

Preliminary evaluation of a novel Aboriginal community-controlled prison health service for First Nations people

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Abstract

Objective: This study aimed to provide a preliminary evaluation of the Winnunga Nimmityjah Health and Wellbeing Service which commenced operations at the Australian Capital Territory's adult prison in 2019.

Methods: A mixed-method approach was utilised to evaluate the service from 1 January 2019 to 31 December 2020. The quantitative arm described health status and health care engagement of enrolled detainees, and included a comparison of preventative health measures with the Winnunga community-based service. A qualitative arm involved focussed, semi-structured interviews with Winnunga staff members who worked at the prison service.

Results: There were 61 detainees enrolled (from 168 requests for enrolment), with 92% identifying as Aboriginal and/or Torres Strait Islander. Health needs among detainees were skewed towards mental illness and substance use. The provision of primary and preventative health care was comparable to or better than the community-based service. Qualitative analysis of staff interviews identified four themes: provision of holistic and community-led care, workforce constraints, access to opioid agonist treatment and challenges working within a correctional facility.

Conclusions: Winnunga was the first Aboriginal Community Controlled Health Organisation to deliver holistic health care to First Nations people in an Australian prison. This evaluation highlights the service's achievements and provides recommendations for improvement and expansion.

Implications for public health: Aboriginal community-controlled organisations can provide high quality, culturally safe health and wellbeing services for First Nations people in prison. The findings of this study provide evidence for the development of similar services in other jurisdictions.

Key words: Aboriginal community controlled health organisation, primary health, prison health, service evaluation, Australian Capital Territory

Introduction

Winnunga Nimmityjah Aboriginal Health and Community Services (herein referred to as “Winnunga”) provides community-controlled, holistic, comprehensive primary health care to Aboriginal and Torres Strait Islander people in the Australian Capital Territory (ACT) and surrounding areas, including those incarcerated at the Alexander Maconochie Centre (AMC), the ACT's only adult correctional facility. As in other jurisdictions, Aboriginal and Torres Strait Islander people have been over-

represented at the AMC, with over 25% of detainees, compared to 2% of the total ACT population, identifying in 2021 and 2022.^{1,2}

The multiple factors implicated in rates of incarceration among Aboriginal and Torres Strait Islander people are national in scope, increasing in scale, and historical in their context. Proximal factors include low educational attainment, unemployment, exposure to violence, substance abuse and overcrowded housing. However, broader determinants underpinning these factors include historical injustices, intergenerational marginalisation, institutional racism and

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ongoing social discrimination and displacement. As a result of these factors, the incarceration-gap between Aboriginal and Torres Strait Islander people and non-Indigenous Australians is entrenched and becoming wider.³

Health care in Australian prisons is provided by the jurisdiction's Health or Justice Department or is contracted to a private provider with department oversight. The prison provides an opportunity to address complex health needs in a vulnerable and disadvantaged population that is typically harder to reach, and detainees are expected to have access to primary health care, mental health services and harm reduction programs, such as opioid agonist treatment (OAT).^{4,5} Additional challenges exist when engaging Aboriginal and Torres Strait Islander detainees, given a longstanding mistrust of mainstream services and inadequate access to culturally appropriate service provision.⁶

The landmark 1991 Royal Commission into Aboriginal Deaths in Custody made 339 recommendations, including 45 directly relating to custodial health and safety, with a specific recommendation for “*the involvement of Aboriginal Health Services in the provision of health and medical advice, assistance and care with respect to Aboriginal detainees and the funding arrangements necessary for them to facilitate their greater involvement*”.⁷ In the ACT, the death of an Aboriginal man while in custody at the AMC in May 2016 prompted an independent inquiry with the remit to consider, among other things, “*The extent of the consideration given to Aboriginal culture, traditions and beliefs in the management, care and custody*” of the detainee. In this context, a key recommendation of the inquiry was that “*Winnunga Nimmityjah Aboriginal Health Service be integrated into the provision of health care at the AMC, in order to introduce its holistic model of care to Indigenous detainees*”.⁸ Peer-reviewed reports have also outlined the potential benefits of a prison-based model of health care that integrates Aboriginal Community Controlled Health Organisations (ACCHOs).⁹

In response to the recommendations from the Royal Commission and the independent inquiry, the Winnunga Health and Wellbeing Service (herein referred to as “prison service”) was established at the AMC with support from the ACT government. Opening in 2019, the prison service is designed as a direct extension of the Winnunga community service and aims to provide holistic and culturally safe medical and nursing care, as well as social and emotional wellbeing support. Aboriginal and Torres Strait Islander people detained at the AMC can request to be enrolled in the prison service and once accepted, have their care transferred from the Canberra Health Services Justice Health Service (herein referred to as “Justice Health”). While enrolled in the prison service, clients have access to a multidisciplinary team and receive comprehensive preventative health screening and health checks in accordance with national guidelines. The letter “*Australian first in Aboriginal and Torres Strait Islander prisoner health care in the Australian Capital Territory*” further details the prison service's model of care.¹⁰

Winnunga was the first ACCHO to provide comprehensive, community-controlled health care within a prison across the week, including on evenings and weekends. Some ACCHOs in other jurisdictions provide select outreach services to correctional facilities, and in 2020, Danila Dilba Health Service opened a primary healthcare clinic at the Don Dale Youth Detention Centre.¹¹ Early evaluation of Winnunga's prison service was imperative for quality improvement.

Furthermore, it was hoped the findings from this evaluation would support continued operation of the prison service, and provide evidence for the consideration of similar models of prison health care in other jurisdictions.

The evaluation aimed to assess:

- Detainee requests to register with the Winnunga prison health service, the proportion accepted and reasons for non-acceptance.
- The demographic, health and wellbeing profile of Winnunga detainee clients.
- The profile and frequency of health and wellbeing services provided to AMC clients.
- Whether the AMC health and wellbeing service provided care that was comparative to that at the Winnunga community primary healthcare service.
- Staff perceptions of barriers and enablers for maintaining the service.

Methods

Study design

The study utilised a mixed-method approach to evaluate the prison service during the first two years of operation from 1 January 2019 to 31 December 2020. The quantitative arm of the evaluation included a retrospective, descriptive analysis of all detainees enrolled in the prison service during the study period and the healthcare services provided to them. Administrative data were used to assess client registration requests.

As ACCHOs routinely report against national key performance indicators (nKPI) to track health measures for Aboriginal and Torres Strait Islander clients, and given the prison service was designed as an extension of the Winnunga community service, nKPI measures were calculated for Aboriginal and Torres Strait Islander clients of the prison service.¹²

The qualitative arm invited Winnunga staff members who had worked at the prison service, both in the past and present, to participate in a focussed, semi-structured phone or in-person interview with the primary researcher. The interview questions assessed service operation, enablers and barriers to care and recommendations for change. The following seven questions structured the interview, with an opportunity for open discussion throughout:

- Has clinic staffing been sufficient to meet the health needs of clients?
- Are the current policies and procedures at the AMC service sufficient for managing client flow and care?
- Have clients had access to the health and community services they require through the multidisciplinary team?
- What pre-existing services do you feel need to be increased or expanded to improve healthcare delivery?
- Are there services that could be added to improve healthcare delivery?
- What are the enablers to providing high-quality care?
- What are the barriers to providing high-quality care?

Data collection

All clients enrolled in the Winnunga prison service for any length of time between 1 January 2019 and 31 December 2020 were included in the study. Data collected included client demographics, medical and social history, encounters with health services and preventative health screening. Data were extracted using built-in reporting tools in Winnunga's practice software, Communicare and individual file review and were entered into the study dataset. Additional data relating to mental illness and blood borne virus screening were collected from the Justice Health transfer summary. For prison service clients who were previously clients of the community service, data from preventive health screening in the community from the last two years were also included in the dataset as any assessments or investigations considered "up to date" may not have been repeated during detainment. nKPI data relating to Winnunga community clients from 1 January 2019 to 31 December 2020 were available from Winnunga's December 2020 nKPI report.

Client requests for enrolment submitted between 1 January 2019 and 31 December 2020 were reviewed by the primary researcher. Data collected from client registration request forms included date, client demographics and any reason enrolment did not occur (such as release from prison or prescribed OAT).

To recruit interview participants, an "all-staff" e-mail was sent on the Winnunga network inviting those who had worked at the prison service at any time between 1 January 2019 and 31 December 2021. The e-mail included a participant information sheet with details of the two-year evaluation and the receipt of ethics approval. Staff members who were previously employed by Winnunga and worked at the prison service were first contacted by phone or e-mail to determine interest prior to forwarding the e-mail sent to all current staff with more detailed correspondence. Interviews occurred between 1 November 2021 and 28 February 2022. Staff members were given the choice of either a phone or a face-to-face interview in a private setting, and before commencing, they were requested to read and sign a written consent form. No interviews were recorded, and interview responses were transcribed during the meeting, and participants were provided with an electronic copy of their responses for review after the interview had been completed to ensure transcription was an accurate reflection of what had been conveyed.

All client data and staff interview responses were stored securely on the Winnunga network in a folder only accessible by the primary and supervising researchers. The datasets were additionally secured with password protection. Staff interview transcripts were de-identified and coded, and identifying details, including name and role (e.g. doctor, nurse, social health worker) were stored in a locked document.

Data analysis

For the quantitative analysis of client demographics and medical history, categorical variables were described using counts and proportions and continuous variables with mean and standard deviation or median and interquartile range. Counts and broad descriptors were used to display registration, hospitalisations and incident report data. To reduce the risk of identifiable data, small counts of five or less that related to specific client demographics or medical history were not presented in this report. Small counts were only included when data related to non-specific demographics or medical conditions.

The OpenEpi software (version 3.01) was used to compare nKPI measures for the prison and community service. Only Aboriginal and Torres Strait Islander clients were included for comparison from the prison service. As the nKPI data used for Winnunga reporting included both prison and community service clients, the number of prison service clients were subtracted from these reported figures to determine the number of community service clients. The proportion of Aboriginal and Torres Strait Islander clients who met each nKPI in the prison service and the community service were compared using risk ratios, 95% confidence intervals and Yates-corrected χ^2 to detect statistical significance. A p value <0.05 indicated a statistically significant difference between the two groups.

Qualitative data obtained from the staff interviews were thematically analysed using the Braun and Clarke approach.¹³ The primary researcher reviewed and re-read all transcripts before manually coding and categorising them into themes. Themes were discussed and refined with the research supervisor to ensure research questions had been addressed, before being described in the analysis.

Results

Requests for enrolment

During 2019 and 2020, there were a total of 187 requests for enrolment with the Winnunga prison service for 168 detainees. The prison service operated at capacity throughout the study, period and over a third (61/168) of detainees requesting enrolment were accepted. There were more requests for enrolment in 2019 (123, 66%), the clinic's first year of operation, than in 2020 (53, 28%). Another 11 requests (6%) were undated. Almost two-thirds (67/107, 63%) of those who were not enrolled were previous Winnunga community service clients. Fifty (43%) enrolment requests were closed as the detainee was released from the AMC, and another 19 (17%) were not accepted as the detainees were prescribed OAT, which could not be administered by the Winnunga prison service during the study period (Table 1).

Client demographics

There were 72 prison service enrolments for 61 clients between 1 January 2019 and 31 December 2020. Data from all enrolments were included in the study. There were 44 (72%) clients who identified as male, of which eight men had at least two separate enrolments during the two-year period, and 17 (27%) clients identified as female. The mean age of clients was 32 years, with the youngest clients aged 19 years and the oldest four clients aged over 50 years. Most of those enrolled were Aboriginal and/or Torres Strait Islander people (92%), with a small number of non-Indigenous clients also accessing the service. Length of enrolment in the prison service during the two-year study period varied from less than one week to over 22 months, and the median time enrolled during the study period was just under six months. Fourteen clients were still enrolled at the end of the study period, and of the remaining clients, enrolments ended when the client was released from prison or had their care transferred back to Justice Health to commence OAT. Noting clients are not enrolled in the prison service on detainment, and time to enrolment can be variable; average time enrolled in the prison service does not equate to the time detained at the AMC (Table 1).

Table 1: Sociodemographic characteristics of both enrolled clients with the Winnunga prison service and detainees who requested but were not enrolled, between Jan 2019 and Dec 2020.

	Enrolled clients 72 separate enrolments from 61 individual clients	Clients not enrolled 115 requests for enrolments from 107 individual clients
Gender		
Male	44/61 (72%)	75/107 (70%)
Female	17/61 (28%)	32/107 (30%)
Other	0/61 (0%)	0/107 (0%)
Age^a	32 (9.6)	-
Ethnicity		
Aboriginal and/or Torres Strait Islander	56/61 (92%)	92/107 (86%)
Non-Indigenous or not recorded	5/61 (8%)	15/107 (14%)
Year enrolled or enrolment request submitted		
2019	41/72 (57%)	82/115 (71%)
2020	31/72 (43%)	22/115 (19%)
Date not recorded	-	11/115 (10%)
Previous Winnunga client		
Yes	47/61 (77%)	67/107 (63%)
No	14/61 (23%)	28/107 (26%)
Not recorded	0/61 (0%)	12/107 (11%)
Days enrolled^{b,c}	171 (57–239)	-
Re-detained at AMC during the study	10/72 (14%)	-
Released while awaiting enrolment	-	50/115 (43%)

AMC = Alexander Maconochie Centre; IQR = interquartile range; SD = standard deviation.

^a= mean (SD)

^b= median (IQR)

^cDays enrolled within the 2-year study period, noting 14 clients were still enrolled at the end of the study period.

Healthcare engagement

Winnunga nurses at the AMC had the most encounters with clients as they were on-site every day, readily available and administered all regular medications. There were 6315 nurse encounters over the two years, averaging eight encounters each day. Another 768 doctor encounters were recorded from visiting Winnunga general practitioners (GPs), averaging seven encounters each week. Staff from the Winnunga Social Health Team also visited the AMC and recorded 159 client encounters during the two years. Another 445 client encounters were recorded by Winnunga nurses, doctors and social health staff prior to client enrolment and during transition from Justice Health to the prison service.

Health conditions

Mental illness and substance use

Health needs were skewed towards mental illness and substance use. Over half of all enrolled clients (51%) had a history of anxiety and/or depression, and a small proportion of detainees had a history of schizophrenia or bipolar disorder. Of the 44 (72%) clients with a history of substance use, 29 (48%) had an underlying mental illness. During the two-year period, there were 154 mental health consultations and 59 mental health care plans with Winnunga GPs for 44 (72%) and 38 (62%) clients, respectively. Ten of these clients had

Table 2: Health characteristics of clients enrolled with the prison service.

	Individual clients (n=61)
Mental illness	
Substance use (alcohol or other drugs)	44/61 (72%)
Depression and/or anxiety	31/61 (51%)
Schizophrenia or bipolar disorder	np ^a
Smoking status	
Current smoker	54/61 (89%)
Ex-smoker, non-smoker or not recorded	7/61 (11%)
Non-communicable disease	
Asthma/COAD	17/61 (28%)
Other	5/61 (8%)
Communicable disease	
Blood borne virus	np ^a

COAD = chronic obstructive airway disease.

^aNumber not published as relates to <5 clients.

no previously recorded mental illness or substance use diagnosis that could be extracted from their medical record. Specialist mental health services were also accessed with 13 psychiatrist visits recorded for seven (11%) clients, all of whom had a history of substance-use disorder and one other mental illness. There were also 96 psychology visits for 13 (21%) clients, of which four clients had no record of mental illness or substance-use disorder that could be extracted from their medical record. A large proportion (89%) of detainees also disclosed a history of cigarette use (Table 2).

Chronic and communicable diseases

The most common chronic diseases were respiratory related with 17 detainees (28%) reporting a history of asthma or chronic obstructive airway disease. Other chronic diseases, including renal disease, hypertension and/or diabetes, were recorded in 5 (8%) detainees.

Blood-borne virus screening for hepatitis B, hepatitis C and human immunodeficiency virus usually occurred on detainment by Justice Health, with ongoing treatment and/or surveillance continued after transfer to the prison service. As a result, only a small number of prison service clients were diagnosed with an active blood-borne virus requiring treatment. Eleven (18%) clients had evidence of past hepatitis C infection, and another 41 (67%) clients were screened and had negative hepatitis C serology (Table 2).

There were 18 hospital admissions for 11 clients during the study period. Musculoskeletal injuries and minor trauma accounted for the highest proportion of hospitalisations (28%), followed by skin and dental infections (22%). Non-cardiac chest pain (17%), abdominal pain (17%) and acute neurological disorders (11%) were amongst the remaining reasons for transfer to hospital.

Comparing nKPI measures to the Winnunga Nimmityjah community service

Given the small cohort, younger age demographic and lower burden of chronic diseases, only select measures were included in the nKPI analysis. Six nKPI measures were reviewed for Aboriginal and Torres Strait Islander prison service clients and compared to the community service using Winnunga's reported nKPIs for December 2020.

The proportion of clients who met each nKPI measure was significantly higher for Aboriginal and Torres Strait Islander clients at

Table 3: Proportion of Aboriginal and Torres Strait Islander clients who met each national key performance indicator measure at the prison service during the study period compared to the community health service national key performance indicators for December 2020.

nKPI	Prison service	Community service	Risk ratio	95% confidence interval	p value
Health assessment in the previous 24 months (nKPI 3)	79% (44/56)	56% (1537/2754)	1.4	1.2–1.6	0.0006
Smoking status recorded on file (nKPI 9)	92% (52/56)	78% (2139/2754)	1.2	1.1–1.3	0.005
BMI recorded in the previous 24 months (nKPI 12)	71% (40/56)	61% (1674/2754)	1.2	1.0–1.4	0.07
Up to date with annual influenza vaccination (nKPI 14)	57% (32/56)	15% (424/2754)	3.7	2.9–4.7	<0.0001
Alcohol status recorded in the previous 24 months (nKPI 16)	25% (14/56)	58% (1610/2754)	0.4	0.3–0.7	<0.0001
Cardiovascular risk score (nKPI 21)	35% (7/20) ^b	2% (20/1200)	21.0	10.0–44.0	<0.0001

BMI = body mass index; nKPI = national key performance indicator.

^aWinnunga nKPI population includes Aboriginal and Torres Strait Islander people 15 years old and over who have attended the service at least three times in the last 2 years.

^bKPI 21 applies to Aboriginal and Torres Strait Islander clients aged 35–74 years (n=20)

the prison service than in the Winnunga community-based service for all indicators studied except body mass index and alcohol status (Table 3).

Staff interviews

Between 1 October 2021 and 29 February 2022, eight current and previous Winnunga prison service staff members participated in study interviews. Participants included three doctors, three nurses and two social health staff. Interviews were between 20 and 35 minutes in length and were mostly conducted in a face-to-face format.

Qualitative analysis of interview results identified four over-arching themes: (1) the prison service provides holistic and community-led care; (2) staffing constraints were present at times during the study period, (3) being able to prescribe OAT may improve outcomes for clients and (4) there are inherent challenges to delivering health care within a correctional facility.

Provision of holistic and community-led care

All staff members agreed the prison service provided a model of care that was holistic, “community-led and client-centred”. Clients had access to nursing, medical, social health, psychology and psychiatry services, and all staff worked between the prison and community service. The prison service upheld its design as a direct extension of the Winnunga community service and staff “worked together across Winnunga’s multidisciplinary team” and had “excellent rapport with clients”, especially pre-existing Winnunga clients. Staff felt clients who had familiarity with Winnunga had more trust in the prison service as there “was a sense that health (could) be improved” through culturally safe care. Access to mental health services was important for the detainee population and group sessions with the Winnunga psychologist and social health staff were highly regarded. In 2021, the addition of a visiting mental health nurse further improved the support network for clients.

When clients are released from prison, continuity of care is achieved through access to the same healthcare team at the Winnunga community service. However, some staff members felt more was required to support those leaving the prison as detainees often return to environments where they are “exposed to substance use and other criminal activities”. Improving “learning and employment” within the AMC and providing more extensive “counselling before and after” leaving prison may reduce risk-taking behaviour and recidivism on release.

Staffing constraints during the study period

Staff availability at the prison service had been variable since it opened in early 2019, and all respondents felt increasing staff numbers would allow for greater intake of detainees who had requested enrolment with the prison service while also reducing “staff burnout and high turnover”. GP staffing was most challenging, with daily GP visits in 2019 reducing to weekly visits in 2021, due to decreased availability. Staff members felt three full-time Winnunga GPs who worked across both the prison and community services would be sufficient for the current caseload (of approximately 22 clients). Having three GPs would also allow for better distribution of responsibilities, adequate cover during staff leave, and the capacity to enrol a small number of additional clients, while also preventing staff burnout.

Consider access to OAT through the Winnunga prison service

One of the major barriers to providing holistic care for detainees was the inability to prescribe and dose methadone and buprenorphine. With an OAT prescribing service readily available to Aboriginal and Torres Strait Islander people at the community service, this was an identifiable difference between the two Winnunga services. Clients enrolled in the prison service who were motivated to engage in harm minimisation strategies to manage their non-prescription opioid use had to be transferred to Justice Health to commence OAT. Once commenced on OAT, only clients stabilised on depot buprenorphine could transfer their care to the prison service, and clients on methadone and sublingual buprenorphine had to continue their health care with Justice Health. Staff members felt clients who commenced OAT in prison were sometimes “progressed onto high doses of methadone”, making them ineligible to return to the Winnunga community service after release from the prison, impairing “continuity of care” while also creating challenges, such as the need for daily attendance at a dosing facility, potentially impacting their ability to re-integrate into society.

Winnunga nurses and doctors believed depot buprenorphine is a safer option for clients, and the less frequent dosing requirements are better suited to clients on release. Several interview participants agreed that the prison service should be equipped to “commence Bupival (depot buprenorphine)” for motivated clients who otherwise may have been deterred from commencing OAT, given the requirement to transfer their health care for at least the second time.

Inherent challenges to delivering health care in a correctional facility

Since the prison service opened in 2019, several staff members encountered challenges that related to AMC operations and regulations. Firstly, “*transferring care from Justice Health to Winnunga takes time*” and causes interruptions in care, and some prison service staff members would like to see Aboriginal and Torres Strait Islander clients being given the option to receive “*care from Winnunga on entry to the AMC*”. Secondly, appointments with the GP, nurse or external specialists were often missed if a corrections officer was unavailable to escort clients. Corrections were thought to be “*more favourable to Justice Health*”, given perceived “*disagreement... on the way the Winnunga service is run*”. Additional precautions and reduced movement of clients across the AMC during the COVID-19 pandemic may have further hindered appointment attendance. Thirdly, staff commented on the high frequency of lock-ins at the AMC and subsequent cancellation of appointments with doctors and other multidisciplinary team members. For the prison service, this resulted in rescheduling of appointments to a later date as visiting staff members had to work around pre-existing commitments at the community service. Winnunga nurses and doctors felt that some flexibility should exist during potentially low-risk lock-ins to allow clients’ ongoing access to essential services such as health care.

Discussion

Winnunga was the first ACCHO to provide a comprehensive, seven-days-a-week health care service within an Australian prison, providing a novel model of care for especially vulnerable Aboriginal and Torres Strait Islander people. The study followed the recommended mixed-method approach to evaluating complex Aboriginal and Torres Strait Islander health programs, and included a quantitative arm describing the detainee population and services provided, and a qualitative arm to understand staff member’s reflections on the service’s design, impact and future.¹⁴ This evaluation found that prison service clients had access to the same multidisciplinary team as the community service, promoting high-quality continuity of care and services during detainment that were holistic and community controlled. Furthermore, a higher proportion of Winnunga clients at the prison service had a health assessment, influenza vaccine and cardiovascular risk score than in the community service. In 2020, a client-experience survey found that enrolled detainees expressed high levels of satisfaction in the Winnunga prison service, reflecting the sentiments highlighted in the staff interviews and the number of requests for enrolment by detainees at the AMC.¹⁵

Areas for service improvement and expansion were also highlighted in the study. During the first two years of the prison service’s operation, staffing challenges contributed to a low intake of detainees to the prison service. Difficulty recruiting GPs, particularly from 2020 onwards, coinciding with the start of the COVID-19 pandemic and broader GP shortages across Australia, limited enrolments into the prison service. Expansion of the prison service to include more medical, nursing, social and mental health staff would allow for an increase in client enrolments to meet the current demand at AMC. More recently, increased enrolment numbers have been achieved

following improved GP staffing and the addition of nurse practitioners and mental health nurses to Winnunga’s multidisciplinary team.

Limitations to enrolment and service delivery without an OAT program were also apparent, with 17% of detainees who requested enrolment in the prison service ineligible for transfer as they were already on OAT and five clients returning to Justice Health for their health care as they were motivated to start OAT during detainment. Furthermore, staff members felt other clients may have been deterred from commencing OAT as they wanted to avoid further transfer of their health care. Given the relatively small staff numbers at the prison service, initiating and monitoring clients on OAT would be challenging, with the need to monitor for medication diversion and supervise dosing, which may take up to 25 minutes for high-dose sublingual buprenorphine-naloxone preparations. There is substantive evidence that OAT reduces substance use, mortality and recidivism. The introduction of depot buprenorphine has been a more acceptable OAT option for health and correctional staff in New South Wales prisons as it has a lower susceptibility for diversion and eliminates the need for strict dosing supervision, promoting a more positive staff–client relationship.¹⁶ Furthermore, reported substance use for New South Wales detainees on depot buprenorphine and methadone were similar at 16 weeks, and those on depot buprenorphine likely had better retention rates when released from prison, given less frequent dosing regimens.¹⁷ From 2021, prescribing and dosing depot buprenorphine has been included in the Winnunga prison service’s model of care. Addition of this service will likely also prompt enhanced surveillance of blood-borne viruses, noting a small number of clients in this study were not screened for hepatitis C during detainment. As Aboriginal and Torres Strait Islander detainees are at a higher risk of discontinuation of OAT on release from prison, connection with the OAT clinic at the community service provides clients with continued, culturally safe care on release. This is another community-led service uniquely available to Aboriginal and Torres Strait Islander people in the ACT.¹⁸

There was a high prevalence of mental illness, with over half of the prison service clients recording a history of anxiety and/or depression and almost three-quarters disclosing substance use, supporting the need for greater access to mental health services. Furthermore, mental illness may have been under-recorded as 10 clients who had a mental health consultation or mental health care plan, and four clients who received psychotherapy, had no record of a diagnosed mental illness that could be extracted from their medical record. A multi-centre study of Aboriginal and Torres Strait Islander detainees in Queensland revealed similar results to this study, with a history of depression recorded in over 25% of detainees, anxiety in 14% of detainees, and substance-use disorder in 66% of detainees.¹⁹ Aboriginal and Torres Strait Islander prisoners also suffer from more acute mental illness, and although not assessed in this study, an interview of Aboriginal men in a Victorian prison identified over half had attempted suicide in their lifetime and a quarter disclosed suicidal ideation in the preceding 12 months.²⁰ The findings from this service evaluation and published literature support strengthening of psychiatry, psychology and social health services for prison service clients. Despite over 60% of clients having a mental health care plan completed with a Winnunga GP, only 21% saw a psychologist during

their enrolment with the prison service. Increasing access to culturally competent psychologists who have a strong understanding of the local community and the multiple catalysts for mental illness in Aboriginal and Torres Strait Islander detainees will improve the social health and wellbeing of enrolled clients.²¹

In 2022, 78% of Aboriginal and Torres Strait Islander detainees in Australia experienced prior imprisonment and during this two-year study, 14% of clients returned to the prison service during a later detention.²² The number of clients re-detained at the AMC who were receiving care through ACT Justice Health services or re-detained at other prisons is unknown. Improving social functioning in prison through counselling, learning, and employment opportunities may lead to reduced involvement in criminal activities, improved community reintegration on release and a lower rate of recidivism. Transitional programs that involve families and communities to meet immediate welfare needs, support occupational attainment and take a holistic approach by addressing grief, violence and behaviour will support the needs of Aboriginal and Torres Strait Islander people leaving prison.^{23,24} Again, Winnunga is well placed to provide these transitional services, and given the close interface between the community and prison service, transitional services can be more reliably continued after release from prison. Since this study was completed, Winnunga has commenced a justice reinvestment program that aims to provide intensive whole-of-family case management and support for clients who have been involved in the criminal justice system. Preliminary plans for a residential rehabilitation service for Aboriginal and Torres Strait Islander people in the ACT are also in motion.

There are limitations of the current study that may impact the external validity of the findings. The retrospective and single-centre study design relied on the accurate and complete recording of clinical data by multiple clinical staff members, with scope for oversights in clinical records, and the potential for classification bias when translating these data for the purposes of the study. However, this risk was mitigated by favouring predominantly binary, categorical variables during the retrospective chart review. The power of the findings is limited by the relatively small cohorts of both detainees and staff interview participants; however, given the gap in medical literature evaluating outcomes of ACCHO services embedded within correctional facilities, the intent of the current study was to establish a baseline evaluation and to guide further analysis. Furthermore, resource constraints for the prison service limit the number of clients able to access the service, inherently restricting the size of the study cohort and creating scope for selection bias and confounding. Staff interviews were likely subject to recall bias as although confidential, staff currently working at the service may have been less willing to provide frank and honest feedback, and those previously working at the service may have reduced recollection of their experience. Increased client and staff numbers at the prison service may address these limitations in future research and evaluation.

Matching prison and community service cohorts for the nKPI comparison was limited as only aggregate data from the community service were available. Winnunga community nKPIs were based on a larger denominator comprised of approximately 50% women and a broader age distribution than the prison service. In addition, clients in

the prison had ongoing access to the health service, whereas community clients may have varying access given their ability to access other primary health care services. History of alcohol use may have been inadequately assessed by prison service staff and under reported by clients as alcohol is not permitted at the AMC. Future analysis should strive for greater comparability of variables between groups, such as adjusting for age and gender, to enhance validity of the findings.

This study demonstrates scope for future prospective research focussing on measurable health outcomes, such as mental health, substance use and preventative health outcomes, all identified as key themes among the prison service cohort and reflective of national Aboriginal and Torres Strait Islander health priorities. Longitudinal follow-up of clients after release from prison may also allow greater insight into continuity of care with community services and factors implicated in recidivism. Finally, if similar models of ACCHO delivered care are implemented in prisons in other jurisdictions, multi-centre research would facilitate greater external validity of findings.

Conclusion

Winnunga was the first ACCHO to deliver holistic health care to Aboriginal and Torres Strait Islander people in prison, and this two-year preliminary evaluation highlights its achievements and comparability to the community-based service. Furthermore, the study provides recommendations for expansion, given the identified burden of mental illness and substance use in this cohort. The results support the trial of similar community-controlled services in other jurisdictions around Australia, whilst future research may seek to consolidate the evidence base for this novel model of care.

Conflicts of interest

The authors declare the following financial interests/personal relationships which may be considered as potential competing interests: All authors were employed by Winnunga Nimmityjah Aboriginal Health and Community Services during the completion of this evaluation. No other funding was received in the collection, analysis and interpretation of data, in the writing of the report, and in the decision to submit the article for publication.

Ethics

A project proposal was first submitted and approved by the Winnunga Board of Directors prior to submission to the ethics committee. This project received ethics approval by the ACT Health Human Research Ethics Committee (2021.ETH.00057) and was carried out in accordance with the National Health and Medical Research Council's Statement on Ethical Conduct in Human Research.

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