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Identifying the value of partnerships between rural Australian Aboriginal communities, services and researchers to co-design, implement and evaluate programs to reduce substance-related harms

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Introduction

There is a need for rigorous and culturally acceptable research in Aboriginal communities to improve program efficacy that aims to reduce the disproportionately high rates of substance-related harms for Aboriginal, compared to non-Aboriginal, Australians. Given the history of colonisation and dispossession imposed on Australian Aboriginal communities, approaches that promote self-determination and empowerment are more likely to be effective. To improve substance-related harms, greater community participation in, and control of, Aboriginal community-based programs and health research is supported by the literature. Nevertheless, where Aboriginal communities lack the capacity to develop and implement effective, evidence-based programs to reduce substance-related harms, partnering with academics to build capacity with, not for, Aboriginal communities, is recommended (Bainbridge, McCalman, Tsey, & Brown, 2011; Baldwin, Hohnson, & Benally, 2009; Baydala et al., 2014; Cochran et al., 2008; Edwards, Lund, Mitchell, & Anderson, 2008; Loxley et al., 2004; Mayo, Tsey, & Empowerment Research Team, 2009; Mooney-Somers & Maher, 2009; Pyett, 2002; Snijder et al., 2015; Stockwell et al., 2005; Thomas, Rosa, Forcehimes, & Donovan, 2015).

This paper seeks to examine different types of research partnerships with the aim to understand what constitutes an effective partnership between academics and Aboriginal communities to implement more robust and culturally acceptable programs designed to reduce drug and alcohol harms. It will do this by summarising three distinct, real-world, practical examples of community-based drug and alcohol research evaluations, developed in rural and remote Aboriginal community contexts.

Case study 1: Riding the rural radio wave: The impact of a community-led drug and alcohol radio advertising campaign in a remote Australian Aboriginal community

This case study examined the development of a retrospectively community-researcher partnership that aimed to quantify the impact of an Aboriginal designed drug and alcohol radio advertising campaign, implemented in a remote community in New South Wales (Munro, Allan, Shakeshaft & Snijder, 2016).

Background

The radio campaign was implemented in Bourke, population of 2,465 people (30.2% Aboriginal; ABS, 2011c), a remote community located in north-western NSW. The radio campaign was developed under the guidance of the Bourke Alcohol & Drug Working Group (known locally as 'BAWG'). BAWG formed in response to the perception of these Bourke community experts of escalating drug and alcohol issues in Bourke in the mid-2000s. This increasing trend in harms resulted in Bourke being the first community in NSW to introduce voluntary alcohol restrictions in February 2009 (Senserrick et al., 2012). To complement these restrictions, the BAWG was awarded a 2011 Community Drug Action Team (CDAT) grant of $10,000 to develop and broadcast local radio advertisements that aimed to challenge listeners to consider their own substance use, increase awareness of drug and alcohol harms and prompt them to refer themselves or their families to a local drug and alcohol worker for specialist advice about how to reduce those harms. The content of seven radio advertisements were developed in collaboration with local community members. A young mum's group, for example, helped write one of the scripts relating to peer pressure. This iterative process ensured that the radio advertisements were meaningful and relevant by reflecting local issues and the use of locally used terms and language. A locally run and owned Aboriginal radio station, called '2CUZ', produced the advertisements. The advertisements were played concurrently on two radio stations ('2CUZ' and '2WEB') that collectively transmit a signal across a 500-kilometre radius from Bourke. The radio advertisements were broadcast 25 times a week on both radio stations for 4 months during off-peak hours. Summer was thought to be an appropriate time to broadcast the advertisements as drug and alcohol related harms tend to be higher due to seasonal festivities and holidays. Off-peak times were preferred because BAWG members reported people drinking at those times and listening to the radio stations while they were drinking. The radio advertisements were also less expensive to run during off-peak broadcasting. The primary outcome was the awareness of the radio advertisement. The number of referrals to local services in the community was reported by the drug and alcohol workers situated at the local health services.

Results

A total of 53 survey participants were randomly sampled from the Bourke community. A total of 60% of the participants identified as Aboriginal, half (53%) were employed; and the majority (94%) resided in the township of Bourke. The majority of participants (79%) reported listening to radio daily, while 15% reported that they sometimes listen to the radio and 6% reported that they do not listen to the radio. Three-quarters of respondents reported hearing at least one of the advertisements, 17% did not hear any advertisements, 6% were unsure and 4% did not specify. The advertisement that prompted the greatest recognition contained the voice of a local well-known and respected young person from the community. Table 2.2 also summarises responses for the use of radio and recognition of the advertisements. More than a third of respondents considered that the advertisements challenged their own, or their family's thinking about substance abuse (39%) and 22% reported that they sought help. Drug and alcohol workers reported one self-referral during the period that the advertisements were broadcast.

Conclusion

Although the research evidence-base for effective media campaigns targeting substance abuse in rural and remote communities is currently insufficient, this evaluation has demonstrated that radio can be a relevant and well-trusted form of media in Aboriginal communities, with evidence suggesting that it reaches a cross-section of loyal listeners (Munro et al., 2016). This finding highlights the potential for locally generated media health awareness campaigns, designed in meaningful consultation with local communities, to be a key strategy in modifying community attitudes towards, and promoting positive behavioural change in relation to, reducing drug and alcohol harms in rural Aboriginal communities.

The project's limited impacts on help-seeking for substance misuse issues, however, highlighted the importance of ensuring community-led projects are evidence-based and have rigorous evaluation methodologies so Aboriginal communities can continue to build knowledge in health promotion media strategies that effectively reduce substance-related harms. Collaboration with academic partners from the beginning of the program development would likely have helped to formulate more effective research methodologies and improve the quality of the project design.

Case study 2: Did it 'Break the Cycle' to reduce alcohol-related criminal incidents? A retrospective evaluation of community-led programs implemented in 2012-2015 in four remote communities in NSW.

This paper describes the development of a partnership between researchers and multiple communities that was formed to analyse the impact of a suite of Aboriginal-led, community-wide programs implemented across four rural NSW Aboriginal communities from 2012-2015 and aimed to reduce substance-related harms. The objective of this study was to access and examine routinely-collected alcohol-related criminal incidents (ARCI) data for four participating communities in NSW, and then utilise those data to evaluate the impact of community-based programs designed and implemented by Aboriginal communities.

Methods

This research used a multiple baseline design (MBD) to evaluate the impact of the community-based initiatives on the time-series data obtained from 2002-2015. MBDs are endorsed by the Cochrane Effective Practice and Organisation of Care Group for the evaluation of complex, real-world community-based programs (McCalman et al., 2012; Komro et al., 2016; NHMRC, 2009; Sanson-Fisher, Bonevski, Green, & d'Este, 2007). Despite the benefits of MBDs, there are no published evaluations that have used this design to evaluate Aboriginal community-based programs to reduce ARCIs (Clifford & Shakeshaft, 2017). In this study, multi-component programs commenced at different time points in each community. Commencement dates aligned with the first month of employment of the project workers who facilitated the program design, approvals and implementation in each community. The project commenced in Community 1 on 1 October 2012, Community 2 on 1 February 2013, and Communities 3 and 4 on 1 May 2014. The program completion date for all communities was 30 June 2015, when the federal 'Breaking the Cycle' funding ceased. The population of the four communities receiving the funding ranged from approximately 1,100 to 3,500 people; median age ranged from 32-38 years old; and Aboriginal and Torres Strait Islander status ranged from 16% to 65% (the 2016 NSW Aboriginal and Torres Strait Islander population average is 3% (ABS, 2016). Each community designed and implemented their own activities in line with nine priority key areas, but not all communities implemented activities in all key areas. The nine priorities were: education and community awareness; youth engagement and resilience; promoting Aboriginal culture; engaging and supporting families; licensee engagement and

participation; social media, arts and e-technology; healthy environments through improved infrastructure; improving responsiveness, capacity and integration of treatment services; and community capacity building.

Results

This was the first MBD evaluation of multi-component community-based programs developed in consultation with Aboriginal communities that aimed to reduce Aboriginal ARCIs across four rural communities. The analyses identified two main findings. First, Community 1 was the only community identified as having statistically significant reductions in Aboriginal ARCIs for both persons of interest (POI) and victims of crime (VOC) post the commencement of the BTC programs. Despite this finding, definitive statements about the success of the BTC programs to reduce ARCIs cannot be extrapolated as the results were not replicated in the other three communities. Second, there was an overall downward trend of Aboriginal ARCIs across the four communities over the study period (2002-2015). Despite being non-significant in three of the four communities, this finding aligns with BOCSAR data from 2010-2015, which also identified that ARCIs have decreased by 6.4% across the state (BOCSAR, 2015). This may suggest government policy such as Liquor Accords or other factors are having an impact towards the overall downward trend of ARCIs both generally in NSW and also specifically for the four communities, as these communities were selected for the BTC funding by the Federal government for previously demonstrating merit in reducing alcohol-related harms.

Although the programs were similar in the four communities, there are a number of implementation characteristics that may have contributed to the significant reductions in Community 1. Compared to the other BTC communities, Community 1 had a greater proportion of BTC programs implemented across a wider range of BTC key priority areas, as outlined in Table 3.1. This meant Community 1 received significantly more program funding (54.9% of total program funding) when compared to the other three communities (Community 2, 39.6%; Community 3, 2.9%; Community 4, 2.6%). Further, Community 1 also had the longest duration of the BTC programs (2.74 years) compared to the other three communities (Community 2, 2.42 years; Communities 3 and 4, 1.25 years). Given these factors, when compared to the other BTC communities, Community 1 overall received a greater program dose, which may have improved the impacts of the programs for this community. The use of the proxy measure in this evaluation provides reassurance that the results are unlikely to be a consequence of simply changing reporting practices by police in Community 1, relative to the other communities.

Conclusion

Despite the overall strengths of the BTC programs, such as the focus on cultural activities and community participation, there may have been an increased likelihood of improved outcomes if the programs delivered across the four communities were more effectively tailored to each of the communities' unique needs. Given this, a key implication of this research which is well supported by the literature is that developing meaningful partnerships between local communities and researchers before and during project implementation would likely to have better embedded rigorous evaluation methods and inform effective program design (Bainbridge, McCalman, Tsey, & Brown, 2011; Baldwin, Hohnson, & Benally, 2009; Baydala et al., 2014; Cochran et al., 2008; Edwards, Lund, Mitchell, & Anderson, 2008; Loxley et al., 2004; Mayo, Tsey, & Empowerment Research Team, 2009; Mooney-Somers & Maher, 2009; Pyett, 2002; Snijder et al., 2015; Stockwell et al., 2005; Thomas, Rosa, Forcehimes, & Donovan, 2015). Second, embedding the use of routinely-collected data in community-based program evaluation can be advantageous because they are low cost, can be defined by postcode or local government area, are not biased by non-consent and can be used retrospectively (Breen, Shakeshaft, Slade, D'Este, & Mattick, 2011). Third, optimal program effectiveness is more likely if researchers and communities work together to co-design the multi-

component community-based approach using a program logic model, which can help to articulate how and why a program will work, what impacts and outcomes are likely to be achieved, and how it can be robustly evaluated (Hurley, Baum, Johns, & Labonte, 2010; WK Kellogg Foundation, 2004; Munro, Shakeshaft, & Clifford, 2017).

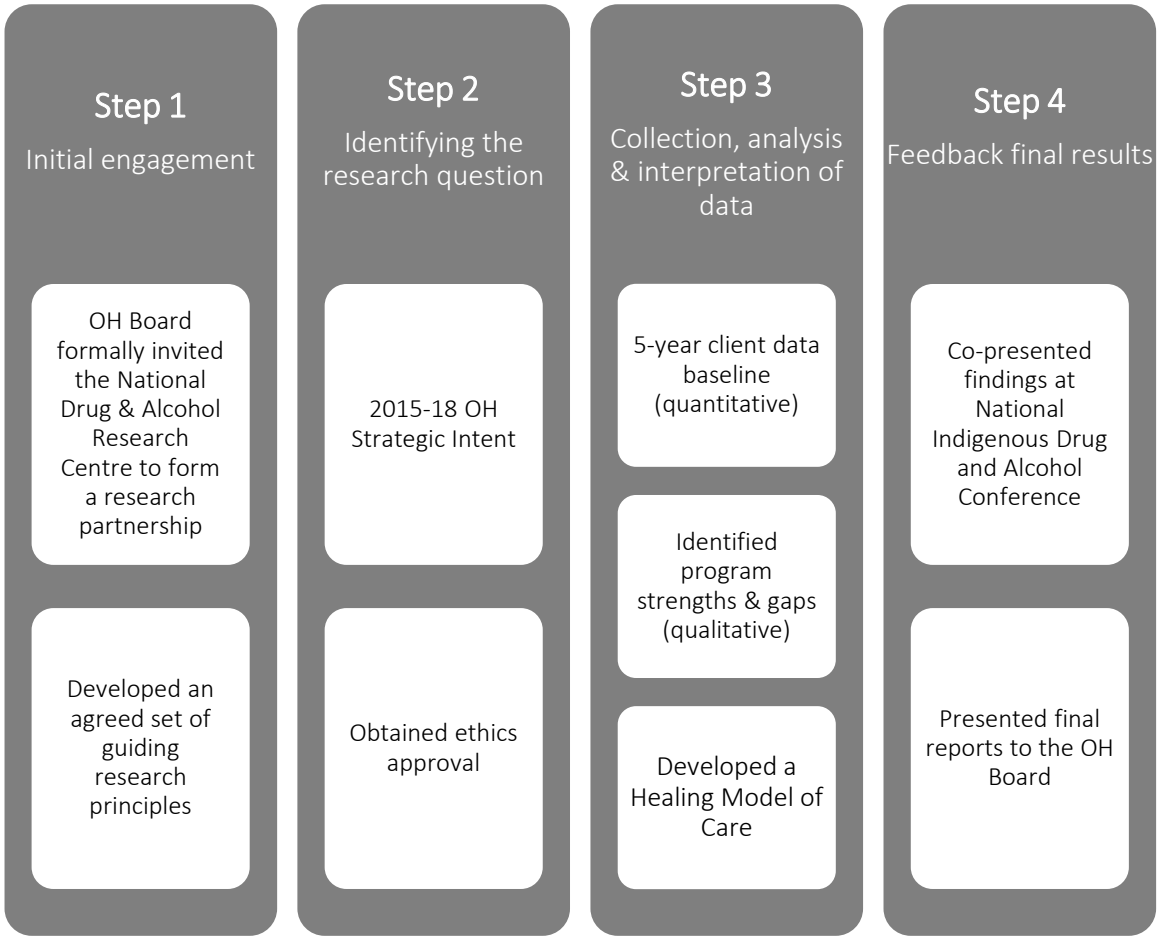
Case study 3: The development of a Healing Model of Care for a remote Aboriginal drug and alcohol residential rehabilitation service: a community-based participatory research approach

This case study focused on a three-year, mixed methods, community-based participatory research project designed and implemented in partnership between a community-based Aboriginal drug and alcohol residential rehabilitation service located in remote NSW and researchers located in regional and metropolitan NSW (Munro, Shakeshaft, & Clifford, 2017; Munro, Shakeshaft, Breen, Clare, Allan & Henderson, 2017; Munro, Allan, Breen & Shakeshaft, 2017).

Background

This case study was undertaken with Orana Haven Aboriginal Drug and Alcohol Residential Rehabilitation Service (OH), which is located in western NSW, approximately 700 kilometres north-west of Sydney. The service began operating as an Aboriginal Community Controlled Health Organisation (ACCHO) in 1983. OH's current vision builds on this long history of Aboriginal community-control, and that is to "provide a culturally safe drug and alcohol healing centre that maximises the strengths of Aboriginal people and communities". Based on a combination of a Therapeutic Community and 12-Step treatment approach, OH offers a 3-month voluntary rehabilitation program for Aboriginal males, 96% of whom were referred from the criminal justice system in 2015/16. OH has an average of 66 client admissions annually, of whom 85% identify as Aboriginal (Munro et al, 2018). Mean length of stay is 56 days, although a third (36%) discharge within the first month. An estimated 32% of clients complete the program, 47% self-discharge and 20% are house-discharged for failing to comply with treatment requirements, such as providing continuously clean urine samples (Munro et al, 2018). OH's completion rate of 32% is comparable to the 34% reported for non-Aboriginal residential rehabilitation services in Australia (Munro et al, 2018; Darke et al., 2012), but it is possible this could be improved given the 62% completion rate reported in another study (Sung et al., 2001). Due to inconsistent reporting across Aboriginal residential rehabilitation services, rates of self-discharge could not be reliably compared with OH's average of 47% of all clients (Munro et al., 2018). This 3-year (2014-2017) study used a community-based participatory research (CBPR) approach. CBPR is a transformative research paradigm designed to bridge the gap between science and practice through community or service provider engagement throughout the research process, to achieve social change (Lazarus, 2014; Wallerstein & Duran, 2006; Wallerstein & Duran, 2010, 2011; Windsor, 2013). The process of CBPR typically involves cycles of collaborative action, often in sequential steps that engage community or service provider participants as co-researchers, educating and empowering them to effect positive changes in their environment (Kowanko et al., 2009; Lazarus, 2014; Windsor, 2013). CBPR does not outline a specific and rigorous methodology, however, Windsor (2013) proposes the addition of mixed scientific methods to ensure adequate rigor in the production of new knowledge. In the context of Aboriginal health, CBPR has been shown to be highly culturally acceptable (Cochran et al., 2008; Mooney-Somers & Maher, 2009; Pyett, 2002; Snijder et al., 2015).

Figure 1 The community-based participatory research approach for OH



A triangulation of the following sources of data informed the Healing Model of Care described in the results: i) focus groups; ii) quantitative data; and iii) qualitative data. First, the focus groups identified key strategic priorities for OH in addition to the need for strong and transparent governance. Second, the quantitative data identified the most prevalent client characteristics, to which the Healing Model of Care ought to be tailored: clients were mostly Aboriginal men, all had multiple risk factors, were mostly referred from the criminal justice system, and were mostly aged from 26-35 (Munro et al, 2018). Third, the qualitative data identified the importance of a structured program, the value of therapeutic relationships and the critical importance of healing by immersion in Aboriginal culture and being on traditional "country" (Munro, Allan, Breen, Shakeshaft, 2017). The term "country" is often used by Aboriginal and Torres Strait Islander people to describe the complex and interrelated connections to family origins in Australia and the Torres Strait (Queensland Studies Authority, 2008). This includes the geographical region where a person's family is from and their connections to this region and its people.

Results

The Healing Model of Care is comprised of the following:

- Core components of OH, as summarised in Figure 2 and detailed in the text below; and
- OH Treatment program logic, as summarised in Tables 1.

Core components of OH

Figure 2 delineates two broad areas of OH's service delivery. First, the red and yellow centre circles represent the six core treatment components. The central component of OH's treatment service delivery is *healing through culture and country*, which is why it is shown in the centre of Figure 2. Second, the black outer circle represents the core three organisational components. The other five core treatment components enable healing through culture and country, shown in the middle section of Figure 2, and includes*: therapeutic activities; case management; life skills; time out from substances;* and *aftercare support.* The effective delivery of these treatment components is dependent upon the three core organisational components, as shown in the outer circle of Figure 2: *governance, rules and routine; staff skills;* and *links with services and networks*.

Figure 2 Core components of OH

OH Program Logic

A program logic is a depiction of a program designed to clearly align the problem being addressed with what the program will do, and articulate what aspects of the clients and the program will be measured. Two program logics have been developed as a mechanism to operationalisation of the core components that summarise OH's program delivery (Fig. 2). Table 1 relates to the core treatment activities within the OH program and articulates the following:

- *Client areas of need.* Outlines the primary and secondary client needs that OH aims to target, as defined in OH's Strategic Intent;
- *Treatment.* Operationalises and describes associated flexible activities of the central treatment component, five core treatment components, and three organisational components;
- *Mechanisms of change.* Articulates key mechanisms of change for clients;
- *Process measures*. Specifies key processes to quantify client change; and
- *Outcomes.* Specifies key outcomes to measure or quantify client change.

Conclusion

In conclusion, CBPR was found to be integral to enable this research process and has the potential to expand the reach of research across other Aboriginal drug and alcohol residential rehabilitation programs. The process of developing the research guiding principles was a central manifestation of the CBPR partnership, as it allowed for conversations about the expectations, responsibilities, needs or competing interests to be transparently discussed, resolved and agreed upon. Akin to establishing 'ground rules,' it has been noted that this step is vital as it can avoid potential relationship breakdown or 'bad feelings down the track' (Closing the Gap Clearinghouse, 2013; Fitzpatrick et al., 2016; Kowal, Anderson, & Bailie, 2005; Willis & Saunders, 2007). Finally, a key element of a successful partnership, as identified by Waples-Crowe and Pyett (2006), includes a long timeframe, as a forced partnership in a short timeframe rarely delivers "the same outcome as one that is built on trust" (p. 5). In the CBPR context presented in this thesis, adequate timeframes over a three-year period were clearly articulated throughout the partnership process, with the expectation being that the partnership between OH and NDARC would continue to evolve beyond this timeframe to assist with the implementation and evaluation of the Healing Model of Care. The researchers involved in this project recognised that timeframes and deadlines needed to be adapted to the local needs of the OH service, such as when Board meetings were postponed or cancelled, often resulting in deadlines being extended.

Overarching conclusion

There is considerable scope to improve outcomes in the health and wellbeing of Aboriginal people in Australia, especially with regards to the detrimental impacts of substance misuse. Partnerships between researchers, community members, clients and services, such as the examples presented in this paper, have great potential to improve methodological quality and community participation by integrating research skills and community knowledge into the co-design, implementation and evaluation of community development projects (Munro, Shakeshaft, Breen, et al., 2017; NIDAC, 2014; Snijder et al., 2015; Taylor et al., 2010). Despite this, the CBPR approach adopted in case study 3 was found to create a dynamic community-researcher partnership that facilitated meaningful data collection, and interpretation of those data, over the duration of the three-year study period. This is an important strategy given the history of colonisation and disempowerment experienced by Aboriginal Australians. Further, the adoption of a more standardised research approach by utilising evidence-informed core components, program logic models, MBDs, and integrating program co-design with cultural elements is likely to ensure evaluation methods are both practical and acceptable to Aboriginal communities, while also balancing the need for scientific rigour.

Fostering a more meaningful research culture between researchers and Aboriginal communities, there is greater potential to build knowledge and capacity with, not for, Aboriginal people, strengthen the quality of research in the Aboriginal drug and alcohol field, optimise Aboriginal health outcomes, and importantly, promote healing for Aboriginal people, families, and their communities.

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Presenter

Dr Alice Munro is a rural social worker and accredited mental health social worker who has worked to establish and deliver Aboriginal drug and alcohol services across the Murdi Paaki region of NSW since 2009. In 2018, Alice completed her Doctorate with the National Drug and Alcohol Research Centre (NDARC), UNSW. Her research evaluated community-led drug and alcohol programs and Aboriginal residential rehabilitation services in NSW. Dr Munro currently works with Western NSW LocalHealth District in an innovative role that aims to build a research active health organisation in rural NSW. She also is Deputy Chair of Western NSW Health Research Network (WHRN). Dr Munro lives and works on Wiradjuri country in Orange, NSW.

Table 1 OH treatment program logic

Client areas of need	Treatment		Mechanisms of change	Process measures	Outcomes*
	Core treatment components	**Flexible activities**			
Primary client areas of need: • Risky substance use • Poor quality of life • Poor cultural connection Secondary client areas of need: • Co-occurring mental illness • Criminal justice involvement • Chronic physical health needs • Tobacco use • Unemployed / limited education	**Healing through culture and country**	• Being on country/spiritualty • Developing kinships • Making artefacts, fishing bush medicine	Reconnecting clients to culture and country via activities and strong relationships	No. of clients engaged in regular cultural activities	Primary outcomes: • Reduced substance misuse (AUDIT/DUDIT* / IRIS* clean urines) • Increased quality of life (WHOQoL-BREF*) • Increased connection to culture (GEM*) Secondary outcomes: • Reduced psychological distress (IRIS* / K10*) • Reduction in recidivism (Pre/post criminal justice data) • Improved physical health (Pre/post Aboriginal health check outcomes) • Reduction in smoking (RBD Scale* / self-report* / CO levels*) • Improvement in employment and
	Case management	• Referrals to local health services and visiting specialists • Working with corrections • File notes / assessments • Client transport	Clients engaged in the program via positive therapeutic alliance between staff and clients Referrals to AMS to external health and other social services	No. of clients staying in the program for 3 or more mths No. of Aboriginal Health Checks/other referrals No. of kms of transport	
	Therapeutic activities	• One-on-one counselling • AA, morning, psychoeducational groups • Informal counselling	Improving client quality of life Increased understanding of substance misuse (e.g. triggers) and personal strategies (e.g. motivations, goals, timeout) for reducing misuse	No. of clients maintaining abstinence 3 months post discharge No. of external counselling sessions provided	
	Life skills	• Develop daily routine • Positive role-modelling • Redevelop personal responsibility • Vocational courses • Literacy / communication skills	Reconnecting clients to culture and country Relearning daily routine and structure to maintain a healthy lifestyle after discharge Learning and developing work-ready and communication skills	No. of vocational-related courses completed No. of clients achieving individualised life skills goals	

Client areas of need	Treatment				Outcomes*
	Core treatment components	**Flexible activities**	**Mechanisms of change**	**Process measures**	education (3mth follow-up data)
	Time out from substances	• Improve physical wellbeing (e.g. sleep routine / nutrition) • Improve mental / spiritual wellbeing • Smoking cessation	Identify and engage in positive alternative activities to substance use to learn how to take time out from substance substances	No. of clients engaging in regular exercise / cultural activities No. of clients quitting or reducing smoking	
	Aftercare support	• Referrals to services post-discharge (e.g. ACCHOs) • Provide a list of support services in client's community (e.g. AA) • Ongoing phone contact	Continue to access treatment and care required to maintain improved health and wellbeing post discharge Developing aftercare program post discharge from treatment	No. of clients maintaining abstinence/not involved in crime post discharge No. of clients participating in aftercare (e.g. phone calls, assessments, visits)	

Note: *Measured at admission, mid, discharge and 3mths post discharge from the OH program