

The development of rapid surveillance reports using PowerBI as a novel tool to track alcohol and other drug-related harms

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The authors have no competing interests relating to this presentation

Background

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Who we are



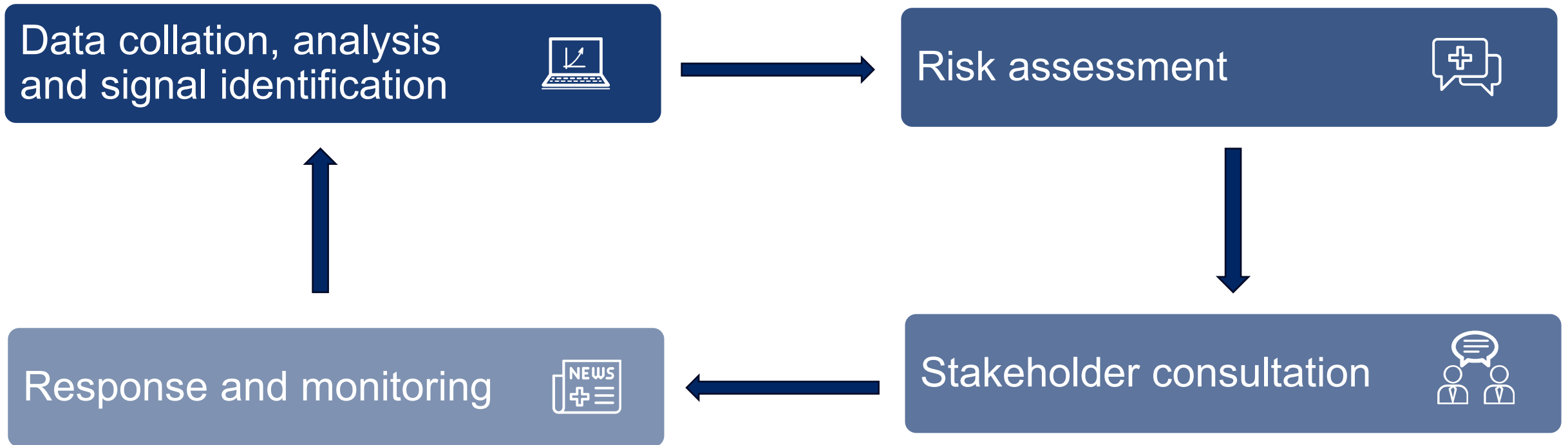
Toxicity Response, Epidemiology and Surveillance (TRES) Team - Centre for Alcohol and Other Drugs

The team consists of:

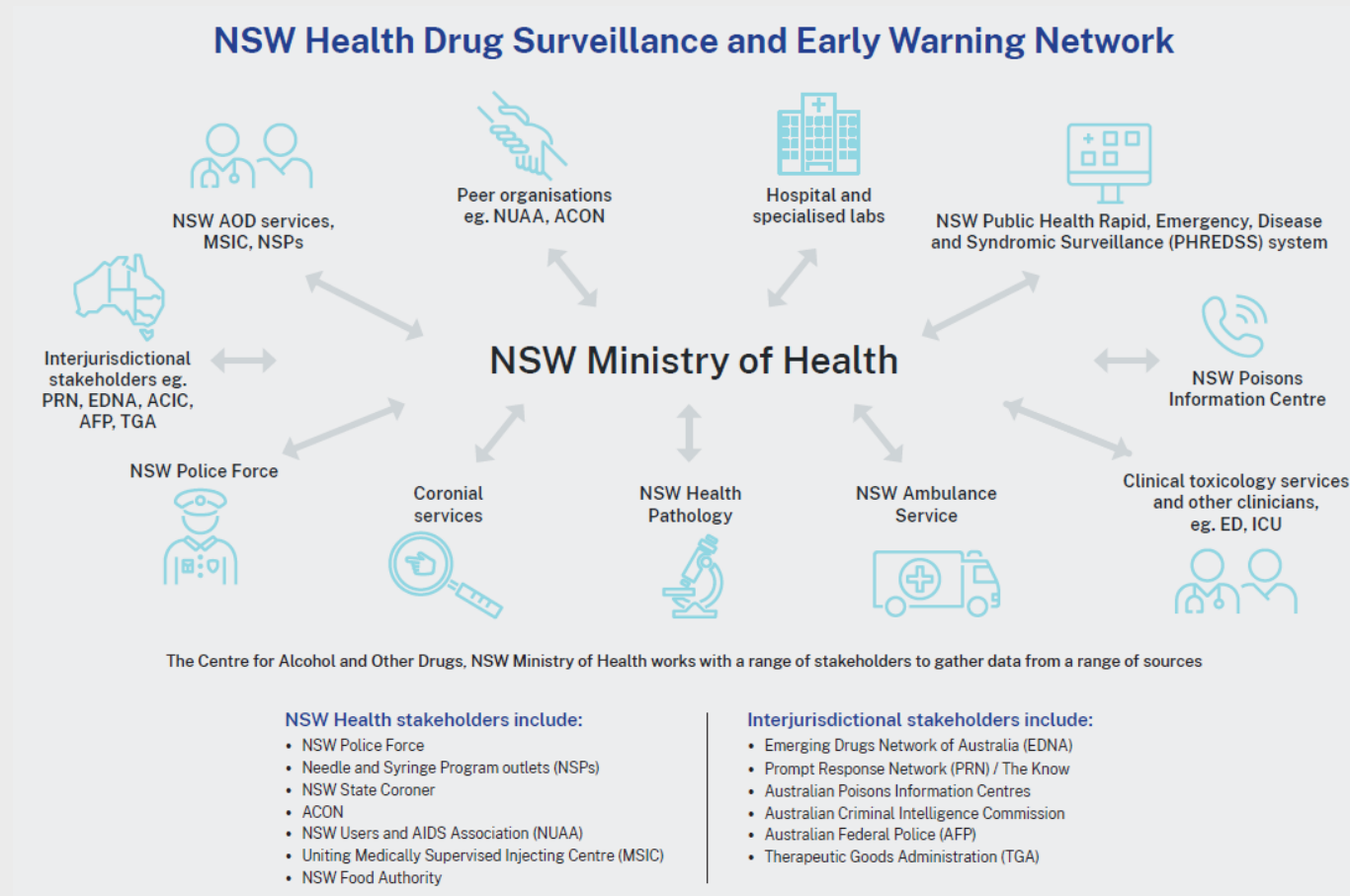
- Manager
- Senior Epidemiologist
- Senior Biostatistician +/- trainee
- Public Health Medicine Toxicology Registrar

As well as access to medical advisors, Chief Addiction Medicine Specialists, and clinical toxicologists through the NSW Poisons Information Centre

What we do



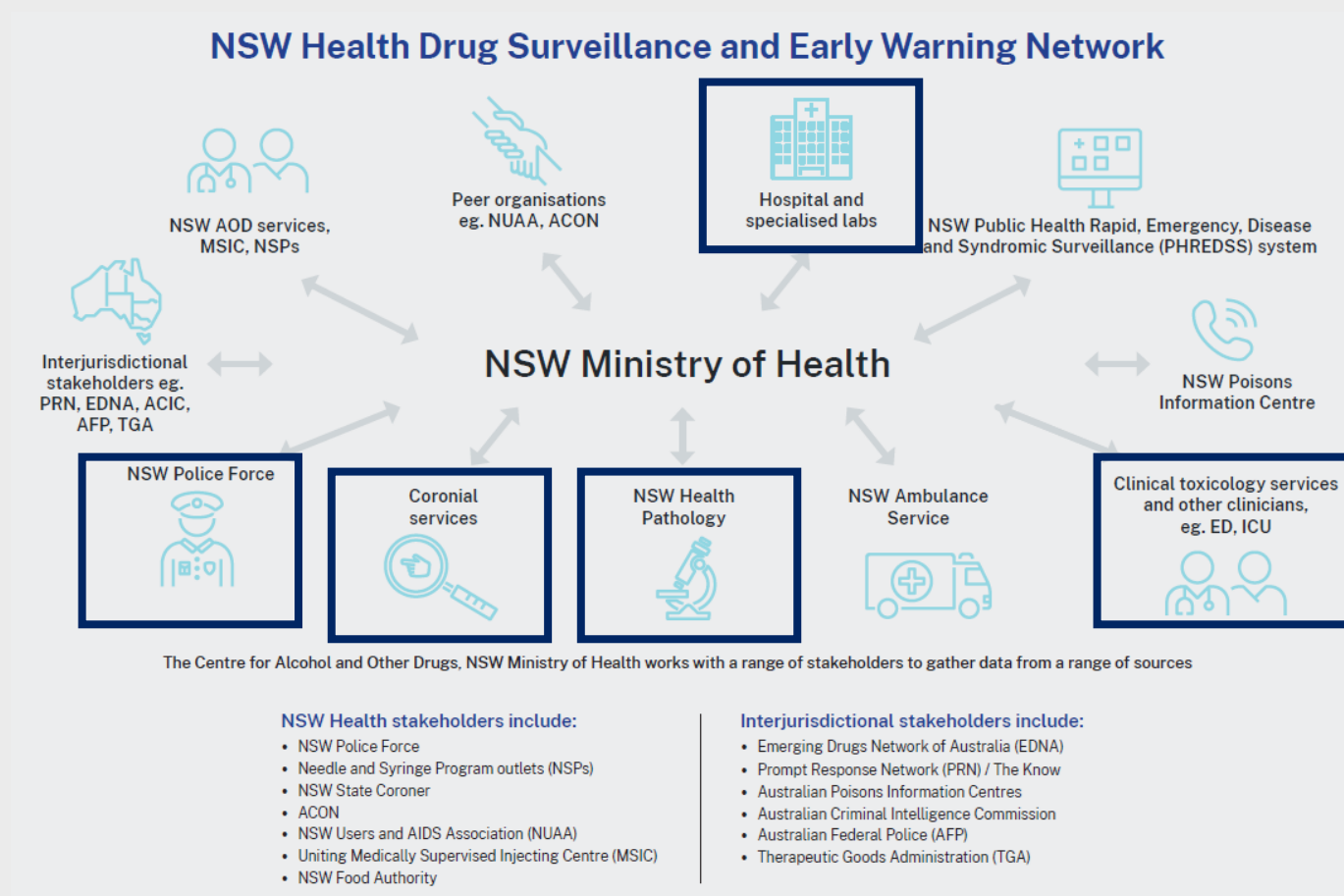
Drug surveillance in NSW



Methods

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New South Wales Emerging Drug Surveillance System (NEDSS)



Data sources: Phase I



Person level

Coronial

Forensic Toxicology Laboratory, Forensic & Analytical Science Service

- Results of analyses from coronial casework.
- Cases with high-risk detections or concerns for public health are reported upon detection by coroner, forensic pathologist, laboratory.
- Data updated at least monthly

Clinical

Prescription Recreational and Illicit Substance Evaluation (PRISE)¹

- Toxicological results (blood, urine, substance) from severe and unusual clinical cases and/or clusters of drug toxicity
- Relies on presentations to hospitals, thus, harm has already occurred.
- Data updated daily

Substance level

NSW Police Force

Combined Surveillance and Monitoring of Seized Samples (CoSMoSS)²

- Purity and composition of a selection of street-level drug seizures (including from music festivals) from NSW Police
- Data updated at least monthly

NSW Police Force seizures analysed by the Illicit Drug Analysis Unit (IDAU)

- Purity and composition of drug seizures submitted by NSW Police Force
- Data updated ad hoc

Data sources: Phase I

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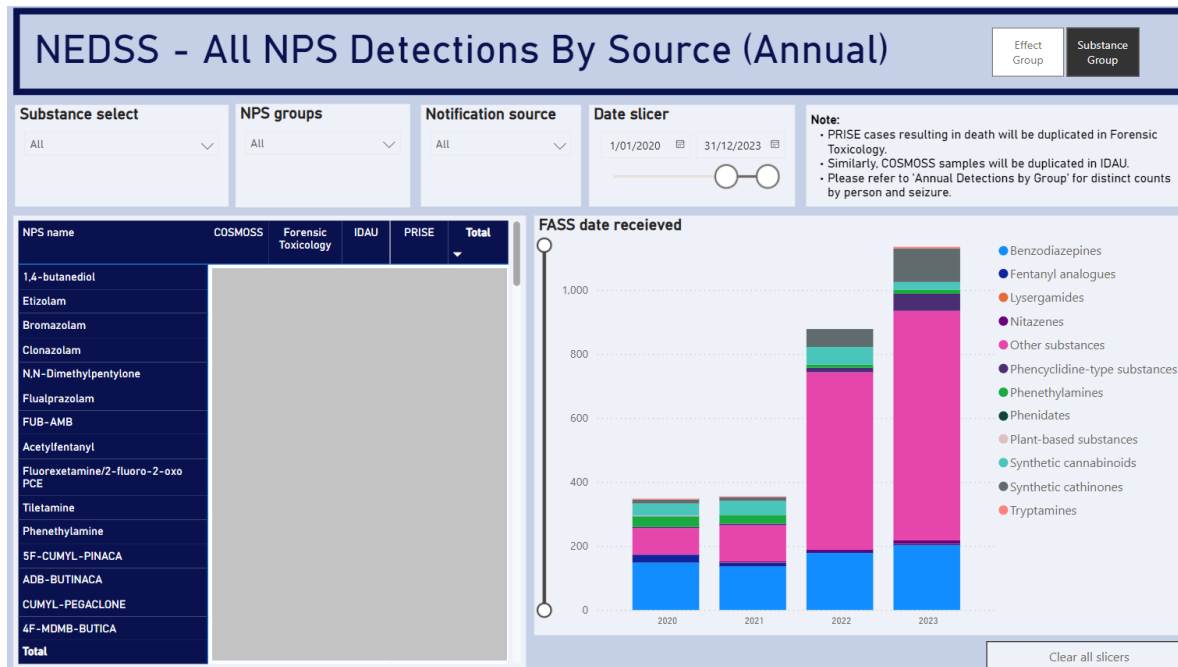
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Key findings

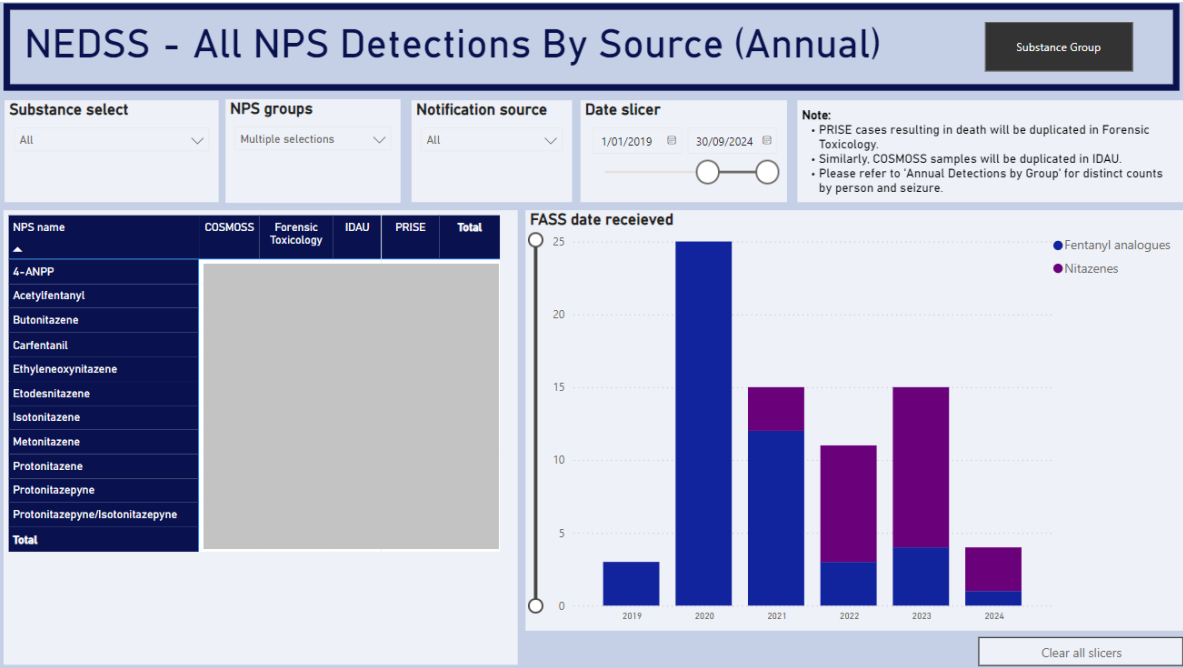
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Monitoring of new psychoactive substances (NPS) in NSW



- Rapid emergence of NPS in the global drug market
- NPS pose significant risks to public health and challenges to drug policy
- Increasingly being detected in NSW

Monitoring of new psychoactive substances (NPS) in NSW



Nitazenes causing severe opioid overdoses in NSW

2024 - Public drug warnings

2023 - Public drug warnings

2022 - Public drug warnings

2021 - Public drug warnings

2020 - Public drug warnings

2019 - Public drug warnings

Heroin may contain nitazenes (potent synthetic opioids)

2024 - Public drug warnings

2023 - Public drug warnings

2022 - Public drug warnings

2021 - Public drug warnings

2020 - Public drug warnings

2019 - Public drug warnings

'Red Bull' logo red/orange rectangular tablets sold as MDMA (ecstasy) found to contain a nitazene (potent opioid) and no MDMA

Warning

'Red Bull' tablets sold as MDMA (ecstasy) caused multiple hospitalisations in Sydney last weekend. Analysis of one tablet identified a potent opioid (a nitazene) and no MDMA.

Last updated: 20 June 2024

Inability to report in near-real time

- Whilst urgent analysis can provide preliminary results within 1 – 5 days, confirmatory analysis with quantification can take several weeks.
- Most data received monthly (excluding PRISE)
- Other systems, such as PHREDSS and NSW Ambulance, used to report near real-time clusters

Codetections

- Some codetections are medically administered as part of care.
- Unable to account for these without additional data sources.

Conclusions

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Takeaway

- NEDSS is used as a surveillance system to facilitate day-to-day triangulation of data to inform
 - Risk assessment
 - Stakeholder consultation
 - Response and monitoring

Next steps

- Improve detection of community drug-related harm signals through integration of additional data sources
- Differentiate between substances used recreationally and those administered as part of medical treatment

Acknowledgements



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- Matt Craig, Director, Systems and Strategy, Centre for Alcohol and Other Drugs, NSW Ministry of Health
 - Centre for Alcohol and Other Drugs, NSW Ministry of Health
 - Centre for Epidemiology and Evidence, NSW Ministry of Health
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 - Clinical Toxicology, Pharmacology and Addiction Medicine, St Vincent's Hospital
 - Clinicians across NSW Health
 - Department of Drug Health, Sydney Local Health District
 - Department of Toxicology, South Western Sydney Local Health District
 - Department of Toxicology, Western Sydney Local Health District
 - Drug & Alcohol Clinical Services, Hunter New England Health District
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 - Forensic & Analytical Science Service, NSW Health Pathology
 - Health Protection NSW
 - Hunter Area Toxicology Service, Calvary Mater Hospital
 - NSW Ambulance
 - NSW Coroners Court
 - NSW Medically Supervised Injecting Centre
 - NSW Poisons Information Centre
 - NSW Police Force
 - NSW Public Health Units
 - NSW Users and AIDS Association (NUAA)
 - Prompt Response Network, National Centre for Clinical Research on Emerging Drugs
 - South Eastern Area Toxicology Service, South Eastern Sydney Local Health District
 - Specimen Reception and Sendaways staff at NSW Health Pathology
 - Therapeutic Goods Administration
 - University of Queensland
 - University of Technology Sydney
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