

Research Team

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Towards Alcohol Harm Reduction and Housing Stability: Preliminary Findings of Thunder Bay Managed Alcohol Program



**University
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Centre for Addictions
Research of BC

Rates of Alcohol Dependence in Homeless Populations

- Among homeless male populations, prevalence of severe alcohol dependence is estimated to be 30-40%
- In the general public it is only 3-4%
- No studies of prevalence among women experiencing homelessness.

Types of Alcohol Related Harms

Acute

Injuries
Poisoning
Acute illness
Freezing

INTOXICATION

Chronic

Liver disease
Cancers
Strokes
Other diseases
Dependence
Mental health

**LONG TERM
HIGH VOLUME**

Social

Problems with:
Housing
Finances
Relationships
Law
Workplace

**DRINKING
CONTEXT**

Current Evidence for MAPs

Three programs (Ottawa, Toronto, Vancouver) have evaluations (Podymow et al. 2006, Svoboda 2006, Stockwell et al., 2013)

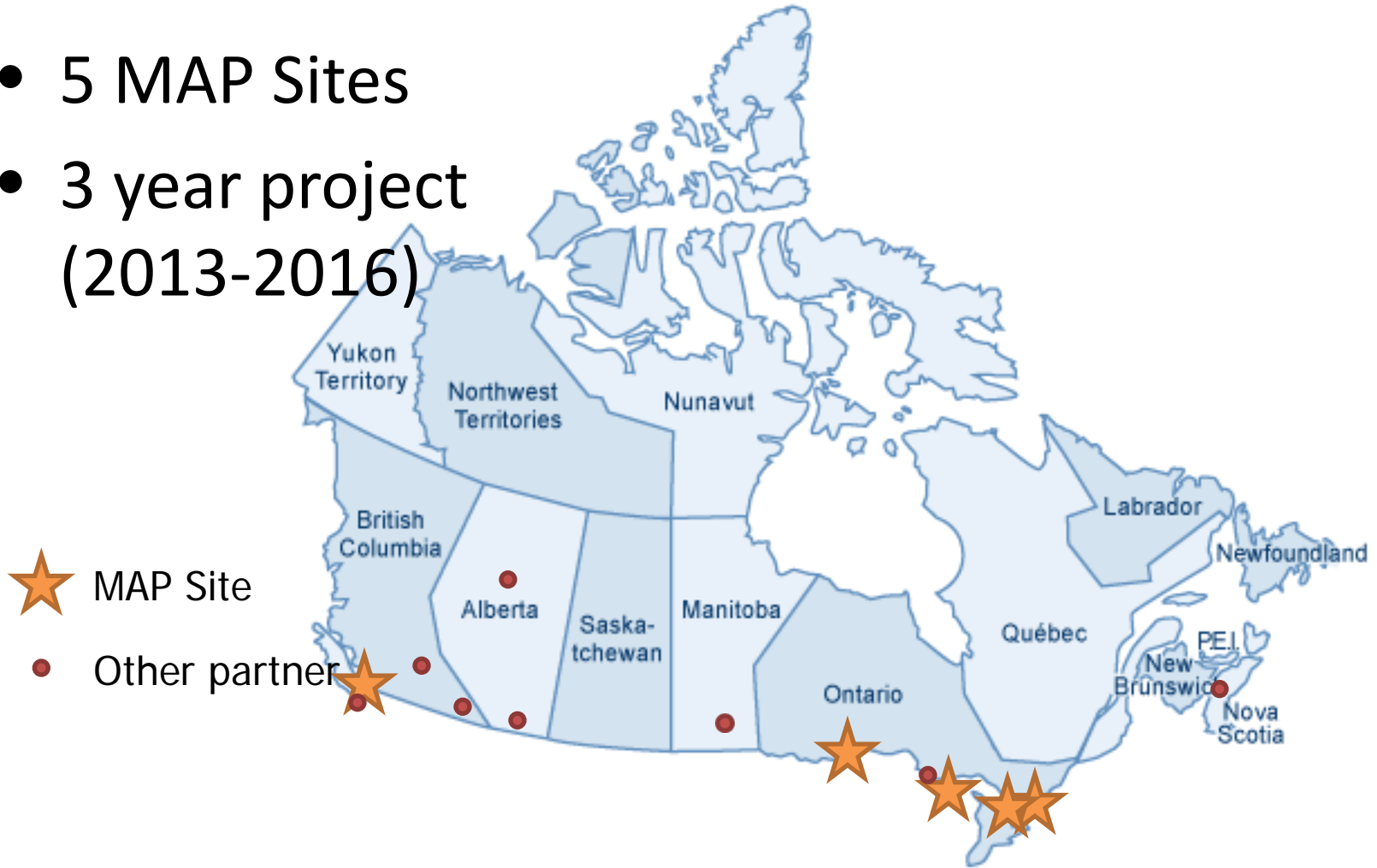
These studies suggest MAPs can

- improve health
- improve quality of life
- reduce police and emergency health service contacts
- reduce the harms of drinking
- but some questions re impact on chronic harms



Next: National Study of MAPs

- 5 MAP Sites
- 3 year project (2013-2016)

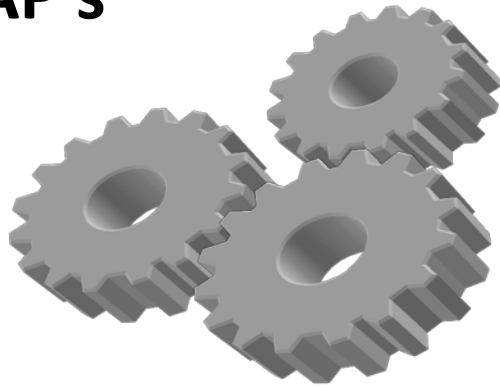


Research Design

- Participatory Research Process:
 - Academic researchers and KU's collaborate through the process of the research.
- Mixed Methods Expansion Study
 - Longitudinal follow up of 220 MAP participants and 250 controls to examine outcomes overall & by site
 - Case study approach to understand processes of implementation and impact of context on outcomes

CARBC Evaluation

To evaluate the implementation of Thunder Bay MAP as part of a National Study on MAP's



- Do MAPs contribute to:
 - Improvements in health and well-being including reduced harms of alcohol use?
 - Reductions in hospital, police and ED use
 - less hazardous patterns of alcohol use
- Inform Program and Policy recommendations for the development of MAP's



Kwae Kii Win Eligibility Criteria

- Severe and chronic alcohol use problems
- Non-responsive to abstinence programs
- Public intoxication and police contacts
- Living outside or in emergency shelters
- Adults
- Open to men and women





Evaluation Measures

- Housing Satisfaction and Quality
- Mental Health and Well-Being
- Physical Health
- Alcohol Related Harms/Severity of Alcohol Dependence
- Access to Health Care
- Police Contacts
- Hospital and ED Visits
- Non-Beverage Alcohol Use
- Overall Alcohol Consumption

Study Design – Sources of Data

Interviews

Surveys with
MAP & controls
(Baseline/6
months)

Brief Monthly
Follow-ups
with MAP and
controls

Qualitative
Interviews with
MAP staff and
participants

MAP Records

Alcohol
administration
records

Housing
records

Liver function
tests

MAP policies

Other Records

Emergency
Department
records


Hospital
records

Coronial
records
(Ontario)

Police records

Participants

	Baseline	Follow-up	Qualitative
MAP	18 <ul style="list-style-type: none">- 7 female, 11 male- All had Aboriginal backgrounds- Average age: 42	6 (5 by 6 months)	7
Control	20 <ul style="list-style-type: none">- 8 female, 12 male- All had Aboriginal backgrounds- Average age: 37	6	-
Staff	-	-	4



But this program ... has given me hope and has allowed me to really think what I wanna do with the rest of my life. And because I was stuck, not stuck, I was I guess you could say rock bottom, you know going home couldn't get me out of that rock bottom that I was in. But since coming here it's kinda given me, like I don't know the word I should use, like I know there's a horizon waiting for me.

MAP Participant



“ There are really only two goals of the program: to lessen the load on the community services, and to provide a better quality of life.

And so if they still drink hand sanitizer, but their quality of life is better, because now they can go to bed and sleep it off in a safe place, it's still progress. ”

MAP Staff

Housing

14 out of 18 MAP participants retained housing. At follow-up, controls remained homeless.

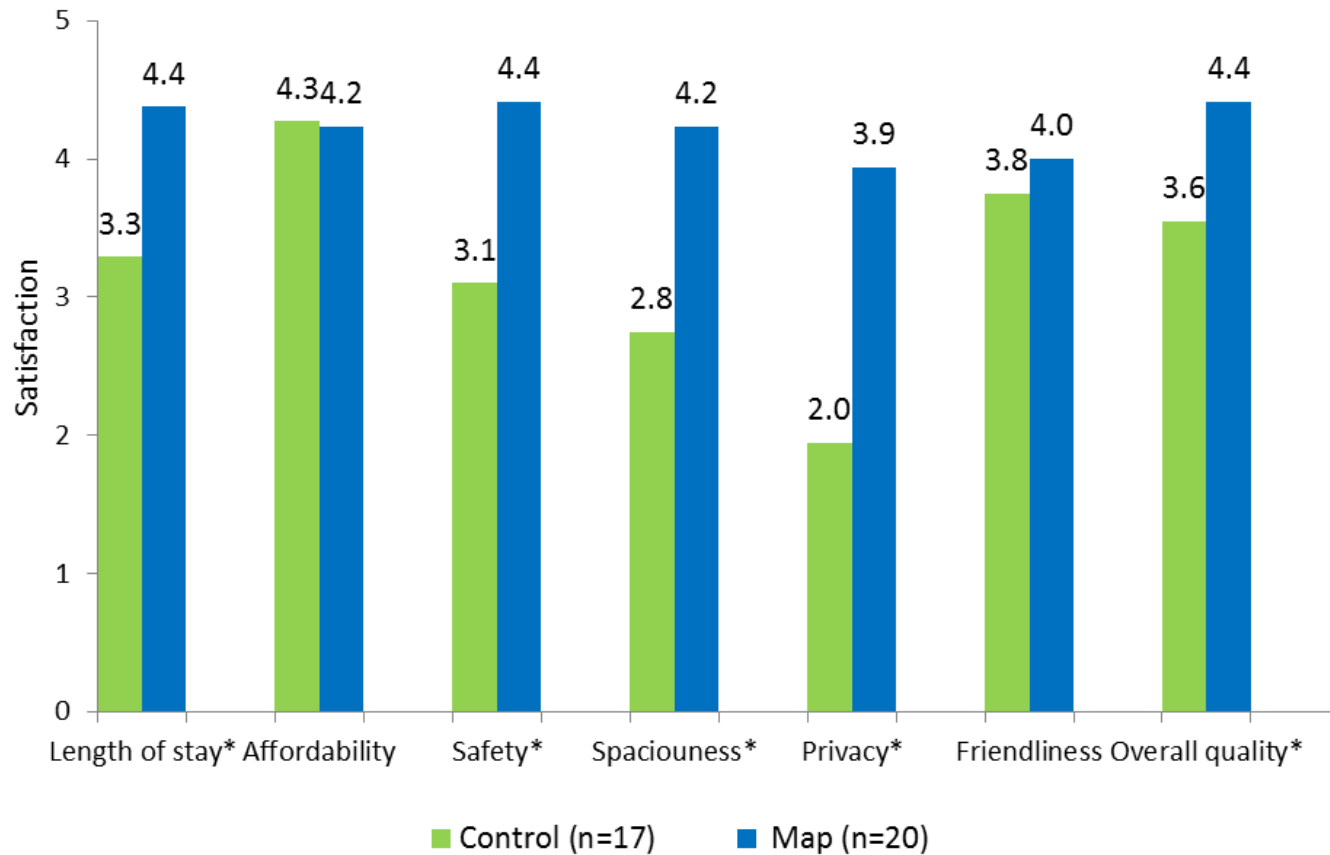
Housing contributed to feelings of safety and reduced harms:

“You feel safe, you feel like you’ve got a warm place to stay, and some home. You’re not outside sleeping and wondering what to eat next.”

Housing

Fig.1

Housing quality and satisfaction at baseline

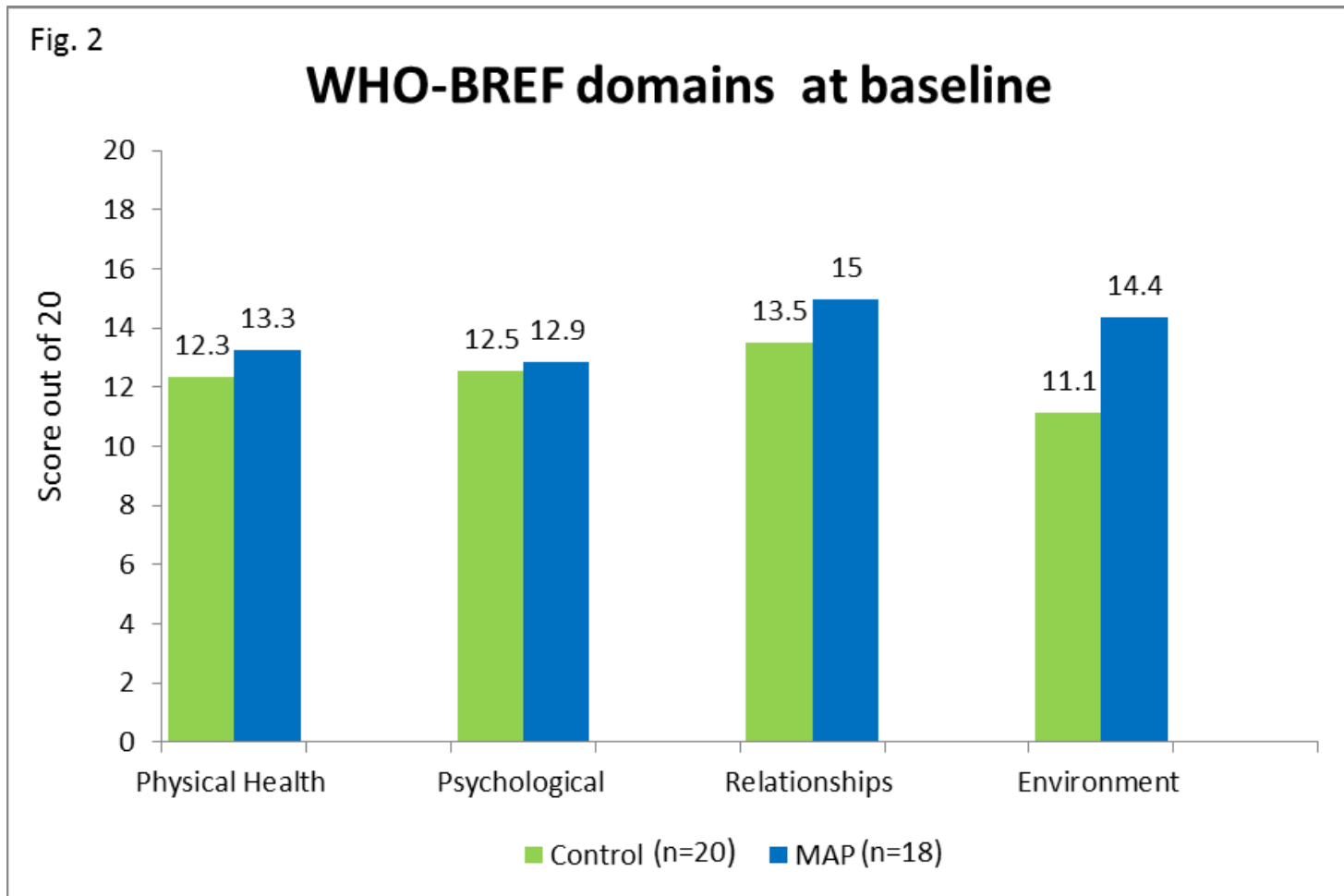


* Indicates statistically significant difference between groups

Results – Mental Health and Well-Being

- Participants described:
 - Off the street and feeling safe
 - Being like ‘a big family’
 - Reconnecting with family or origin
 - Relearning skills of having a home
 - Improved communication and relational skills
 - Self-care
 - Money Management
 - Improved Self-esteem/Self-worth

Mental Health and Well-Being



Self care

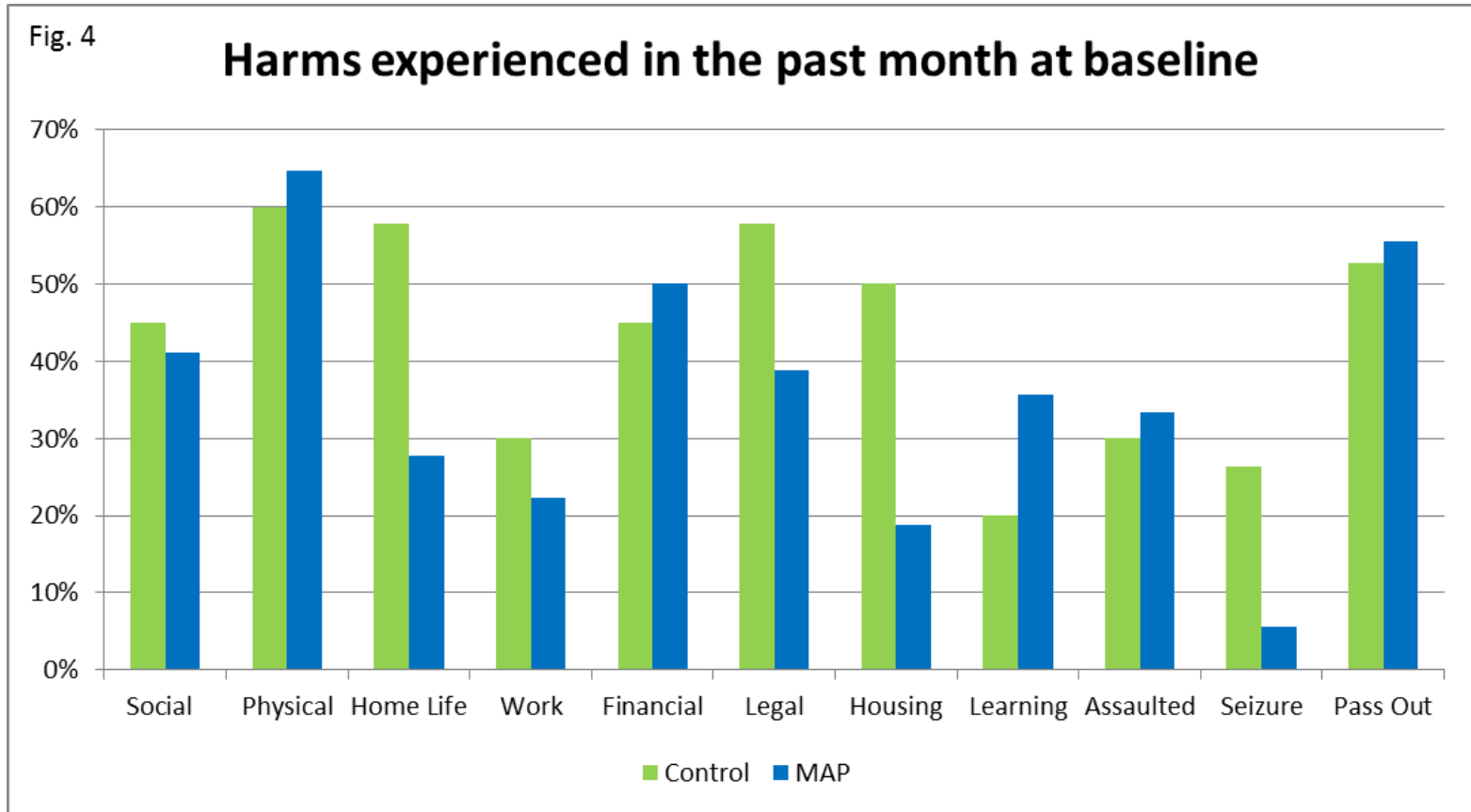
“ I’m starting to cook a lot more now, like I’ve been cooking healthy foods and trying to make sure to keep most of the people’s blood sugar on a normal level. ”

MAP Participant

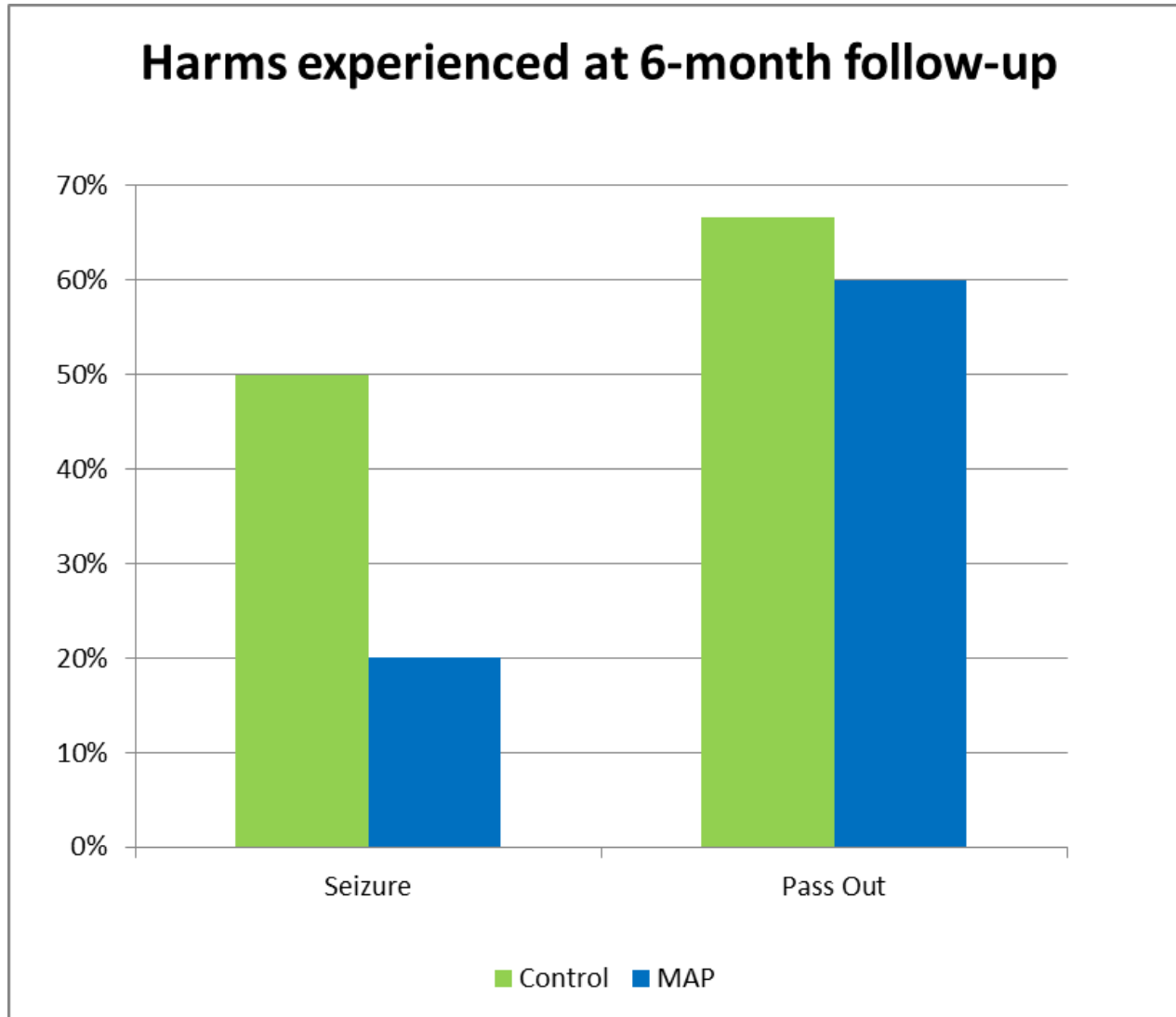
Liver Function Tests

- 10 out of 13 participants who had tests done showed signs of alcohol related liver damage at some point
- For those with comparable repeated tests, 7 out of 8 showed reductions in AST or remained normal after starting the MAP
- 8 out of 11 had reductions in ALT or remained normal after starting the MAP
- Lack of data for the controls.

Results – Alcohol Related Harms



Results – Alcohol Related Harms



Results – Access to Care

“She [Nurse Practitioner] also monitors the residents of the program, to see what kinds of health outcomes are resulting from their involvement, but then she can also do, you know, wound care, immunizations, prescribes lots of different kinds of medications, deal with chronic infections, help people with diabetes, and all kinds of stuff. It’s great.”

Results - Health Services

- MAP participants had significantly fewer hospital admissions (-37%) and detox admissions (-88%) than when not on MAP, and also when compared to controls
- ER use 54% lower than controls, but not a statistically significant difference

Results - ED and Hospital Contacts

Table 4. Mean of the number of hospital admissions per 100 days during periods on and off the MAP and among controls, 2008-2013 *p<0.05 one-tailed

Observation period/sample	N	Mean	Standard deviation	Min	Max
Off MAP	13	0.38	0.66	0.00	2.37
On MAP	13	0.24*	0.22	0.00	0.60
Controls	10	0.42	0.57	0.00	1.76

Table 5. Mean of the number of ER presentations per 100 days during periods on or off the MAP and among controls, 2008-2013

Observation period/sample	N	Mean	Standard deviation	Min	Max
Off MAP	13	3.60	3.22	0.90	10.29
On MAP	13	3.82	2.84	0.29	9.42
Control	10	7.15	14.76	0.55	48.67

“ ...I used to steal that mouthwash just to try and feel – get myself to feel better [...] I was in and out of jail. Ever since I’ve moved here, I haven’t even had any police contact. ”

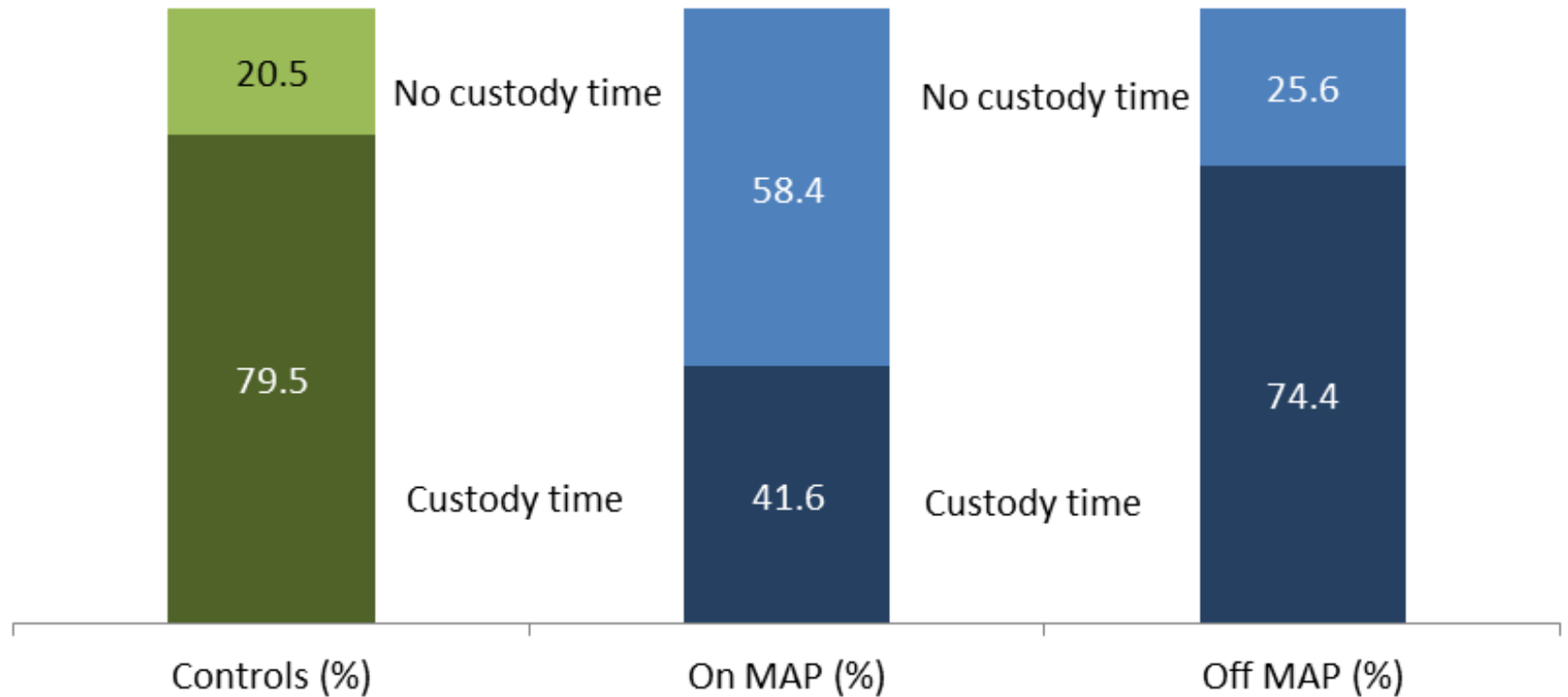
MAP Participant

Results – Police

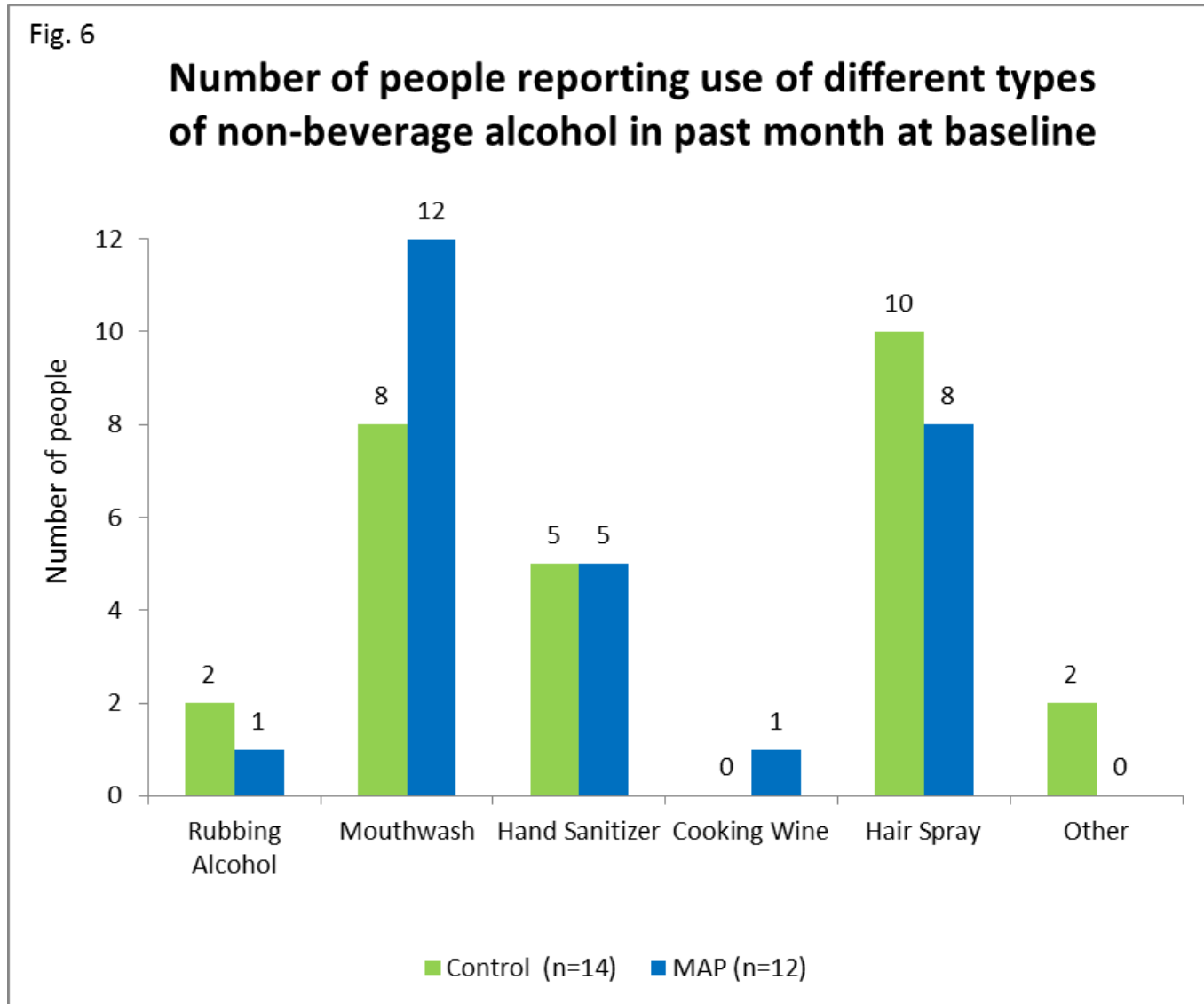
- MAP participants had fewer police contacts than when not on MAP (-42%) and compared to controls (-43%) but not statistically significant
- Significant reduction in the proportion of police contacts that led to being held in custody (-43%, $p < 0.0001$)

Fig. 5

Police contacts for MAP participants on and off the MAP (n=13) and controls (n=12)



Results – Non-Beverage Alcohol



“ I haven't touched that stuff in a long time...when I first came into this program everything really changed and I'm happy about that.”

MAP Participant

Results – Overall Alcohol Consumption

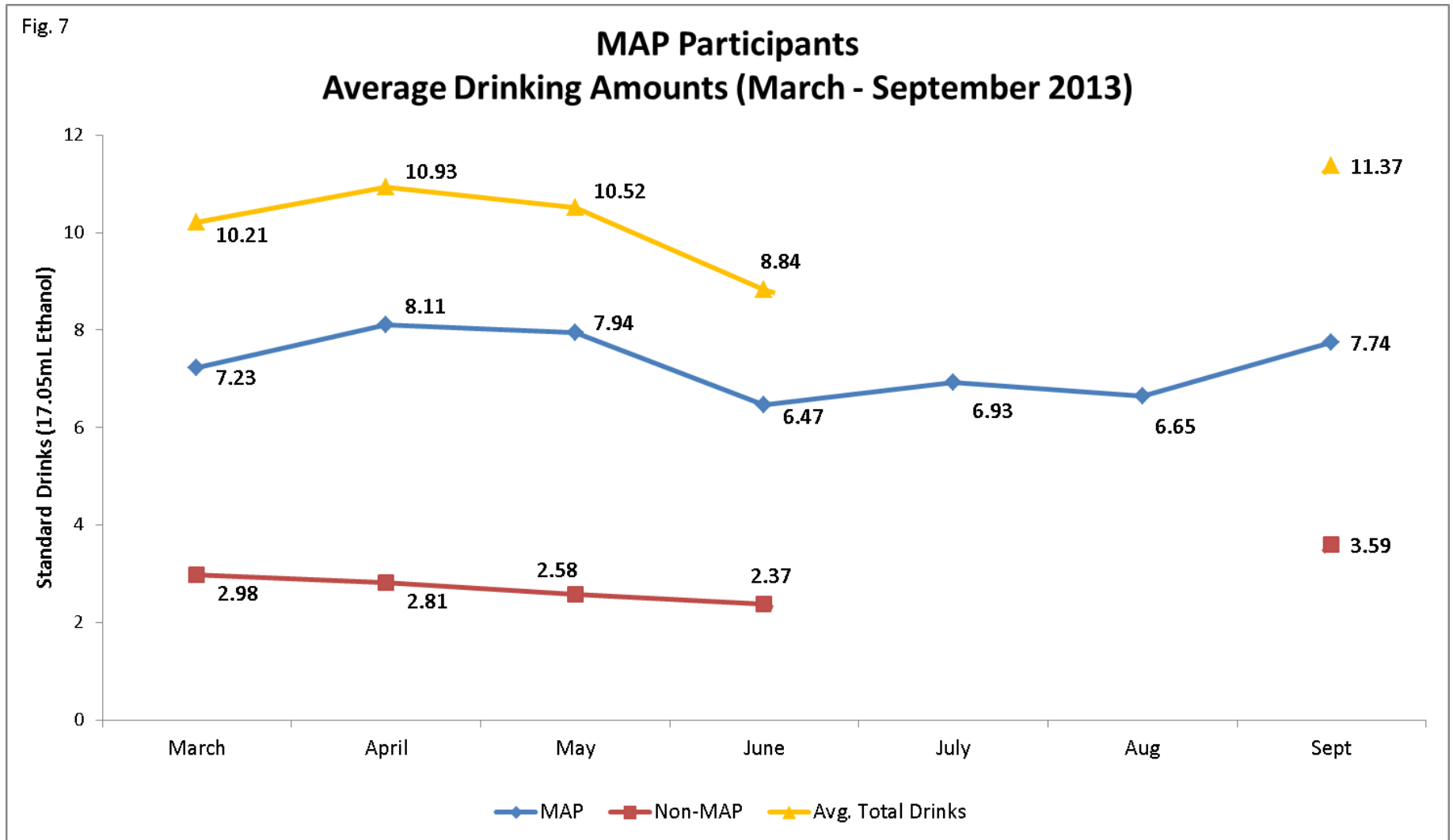
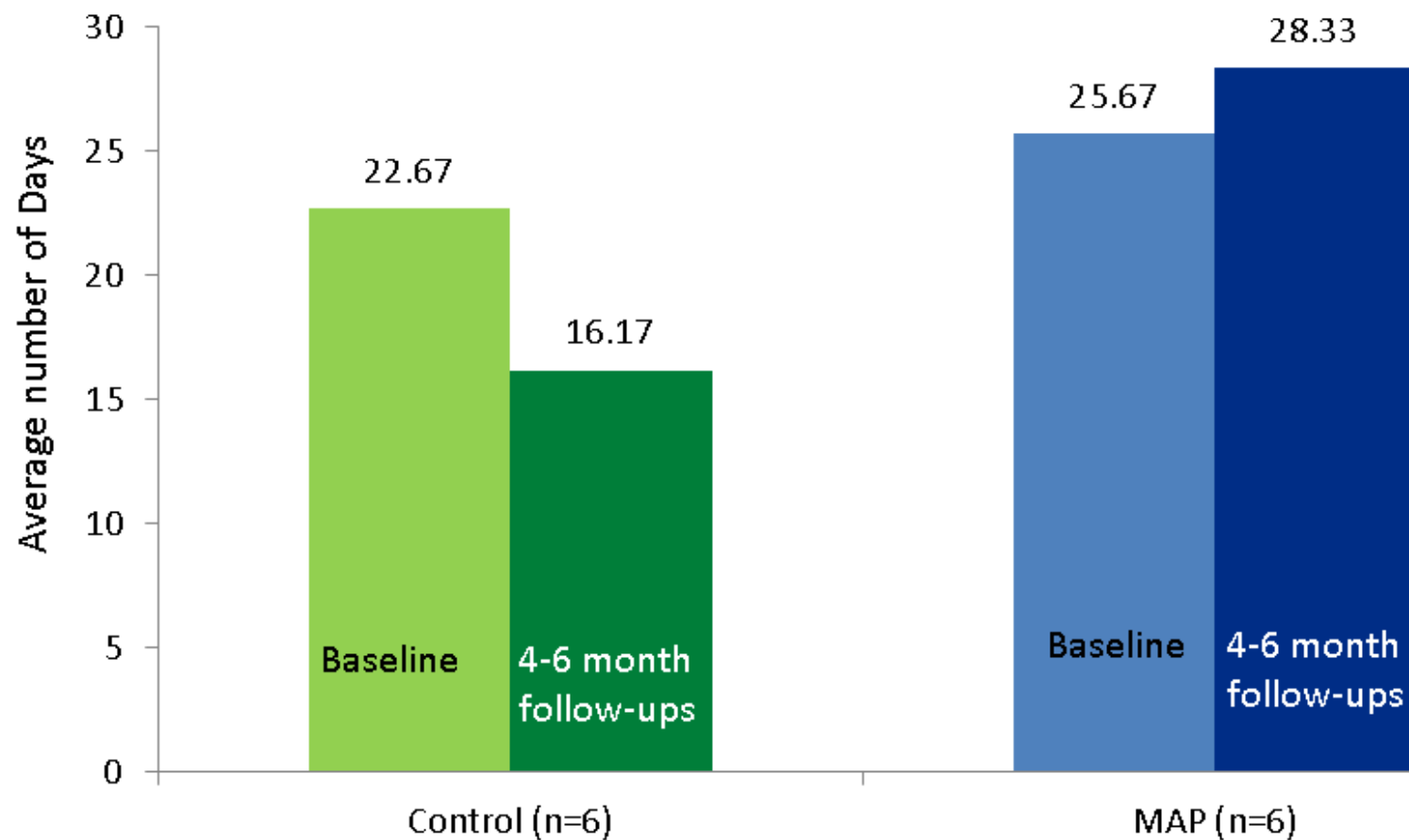


Fig. 8

Average Number of Days Alcohol Used in Past Month



Conclusions

- Harm reduction goals are being met
- MAP participants experience improved health and quality of life
- Reduced hospital admissions and time in police custody for MAP participants indicates economic savings
- Participants are much safer in the program than on the street
- The program's stability and safety has enabled many participants to reconnect with family
- Important to monitor physical health of participants

Potential Benefits & Risks from a MAP in relation to Different Types of Alcohol Related Harms

Patterns of Risky Drinking	Heavy Episodic Drinking	Non-Beverage Alcohol (NBA) Consumption	Drinking in Unsafe Settings	High Volumes of Alcohol Consumed Over the Long-Term
Potential Harms	Violence, Injuries, Poisoning, Seizures, Unstable Housing, Legal and Social Problems	Exacerbate chronic diseases, higher ethanol consumption, poisoning	Violence, Injuries, Freezing, Problems with Police, Intoxication from hurried Consumption	Liver cirrhosis, Cancers, other chronic diseases, Dependence, Housing and Social Problems Nutritional Deficiencies
Potential MAP Benefits	Smooth Drinking Pattern, Fewer Injuries & Seizures, Secure Housing, Improved Relationships	Reduced consumption of NBA	Shelter from cold, protected supply of alcohol, personal safety, food	Housing Security, Reduced Consumption Improved nutrition
Potential MAP Risks	Higher BACs if non-MAP consumption continues	Increased ethanol consumption if MAP drinks are additive	Less exercise, unhealthy weight gain for some	Fewer abstinent days may increase liver disease risk
Remedial Strategies	<ol style="list-style-type: none"> 1. Protocols to manage non-MAP drinking 	<ol style="list-style-type: none"> 1. Protocols for non-MAP drinking 2. Ensure no increase in ethanol consumption 	<ol style="list-style-type: none"> 1. Incorporate leisure and physical activities 2. Nutrition advice 	<ol style="list-style-type: none"> 1. Strict eligibility criteria 2. No increase in amount or frequency of use 3. Medication to assist with regular days off 4. Offer detox referrals

Balance of benefits versus risks need to be reviewed continually



Recommendations

- Maintain clear eligibility criteria focusing on acute harms & severity of dependence
- Monitor possible alcohol-related physical health harms as part of ongoing clinical care (e.g., liver function tests)
- Potential risks from continuous high-level alcohol consumption fully explained to participants
- Alcohol administration tailored so neither use frequency or amount increases
- Opportunities to attempt either short and longer term abstinence available on demand
- Protocols to manage non-MAP consumption

Acknowledgments

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Thank you!



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