

## Research Team

**PIs:** Bernie Pauly RN, Ph.D  
and Tim Stockwell, Ph.D

### **Co-Is and Team:**

Clifton Chow, MA

Erin Grey, Ph.D

Bonnie Kryswaty, MPH

Kate Vallance, MA

Jinhui Zhao, Ph.D

Kathleen Perkin, MA

In Collaboration with Patty  
Hajdu, Shelter House,

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



**University  
of Victoria**

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

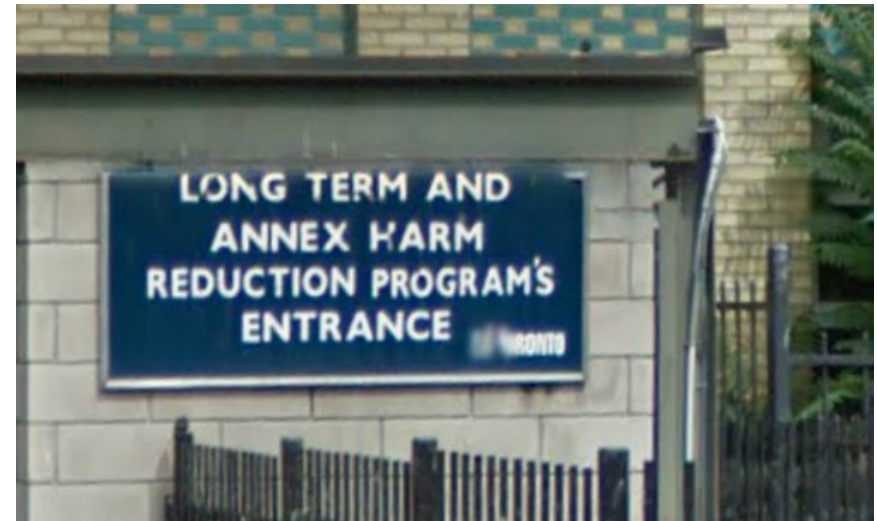
DRINKING  
CONTEXT

# Current Evidence for MAPs

Three programs (Ottawa, Toronto, Vancouver) have evaluations (Podymow et al. 2006, Slovoba 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)

★ MAP Site

• Other partner

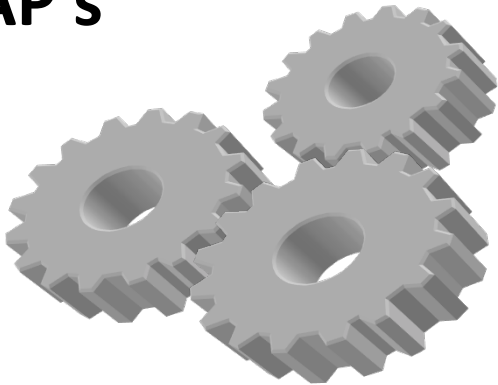


# Research Design

- 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



## Kwai 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

Liver function  
tests

MAP policies

## Other Records


Emergency  
Department  
records

Hospital  
records

Police records

# Participants


	Baseline	Follow-up	Qualitative
MAP	<b>18</b> -7 female, 11 male -All had Aboriginal backgrounds -Average age: 42	<b>6</b> <b>(5 by 6 months)</b>	<b>7</b>
Control	<b>20</b> -8 female, 12 male -All had Aboriginal backgrounds -Average age: 37	<b>6</b>	-
Staff	-	-	<b>4</b>



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

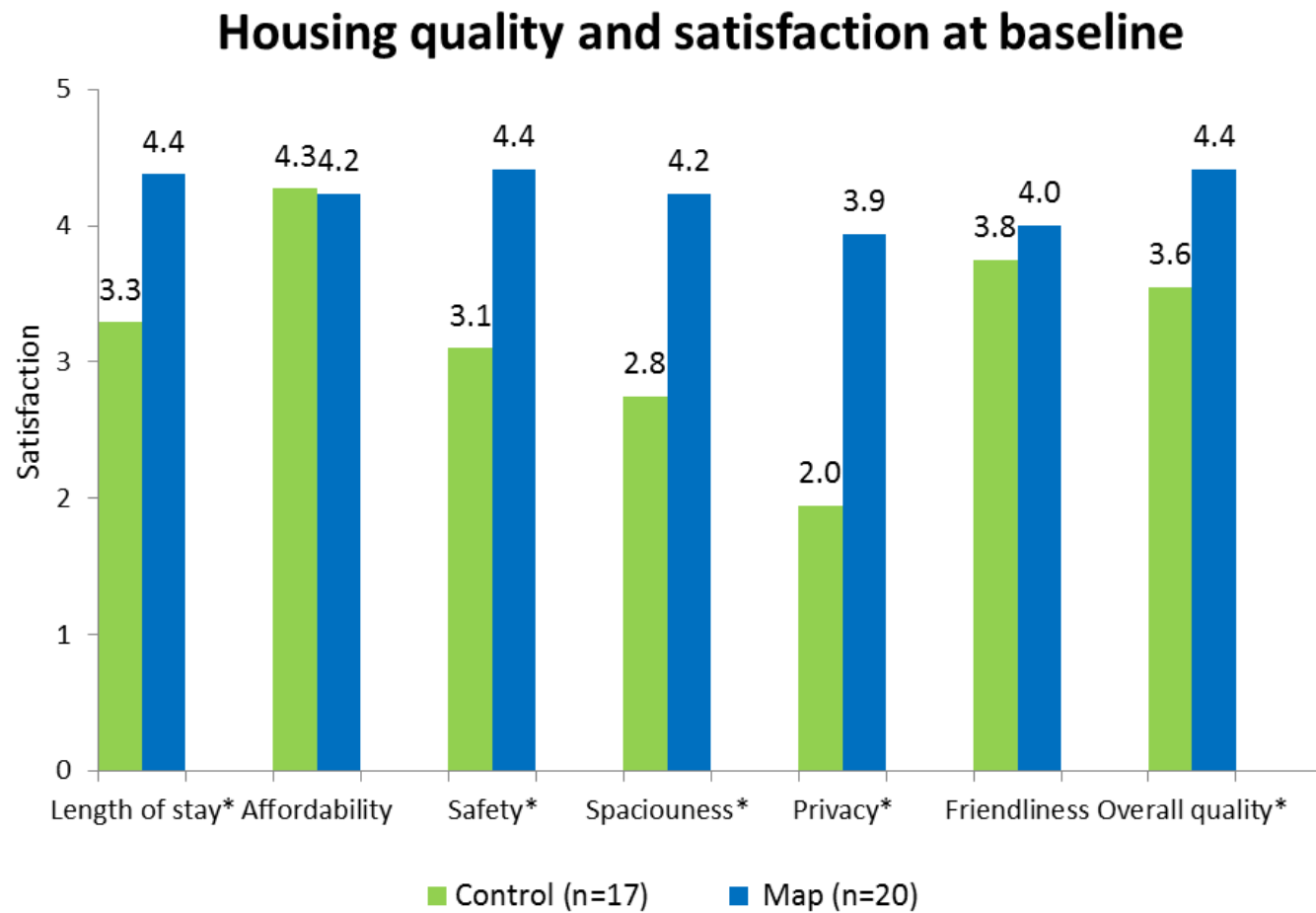
14 out of 18 MAP participants retained housing. At follow-up, controls remained homeless.

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



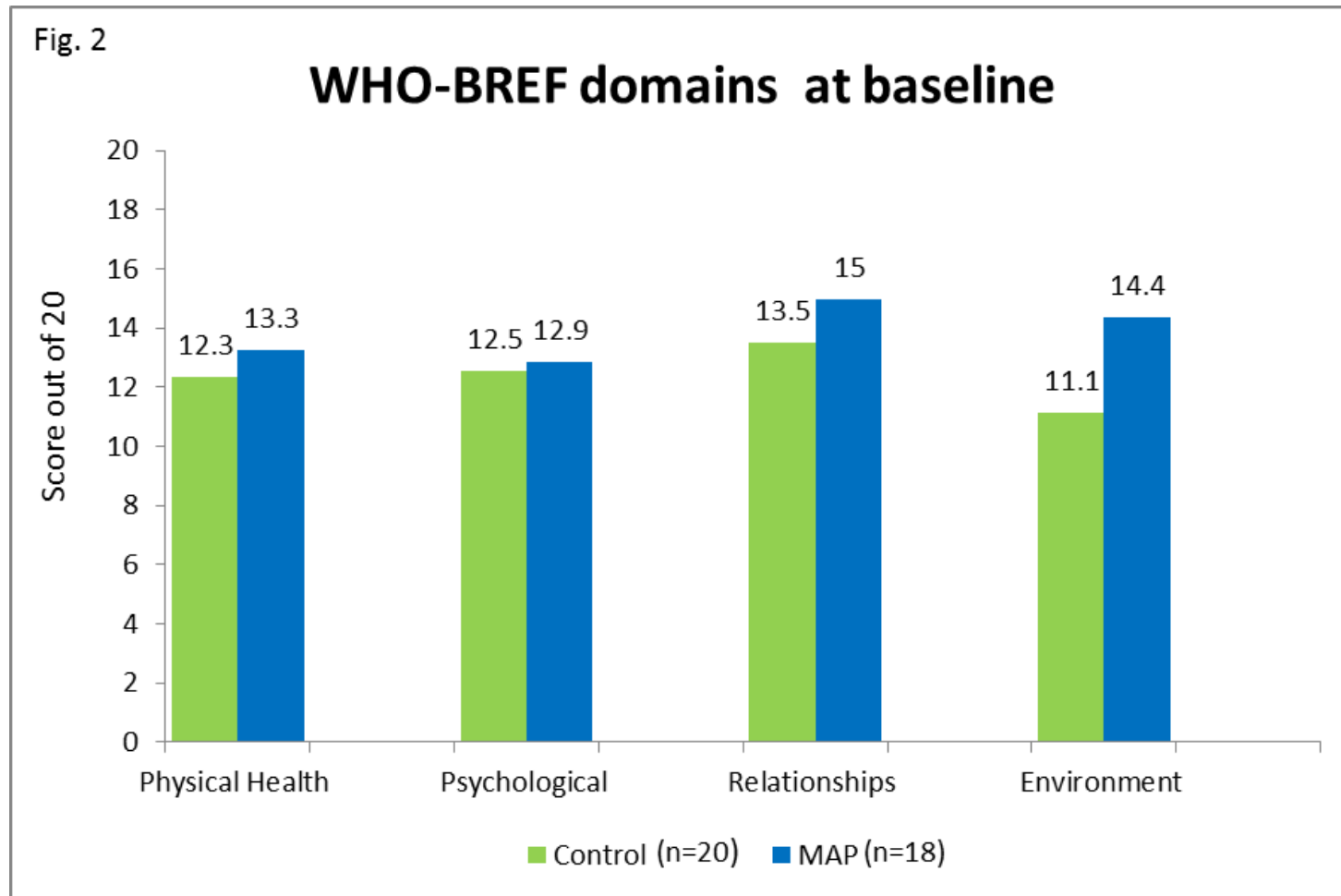
\* Indicates statistically significant difference between groups

# 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

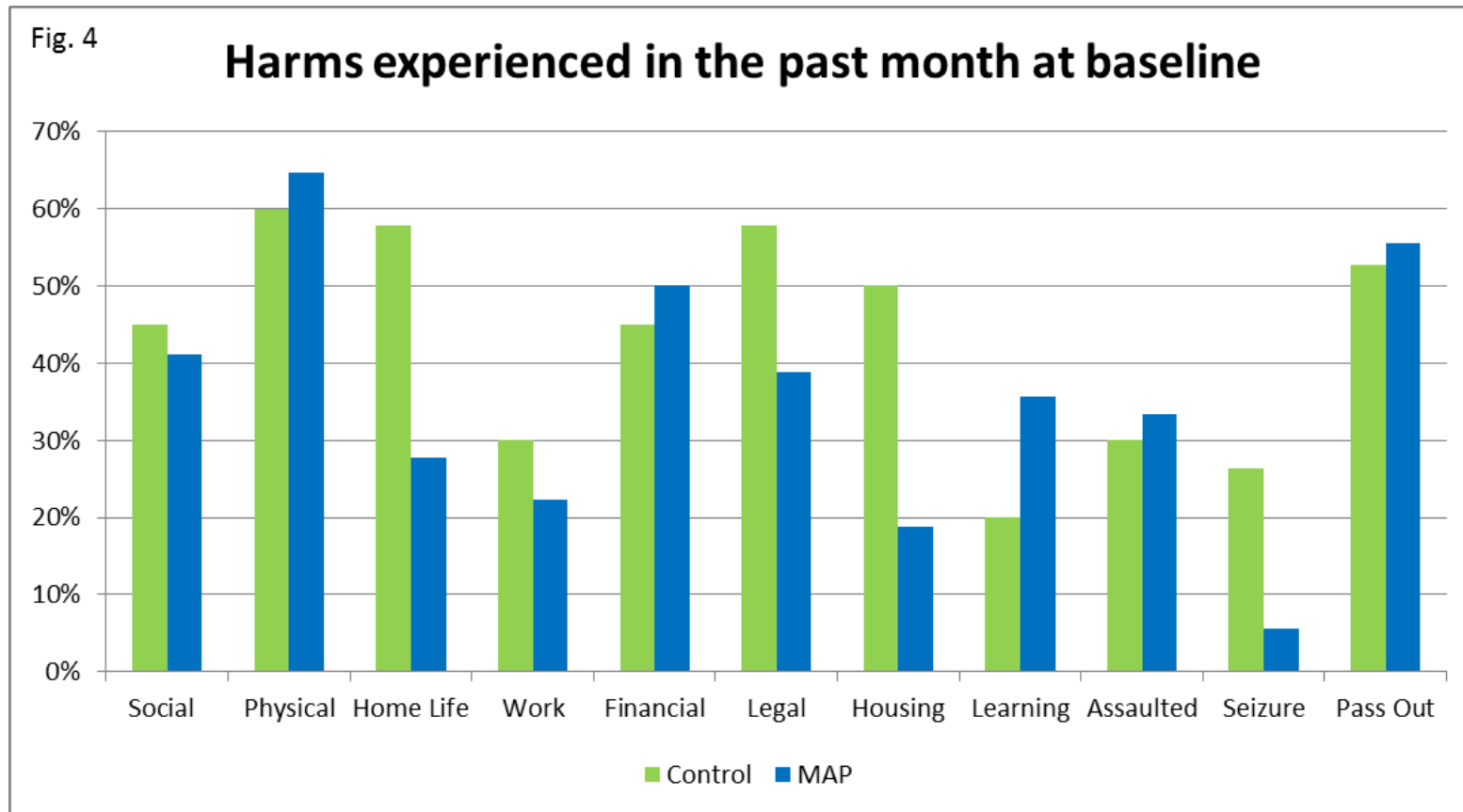
“ I’m starting to cook a lot more now, like I’ve been cooking healthy foods and trying to make sure to keep most of the people’s blood sugar on a normal level. ”

*MAP Participant*

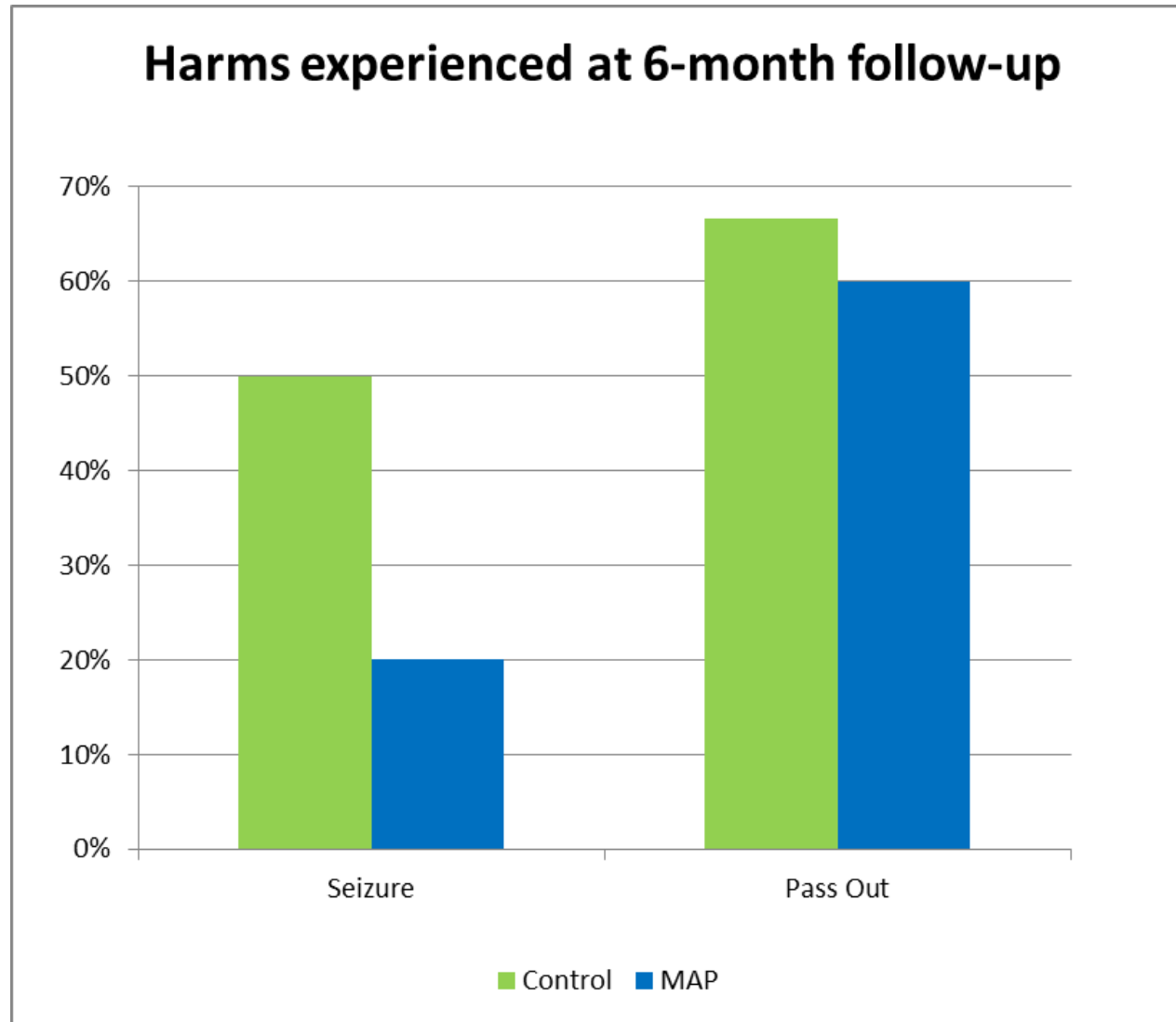
# Liver Function Tests

- 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*

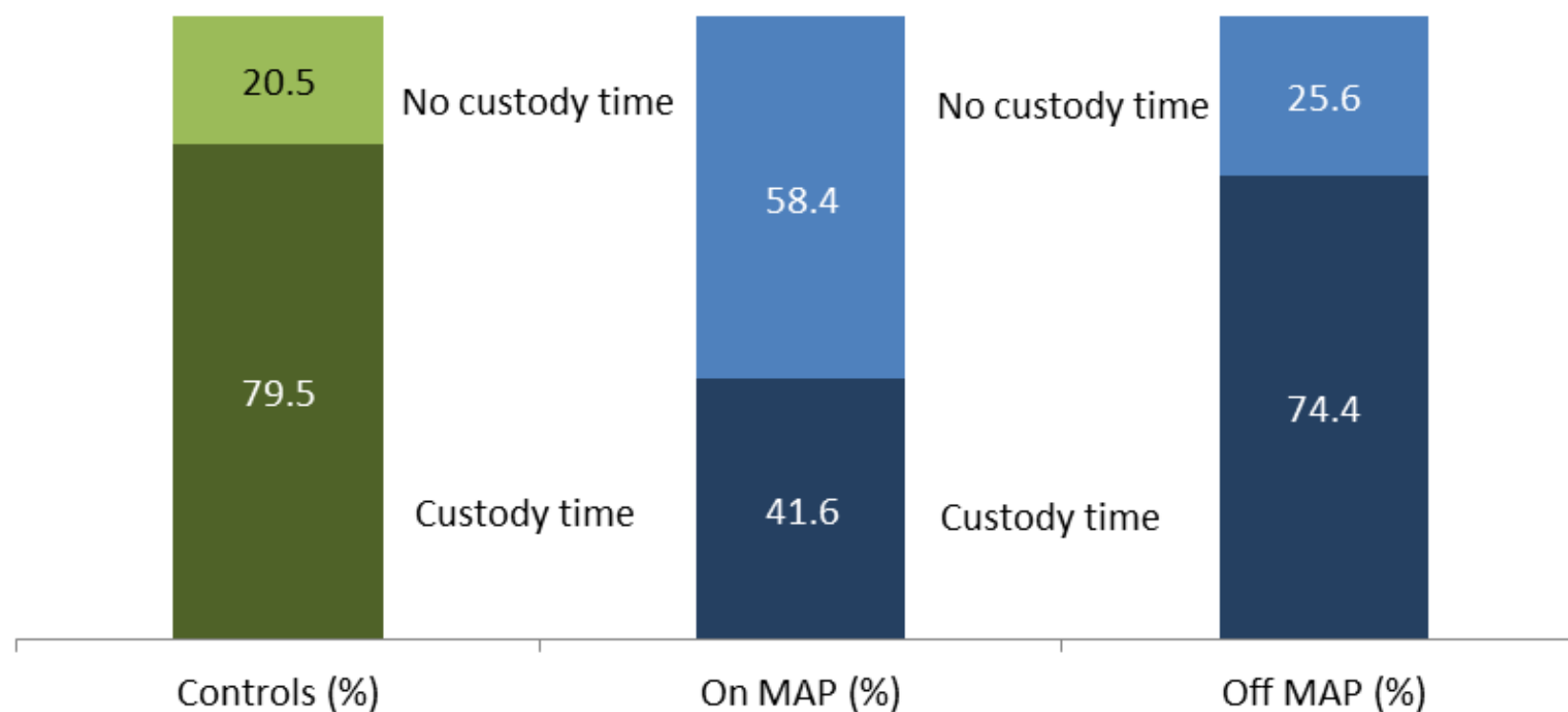


## Results – Police

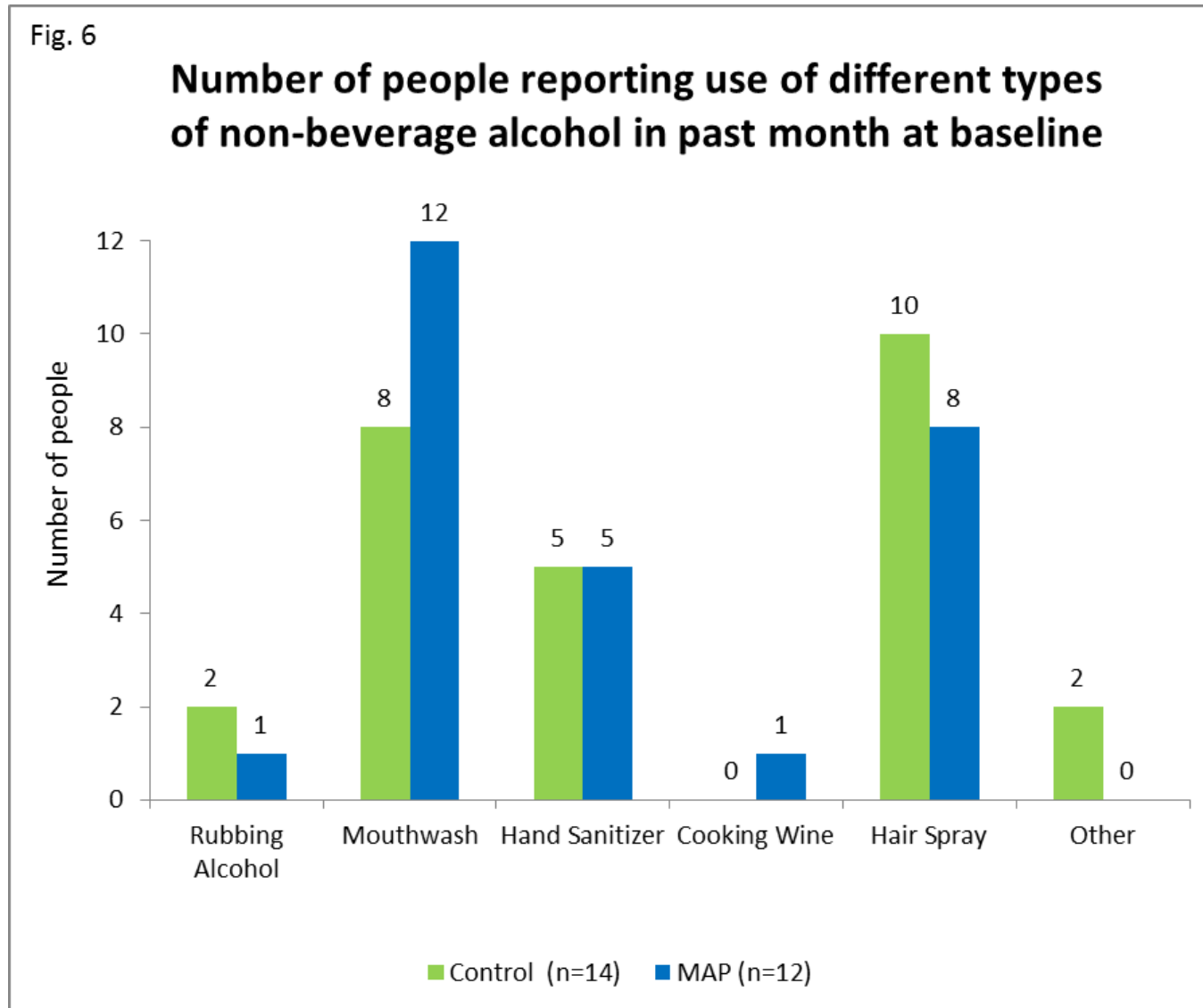
- MAP participants had fewer police contacts than when not on MAP (-42%) and compared to controls (-43%) but not statistically significant
- Significant reduction in the proportion of police contacts that led to being held in custody (-43%,  $p < 0.0001$ )

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

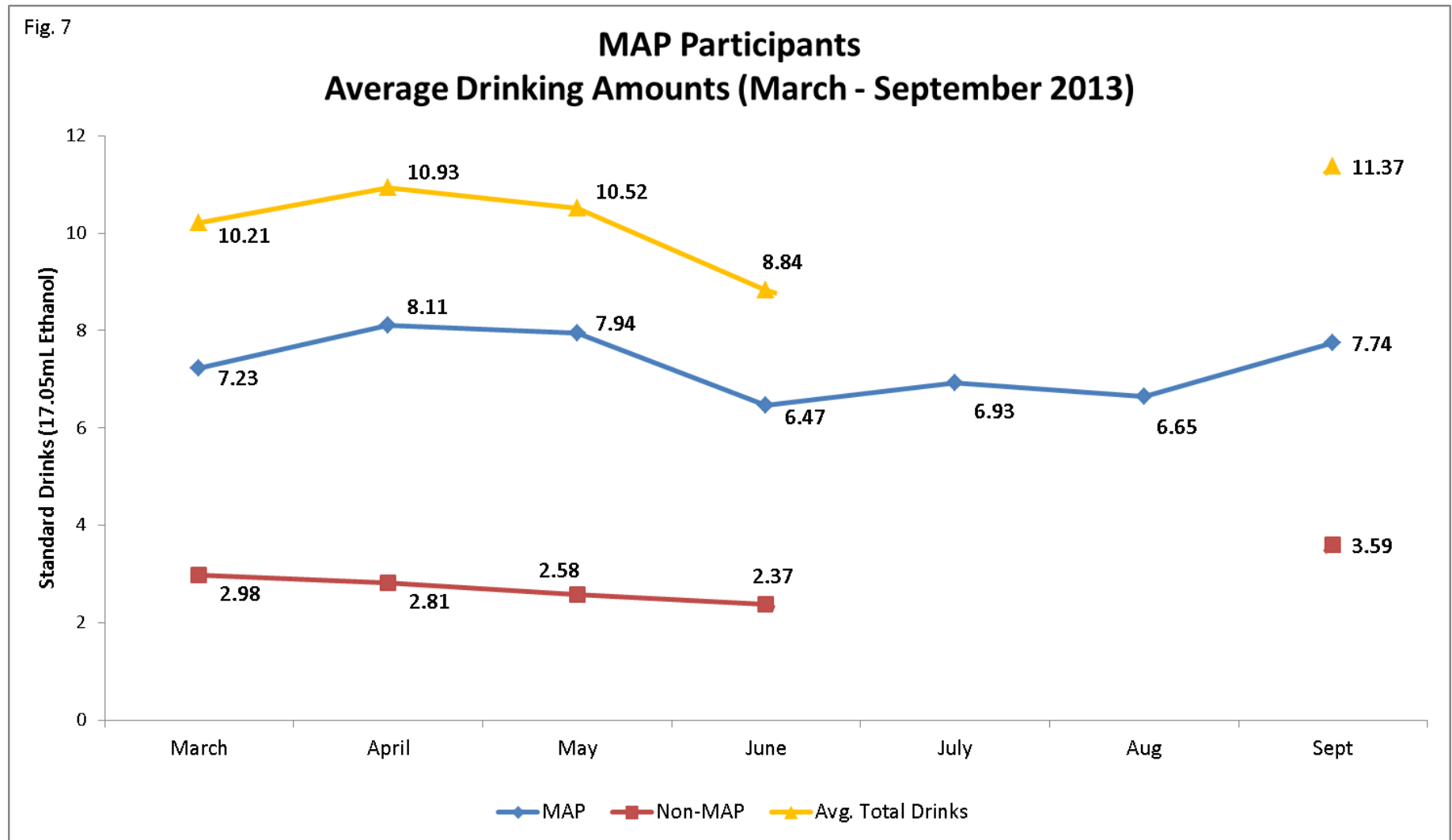
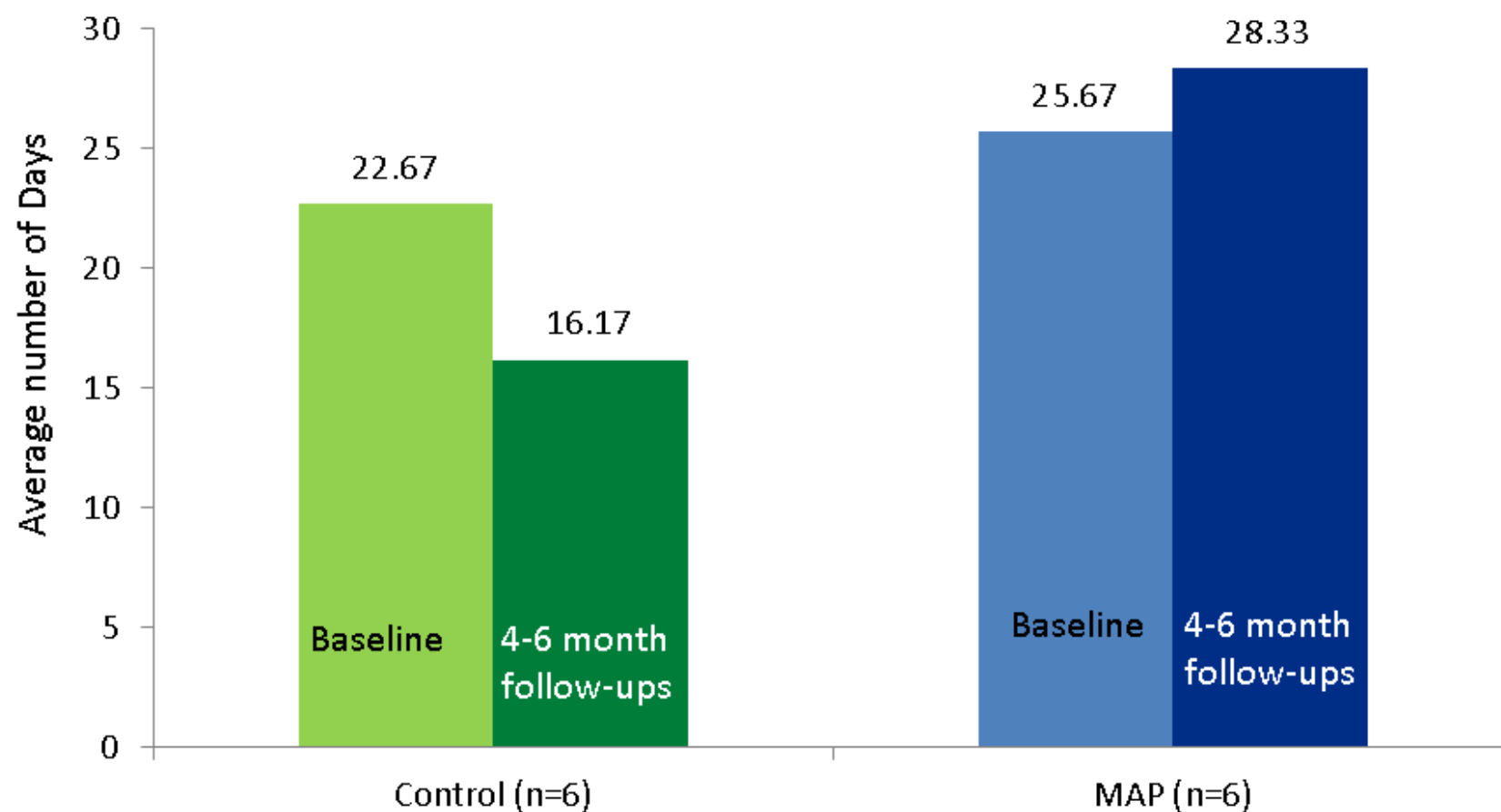


Fig. 8

## 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
<b>Potential Harms</b>	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
<b>Potential MAP Benefits</b>	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
<b>Potential MAP Risks</b>	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
<b>Remedial Strategies</b>	1. Protocols to manage non-MAP drinking	1. Protocols for non-MAP drinking 2. Ensure no increase in ethanol consumption	1. Incorporate leisure and physical activities 2. Nutrition advice	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

# Acknowledgements

We would like to thank our research partners at Shelter House, particularly Patty Hajdu, ED for their contributions to this research.

We wish to thank all the participants, staff and management of the Kwae Kii Winn MAP for being so generous with their time and for the opportunity to experience first-hand an extraordinary and brave enterprise in compassionate care.

# Progress To Date

- Thunder Bay Pilot completed
- Site Specific Meetings to finalize implementation of National Protocol
- University of Victoria Ethics Approval obtained
- Ottawa, Hamilton and Thunder Bay Ethics Approvals obtained
- Toronto and Vancouver approvals in Progress
- Qualitative Interviews completed in Ottawa, Hamilton and Thunder Bay
- Community of Practice initiated

# Plans for Data Collection

- **May:** qualitative interviews in Toronto
- **June:** baseline surveys in Vancouver, Hamilton and Ottawa
- **July:** qualitative interviews in Vancouver, baseline surveys in Toronto
- **Ongoing:** surveys in Thunder Bay
- Feedback?

# For Discussion

- Feedback on Community of Practice
  - C of P goals
  - meeting q 2 months?
  - Feature each program
- Thunder Bay report is available at [www.carbc.ca](http://www.carbc.ca).
  - How would you like to handle program specific reporting?



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# Thank you!



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website: [www.carbc.ca](http://www.carbc.ca) email: [carbc@uvic.ca](mailto:carbc@uvic.ca) Blog: [www.carbc2300.wordpress.com](http://www.carbc2300.wordpress.com)



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