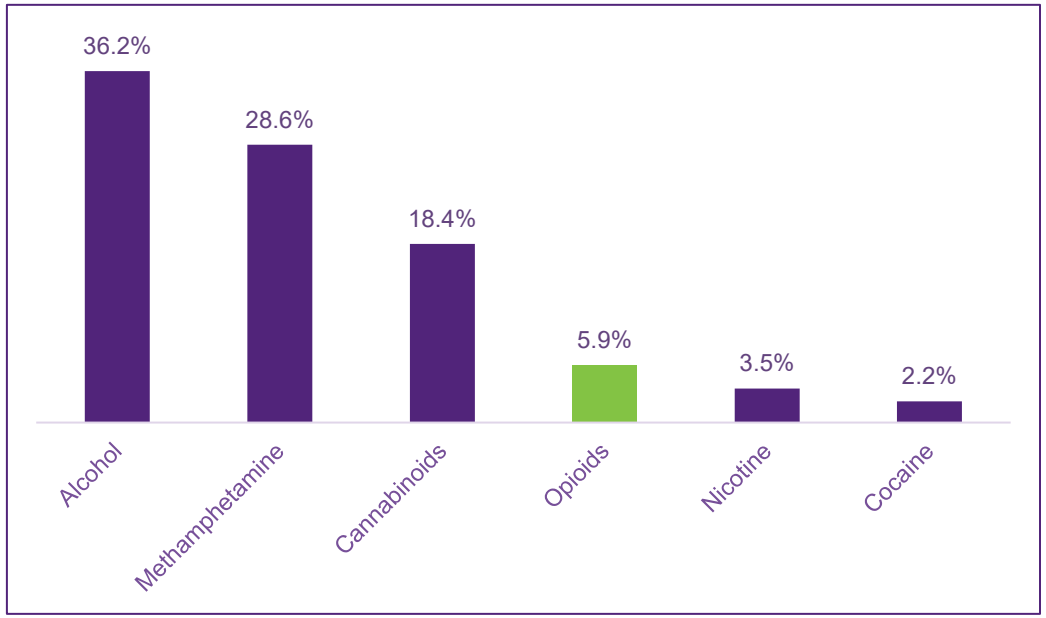
Identifying specific risk factors early in a treatment episode may assist in targeting additional overdose prevention strategies based on client's individualised accumulation of risk

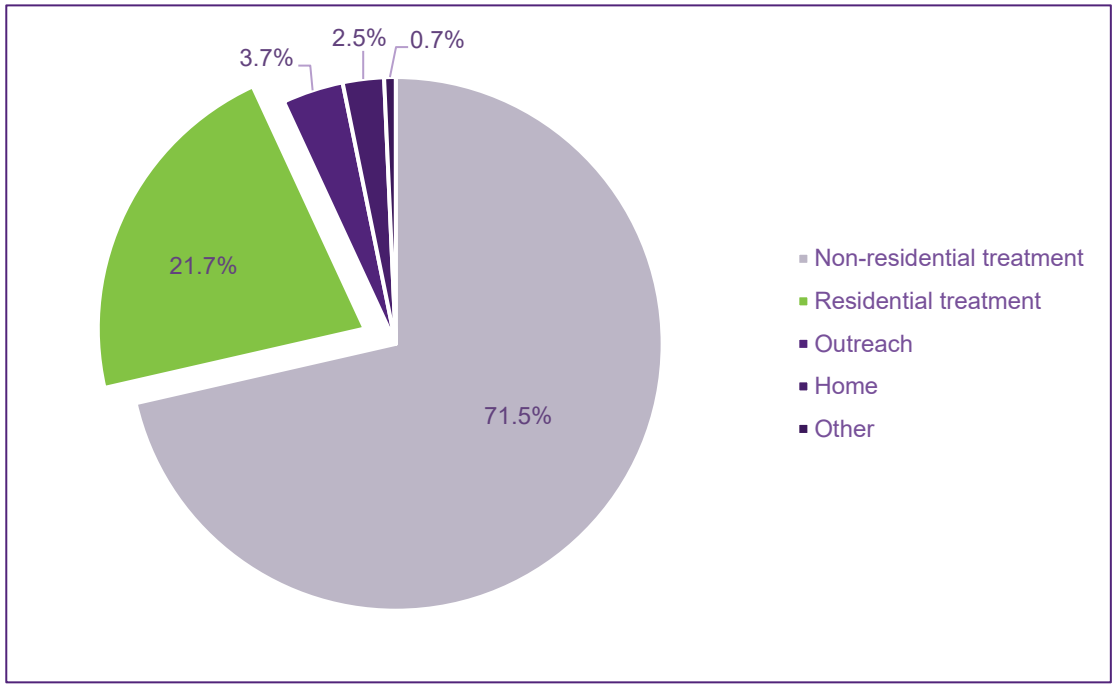
Among those in residential treatment for opioid use:

1) Describe **demographic, clinical, substance use and service utilization** characteristics
2) Identify **unique classes of opioid + other substance use**
3) Identify **relationships between classes and sociodemographic overdose risk factors** and explore how these risks **accumulate differently for men and women**

NGO Alcohol and Other Drug Treatment in NSW

NADABase → system for client data collection and reporting across NGO services





- 18,420 treatment presentations in 2021-22
  - 37.5% women

Participants & Analyses

Eligibility criteria:

1) aged 18 or over,
2) self-identified gender as a man or woman,
3) attending residential treatment for their own substance use in NSW, Australia
4) opioid as primary substance of concern

Total of **2994 participants**
(29.5% women)

Demographic analysis – descriptive statistics, chi-square → proportional gender differences

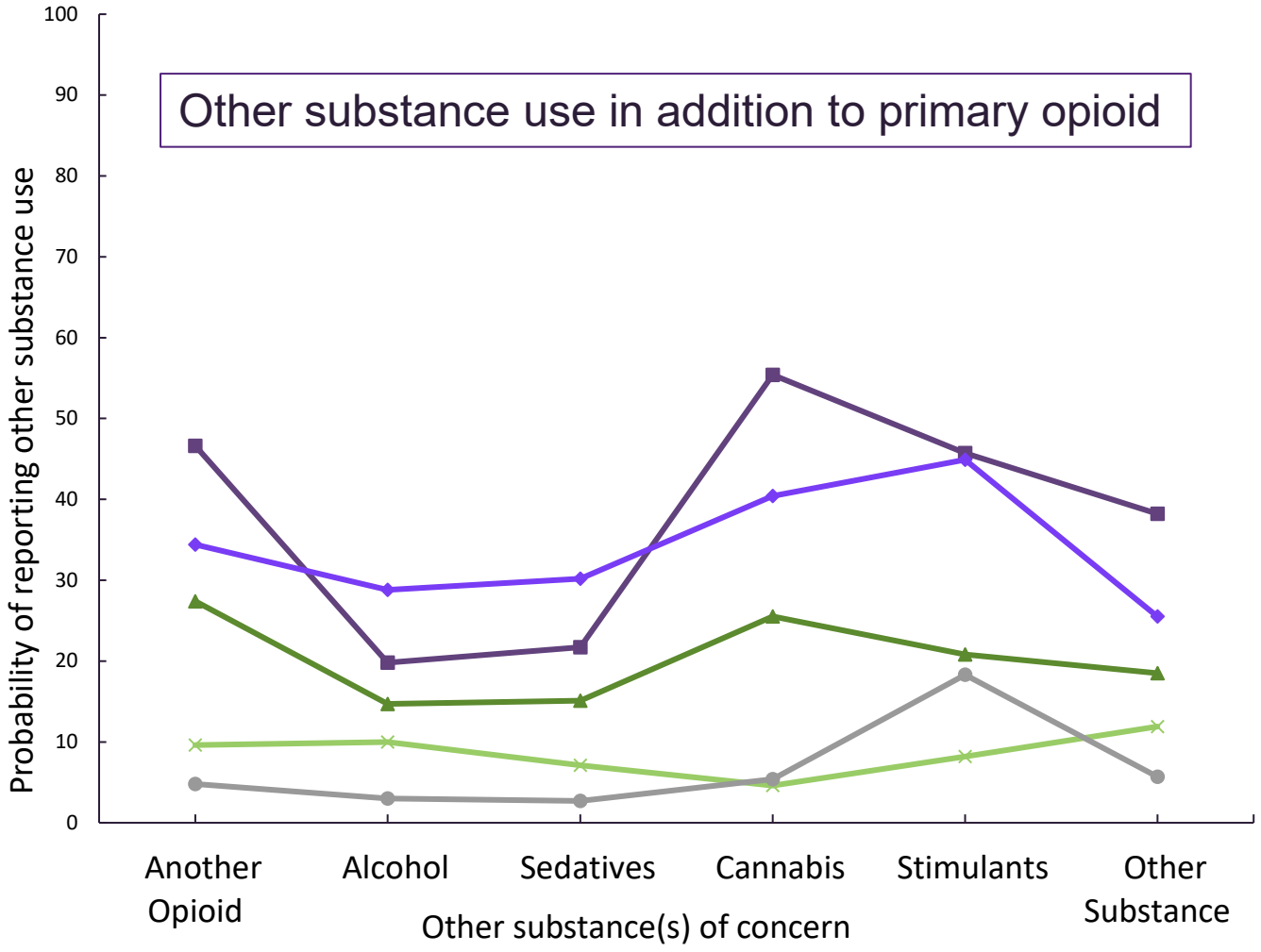
Latent Class Analysis – identifying classes based on 1) primary opioid of concern and 2) other substance/s of concern

Multinomial logistic regression – associations between risk factors and class membership, and interactions with gender

Demographic results

	Women	Men
Demographics	• Aged 18-29 • Born in Australia • Identified as LGBTQIA+ • Lived alone or with dependent children • Received permanent government benefits • Live in non-metro areas but access treatment in metro areas	• Aged 40-59 • Born in Asia • Lived in prison/detention centres or with parents/relatives/friends • Full time employment or no income
Substance Use	• Primary fentanyl use (though small numbers) • Other stimulant use	
Clinical Characteristics	• Higher psychological distress	
Service Use Characteristics	• Referrals for treatment via non-residential, other non-health, or family and child protective services	• Referrals through the police or the criminal justice system

Latent Class Analysis



Pharmaceutical + polysubstance use (n=202, 6.7%)

Heroin + polysubstance use (n=665, 22.2%)

OAT + polysubstance use (n=259, 8.7%)

Pharmaceutical + lower polysubstance use (n=303, 10.1%)

Heroin + lower polysubstance use (n=1565, 52.3%)

Multinomial Logistic Regression

Reference Class = Heroin + lower polysubstance use (n=1565, 52.3%)			
Pharmaceutical + polysubstance use (n=202, 6.7%)	**Pharmaceutical + lower polysubstance use (n=303, 10.1%)**	**Heroin + polysubstance use (n=665, 22.2%)**	**OAT + polysubstance use (n=259, 8.7%)**
↓ unstable accomm ↓ CJS involvement ↓ metro areas ↓ high-very high distress ↑ women with CJS involvement ↑ women in non-metro areas	↓ CJS involvement ↓ metro areas ↓ recent injecting drug use No gender interactions	↓ aged over 35 ↓ CJS involvement ↓ metro areas ↑ unemployed ↑ women in non-metro areas	↓ CJS involvement ↓ metro areas ↓ recent injecting drug use ↑ women over 35 ↑ women living with others (including children)

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Implications & Conclusions

- **Polysubstance use is the norm**, not the exception
- **Many sociodemographic risks are present regardless of gender or polysubstance use profile**
- Importance of **comprehensive/individualised risk assessment**
- Additional variables that may reflect gender-specific risk are potentially not being captured in routinely collected data
- Limitations → generalisation to other contexts, lack of reliable data collection, conflation of sex and gender

Conclusion

- Important to consider individual's complex and unique accumulation of risk
- **Harm reduction and basic post-treatment supports for all!!**
    - Overdose education, take-home naloxone, methadone/buprenorphine access
- Additional strategies and supports based on early identification of risk

Thank you!

Contact: Chloe Haynes

cjh893@uow.edu.au