

A cost-benefit analysis of the implementation and scale-up of harm reduction interventions in the Australian Capital Territory (ACT)

PRESENTED BY PAUL DIETZE

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THE AUTHORS ACKNOWLEDGE, CELEBRATE, AND PAY OUR RESPECTS TO THE NGUNNAWAL AND NGAMBRI PEOPLE OF THE CANBERRA REGION ON WHICH THIS WORK IS BASED AND WHERE ANU IS LOCATED, AS WELL AS THE BUNURONG PEOPLE OF THE KULIN NATIONS AS THE TRADITIONAL OWNERS AND CUSTODIANS OF THE LAND ON WHICH BURNET INSTITUTE OFFICE IS LOCATED.

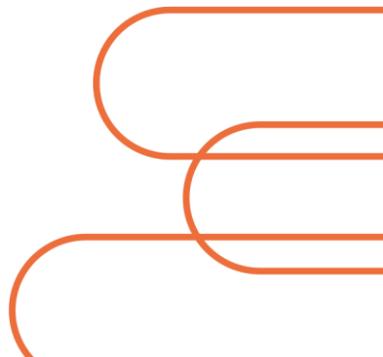




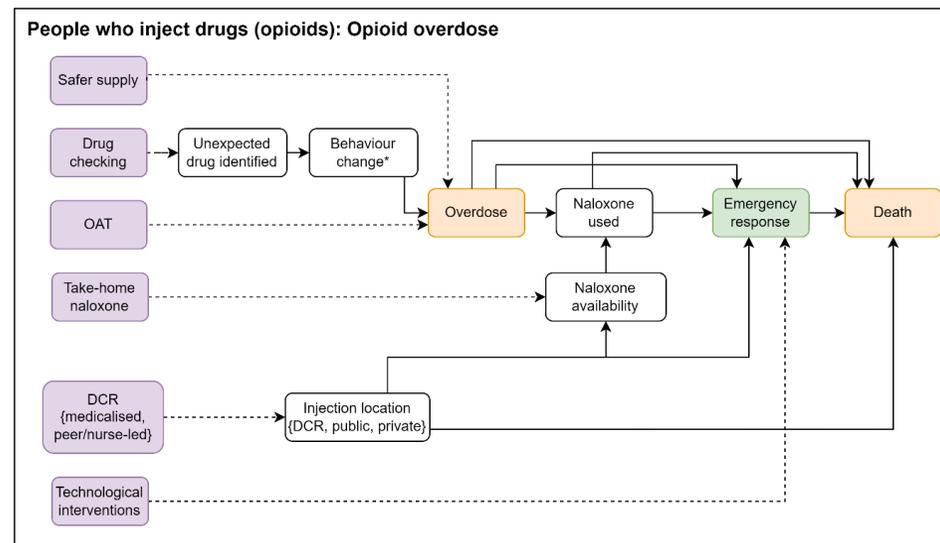
Background and aims

- A range of harm reduction and drug treatment services are currently available to people who use drugs in the ACT
- Little is known about their cost and effectiveness in this setting, including new options such as drug consumption rooms
- Fentanyl and other potent synthetic opioids are drugs of key concern, but they have yet to emerge significantly in the ACT

- **Aims:** to estimate the cost, health impact and economic benefits of current, expanded and new harm reduction interventions for people who use drugs in the ACT
- **Approach:** Developed an economic model of cost and health impacts of illicit drug use in the ACT informed by:
 - Rapid scoping review of evidence
 - Stakeholder discussions



Economic model of cost and health impacts of illicit drug use in the ACT



Modelled **sub-groups of people** who use illicit drugs, including 1,500 people who inject drugs and overall 35,100 people who use illicit drugs (excluding cannabis use only)

- Independent decision tree models captured **health outcomes** according to intervention coverage:
 - Overdose and overdose deaths
 - Injection-related injuries (IRI)
 - Hepatitis C virus incidence.
- **Scenarios modelled:**
 1. Baseline (current intervention coverage maintained)
 2. Counterfactual (no harm reduction interventions)
 3. Interventions linearly scaled up to maximum portion of target population who could be reached over 2026 to 2030
 4. Changed illicit drug market (increased probability of overdose and overdose-related death).
- **Economic effects** were estimated from:
 - Health costs averted (emergency response; shorter hospitalisation for IRI; hepatitis C treatment)
 - Years of life lost based on value of a statistical life year
- **Benefit-cost ratios** were calculated compared to the baseline.

Modelled interventions

	Unit cost (per person per year)	Baseline coverage → maximum coverage*
Drug checking services	\$383	3% → 5%/15%^
Drug consumption room - medicalised	\$5,443 †	0% → 30%
Drug consumption room - nurse/peer-led	\$4,352 †	0% → 60%
Needle-syringe program	\$1,264	76% → 90%
Opioid agonist treatment	\$5,560	43% → 64%
Safer opioid supply	\$18,599	0% → 40%
Take-home naloxone	\$165	68% → 90%
Technological interventions	\$2,741	0% → 9%/19%^

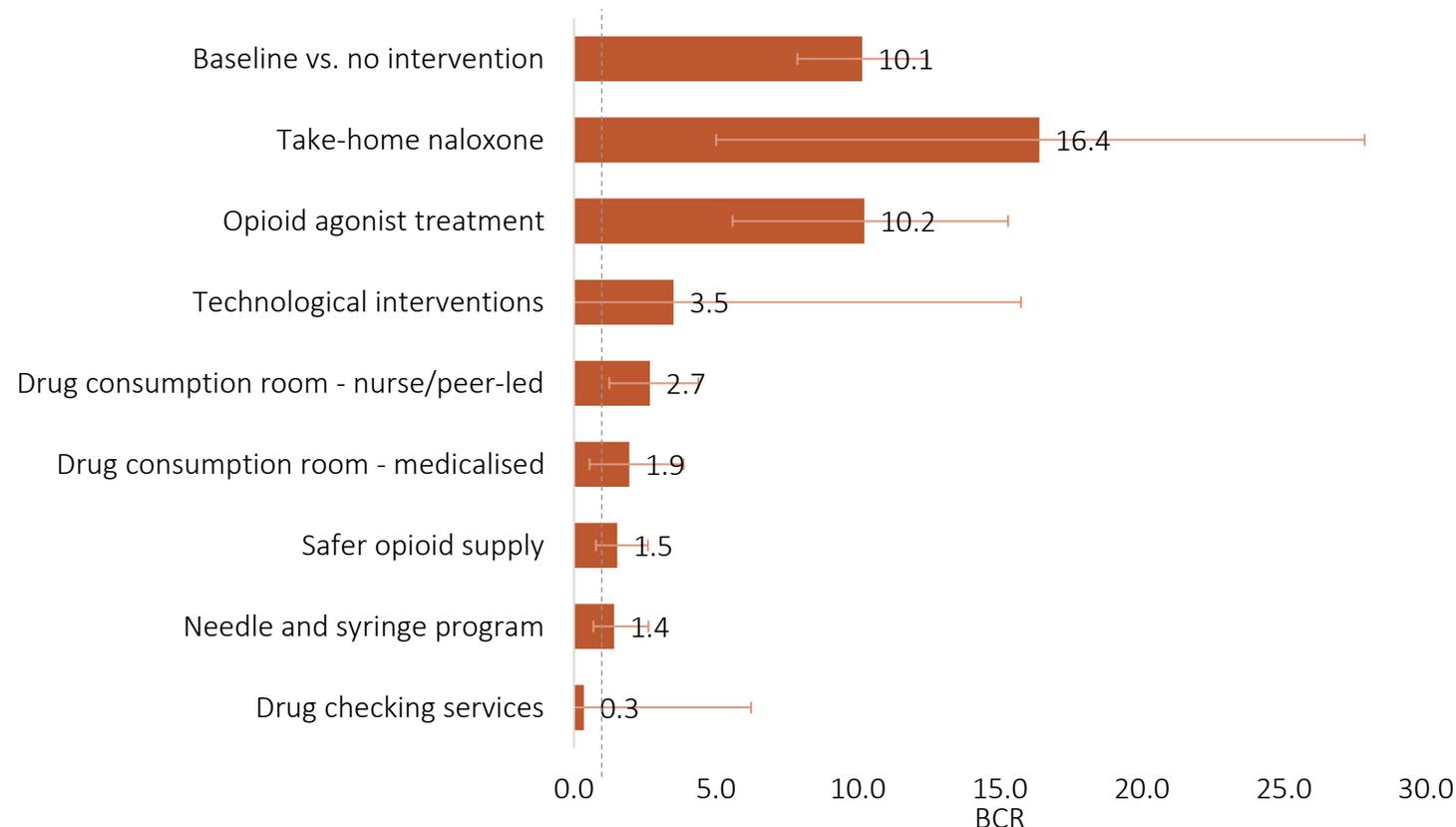
* Proportion coverage based on population reached - e.g. all people who inject drugs for drug consumption rooms, NSP;

^ Assumed potential reach would be higher if drug market conditions changed

† Also incorporated set-up costs of \$2,271,418



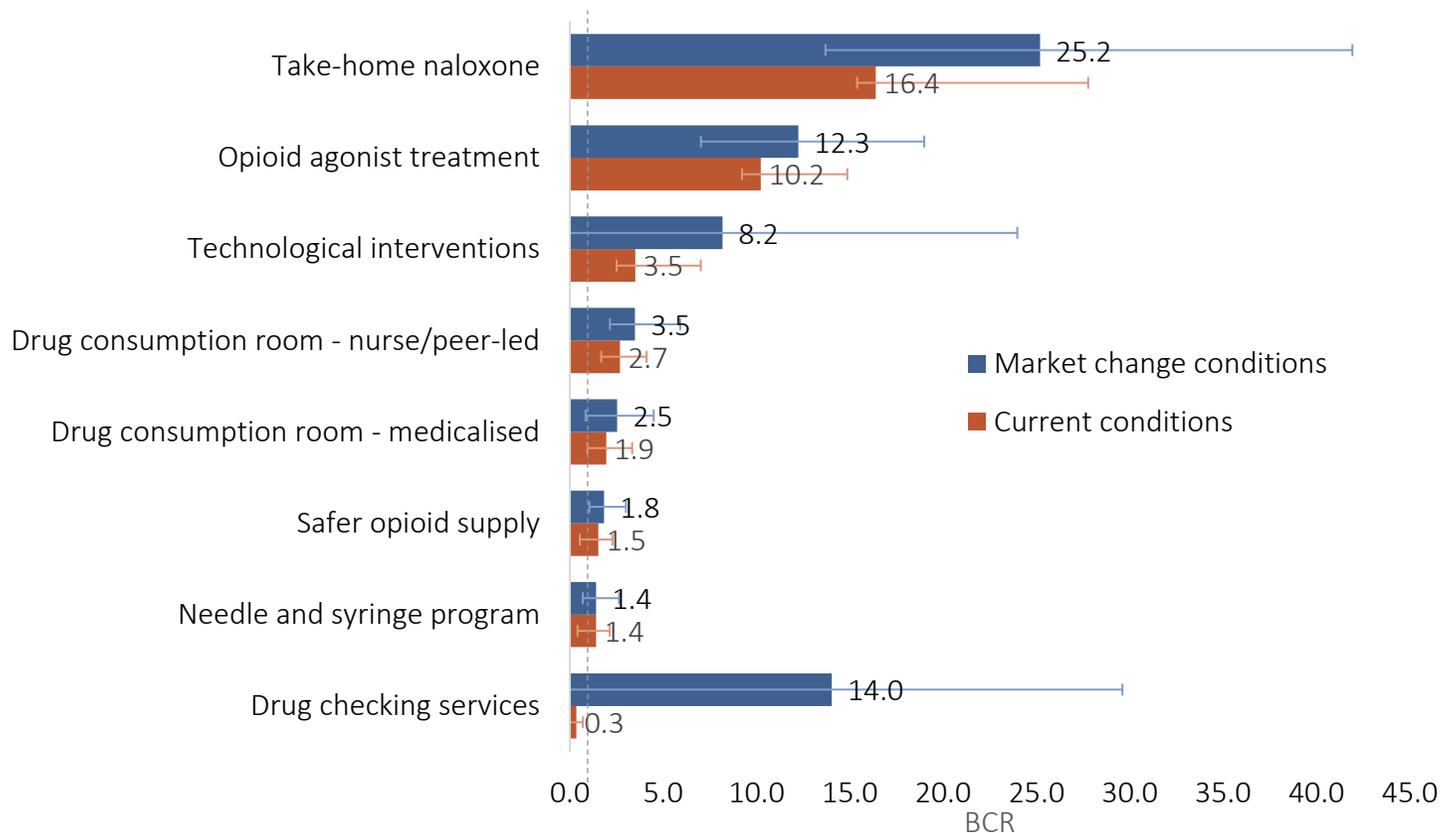
Benefit-cost ratios: Current conditions



KEY FINDINGS

- Every \$1 spent on the **current package** of harm reduction interventions leads to an estimated \$10.10 in societal economic benefits
- **Scaling up** take-home naloxone, opioid agonist treatment, technological interventions, drug consumption room/s, safer opioid supply and needle-syringe programs would be **cost saving** from a societal perspective
- **Drug consumption rooms** could have broad harm reduction and economic benefits within a smaller population setting such as ACT
- **High uncertainty** in the cost and/or impact of drug checking services and technological interventions – not all impacts captured

Benefit-cost ratios: Change in drug market conditions



KEY FINDINGS

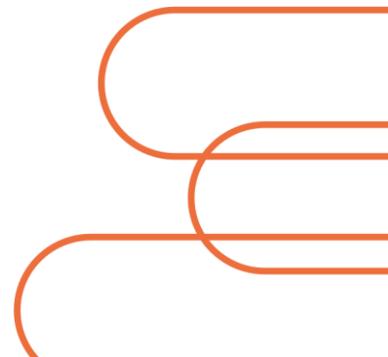
- Interventions become more cost-effective under **market change scenarios** due to:
 - higher probability of overdose and overdose-fatalities, and
 - increased reach of drug checking services and technological interventions
- **Drug checking services** are highly beneficial to monitor changes in the drug market and issue alerts and could have measurable positive return-on-investment if circulation of synthetic opioids increases.

Limitations



- **Insufficient data to model some health outcomes** (e.g. morbidity from non-fatal overdose, injury), and social outcomes and costs such as crime & incarceration were not captured
- **Conservative estimates on drug potency** for drug market change scenario
- **Benefits of take-home naloxone** only modelled for people intentionally using opioids
- **Did not model all benefits** of co-located services offered through DCRs and drug checking services (e.g. brief interventions, peer education)
- **Hepatitis C not modelled dynamically** (did not capture treatment-as-prevention benefits)
- **Other uncertainty** related to intersections between population groups due to polydrug use, and potential biases in surveys informing model parameters

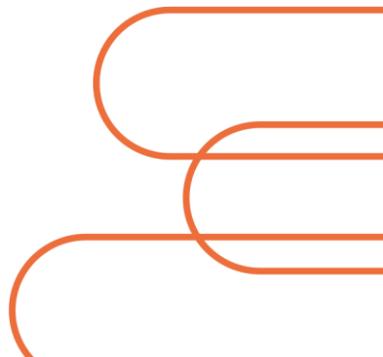
Most limitations likely led to an underestimation of the potential impact and benefit-cost ratios for interventions





Conclusions

- Existing harm reduction services in the ACT are highly cost-effective
- Scaling up most modelled harm reduction interventions is likely to be cost-saving from a societal perspective
- **Drug checking could be cost saving** with high circulation of **more potent drugs** and is an important tool for drug market monitoring
- **The impacts and return-on-investment of these interventions are likely to increase** given the rising detection of highly potent drugs



Thank you



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ISSDP 2026

Host

National Drug Research Institute (NDRI) at Curtin University

Local advisory committee

Led by ISSDP members Simon Lenton, Paul Dietze and Bronwyn Myers with Paul Dessauer - Peer Based Harm Reduction WA

Dates

Week of 29 June- 3rd July 2026

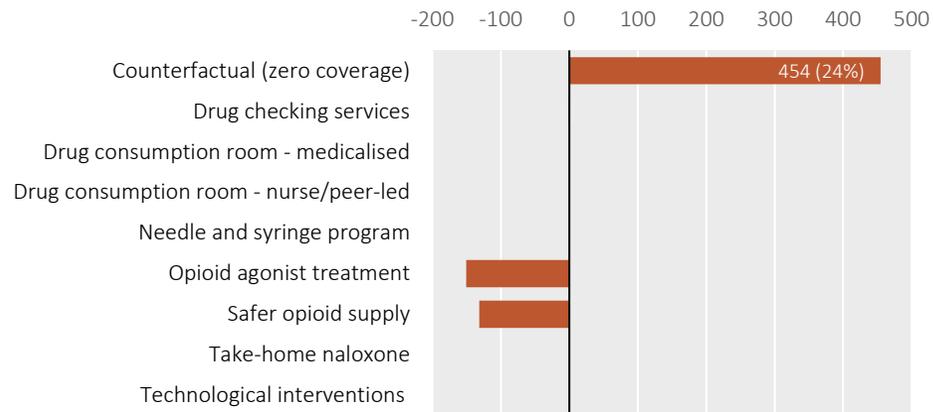
Venue

Curtin University, Perth

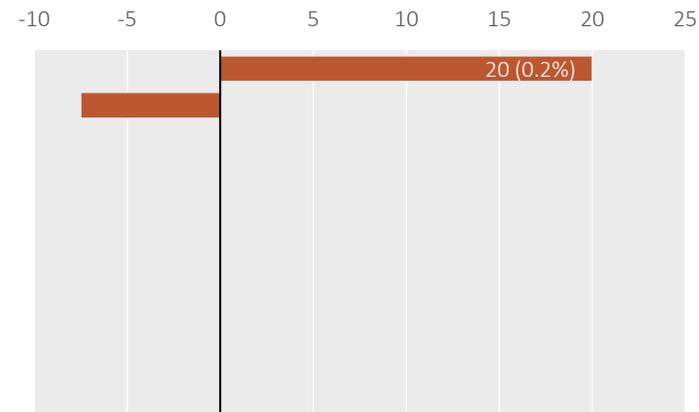


Change in health outcomes compared to baseline, 2026–2030

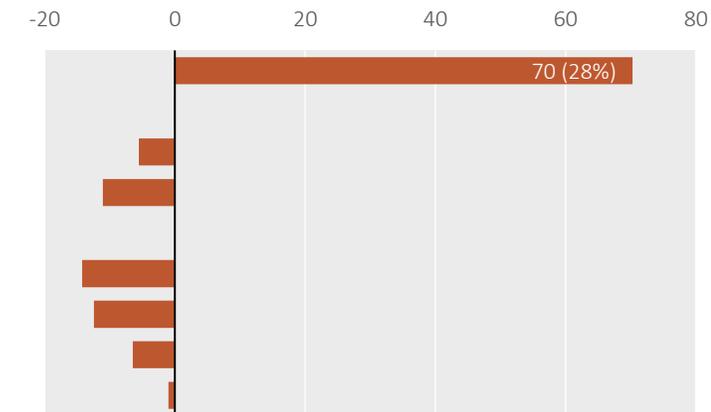
Overdose (opioid)



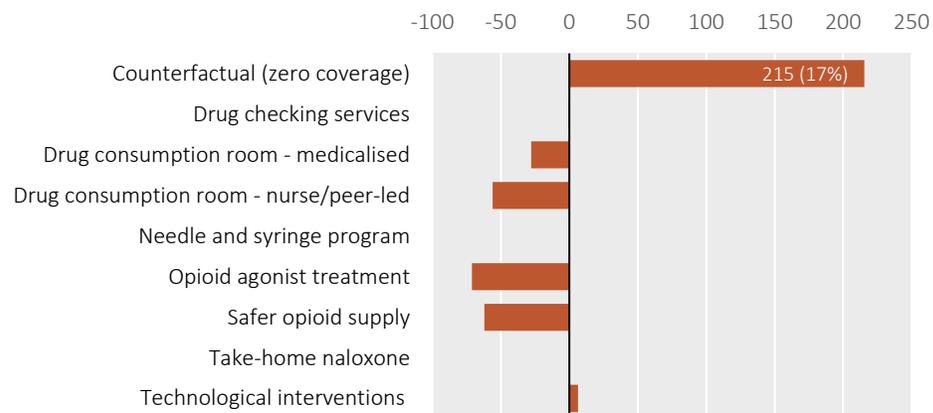
Overdose (non-opioid)



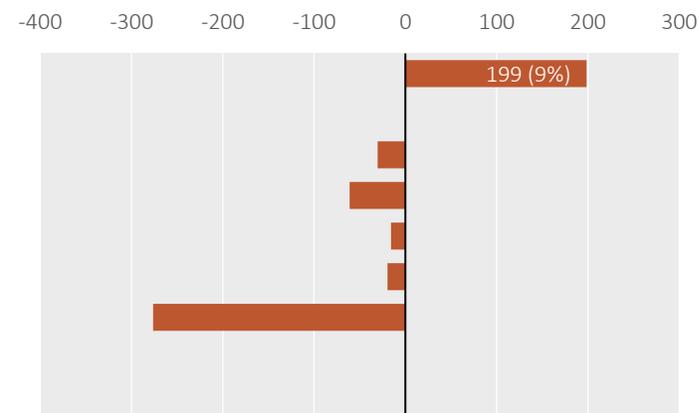
Overdose-related deaths



Emergency response



Injection-related injury



Hepatitis C infections

