SHORT RESEARCH ARTICLE



SHEALTH WILEY

# Implementing a COVID-19 vaccination outreach service for people experiencing homelessness

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#### Abstract

**Issue Addressed:** In 2021, the Australian government implemented a population wide COVID-19 vaccination program. People experiencing homelessness faced challenges accessing vaccines and many were not being reached. By reorienting vaccination services to include assertive outreach strategies, a Brisbane-based non-profit health care team successfully administered 2065 COVID-19 vaccinations to homeless and precariously housed people. This study examines insights from stakeholders delivering the service and perspectives of clients who received a vaccine.

Methods: Semi-structured interviews with five stakeholders and a survey of 63 clients involved in the Micah Projects COVID-19 vaccination program are reported. Client survey questions covered demographic characteristics, and motivations and hesitancies around vaccination. Stakeholder interviews were inductively analysed and quantitative survey data were exported into SPSS (IBM V27) and analysed using descriptive statistics.

Results: The Micah Projects team initiated 220 pop-up vaccination clinics and worked closely with Aboriginal and Torres Strait Islander communities. Downsizing and mobilising the service engaged greater numbers of people sleeping rough and Aboriginal and Torres Strait Islander people. Clients' decisions to vaccinate were often spontaneous, driven by immediate availability and motivated by a desire to stay healthy and protect the community.

Conclusions: Tailoring vaccination programs to include assertive outreach strategies effectively reduces barriers for people experiencing homelessness. Community embeddedness, trust, flexibility and cultural safety are critical elements for success.

So What? People experiencing homelessness are motivated to vaccinate. Reorientating health services to remove structural barriers and build the supportive environments needed to work through vaccine hesitancies are critical elements to ensure equitable access and promote health.

#### KEYWORDS

access to care, assertive outreach, COVID-19, homelessness, model of care, vaccination, vaccination hesitancy

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# 1 | INTRODUCTION

Following the development of COVID-19 vaccines during 2020, the Australian government initiated a population-wide COVID-19 vaccination program in February 2021. Commencing with frontline health workers and aged care residents, the program was rolled out to the general population as vaccine supplies increased.<sup>1</sup> Vaccines were administered at primary and tertiary health care settings, and mass vaccination clinics were established at showgrounds and convention centres.<sup>2</sup> Mid way through 2022, over 95% of eligible Australians had received two or more COVID-19 vaccines, yet this rate fell dramatically among people experiencing homelessness.<sup>1,2</sup> A Western Australian audit conducted in March 2022 involving 542 homeless and vulnerably housed people showed that only 63% had received 2 doses.<sup>3</sup> Rates were lower among rough sleepers, with 21% receiving no doses at all.<sup>3</sup> People experiencing homelessness faced challenges with vaccination due to long-standing inequities in health and access to services.4

The most recent national census identified more than 122 000 people are homeless or precariously housed in Australia.<sup>5</sup> High rates of chronic disease, mental health issues, lack of transportation, social disadvantage, low health literacy and social stigma contribute to lower vaccine uptake among people experiencing homelessness.<sup>6</sup> Community-led programs that improve access to vaccination for homeless and other marginalised populations must adopt personcentred, trauma-informed approaches and capitalise on organisations' embeddedness and trust within the communities they serve.<sup>7</sup> This approach was exemplified by the Inner City COVID-19 Vaccination Hub, a collaboration between St. Vincent's Hospital Homeless Health Services and local health and social care agencies in Woolloomooloo. Sydney. The vaccination hub was established in May 2021 within a well-known community centre that was accessible and welcoming to homeless and vulnerably housed people in the local area.<sup>8</sup> The Inner City COVID-19 Vaccination Hub achieved phenomenal success, evidenced by the delivery of more than 4300 COVID-19 vaccines within the first 6 months of its inception.<sup>8</sup> The collaborative and highly effective model of care initiated by the Inner City COVID-19 Vaccination Hub is documented in a 2022 Blueprint report<sup>9</sup> (Supplementary File 1).

In September 2021, Micah Projects, a non-profit organisation delivering health and social care for homeless and vulnerably housed people in Brisbane, received funding to roll out a COVID-19 vaccination program via their West-End premises. Adopting the strategies outlined in the Sydney Blueprint, the service delivered over 300 vaccines within its first month at three fixed hubs, located in inner-city areas with known populations of homeless and vulnerably housed people. Yet as the pandemic progressed, the fixed hub model was not providing sufficient access for people located beyond the inner-city, and those sleeping rough in Brisbane's streets and parks, which included a high proportion of Aboriginal and Torres Strait Islander people.<sup>5</sup>

For rough sleepers, access to health care is often compromised by mistrust of medical professionals, limited interaction with health care services, lack of transportation, frequent relocation and competing priorities such as finding food and shelter.<sup>6,7</sup> For this reason, best practice guidelines for promoting vaccine uptake among people experiencing homelessness encourage reorientation of health services through assertive outreach strategies that build on, and foster, supportive communities.<sup>7,8,10</sup> To investigate how these principles can be implemented in practice, in this study, we report the Micah Projects' application of the principles documented in the Sydney Blueprint model of care<sup>9</sup> into an assertive outreach COVID-19 vaccination strategy. Over 15 months, the team rolled out 220 pop-up clinics in the greater Brisbane area, administering 2065 COVID-19 vaccines and 718 influenza vaccines to homeless and vulnerably housed individuals. This study presents insights into their innovative outreach model from the perspective of the stakeholders who delivered the program and the clients who received vaccines.

## 2 | METHODS

This study employed methods previously described by Currie et al.<sup>8</sup> Semi-structured interviews were conducted with a purposive sample of stakeholders who were involved in the design and delivery of the Micah Projects vaccination program, including two registered nurses, a project manager, a social worker and a clinical health service manager. Authors OH and JC conducted interviews via video conferencing platform (Zoom), which lasted 23–72 min and were audio recorded with consent and professionally transcribed.

A 10-item online survey explored client's perceptions of the service, including their motivations and hesitancies around COVID-19 vaccination. Clients of the service were homeless or vulnerably housed people aged 18+ and living in or around Brisbane. A convenience sample of 63 clients completed the survey during the 15-min waiting time after receiving a vaccine. Eligible clients were able to provide verbal consent to participate. The survey was verbally administered by a registered nurse or trained peer worker, who recorded client responses on a mobile device using the REDCap survey tool. The interview question guide and survey are available in Currie et al.<sup>8</sup>

#### 2.1 | Data analysis

An inductive analysis of qualitative stakeholder interviews was conducted by authors OH and EG guided by techniques outlined by Braun and Clarke.<sup>11</sup> Each author read the transcripts independently (*familiarisation*) then met on three occasions to code the data collaboratively (*coding*). The authors met a final time to theme the codes and report findings to a third author (JC) for final discussion and refinement. The authors focused specifically on assertive outreach strategies that expanded on the original Sydney Blueprint documented by Currie et al. and Larkin.<sup>8,9</sup> Quantitative client survey data were exported into SPSS (IBM V27) and analysed using descriptive statistics. St Vincent's Hospital Sydney granted Human Research Ethics Committee approval (2021/ETH11017).

# 3 | RESULTS

Qualitative stakeholder interview results are presented first, followed by quantitative client survey data. The stakeholder interviews revealed insights into the active and often innovative outreach strategies employed by the frontline team. Key themes identified included (1) spreading the word within the community, (2) initiating pop-up clinics at community events, (3) tailoring outreach alongside Aboriginal and Torres Strait Islander communities and (4) downsizing and mobilising the service.

In keeping with the Sydney Blueprint, inter-agency collaboration was critical to the success of the Brisbane program from its outset. Micah Projects leveraged connections with 38 health and social services, including primary health networks, housing, Aboriginal and Torres Strait Islander Community Controlled Health Services and the local council. Types of collaborators are highlighted in Table 1.

Inter-agency collaboration allowed access to infrastructure and personnel, which extended the reach of the program and fostered community trust. Organisations offered access to premises or equipment, or supported inclusion of a pop-up tent at their community events.

# 3.1 | Theme 1: Actively spreading the word within the community

Ensuring the fixed-site vaccination hubs were promoted among the community and barriers to access were removed was the first step. The team provided transportation to and from the hubs and undertook an extensive local promotion campaign.

> Doorknocking, flyers given out, emails going out weekly to different agencies. We will call. We will text. We're walking on the street. We're literally asking people, 'Have you been vaccinated? Why don't you pop in here?' By scooter. By car. By word of mouth too. (Project Manager)

#### TABLE 1 Collaborating organisations.

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Primary Health Networks Brisbane City Council Queensland Health (Mental Health Outreach Teams) Department of Housing Specialist homelessness services and peak bodies Alcohol and other drug support groups Homelessness peak body groups Aboriginal Community Controlled Health Services Community non-profit organisations and drop-in centres Supported accommodation providers Disability support services Refugee health services and community groups Police and ambulance services Health Promotion Journal of Australia

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The hubs were comfortable and inclusive spaces with minimal queues, popular music and snacks and drinks, which created opportunities for social connection made it worth people's time to come along.

> We'll take you by the hand and can walk you this whole way through from picking you up at your door, driving you there, even helping with the rego papers, sitting down, offering tea and coffee, having a yarn and then taking you back home. And not just for the first dose, but for the second dose as well.

> > (Registered Nurse)

Over 700 vaccines were administered at the fixed hubs; however, not everyone was willing or able to attend the specific sites, so the team expanded the service to include pop-up clinics as vaccine supplies became more reliable.

# 3.2 | Theme 2: Initiating pop-up clinics at community events

The remaining 1340 vaccines were administered via pop-up clinics and mobile services. The team took the vaccination service to shelters, drug and alcohol facilities, food vans, places of worship, cultural gatherings, expos and even a community farm, as shown in Table 2.

Pop-up clinics created opportunistic moments to engage people who struggled with appointments and procedures. They also created opportunities to initiate conversations with passers-by and work through people's vaccine hesitancies, acknowledging fears and gently correcting any misinformation circulating in the community.

> We've done the Homeless Connect Day. It can have six to eight hundred homeless people coming through on a day that Brisbane City Council put on, so we did a popup there. Same with the Mental Health Expo. We try and look for places where people are congregating

#### TABLE 2 Pop-up clinic locations.

Pop-up clinic locations
Community and Department of Housing properties
Boarding houses
Crisis accommodation providers
Council events (e.g. Homeless Connect, Mental Health Expo, NAIDOC
Week)
Food vans and community barbeques
Alcohol and other drug rehabilitation (residential and day facilities)
Community organisation premises and drop-in centres
Cultural gatherings
Supported accommodation residences
Specialist homelessness services
Aboriginal hostels
Sikh temple
Farm

already, like the Salvation Army do a barbecue at this park on a Tuesday morning. We're looking for opportunistic sites where people might be gathering that we can pop up alongside them.

(Service Manager)

Volunteer workers provided a listening ear for those seeking social connection, and clients could link with other supports, whether or not they received a vaccine. Local health and social services personnel also role modelled receiving the vaccine.

> Bringing the care to the people, not making them jump through any extra hoops, but just no wrong-door policy ... it's opportunistic, so we're popping up where they're going to be, so it's not them having to make an appointment and work out how to get to the appointment and remember the appointment, but it's us finding them to have the vaccination right now because we're here.

> > (Registered Nurse)

## 3.3 | Theme 3: Tailoring outreach alongside Aboriginal and Torres Strait Islander communities

Acknowledging that a significant proportion of Brisbane's homeless or vulnerably housed people identify as Aboriginal and Torres Strait Islander, the Micah Projects team leveraged their close connection with local agency the Institute for Urban Indigenous Health (IUIH). Using the pop-up strategy, they created vaccination events specifically for local Aboriginal and Torres Strait Islander people. These events pivoted around barbeques in the park with an Indigenous radio broadcaster playing music to attract attention and promote a relaxed atmosphere. Incentives including free Deadly Choices<sup>\*</sup> t-shirts and haircuts kept people engaged and make it worthwhile to come down.

We had outdoor vaccination pop-ups in a small park, IUIH and Micah Projects. The Indigenous radio came down and we had a barbeque with Deadly Choices.<sup>†</sup> Haircuts and all! We had a GP and a nurse doing the vaccinations, it just really worked well.

(Social Worker)

Offering food, fun and social connection in a relaxed outdoor venue created a culturally safe service for Aboriginal and Torres Strait Islander people. The vaccines were on offer, but there was no pressure to receive one. Instead, people were encouraged to talk about their fears or hesitancies, and through conversation around the barbeque, wisdom could be shared and myths dispelled.

Our staff, they're absolutely genius and so committed, unbelievable. There were times when [support worker] started getting \$1 coins and getting all these Brisbane City Council scooters and going around town 'Hey, come on, guys, vaccines are here', getting his Deadly t-shirts on and grabbing people on the streets, 'Come on, let's go, there's barbeques, there's vaccines happening, let's talk about it, let's yarn about it'.

(Service Manager)

As the pandemic progressed, the team observed less need for pop-up events, yet some community members remained unvaccinated. In response, they reduced their equipment and mobilised the service in cars and on foot, reaching out to rough sleepers and those isolated within emergency accommodation.

# 3.4 | Theme 4: Downsizing and mobilising the service

Interagency collaboration helped to locate specific community members and predict the streets, parks and boarding houses where people experiencing homelessness were likely to congregate. This flexible approach engaged high numbers of rough sleepers that may otherwise have missed out.

> A few days ago [nurse] said 'Okay, we're not doing our fixed sites today, we're just getting in the car, we're reaching out to people!' They put stuff in the car and started driving to people on the streets. We found a lot of homeless people there. They started talking ... 'Would you like to? Let's talk about it'. It was working like a dream, with proper procedure and everything. Keep it small and mobile, not static and massive ... Carry less so you can move more. (Project Manager)

The stakeholders' embeddedness, trust and knowledge of their community was critical for engaging the most marginalised of community members.

[The nurse] is driving past on the street and she'll have a look at some of the places that they usually gather, and she'll go, 'Oh, there's so and so. He hasn't had his second dose yet'. So, it's also the fact that our team know a lot of the individuals by name who are able to then search for them and, because they are highly transient, it is so reliant on relationships. (Service Manager)

The combination of fixed sites, pop-up clinics and mobile vaccination provided knock on benefits for clients, including opportunities to link with other services and address broader health and housing needs.

#### 3.5 | Service limitations

Despite the vaccination program's success, it was not without hurdles. The rapid rollout of the outreach model meant that stakeholders often

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felt like they were working in crisis mode, prioritising daily logistical challenges over long-term planning. Important lessons learnt along the way included the need for adequate transport for clients to and from events and providing information in different languages.

#### 3.6 | Client survey findings

Sixty-three clients who received a COVID-19 vaccination completed the online survey. Their sociodemographic characteristics and responses are highlighted in Table 3. Respondents' most frequent sleeping accommodation was social or community housing (22.2%), followed by boarding house (17.5%) and rough sleeping (15.9%).

Survey respondents' leading motivations for receiving a vaccine were a spontaneous decision (26.2%) followed by protecting the health of the community (16.4%) including elderly parents, children and grandchildren (Table 2). Others perceived the vaccine was important for their own health and wished to return to work or travel interstate. Fifty eight per cent of clients surveyed reported no personal hesitancy around COVID-19 vaccination and 87.1% asserted that they would recommend the vaccine to others. Among the 14 respondents who reported their reasons for hesitancy about the vaccine, the foremost reasons were disbelief in the COVID-19 virus (26.3%) and individual medical reasons (15.8%), such as a history of blood clots or recent chest infections.

# 4 | DISCUSSION

Working with the principles of collaboration, community trust and people-centred practice, the success of vaccination programs targeting people experiencing homelessness can be attributed to strong partnerships between government, non-government and community agencies. Partnerships enable rapid and effective responses to the shifting challenges of a pandemic, identification of vulnerable groups, coordination of outreach strategies and integration of vaccination alongside the provision of existing health and housing services. Addressing vaccine hesitancy requires a personalised approach that includes working with clients to understand their fears and concerns, providing clear information in a range of languages and formats and creating comfortable and culturally safe spaces for vaccination.<sup>8,12</sup>

The importance of reducing social and structural barriers to care for people experiencing homelessness cannot be overstated.<sup>13,14</sup> This study reinforces what was learned from initiating the Sydney vaccination hub; that people experiencing homelessness have similar motivations to receive a vaccine as the wider community.<sup>8</sup> Through the course of the pandemic, as vaccine supplies became more reliable, paperwork reduced and logistics were refined, the potential to minimise infrastructures and work from a gazebo or car boot became a reality. This reached greater numbers of rough sleepers, with 43% of Brisbane survey respondents living in streets, in emergency accommodation or in boarding houses, compared with 21% of Sydney respondents.<sup>8</sup> Assertive outreach measures can be initiated from the outset in future mass vaccination events. 5 9 1

**TABLE 3** Sociodemographic characteristics of client's who took up the vaccine and their motivation and hesitancy around COVID-19 vaccination.

Sociodemographic variables and survey responses				
Total vaccine recipients (n	= 63)	n (%)		
Gender	Female	18 (28.6)		
	Male	43 (68.3)		
	Non-binary	1 (1.6)		
	Prefer not to answer	1 (1.6)		
Age (years)	15-34	12 (19.0)		
	35-54	26 (41.3)		
	55+	22 (34.9)		
	Not reported	3 (4.8)		
Aboriginal and Torres Strait Islander status	Aboriginal or Torres Strait Islander	19 (30.1)		
	Both Aboriginal and Torres Strait Islander	3 (4.8)		
	Neither	37 (58.7)		
	Not reported	4 (6.3)		
Most frequent sleeping	Streets (rough sleeping)	10 (15.9)		
conditions	Crisis or emergency accommodation	2 (3.2)		
	Staying with friends or family	6 (9.5)		
	Social or community/public housing	14 (22.2)		
	Hostel/hotel/motel	8 (12.7)		
	Boarding house	11 (17.5)		
	Boarding house/the streets	4 (6.3)		
	House/apartment	6 (9.5)		
	Not reported	2 (3.2)		
What made you decide to get a vaccination	It was a spontaneous decision	16 (21.6)		
today? ( $n = 61$ ) <sup>a</sup>	Someone told me it was important to get one	4 (5.1)		
	Someone I know was coming so I came along	3 (4.1)		
	I wanted to get one	9 (12.2)		
	The vaccination is free/easy to access	6 (8.1)		
	It's important for my health and I don't want COVID-19	9 (12.2)		
	It's important for community health	10 (13.5)		
	Other			
	Desire for normality (i.e. visit shops/work)	2 (2.7)		
	For travel purposes	4 (5.4)		
	Felt compelled/pressured to get vaccinated	6 (8.1)		
	To see and protect loved ones	5 (6.8)		

#### TABLE 3 (Continued)

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Sociodemographic variables and survey responses				
Total vaccine recipients (n	n (%)			
Do you feel comfortable	Yes	63 (100)		
receiving your vaccination at the Hub? ( $n = 63$ )	No	0 (0)		
Why did you feel	Positive staff experience	13 (46. 4)		
comfortable receiving your vaccination at the Hub2 (n - 28)	Organised and quick delivery of service	5 (17.9)		
Hud: $(n = 26)$	Convenient location/easy access to service	2 (7.1)		
	Safe environment	8 (28.6)		
Now that you have	Yes	54 (87.1)		
received a COVID-19 vaccine yourself, would you recommend it to others? ( $n = 62$ )	Νο	8 (12.9)		
How hesitant were you about receiving the COVID vaccine? ( $n = 62$ )	Not at all hesitant	36 (58.1)		
	Slightly hesitant	13 (21.0)		
	Quite hesitant	5 (8.1)		
	Extremely hesitant	8 (12.9)		
Why do you feel hesitant? ( $n = 14$ )	Discomfort/fear of needles or vaccine symptoms	2 (14.3)		
	Individual medical reasons (e.g. history of clots)	3 (21.4)		
	I don't believe COVID exists	5 (35.7)		
	Misinformation about COVID/COVID vaccine	2 (14.3)		
	Sceptical of COVID vaccine development	1 (7.1)		
	Other	1 (7.1)		

<sup>a</sup>Respondents could provide more than one answer, hence percentages and totals in this table are based on respondents.

Stemming from colonisation and the legacy of trauma, loss and psychological distress, some Aboriginal and Torres Strait Islander people have a justified mistrust of public health orders and information imposed by public institutions.<sup>15</sup> One of the key successes of the Brisbane vaccination program was the engagement with the local Aboriginal and Torres Strait Islander communities. Eighteen per cent of the people who received a vaccine and competed the survey at the Sydney Inner City Hub identified as Aboriginal and/or Torres Strait Islander.<sup>8</sup> In Brisbane, this number rose to 33%. This success can be attributed to strong collaboration with Aboriginal led groups, engaging community role models to address vaccine hesitancy and creating safe and casual spaces to talk about concerns.

The primary goal of the Micah Projects vaccination service was to leverage the Sydney Blueprint model and deliver COVID-19 vaccinations to homeless and precariously housed individuals in Brisbane. The team exercised autonomy in tailoring outreach strategies for the nuanced needs of this population. Yet other positive impacts were yielded whilst achieving this objective. By creating an opportunity for this target population to build rapport with a medical team in an environment where they felt comfortable, trust was built, which in turn opened doors to connect individuals with a local primary health care service for ongoing care needs. People experiencing homelessness often hesitate to seek health care due to a range of factors including past experiences of discrimination, competing needs of accessing shelter and food, and difficulty in maintaining appointments due to these competing needs.<sup>16</sup> These barriers are particularly salient for people who are sleeping rough in streets and parks. Through its integrated and assertive outreach model, the Micah Projects COVID-19 vaccination program overcame these barriers and connected homeless and vulnerably housed people with services to meet their ongoing health care needs.

#### 4.1 | Limitations

The small sample size of this study presents a limitation as data may not be representative of all those experiencing homelessness in Brisbane. As the survey was administered in the 15-min window following vaccination, participants responses may be different to those they would give if they were afforded the opportunity to reflect for a longer period. Only those who received a vaccination were eligible to complete the survey, therefore the results may somewhat presume the program's success. The views of people not reached by the service or those who refused, are absent from the findings. While the experiences of the small sample of stakeholders generally reflect those involved in the Sydney vaccination hub, these may not be directly transferable to other services or contexts.

### 5 | CONCLUSIONS

Successful vaccination programs for people experiencing homelessness rely on community collaboration, a person-centred approach, and flexible, creative outreach strategies. When organisations that are trusted within their communities are empowered to use their skillsets and roll out tailored programs with autonomy and adequate funding, they extend the reach of vaccination programs and promote access to care for people who may have otherwise been considered unreachable.

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This research extends on the original Sydney project, which received funding support through a grant from St. Vincent's Hospital, Sydney.

### CONFLICT OF INTEREST STATEMENT

LP is employed as a registered nurse at Micah Projects. At the time of data collection, JC worked for Micah Projects in a voluntary (unpaid) capacity.

#### ETHICS STATEMENT

This study was granted Human Research Ethics Committee approval through St Vincent's Hospital Sydney (2021/ETH11017).

### DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available on request from the corresponding author, [OH]. The data are not publicly available due to their containing information that could compromise the privacy of research participants.

#### ENDNOTES

- \* Deadly Choices is an Aboriginal and Torres Strait Islander health promotion initiative founded by IUIH.
- <sup>†</sup> Refer footnote 1.

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#### SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

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