

Supervised Injecting Room Cohort Study

Ash Stewart on behalf of the SIRX study team



Burnet
reach for the many



At Burnet Institute, we proudly acknowledge the Boon Wurrung people of the Kulin Nations as the Traditional Custodians of the land on which our office is located. We pay our respect to Elders past and present, and extend that respect to all First Nations people.





Overview

- Early evidence & the Insite evaluation
- The Melbourne MSIR
- Findings from the MSIR Reviews
- The SIRX Cohort Study





Early evidence & the Insite evaluation





History of SIFs

- Established in the mid-1980s
- In response to epidemics of public injecting, overdose, and HIV transmission
- At the end of 2024, SIFs were legally operating in 18 countries, globally





SIFs aim to

REDUCE

- Fatal and non-fatal overdose
- Blood borne virus transmission
- Ambulance attendance and hospital admissions for overdose
- Public injecting and unsafe disposal of syringes

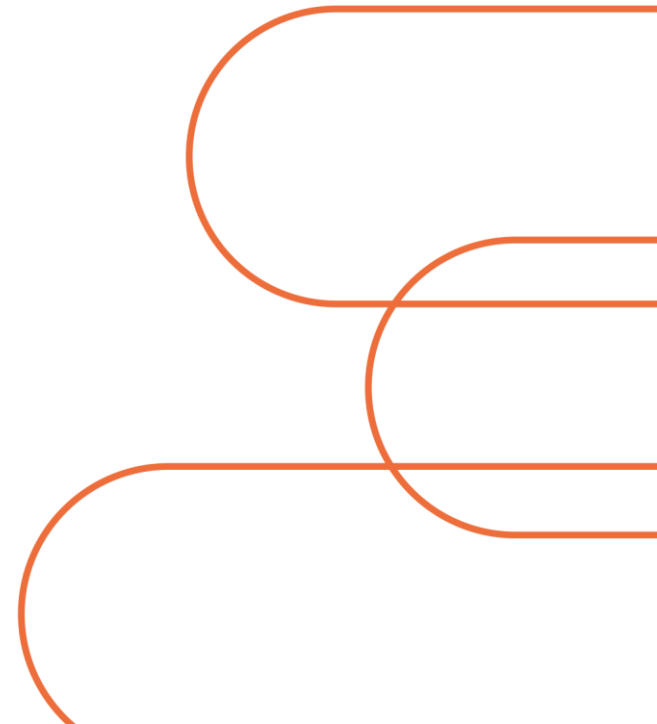
IMPROVE

- Linkage to health and social services
- Public amenity (poorly defined and rarely applied to other health services¹)



Early SIF studies

- SIF were operating in many European cities and in Sydney (Aus) by the early 2000s
- Various reports credited SIFs with several public health and community benefits



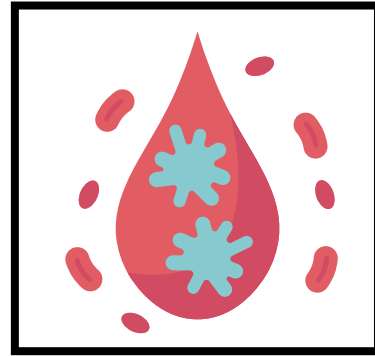


Findings from early SIF studies



OPIOID OVERDOSE

Observed reductions in
overdose^{1,2}



BLOOD BORNE VIRUSES

Reductions in BBV risk
behaviours (needle
sharing & condomless
sex)⁴⁻⁷



SERVICE ACCESS

Improved health of SIF
clients was observed.^{7,8}
Ceasing SIF use associated
with obtaining stable
housing.⁹



PUBLIC AMENITY

Observed reductions in
public injecting.^{8,10}
Fewer negative
encounters with residents
or police in the area
surrounding the SIF⁹



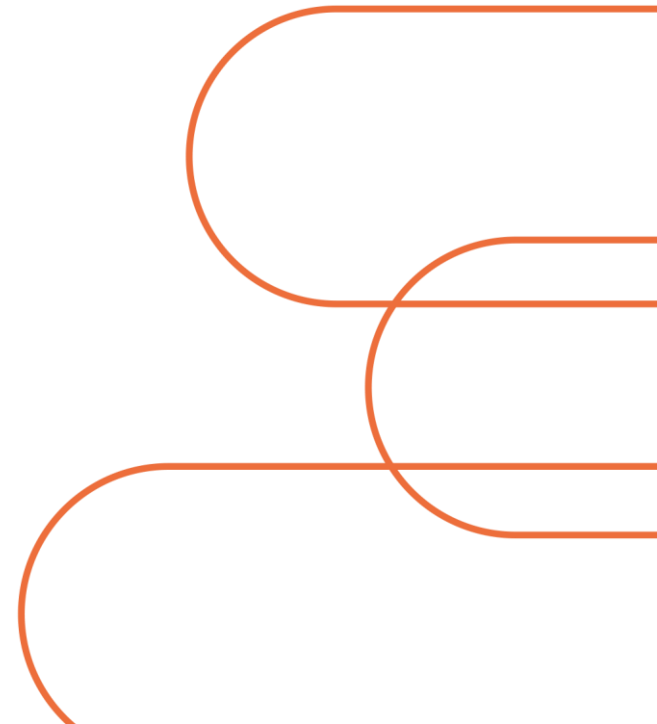
CLIENT SATISFACTION

Acceptability and uptake
by people who inject
drugs¹⁰
Reasons for not using SIFs
were opening hours, wait
times, & distance⁸



Findings from early SIF studies

- No funding allocated to comprehensive evaluations
- Unavailability of cohort data to examine the impact of SIFs
- Ecological data limited by discerning between SIFs and concurrent changes
 - Policy changes (drug law reform)
 - Harm reduction initiatives
 - Drug markets





Insite, Vancouver

- In September 2003, Vancouver opened North America's first government sanctioned SIF pilot study¹
- This was conditional on the implementation of a rigorous scientific evaluation of the health and social impacts of the SIF





Evaluating Insite, Vancouver

STUDY DESIGN

- Prospective cohort study design
- Longitudinal measurement of outcomes
 - Blood-borne virus infections
 - Overdose incidence
 - Risk behaviours
 - Drug use practices (public drug use)
 - Health service use



Evaluating Insite – The cohorts



CHASE

Community Health and
Safety Evaluation

Data linkage cohort of
Downtown Eastside
residents



VIDUS

The Vancouver Injection
Drug Users Study

Semi-annual blood
testing and survey, and
data linkage



SEOSI

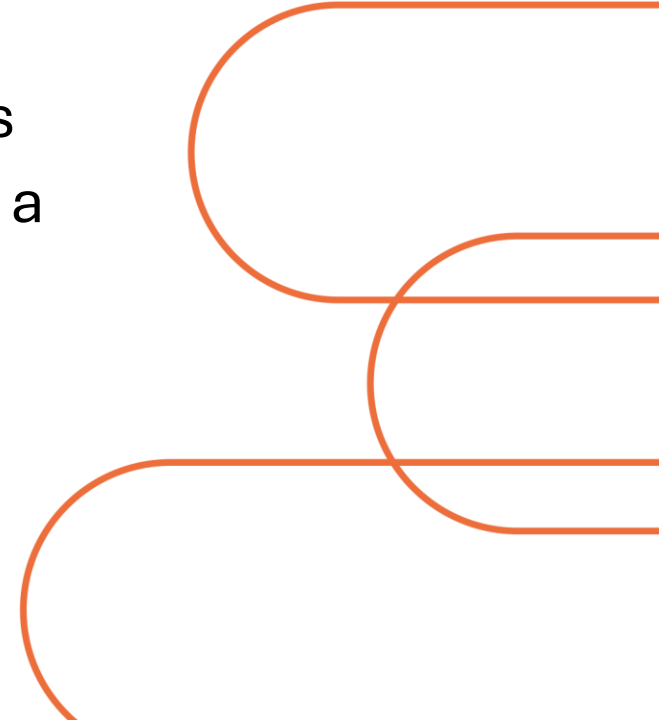
The Scientific Evaluation of
Supervised Injecting

Insite clients - service use
survey and data linkage



Findings from Insite

- A reduction in overdose deaths and risk of death
- Increases in the uptake of detox services
- Increased entry into drug treatment
- SIF clients had a reduction in syringe sharing
- Public injecting and discarded syringes declined
- Increases in treatment for injecting-related skin infections
- Wide acceptance of the service and success in attracting a particularly high-risk population





British Columbia
Centre for Excellence
in HIV/AIDS

REVIEW

Summary of findings from the evaluation of a pilot medically supervised safer injecting facility

Evan Wood, Mark W. Tyndall, Julio S. Montaner, Thomas Kerr

See related article page 1395

ABSTRACT

In many cities, infectious disease and overdose epidemics are occurring among illicit injection drug users (IDUs). To reduce these concerns, Vancouver opened a supervised safer injecting facility in September 2003. Within the facility, people inject pre-obtained illicit drugs under the supervision of medical staff. The program was granted a legal exemption by the Canadian government on the condition that a 3-year scientific evaluation of its impacts be conducted. In this review, we summarize the findings from evaluations in those 3 years, including characteristics of IDUs at the facility, public injection drug use and publicly discarded syringes, HIV risk behaviour, use of addiction treatment services and other community resources, and drug-related crime rates. Vancouver's safer injecting facility has been associated with an array of community and public health benefits without evidence of adverse impacts. These findings should be useful to other cities considering supervised injecting facilities and to governments considering regulating their use.

CMAJ 2006;175(11):1399-404

Many cities are experiencing infectious disease and overdose epidemics as a result of illicit injection drug use,¹⁻⁴ an activity that is also associated with a number of negative community impacts, including public drug use.^{5,6} Despite these harms, innovative public health programs for reducing health and community concerns remain highly controversial in North America and other settings where HIV infection is spreading rapidly among injection drug users (IDUs).⁷⁻⁹

In Canada, Vancouver has been an epicentre of drug-

federal government that allowed operation of the facility was limited to 3 years and was granted on the condition that an external 3-year scientific evaluation of its impacts be conducted. Given the controversial nature of the program,¹⁴ stakeholders agreed that all findings from the evaluation, including this report, should be externally peer-reviewed and published in the medical literature before dissemination. In this review we report on the 3 years' findings.

Program and evaluation methods

As described previously,¹³ the Vancouver safer injecting facility has 12 injection stalls where IDUs inject pre-obtained illicit drugs under the supervision of nurses. Nurses respond to overdoses and address other health needs (e.g., treating injection-site abscesses), and the facility has an addiction counselor and support staff who seek to meet the needs of IDUs or refer them to appropriate community resources (e.g., housing services, addiction treatment).¹³

Although the best strategy for evaluating the safer injecting facility would be to randomly assign IDUs to either full access or no access to the program, interventional study designs for the evaluation of such facilities have been deemed unethical;¹⁵ thus, the evaluation of the Vancouver facility was structured primarily around prospective cohort studies involving IDUs who used the facility and those who did not. In accordance with the Transparent Reporting of Evaluations with Nonrandomized Designs (TREND) criteria for observational research,¹⁶ a detailed description of the evaluation



Findings from the evaluation of Vancouver's Pilot Medically Supervised Safer Injecting Facility – Insite

Revised June 2009



REVIEW ARTICLE

Supervised Injection Facilities as Harm Reduction: A Systematic Review

Timothy W. Levensgood, MPH,¹ Grace H. Yoon, MS,¹ Melissa J. Davoust, MSc,¹
Shannon N. Ogden, MPH,¹ Brandon D.L. Marshall, PhD,² Sean R. Cahill, PhD,^{1,3}
Angela R. Bazzi, PhD^{4,5}

Other studies have come from
Australia (SYD), Spain, & Norway

Context: Supervised injection facilities are harm reduction strategies that allow people to inject drugs to use previously obtained substances under direct supervision. Although currently considered illegal under U.S. federal law, several states are considering implementing supervised injection facilities anyway as a response to the opioid crisis. The objective of this review is to determine the effectiveness of supervised injection facilities compared with that of control conditions, for harm reduction and community health.

Evidence Acquisition: Studies were identified from 2 sources: a search of the literature examining supervised injection facility–induced benefits and harms (January 2014) and an updated search using the same search strategy (January 2014–September 2019). Systematic review methods developed by the *Guide to Community Preventive Services* were used (screening and analysis, September 2019–December 2020).

Evidence Synthesis: A total of 22 studies were included in this review: 16 focused on 1 supervised

16 OF THE 22 STUDIES
WERE FROM CANADA



Melbourne Medically Supervised Injecting Rooms





What happened?

- The Labour government first proposed a SIF trial in 1999
- Drug Policy Expert Committee Report: community support for a SIF trial injecting was high
- Opposing resident groups (e.g. *Footscray Matters*) claimed the government was ignoring community views
- Major CBD Traders – Myer & David Jones – threatened to leave if city didn't become a drug free area
- By December 2000, the Victorian Government abandoned the trial and increased funding for drug treatment services – the '*Saving Lives*' strategy
- In 2010 the drug market moved to North Richmond
- Between 2009 – 2017 over 1,300 people died from fatal overdoses with heroin (most with other drugs)
- In 2017, the Victorian coroner recommends a SIF trial

Timeline



Source: Canberra Times, 2017

2017

Victorian government announces plans for a trial of the MSIR in North Richmond

The North Richmond MSIR opens on a two-year trial basis

2018 – June

Source: RACGP, 2019



OPEN



Source: The Age, 2021

2019 – July

Purpose built facility opens

MSIR service review released 'Hamilton review'
Trial is extended for three most years to gather further evidence of its effectiveness

2020 – June

Source: VIC Gov, 2020



Source: VIC Gov, 2023

2023 – Feb

MSIR service review released 'Ryan review'

Timeline

North Richmond MSIR announced as an ongoing service and commitment for a CBD SIF trial

2023 – March



Source: Canberra Times, 2017

Report assessing the feasibility of a CBD site was released.

2024 – April



Source: ABC News, 2024

NRCH successful in recommissioning process and announced as operators of the MSIR

2024 – April

Source: VIC Gov, 2023

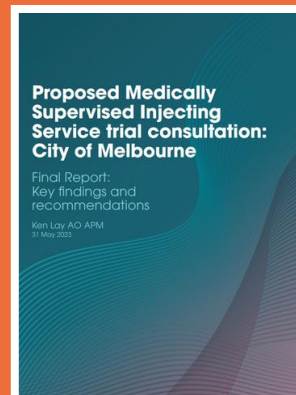
Strengthening MSIR To Keep Saving Lives



2023 – Aug

Victorian government announces Ken Lay to undertake an independent review for the CBD SIF site

Source: VIC Gov, 2024



2024 – April

The Victorian Government withdraws plans to proceed with the CBD trial.

Source: NRCH, 2024



KIDS DIE IN HOUSE SHOOTING

JACK HOOGLAND AND AAP

TWO young teenagers are dead after what police described as an "absolutely horrific" shooting.

So many police last night surrounded a makeshift for a middle-aged man dubbed a "person of interest" after the teen's mother returned to find a crime scene at her house.

Inside, in their bedrooms, her son and daughter were dead.

The suspected domestic violence-related incident happened in West Preston Hills, a relatively wealthy suburb in the city's southeast with a low violent crime rate.

Neighbours called police just after 5pm on Saturday.

NSW Australia's "extremely stressful" "Two deceased and another time they could do the same. Their by person check on the case."

CONTINUE

SPORT

ADDICTS SNUB INJECTING FACILITY

NOTHING CHANGED IN HEROIN HOTSPOT

REJECTING ROOM

CHICKS open are continuing to shoot.

GENEVIÈVE ALISON



Resident reveals reality near Richmond injecting after Victorian government decision to scrap CBD

Victorian government scraps plans for a second supervised injecting room in Melbourne

By state political reporters Richard W

A second safe injecting room for Melbourne has been rejected. Here's how we got here

The Victorian government announced a new trial facility will not proceed after concluding there was no site that could balance the needs of drug users with the broader community.

Melbourne's safe injecting room is upsetting locals

Residents 'at a loss' over Melbourne's safe injecting room being made permanent

By Serena Seyfort • Afternoon Editor | 7:29am Mar 8, 2023

Sydney Today 22 ° / 29 °

National World Lifestyle Travel Entertainment Technology Finance

Lifestyle > Health > Health Problems

Melbourne injecting room to allow ice users to shoot up

DRUG users will be permitted to shoot up ice in a new injecting room despite the government previously



Findings from the MSIR Reviews





MSIR reviews



THE HAMILTON REVIEW (2020)



THE RYAN REVIEW (2023)



Methodology

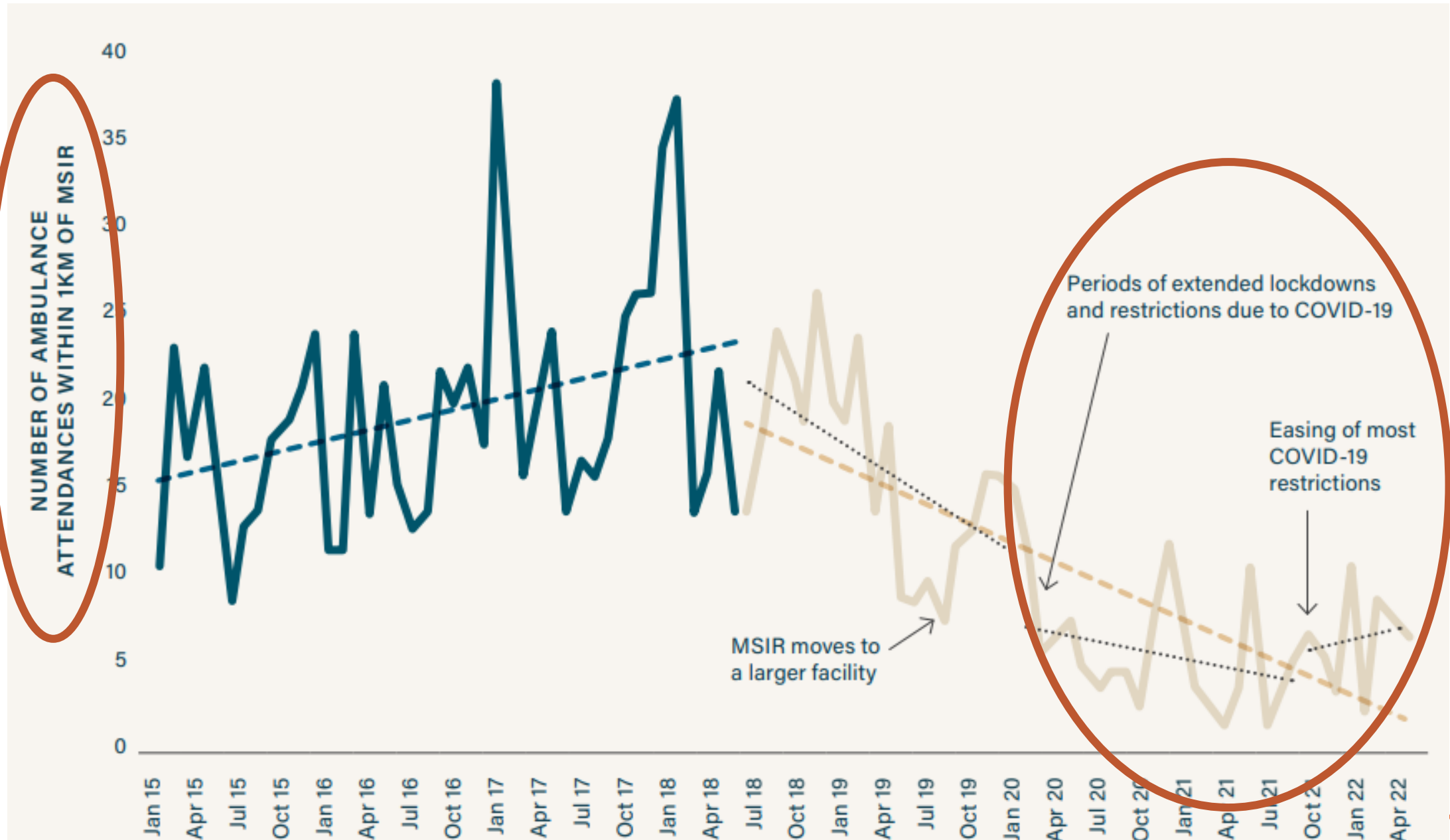
ECOLOGICAL STUDIES

- Coroners court data
- Emergency department and hospital admissions
- Ambulance data
- Needle collection data
- BBV notifications (Ryan Review)

OBSERVATIONAL STUDIES

- MSIR service data
- Staff/service user consultations/surveys
- Surveys with residents/business owners for 'public amenity'
- SuperMIX cohort data (Hamilton Review)







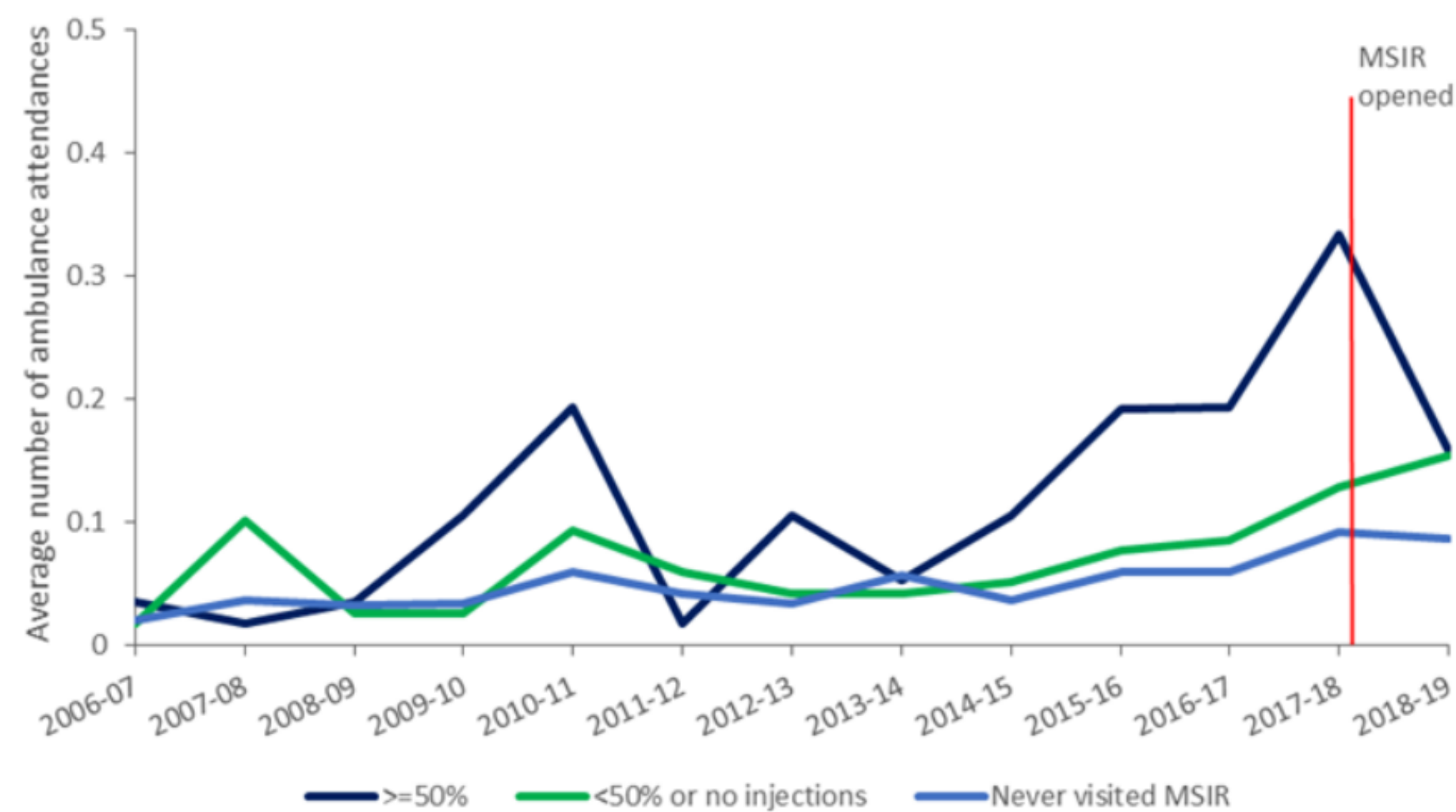
SuperMIX study

- The Melbourne Injecting Drug User Cohort Study
- Community recruited cohort of people who inject drugs in Melbourne
- Established in 2008 – ongoing
- Participant surveys at baseline and annual follow-up
- Sociodemographics, drug use and behaviours, drug market characteristics, health and health service use
- Blood specimens (HIV, HCV, HBV)
- Administrative data linkage to health and social databases





Figure 31: Average number of ambulance attendances with naloxone administration per year by MSIR frequency of use, 2006–07 to 2018–19



Source: Burnet Institute 2019, p. 38



The Melbourne Safe Injecting Room Attracted People Most in Need of Its Service



Wijnand Van Den Boom, PhD,¹ Maria del Mar Ouiraga, PhD,^{1,2} Dagnachew Muluve Fetene, PhD,¹
Paul A. Agius, MSc,^{1,3} Peter G. Higgins, PhD,¹ Mark A. S. Smith, PhD,¹

People who used the MSIR were more likely to report homelessness, unemployment, daily injecting, injecting in public, and past year imprisonment.

Introduction: In 2018, the first Medically Supervised Injecting Room (MSIR) in Australia officially opened. This study aimed to examine the characteristics of people who used the MSIR, who were socially vulnerable, and who were at high risk of morbidity and mortality risk.

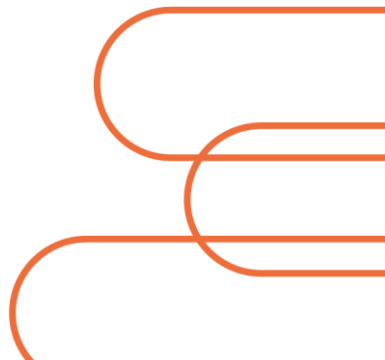
Methods: This was a cross-sectional analysis of the frequency of Medically Supervised Injecting Room use during the first 18 months after opening (July 2018–December 2019) among 658 people who inject drugs participating in the Melbourne Injecting Drug User Cohort Study (SuperMIX). To examine the differences between no Medically Supervised Injecting Room use, infrequent use (<50% injections within the facility), and frequent use (≥50% of injections within the facility), RRRs were estimated using bivariate multinomial logistic regression analyses and postestimation Wald tests. Analyses were conducted in 2020.

Results: A total of 451 participants (68%) reported no Medically Supervised Injecting Room use, 142 (22%) reported infrequent use, and 65 (10%) reported frequent use. Participants who reported either infrequent or frequent use of the facility were more socially vulnerable (e.g., more often homeless) and



MSIR Reviews

- Review findings were largely drawn from ecological data sources
 - Difficult to discern whether changes were due to pandemic or the MSIR
- Main outcomes from SuperMIX analyses were assessed to 2019, limiting the timeframe to evaluate and observe effects
- Methodology used to generate findings for the Ryan review was not clearly presented
 - SuperMIX was not asked to contribute to this review



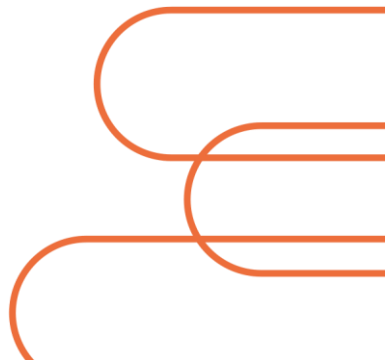


The Supervised Injecting Room Cohort Study (SIRX)



Study design

- SIRX draws on the methodology used to evaluate Insite SIF in Vancouver
- Cohort and quasi-experimental design to measure varying levels of exposure to the Melbourne MSIRs and their on-site services across a range of outcomes
- SIRX is made up of two cohort studies





The cohorts

THE MELBOURNE INJECTING DRUG USER COHORT STUDY (SUPERMIX)

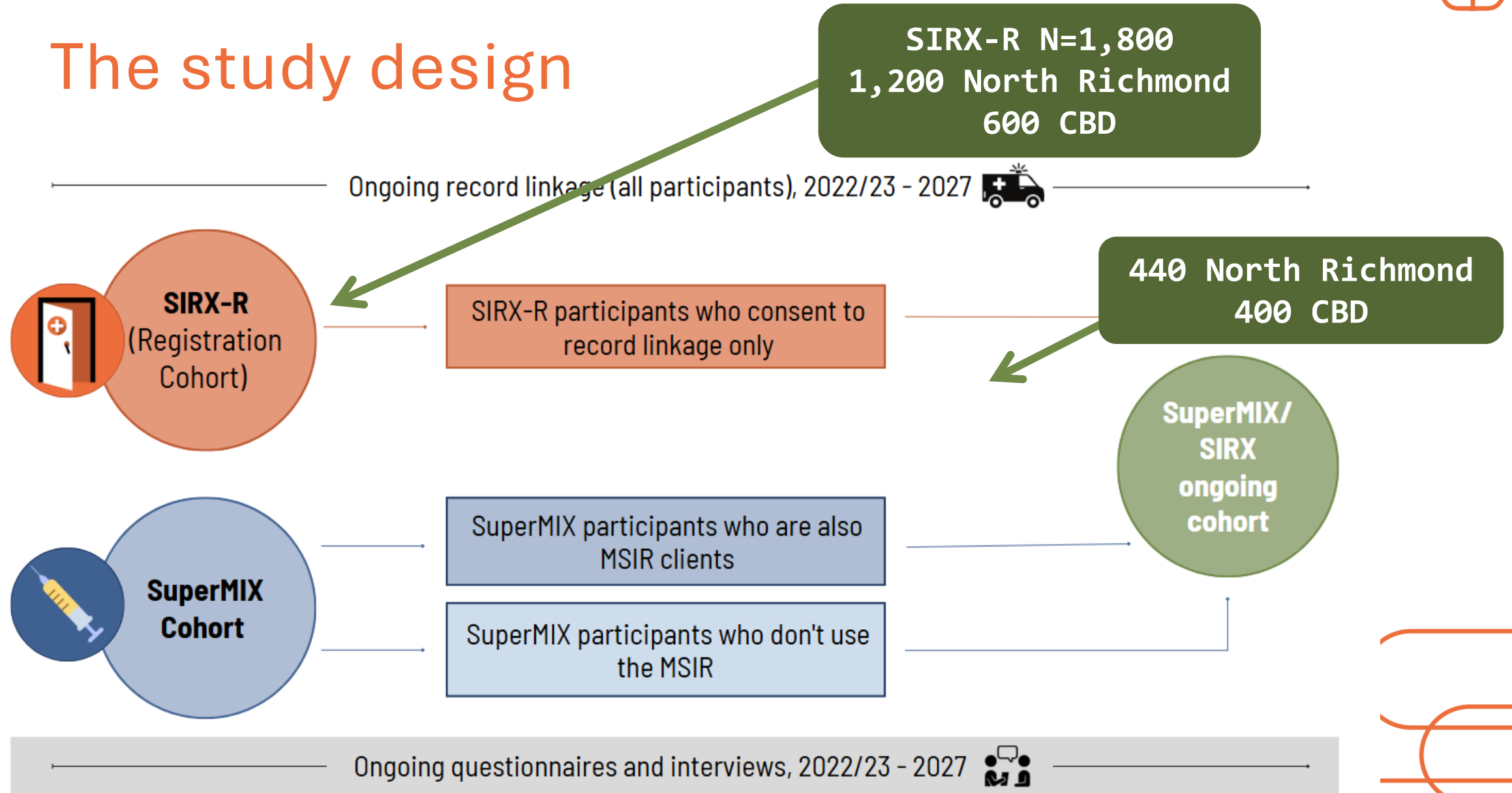
- Community-recruited people who inject drugs
- Annual surveys
- Blood tests (HIV, HCV, HBV)
- Administrative data linkage to MSIR database, health and social databases

THE SIRX-REGISTRATION COHORT STUDY (SIRX-R)

- Registered clients of the MSIR
- Once-off survey (no-follow-up)
- Administrative data linkage to MSIR database, health and social databases

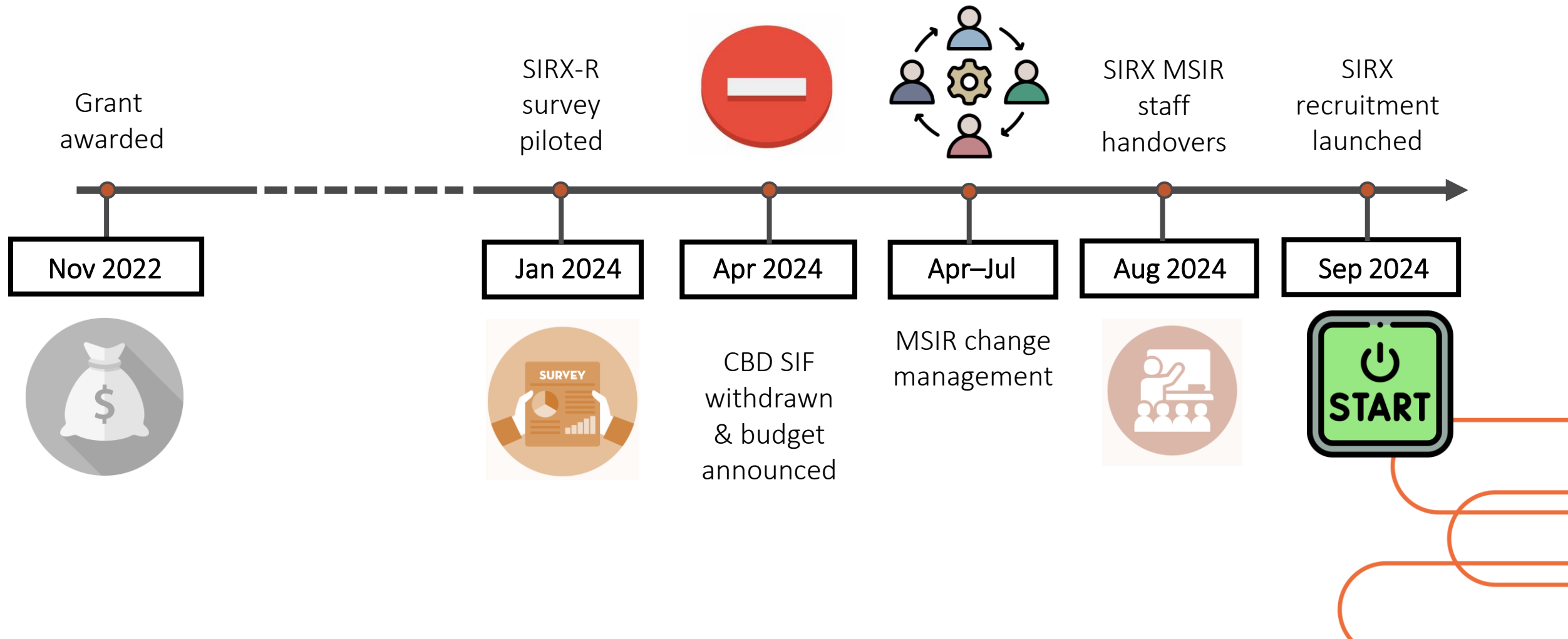


The study design





Study timeline





Participant recruitment



SUPERMIX

694

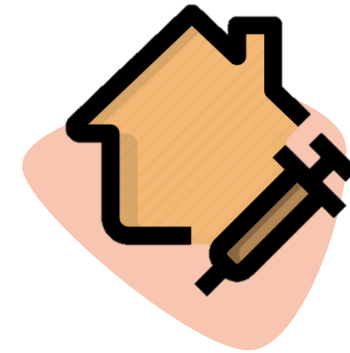
Participants in SuperMIX
that report ever using
the MSIR
71% men



RECENT INTERVIEW

586

Reported MSIR use in
most recent interview.
67% were interviews
conducted in 2023/24



SIRX-R

29

Participants enrolled
into SIRX-R
*polit period



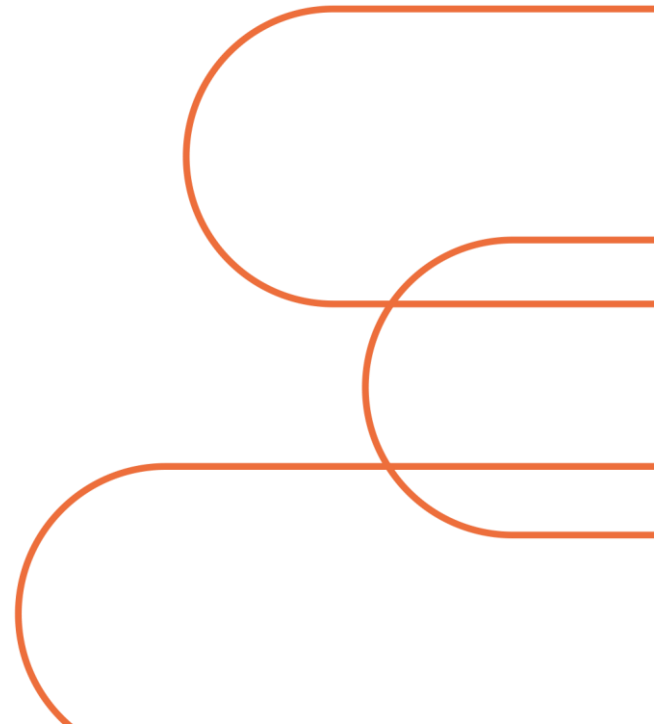
Critical evidence

PRIMARY OUTCOMES

- Drug-related and all-cause mortality
- Ambulance attendance for opioid overdose

SECONDARY OUTCOMES

- Hospitalisations for skin and soft-tissue infections
- Opiate agonist treatment uptake
- Use of non-acute health services





Critical evidence

ECONOMIC EVALUATION

- Total annual cost savings
 - E.g., MSIR running costs vs. averted healthcare costs (e.g., ambulance attendances for overdose and for blood borne viruses and skin infections)
- The cost per life saved
- The cost per quality adjusted life year gained
 - OAT uptake, treatment of co-morbidities (HCV), changes to employment, and averted deaths



BMJ Open Supervised Injecting Room Cohort Study (SIRX): study protocol

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To cite: Stewart AC, Hickman M, Agius PA, *et al.* Supervised Injecting Room Cohort Study (SIRX): study protocol. *BMJ Open* 2025;**15**:e091337. doi:10.1136/bmjopen-2024-091337

► Prepublication history for this paper is available online. To view these files, please visit the journal online (<https://doi.org/10.1136/bmjopen-2024-091337>).

Received 18 July 2024
Accepted 22 January 2025

ABSTRACT

Background Supervised injecting facilities (SIFs) are designed to reduce the harms associated with injecting drug use and improve access to health and support services for people who need them. The Supervised Injecting Room Cohort Study (SIRX) aims to provide evidence of the effects, including cost-effectiveness, of a SIF embedded within a community health service, the Melbourne Medically Supervised Injecting Room (MSIR), which has a range of integrated harm reduction, health and social support services on-site.

Methods and analysis The SIRX study design involves two prospective cohort studies that collect behavioural data and retrospectively and prospectively linked administrative data for primary and tertiary health services, criminal justice records, and mortality. The two cohorts are: (1) participants drawn from the existing Melbourne Injecting Drug User Cohort Study (SuperMIX; established in 2008–ongoing) through which participants consent to annual behavioural surveys (including serological testing for HIV and hepatitis B and C viruses) and linkage to

STRENGTHS AND LIMITATIONS OF THIS STUDY

- ⇒ The Supervised Injecting Room Cohort Study (SIRX) uses a cohort and quasi-experimental design to measure varying levels of exposure to the Melbourne Medically Supervised Injecting Room (MSIR) and its on-site services and the effect of these exposure levels across a range of outcomes.
- ⇒ Comprehensive longitudinal behavioural data and linkage to MSIR visits and routinely collected administrative health and social databases.
- ⇒ The SuperMIX Cohort may be subject to attrition bias through lost-to-follow-up; however, data linkage for primary outcomes minimises this risk.
- ⇒ Consistent with all observational studies, confounding may impact the observed associations, but causal inference methods are being applied to minimise this.

(eg. short infographic summaries) for participants will be



Acknowledgments: SIRX Team

CHIEF INVESTIGATORS

Burnet Institute

- Paul Dietze (PI)
- Mark Stoové
- Nick Scott
- Peter Higgs
- Amanda Roxburgh
- Nico Clark

Kirby Institute

- Lisa Maher

St. Vincent's Hospital

- Alex Thompson

Deakin University

- Paul Agius

The University of Bristol

- Matt Hickman

The University of British Columbia

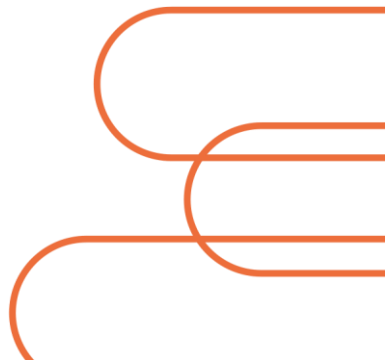
- Thomas Kerr

PROJECT PARTNERS

- NRCH
- Melbourne MSIR
- Harm Reduction Victoria
- cohealth
- Victorian Department of Health

PROJECT TEAM

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