



Canadian  
Consortium for  
**Early Intervention  
in Psychosis**

# Marginalized Communities in EPI



**Amal Abdel-Baki, MD, MSc, FRCPC**

Clinique JAP-Centre Hospitalier de l'Université de Montréal-CHUM  
Full Professor, Department of Psychiatry, Université de Montréal  
Researcher, CRCHUM  
*Montreal, QC*



**Suzanne Archie, MD, FRCPC (she/her)**

Professor, Department of Psychiatry and Behavioural Neurosciences, McMaster University  
Past Chair EPION Research Working Group  
Chair Anti-Black Racism Department of Psychiatry & Behavioural Neurosciences  
Member of Peter Boris Centre for Addictions Research  
*Hamilton, ON*



**Victoria Patterson, PhD, C. Psych**

Psychologist (Supervised practice)  
Hamilton Health Sciences – McMaster Children's Hospital  
*Hamilton, ON*





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# Transgender and Non-Binary Youth in EPI

**Victoria Patterson, PhD, C. Psych**

# Disclosures

## **Dr Victoria Patterson**

- None



# Learning Objectives

**After participating in this session, participants will be better able to;**

- Evaluate the unique challenges nonbinary and transgender youth face in relation to psychosis and mental health treatment
- Identify biases that may impact care for nonbinary and transgender youth experiencing psychosis
- Apply evidence-based strategies to provide competent and affirming care tailored to the needs of nonbinary and transgender youth with psychosis
- Implement proactive approaches to self-education and ongoing professional development focused on enhancing cultural competence in working with gender-diverse youth



# Prevalence Rates

- Poorer mental health among trans people than cis people

Dhejne et al., 2016; McNeil et al., 2017; Millet et al., 2017; Bauer et al., 2015

- Schizophrenia spectrum disorders: more prevalent among trans and nonbinary people

Dragon et al., 2017; Becerra-Culqui et al., 2018

- Minority stress related to development of mental illness

Hendricks & Testa, 2012, Parr & Howe, 2019

## Transgender (trans):

Barr, Roberts, & Thakkar, 2021

Adjective describing people whose gender differs from their biological sex; inclusive of identities outside gender binary (e.g., nonbinary, agender, two-spirit)



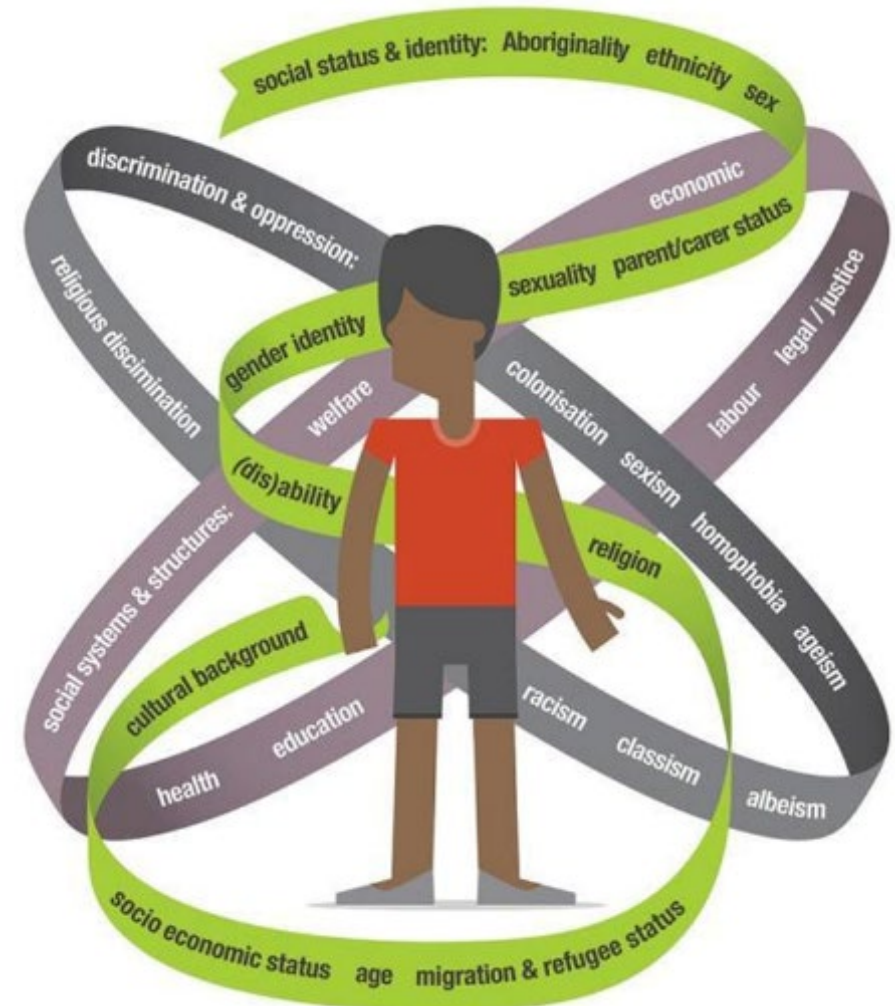
# Clinical Issues

- **Disentangling identity from psychotic symptoms**  
(Barr et al., 2021; Coutin et al., 2018; Kennedy-Olson et al. 2016)
- **Delays and difficulties accessing gender-affirming care**  
(Petra et al., 2020; Snow et al., 2019; Hunt, 2014)
- **Greater risk of suicide and substance use issues**  
(Pompili et al., 2011; Adams, Hitomi, & Moody, 2017; Connolly & Gilchrist, 2020; Gonzalez et al., 2017)



# Clinical Issues

- **Poorer medication adherence**  
(Eliasson et al., 2021; Lally & MacCabe, 2015; Day et al., 2005)
- **Intersectionality: Multiple marginalized identities**  
(Barr et al., 2021)





# What Can We Do To Help?

- Obtain education related to gender (e.g., gender development) and trans issues
- Discuss gender openly with clients
- Support connections to community resources/networks



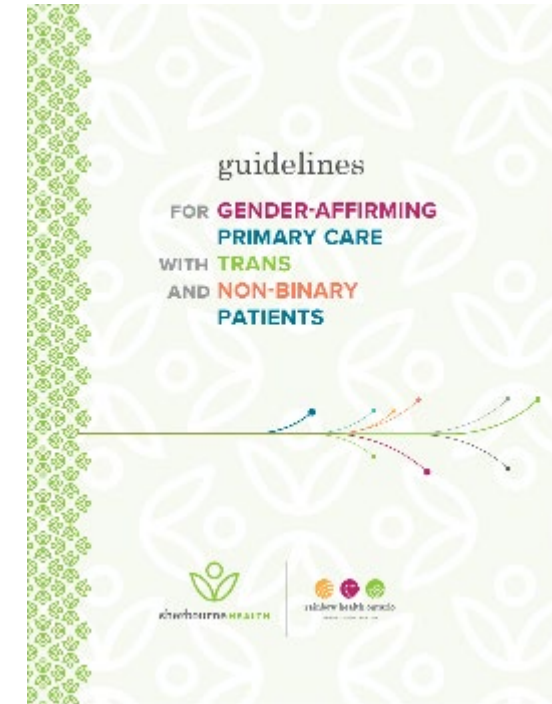
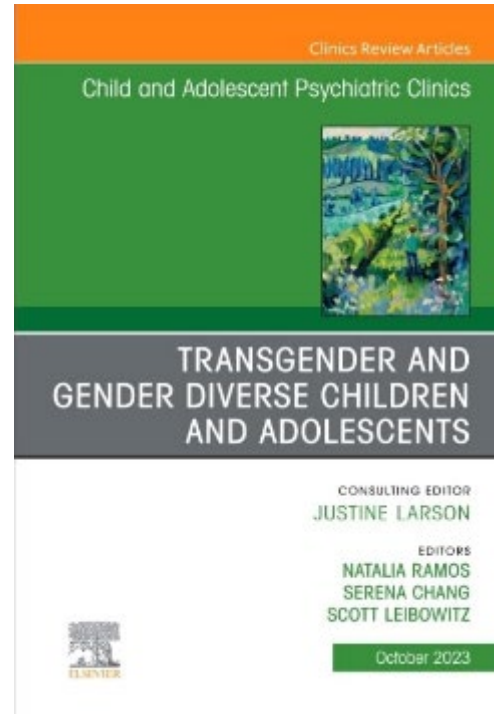
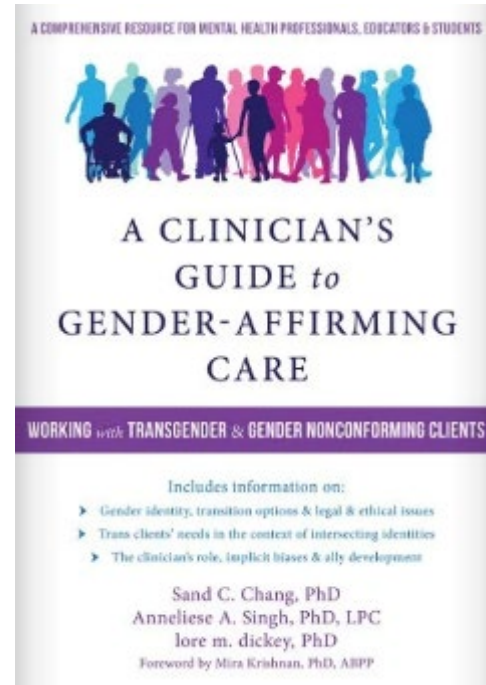
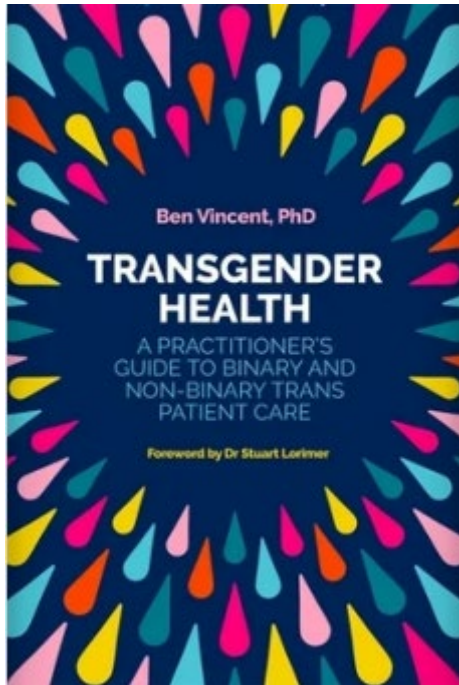
# Key Takeaways

- Trans and nonbinary youth experience greater mental health problems, including higher rates of psychotic disorders
- Trans and nonbinary youth with psychosis are at very high risk for suicide and substance use issues
- These youth often anticipate and experience negative healthcare experiences (e.g., misgendering), and they frequently experience the burden of educating their healthcare providers on gender-related issues
- Individuals with psychotic experiences experience greater difficulties accessing gender-affirming medical interventions (e.g., hormones, surgery)
- Positive relationships with healthcare providers are associated with improved medication compliance



# Resources

## Books/Guides:



## Webinars:

- <https://vimeo.com/885243487>



# Resources

## Articles, websites:

- **WPATH Standards of Care** (<https://www.wpath.org/>)
- **Trans Lifeline's Provider Training Program** – Training sessions for healthcare professionals to help improve cultural competence and crisis intervention skills for transgender and nonbinary patients (<https://translifeline.org/>)
- **The Trevor Project** – Fee-based training programs focused on the mental health needs of LGBTQ+ youth (<https://www.thetrevorproject.org/care-training/>)
- **Affirming Evidence-Based Care for Young Patients Who Are Transgender or Gender Diverse** - Practical tips and considerations for clinicians working with transgender and nonbinary youth. (<https://www.psychiatristimes.com/view/affirming-evidence-based-care-for-young-patients-who-are-transgender-or-gender-diverse>)
- **National LGBTQIA+ Health Education Center** - A program of The Fenway Institute, offering webinars, learning modules, and publications for healthcare providers on best practices for supporting LGBTQIA+ youth, including those experiencing psychosis. [Link: LGBTQIA+ Health Education Center](#)
- **"Guidelines for Psychological Practice with Transgender and Gender Nonconforming People"** - This document by the American Psychological Association provides a framework for psychological practice with transgender and nonbinary individuals. It's a foundational guide for understanding key cultural and mental health considerations. (<https://www.apa.org/practice/guidelines/transgender.pdf>)
- **GLMA: Health Professionals Advancing LGBTQ Equality** - This organization offers educational resources and conferences on LGBTQ+ healthcare needs, including sessions on mental health, psychosis, and adolescence. (<https://www.glma.org/>)
- **RAINBOW Mental Health Professional Network** - An online network of mental health professionals dedicated to improving support for LGBTQ+ individuals, with resources on understanding and addressing complex mental health presentations in youth



# Thank you!



**Dr Victoria Patterson**

 patterson\_vc

 vpatterson@dal.ca





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# **TITLE: Black and Racialized Youth with a First Episode of Psychosis & Cannabis Use Disorder**

**Cannabis experiences**

**BIPOC Communities**

**Suzanne Archie, MD, FRCPC (she/her)**

**Professor, Department of Psychiatry and Behavioural Neurosciences, McMaster University**

**Past Chair EPION Research Working Group**

**Chair Anti-Black Racism Department of Psychiatry & Behavioural Neurosciences**

**Member of Peter Boris Centre for Addictions Research**

# Disclosures

- No conflicts of interest to declare
- Acknowledgements
  - CIHR Catalyst Grant
  - Mental Health Commission of Canada
  - Peter Boris Centre for Addictions Research
  - Michael DeGroot Centre for Medicinal Research
  - St. Joseph's Healthcare Hamilton

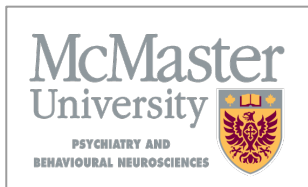




# Learning Objectives: Black & Racialized Youth with a FEP & CUD

**After participating in this session, clinicians will be better able to appreciate:**

- increased risk of psychosis among Black & racialized immigrants to Ontario
  - role of structural racism & psychosis
  - role of vitamin D deficiency
- Cannabis use among Black & racialized patients with FEP & CUD





# Outline:

Race & Psychosis

Race, Cannabis &  
Psychosis

Study: FEP & CUD,  
particularly those from  
Black African/ Caribbean  
descent

# Role of Structural Racism

**“Race as Biology is Fiction, Race as a Social Problem is Real”**

Smedley, A. and Smedley, BD. *American Psychologist*, 50 (1), 16-26, 2005



# Incidents of psychotic disorders among 1<sup>st</sup> generation immigrants in Ontario

Anderson KK. CMAJ 2015, 187 (9)

Group	Incident rate per 100,000 persons	Immigrants IRR (95%)	Refugees IRR (95%)
General population	55.6	Ref	Ref
Immigrants (all)	51.7	0.91 (0.71-1.16)	-----
Refugees (all)	72.8	-----	1.24 (0.86-1.81)
→ Caribbean	94.4	1.60 (1.29-1.98)	0.61 (0.02-22.24)
→ West Africa	96.1	1.66 (0.84-3.28)	1.07 (0.32-3.57)
→ East Africa	98	1.20 (0.69-2.10)	1.95 (1.44-2.65)
Middle East	57.2	0.75 (0.49-1.15)	1.28 (0.91-1.80)
Southeast Asia	57.2	1.12 (0.86-1.44)	1.51 (1.08-2.12)
Northern Europe	30.3	0.50 (0.28-0.91)	3.23 (0.09-118.79)



# “Protest Psychosis” & How schizophrenia became a Black disease Jonathon Metz

Bromberg, W. Archives Gen Psychiatry, 1968: 19: 155-160

Jarvis, G. The Social Causes of Psychosis in North American Psychiatry: Can J Psychiatry, 2007: 287-94.

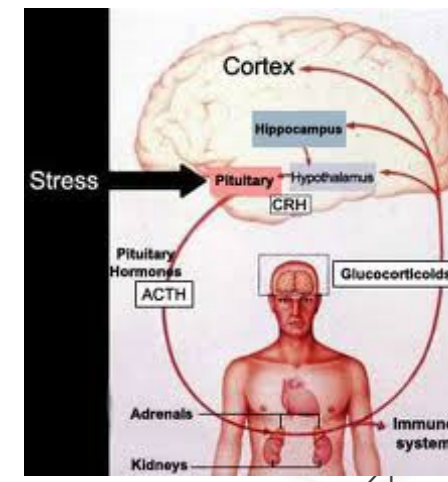


March 29, 1968,  
Memphis  
Tennessee, US  
National Guard  
troops as civil  
rights marchers  
pass by. U.S. News  
by Lydia Chebbine  
June 12, 2020



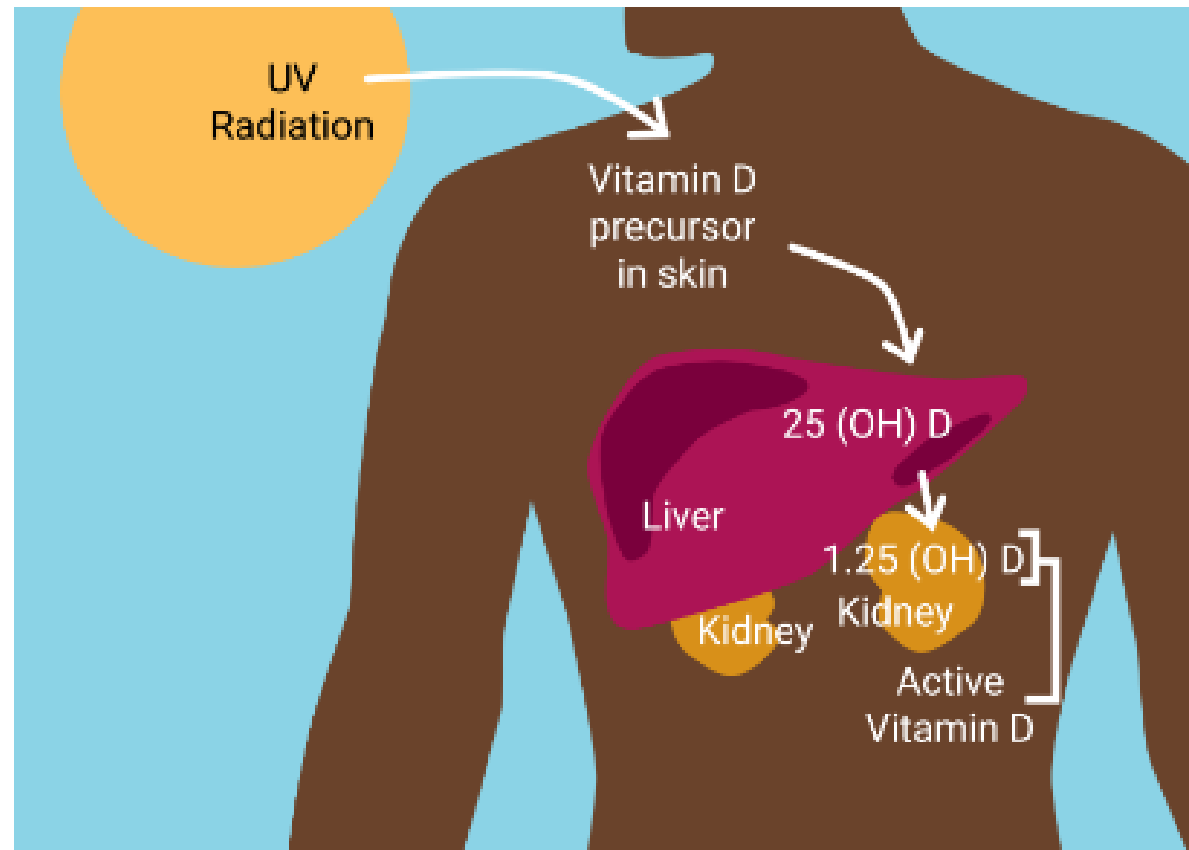
Selten, J.-P. British journal of psychiatry, 2007, 191 [supplement 51], s9-s 12.

- Racism, discrimination & micro aggression may increase toxic stress
  - Chronic activation of the HPA Axis (hypothalamic pituitary axis)
  - increases stress hormones like cortisol and adrenaline
  - contributes to dopamine sensitization in nucleus accumbens, cortex, striatum
  - Elevated blood pressure, lipids, heart disease, diabetes & psychosis



# Dark Skin & Vitamin D Insufficiency

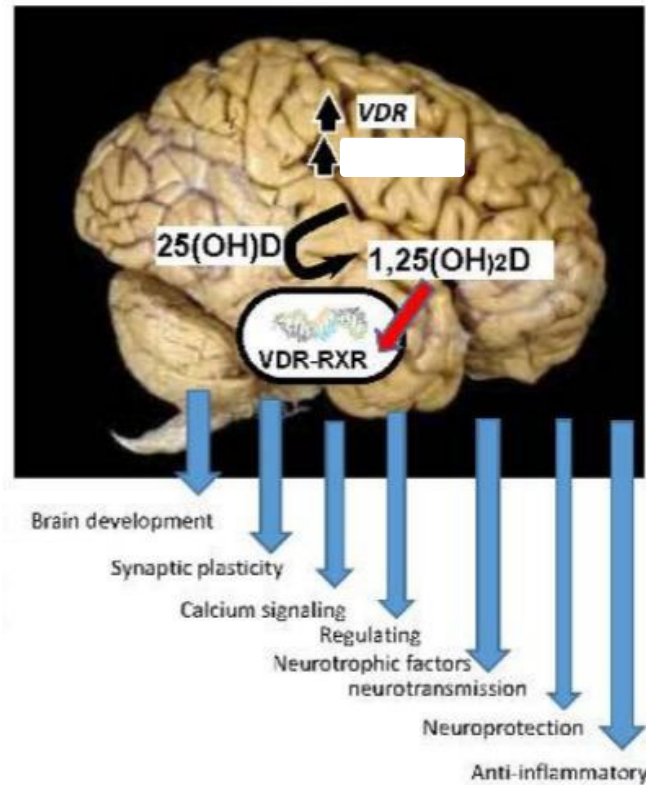
- Deeply pigmented skin can require 5 times the UV exposure in Canada compared to light skin
- Black people often under dosed for Vitamin D deficiency



# Vitamin D and Brain Health

VDR- Vitamin D  
Receptors

VDR –regulates  
mRNA



vitamin D deficiency

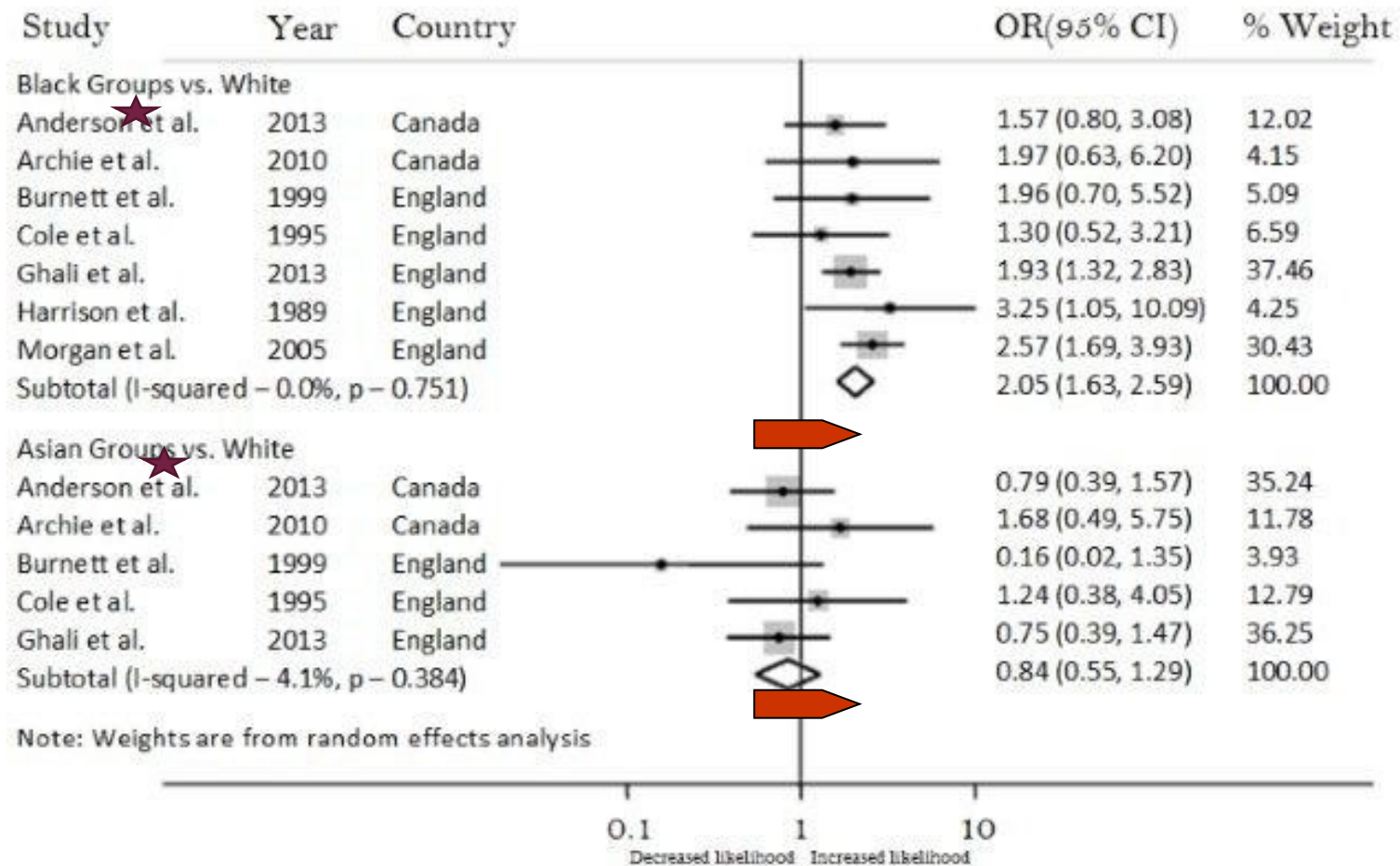
- Cognitive dysfunction
- Alzheimer's disease
- Schizophrenia
- Depression
- Multiple sclerosis
- Seasonal affective disorder
- Parkinson's disease
- Autism
- Stroke
- Epilepsy



# Meta-Analysis: Police involvement in the pathway to care

Anderson, Flora, Archie, Morgan, McKenzie *Acta Psychiatrica Scandinavica* 2014

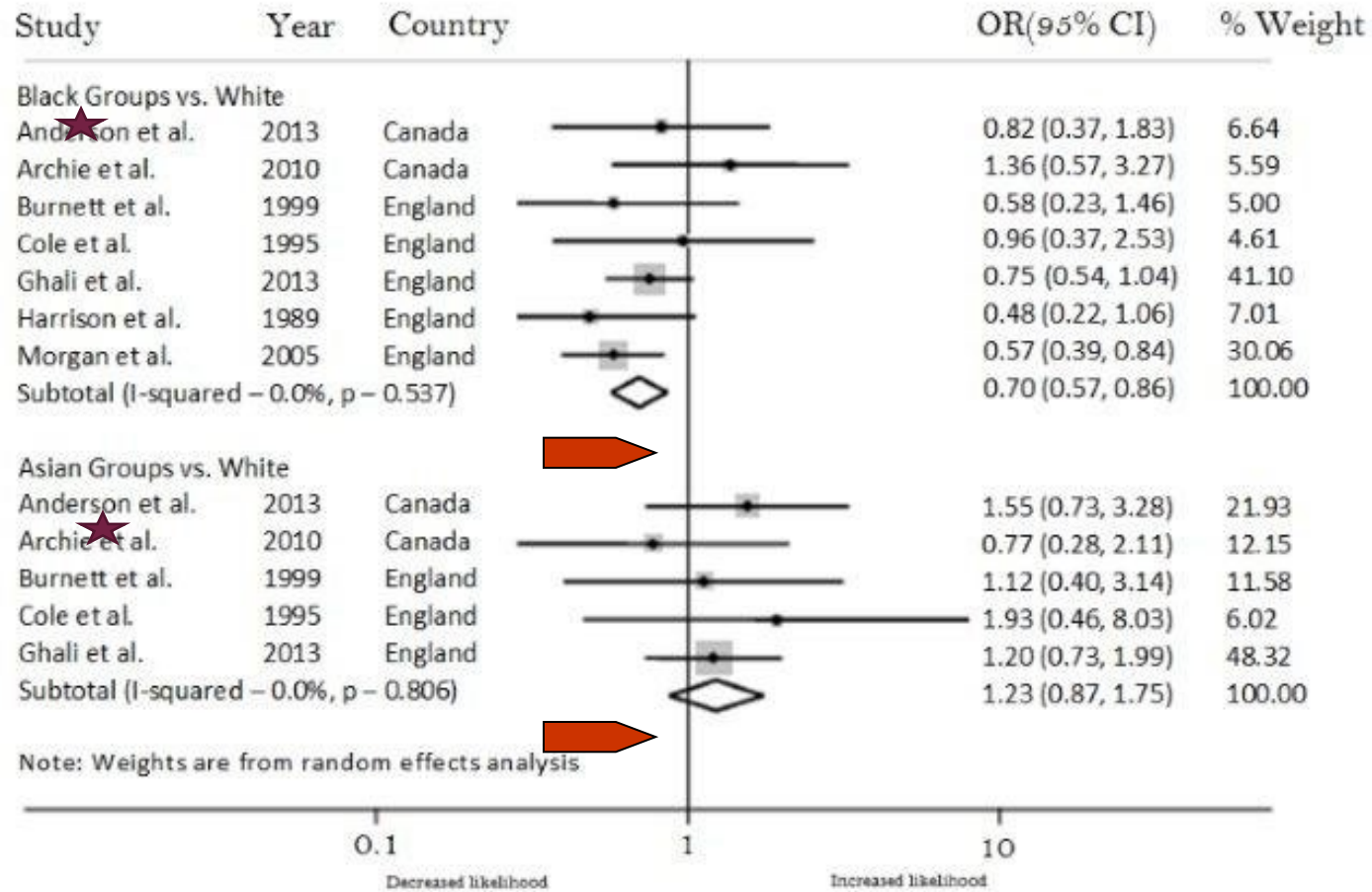
## Police Involvement



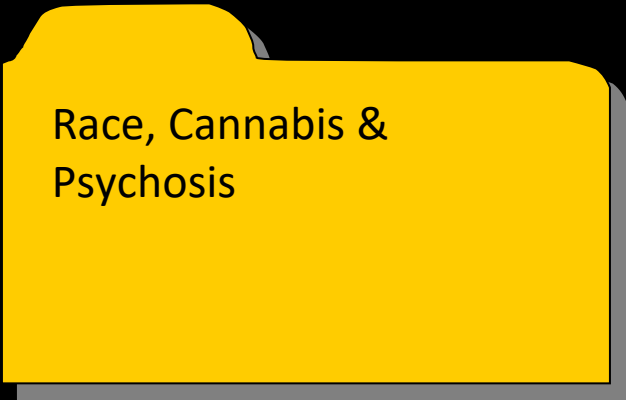


**Meta-Analysis Family doctor involvement in the pathway to care**  
 Anderson, Flora, Archie, Morgan, McKenzie, Acta Psychiatrica Scandinavica 2014

**Family doctor Involvement**



# Outline:

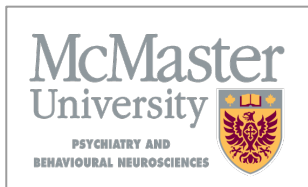


Race, Cannabis &  
Psychosis

# Learning Objectives: Black & Racialized Youth with a FEP & CUD

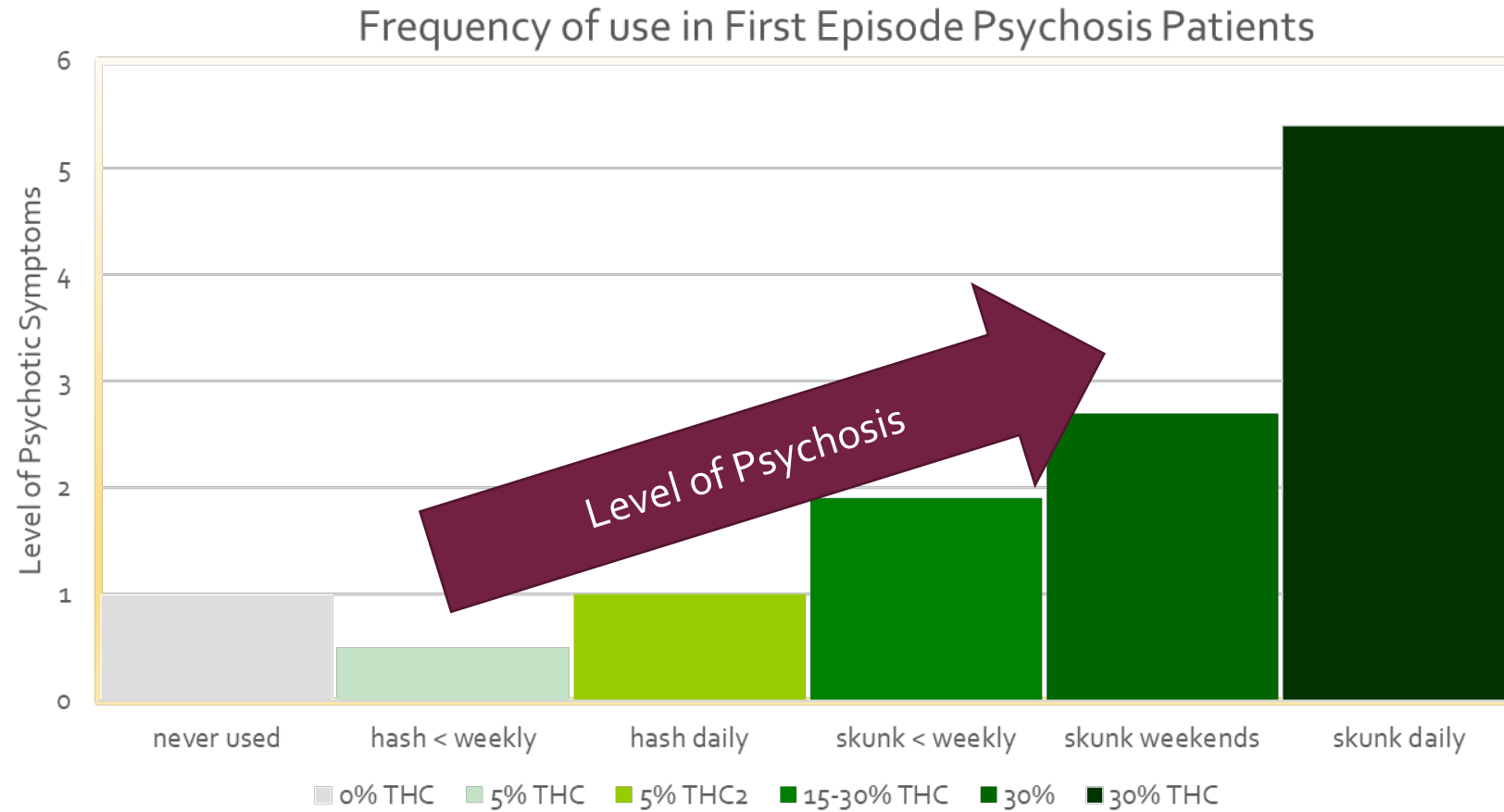
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  - role of structural racism & psychosis
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- Cannabis use among Black & racialized patients with FEP & CUD



# Frequency of Use & THC Content in Patients

Di Forti Lancet Psychiatry 2015;., Vo I 2,: 233-238



# Past Year Cannabis Use and Problematic Use by Ethnicity in Ontario

Tuck A, Drug & Alcohol Dependence, 179 (2017) 93-99

Past Year Cannabis Use (n=11,560)	
Adjusted OR (95%CI)	
OR decreased with age	
General population	1.00
<b>Caribbean</b>	1.70(1.04-2.79)*
African	0.68 (0.35-1.31)
<b>Northern Europe</b>	1.27 (0.76-2.13)
South European	0.89 (0.68-1.18)
South Asian	0.42 (0.27-0.66)***

Adults 18-64 years of age. Past year alcohol use associated with cannabis use

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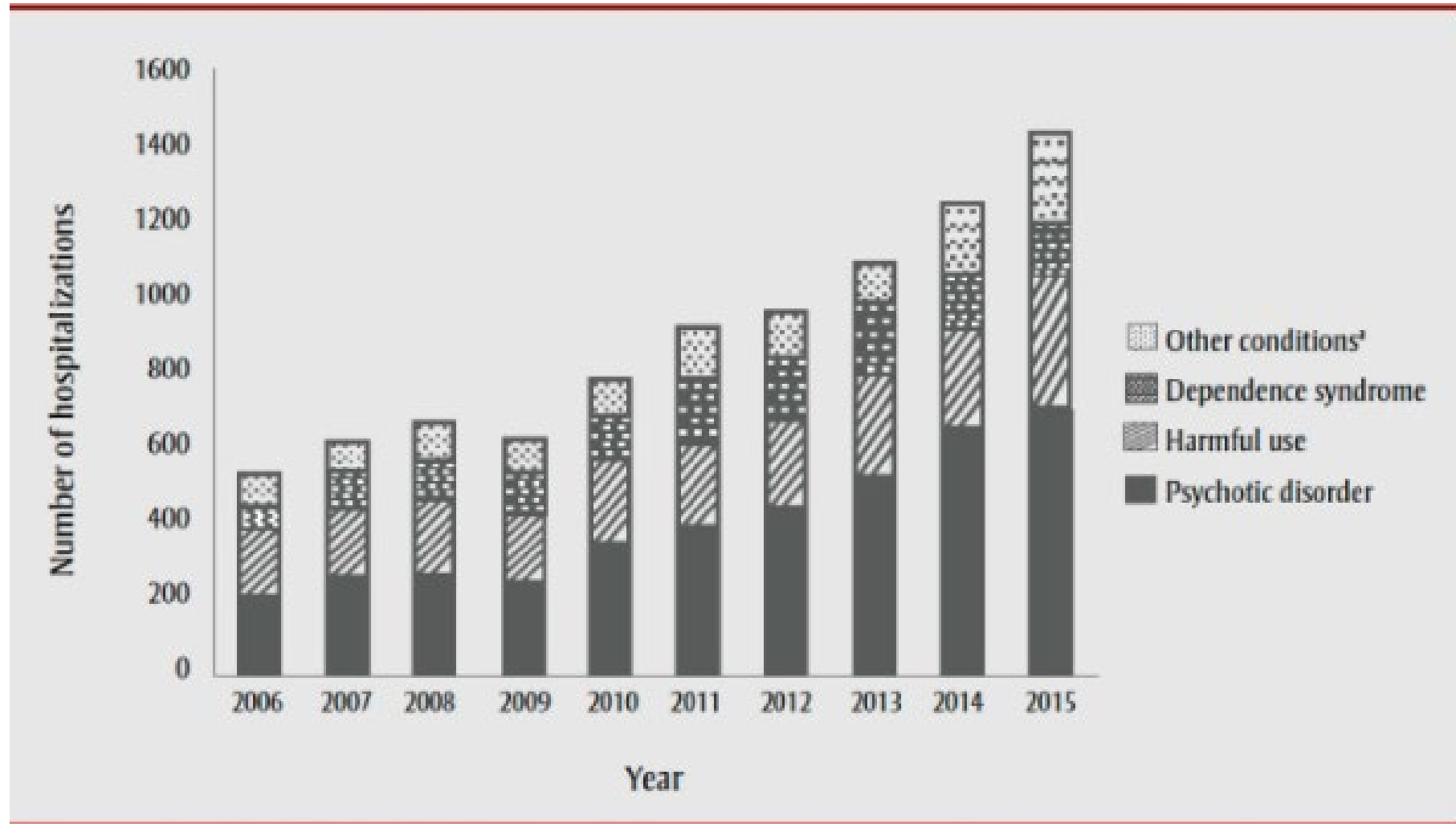
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Problematic Cannabis Use (n=11,560)	
Adjusted OR(95%CI)	
OR decreased with age	
General population	1.00
<b>Caribbean</b>	2.76 (1.24-6.12)*
African	1.76 (0.66-4.66)
<b>Northern Europe</b>	3.26 (1.51-7.02)**
South European	0.92 (0.53-1.60)
South Asian	0.63 (0.26-1.53)

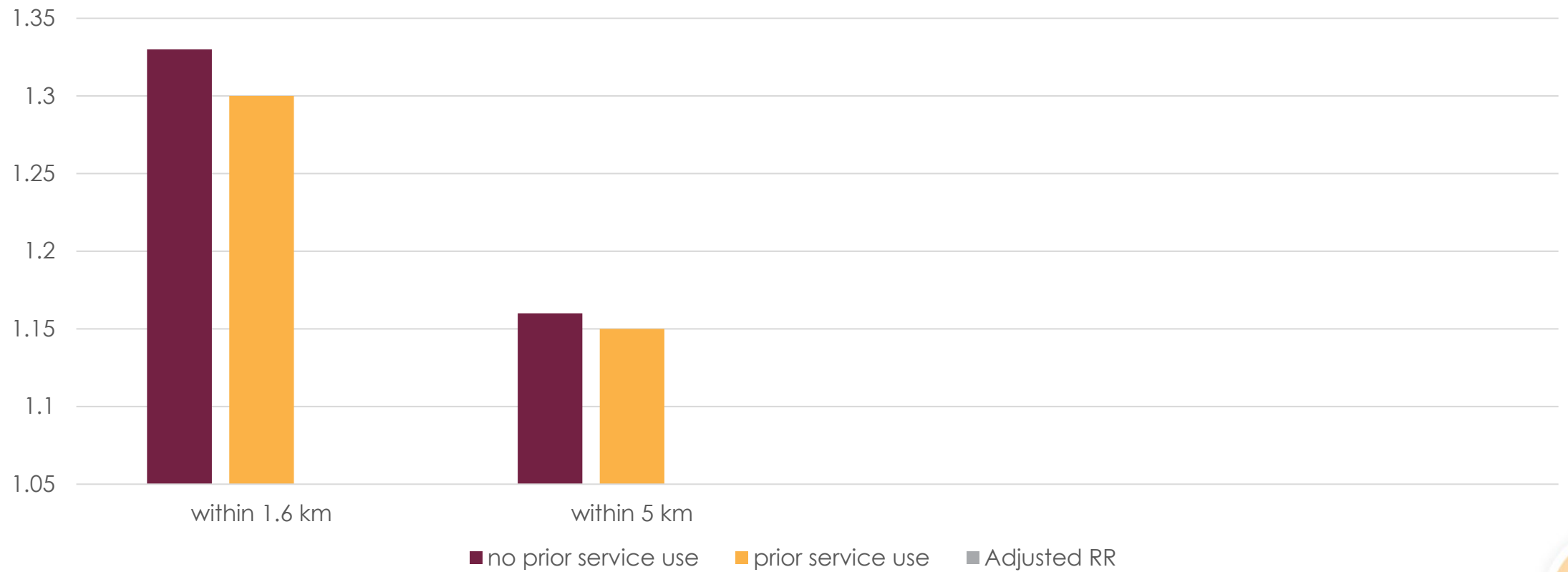
Adults 18-64 years of age. Past year alcohol use associated with cannabis use

# Hospitalizations for Cannabis-Related Psychotic Disorders in Canada, 2006-2015

Maloney-Hall Health Promotion Chronic Disease Prevention Canada 2020



### Proximity to Cannabis Retailers & Outpatient Service Use for Psychosis





# Outline:

Study: FEP & CUD,  
particularly those from  
Black African/ Caribbean  
descent

## CIHR Catalyst Grant

### Insights about Cannabis and Psychosis:

### How do young people with early psychosis conceptualize the link between cannabis and psychosis, particularly those from Black racialized backgrounds?

Suzanne Archie Principal Investigator  
Gord Langill Principal Knowledge User  
Kelly Anderson Co-Applicant  
Oyedeji Ayonrinde Co-Applicant  
Alexandra Baines Co-Applicant  
Andrea Bardell Co-Applicant  
Chiachen Cheng Co-Applicant  
Brian Cooper Knowledge User  
Manuela Ferrari Co-Applicant  
Natasha Johnson Co-Applicant  
Nicole Kozloff Co-Applicant  
Andrew Olagunju Co-Applicant  
Lena Palaniyappan Co-Applicant  
Elham Sadeh Co-Applicant

Ashely Assam Collaborator  
Kaelen Boyd IAM former SSO Collaborator  
Bishop David Green FFAF Collaborator  
Angela Jaspan Collaborator  
Michael Serravalle Collaborator



## Suzanne Archie, MD, FRCPC

Professor, Dept. Psychiatry & Behavioural Neurosciences, McMaster University

Peter Boris Centre for Addiction Research, McMaster University

EDI Director Post-Graduate Medical Education

Chair Anti-Black Racism Task Force: Department of Psychiatry & Behavioural Neurosciences, McMaster University

# Project Objectives:



- Examine perceptions of mental health effects of cannabis on psychosis among people of Black African & Caribbean descent with first episode psychosis & cannabis use disorder
- Establish feasibility of knowledge acquisition after playing the Back to Reality SERIES versus a Control Game

# Raising awareness of the impact of cannabis on psychosis

- Young people experiencing a first episode of psychosis and cannabis use disorder

Qualitative &  
Quantitative  
Assessments about  
lived experiences of  
psychosis & cannabis  
use

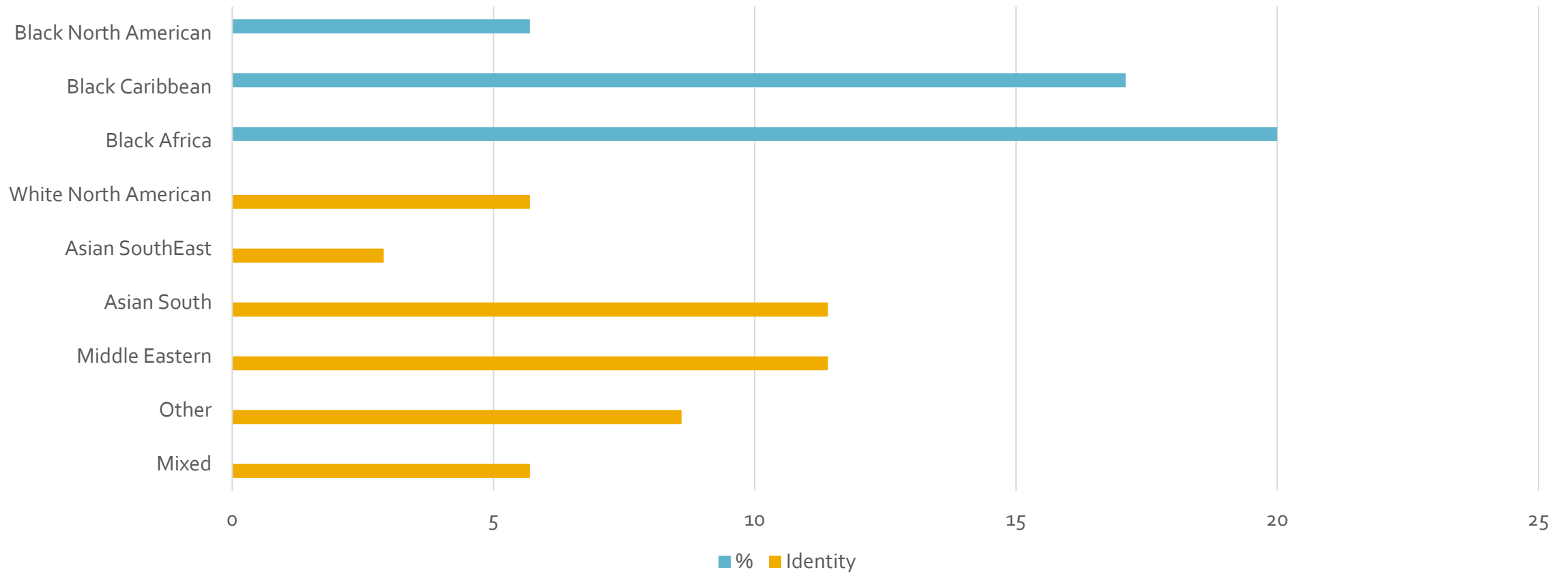
Qualitative &  
Quantitative  
Assessments  
knowledge  
acquisition after the  
Back to Reality Series

# Participant Demographic Results:

Characteristics	
<b>Age Categories</b>	
16-18 years	8.8%
19-21 years	29.4%
20-25 years	35.3%
26-30 years	26.5%
<b>Gender</b>	Men (71%); Women (28.6%); Trans/Gender Fluid (0%)
Immigrant Status	62.9% Born outside of Canada
<b>Highest Education Level</b>	
Less than high school	2.9%
Some high school	11.4%
Graduated from high school	45.7%
Some post secondary	22.9%
Graduated post secondary	17.1%

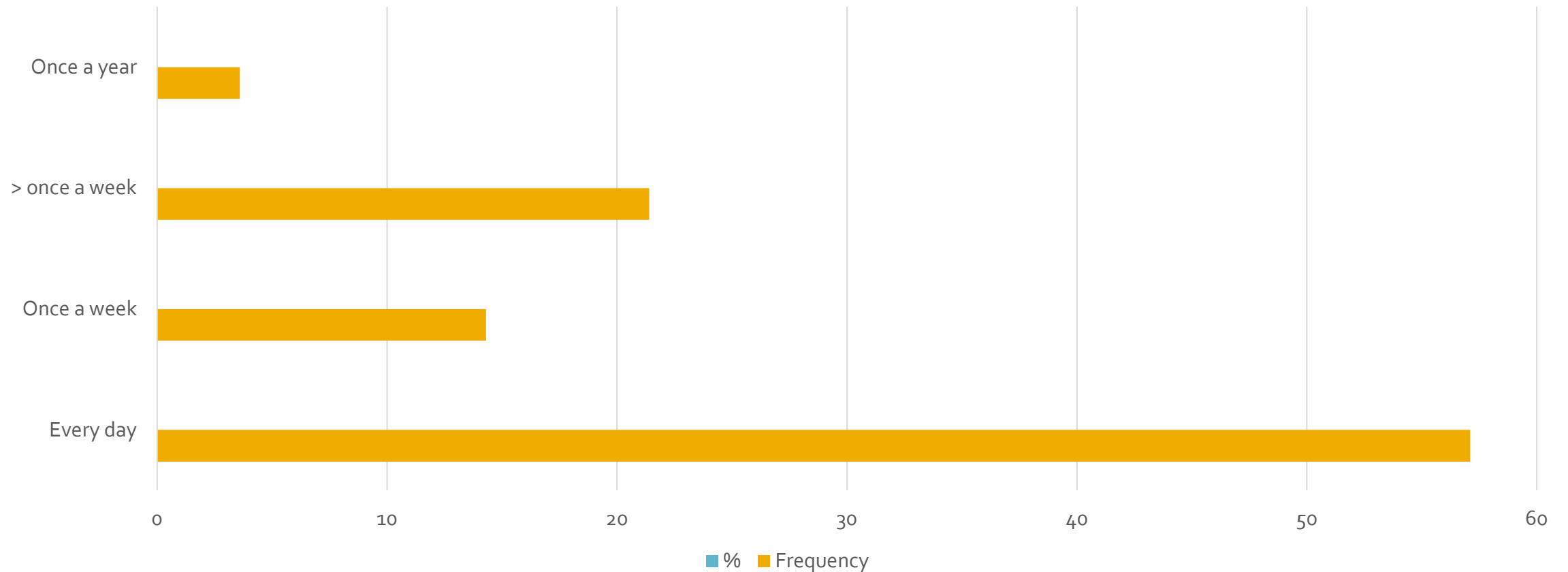
# Participant Demographics Characteristics

Ethnic/Racial Identity



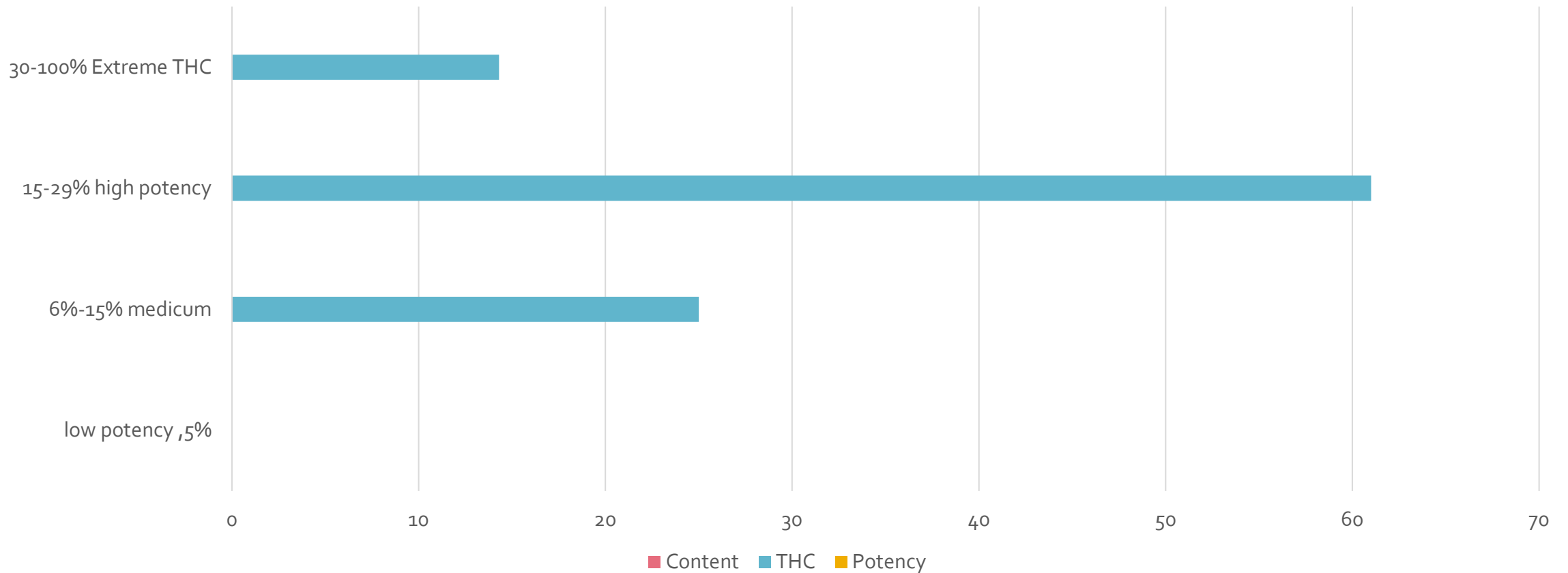
# Results: Usual Frequency of Cannabis Use

How much cannabis do you usually use in a week, if different than current use?



# Results: Cannabis Potency Used

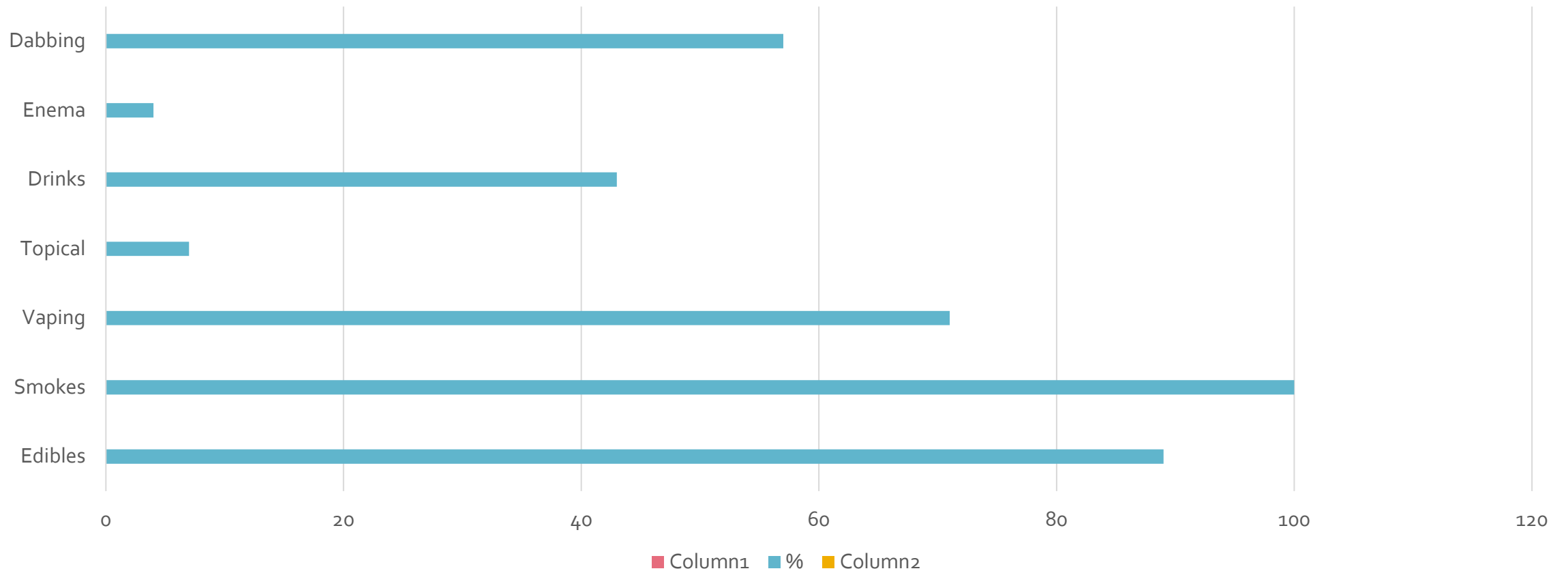
What potency do you usually buy?





# Results: Cannabis Product Tried

What have you tried?



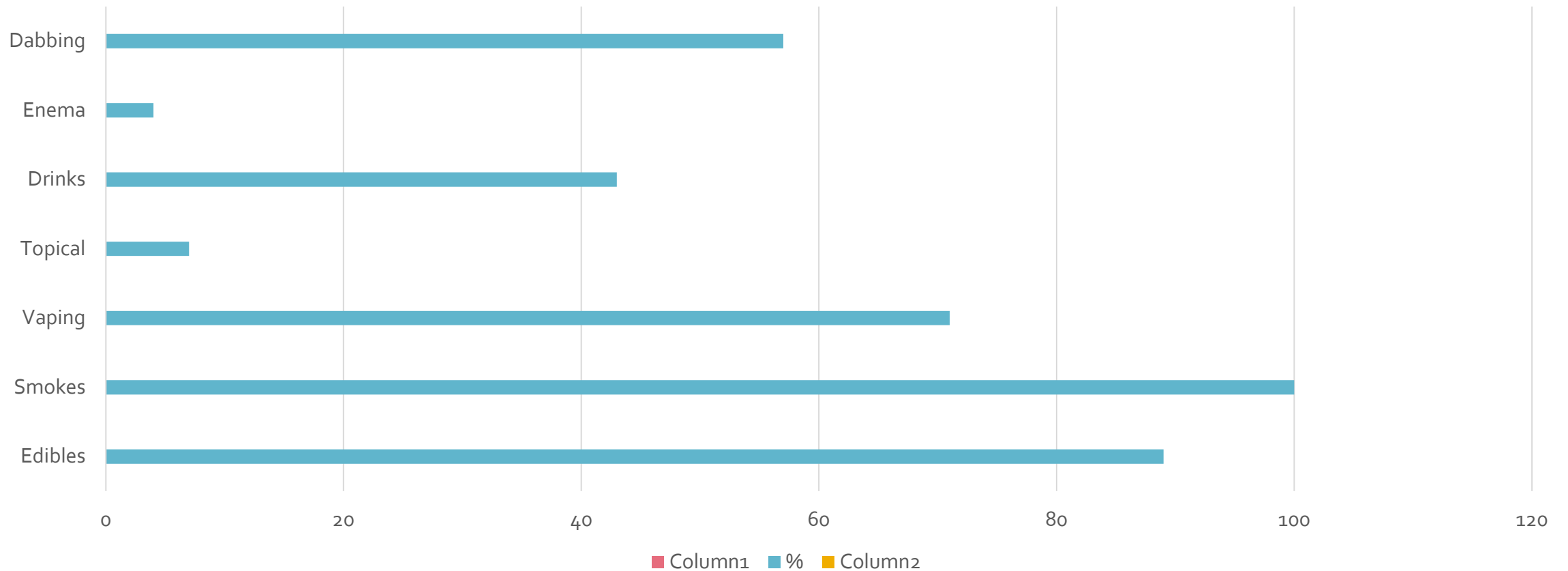
# Dabbing

- Vaporizing the concentrates on a hot surface and inhaling the resulting fumes
- Involves a modified bong or water pipe.
- Much higher concentrations of marijuana
- Dissolve THC into butane

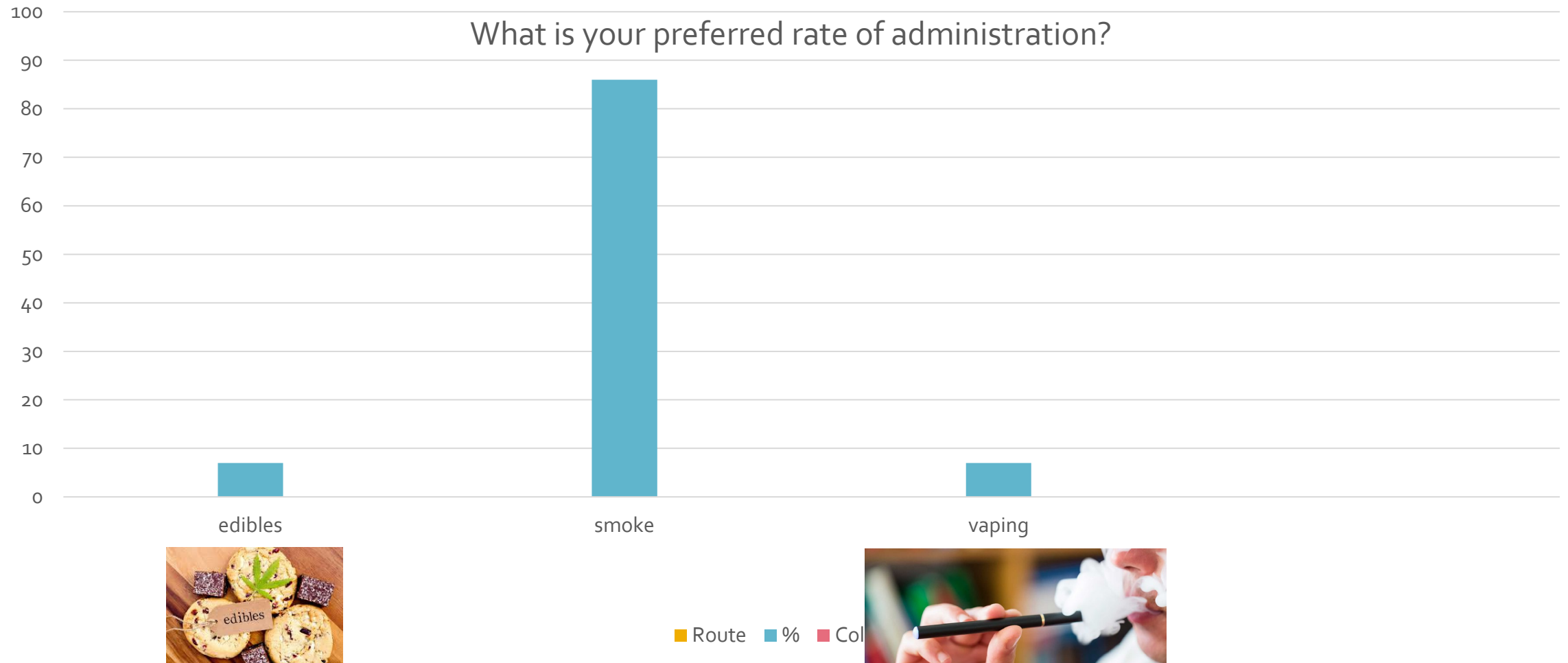


# Results: Cannabis Product Tried

What have you tried?

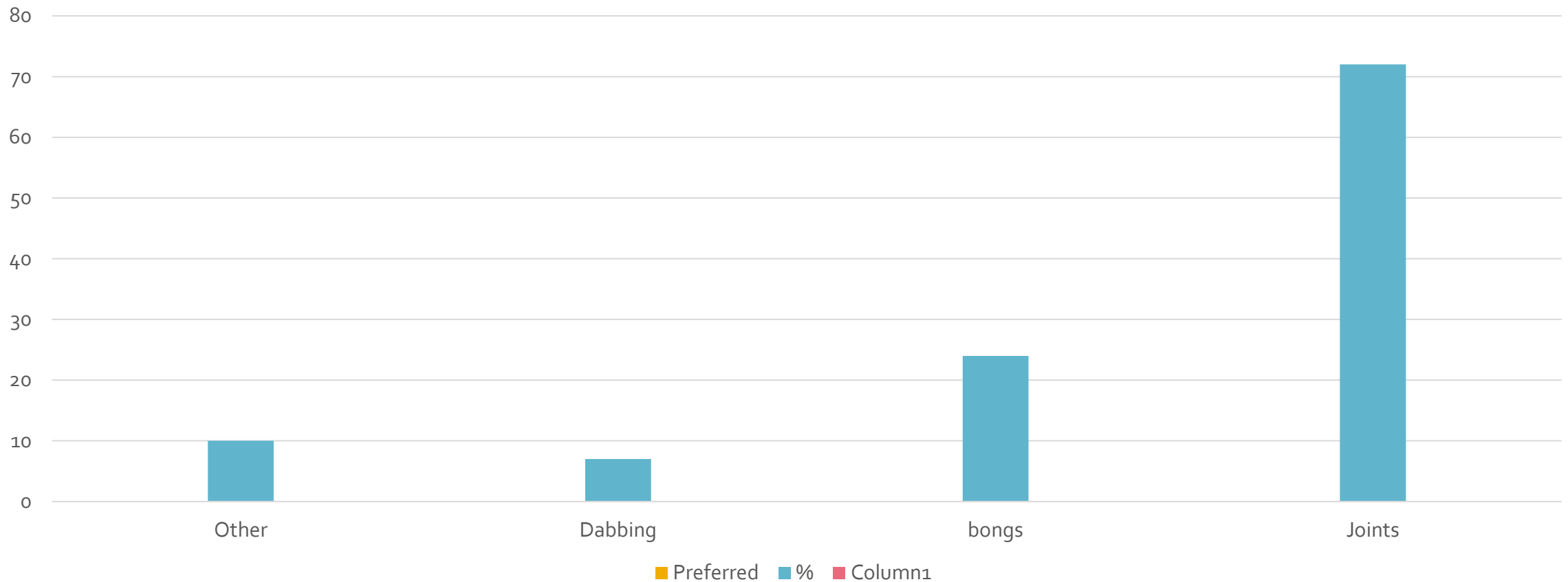


# Results: Preferred route



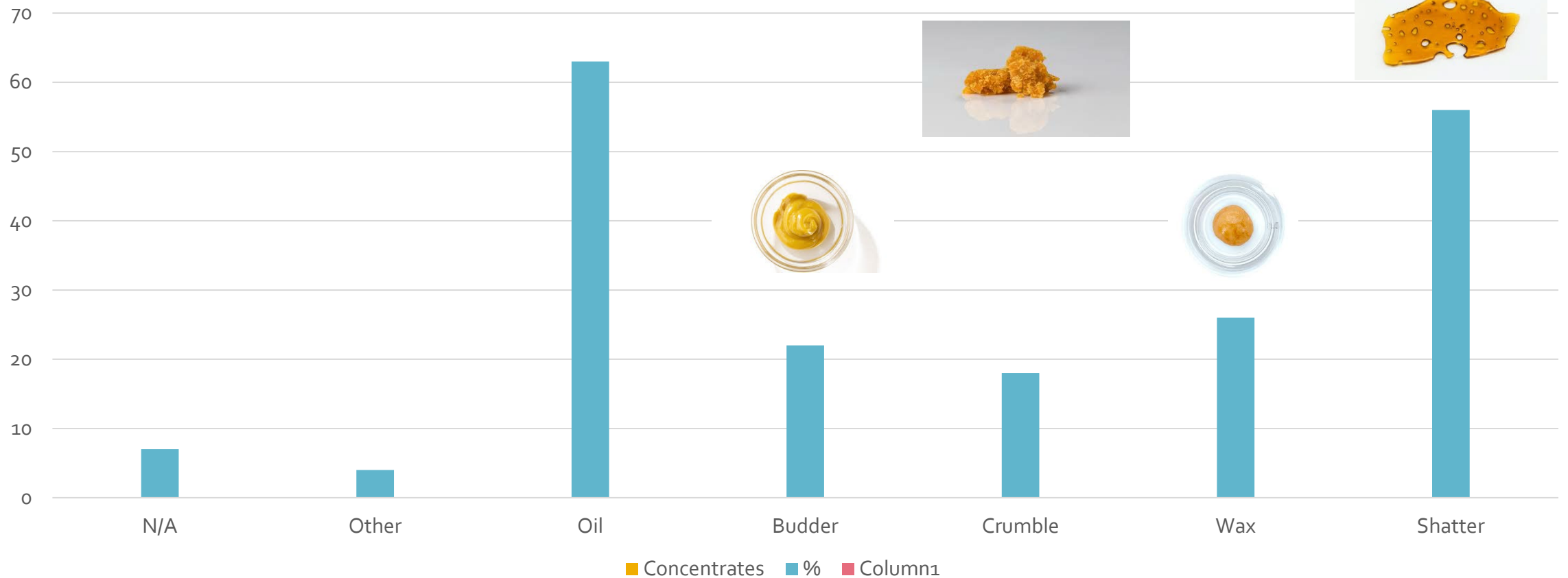
# Results: Preferred Route to Smoke Cannabis

If your preferred route is to smoke, what do you normally do?



# Results: Concentrates

Which of these concentrates have you tried?



CANNABIS

PSYCHOSIS



↑ Daily Use

↑ potency THC preferred

↑ Potency Cannabis

↑ Synthetics & concentrates

↑ Smoking joints preferred route

# HARRY'S

# ALBUM

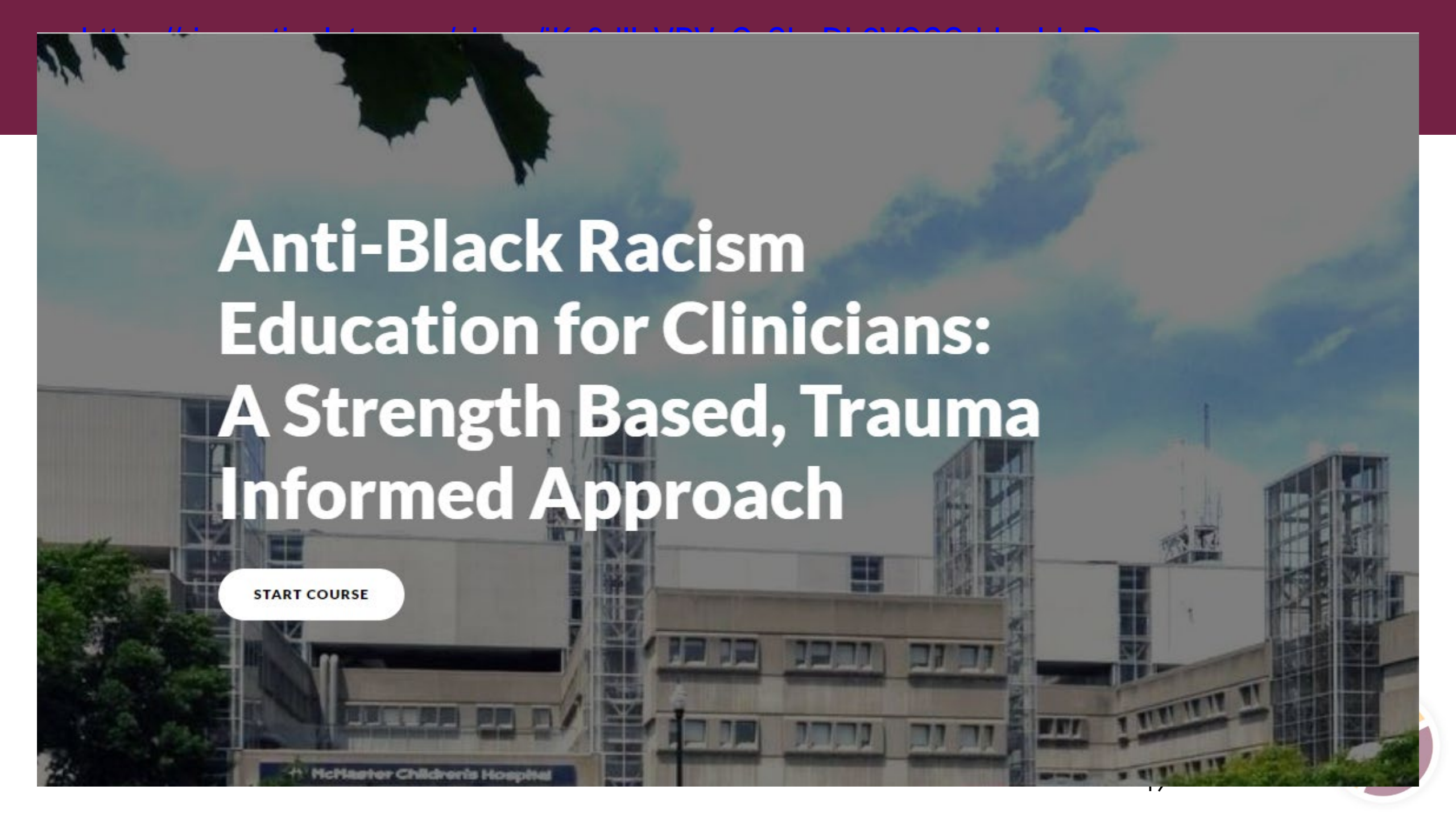


INFO

PLAY

CREDITS





# Anti-Black Racism Education for Clinicians: A Strength Based, Trauma Informed Approach

[START COURSE](#)



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# Should we Care About Homelessness in First Episode Psychosis?

**Amal Abdel-Baki, MD. M.Sc. FRCPC**

Université   
de Montréal

  
**CHUM**

# Disclosures

## **Dr Amal Abdel-Baki**

- None



# Impact of the Course of Substance Use Disorder

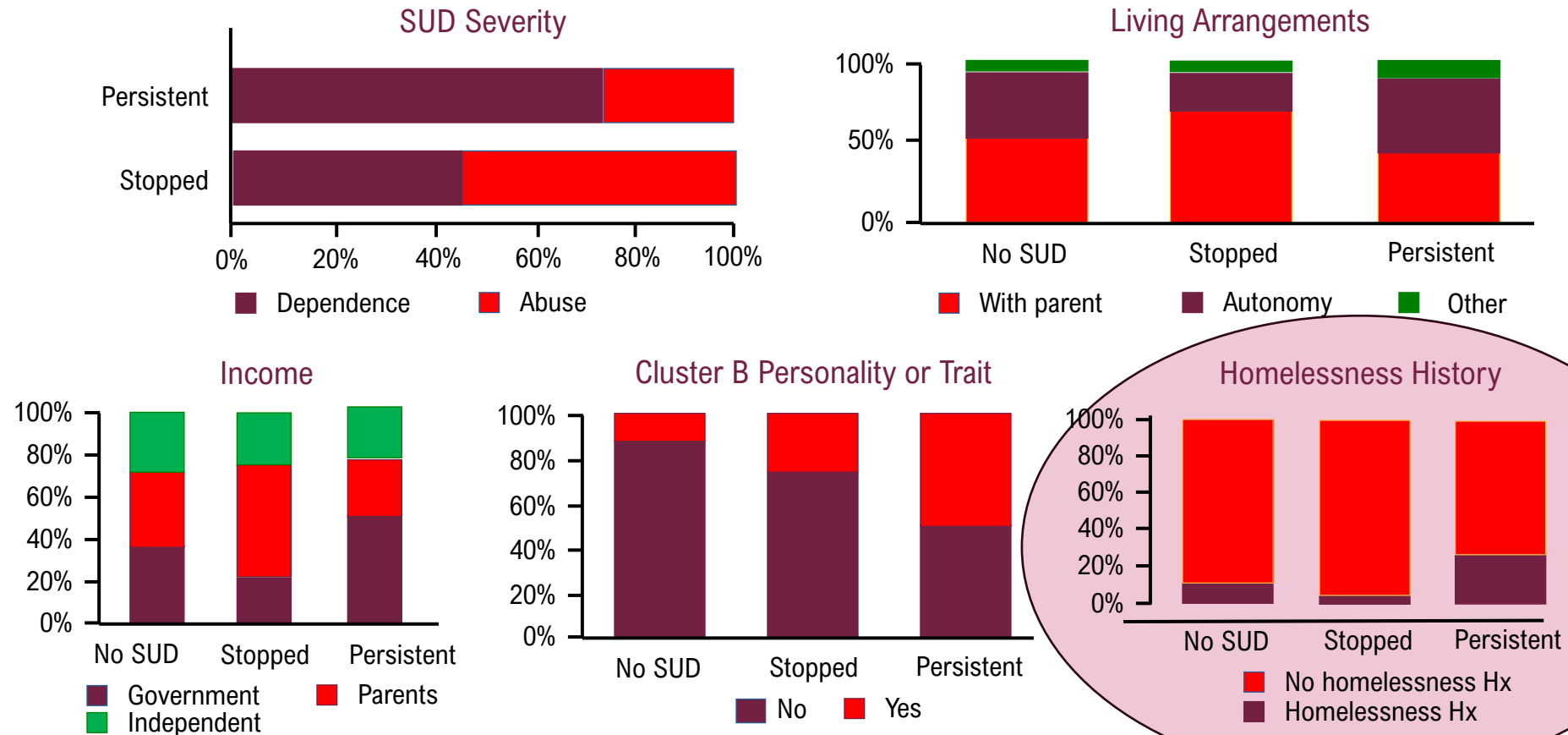
*A 2-year prospective study of FEP patients in 2 EIS of the Université de Montréal's EIS network*



- Negative Impact of SUD persistence on Clinical, Functional Outcomes and Service Use
- Those with STOPPED SUD have similar outcome to never SUD



# Predictive Factors for SUD Persistence



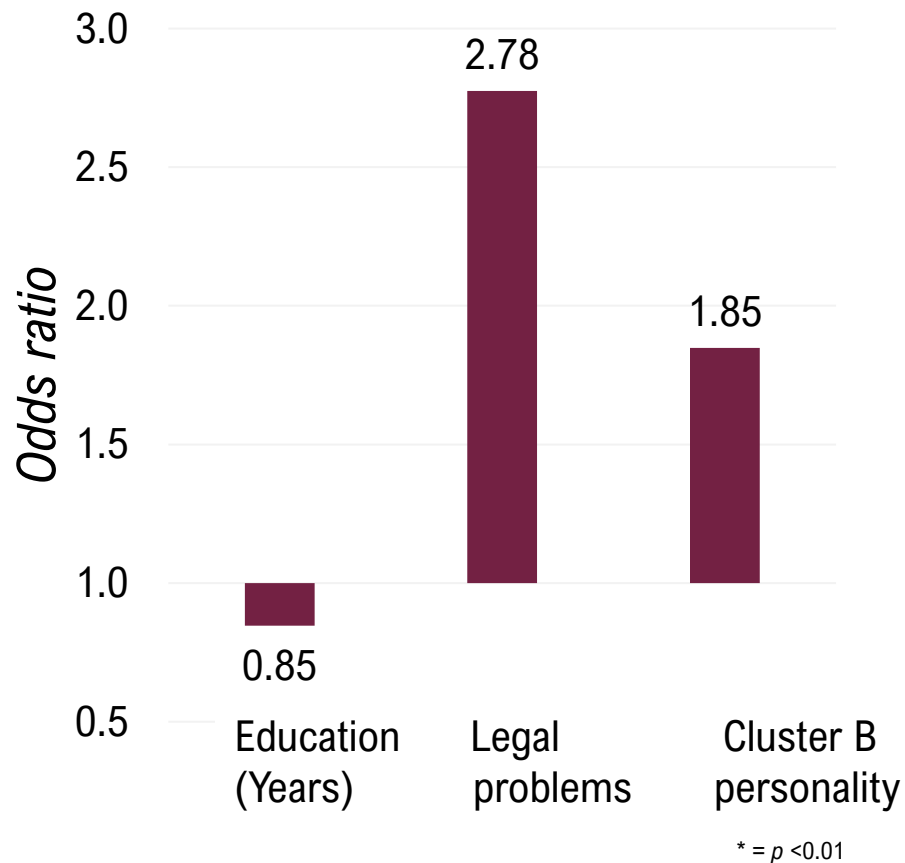
Comparison between SUD status at 24 months:  
never SUD (n=76), stopped (n=37) and persistent (n=63)



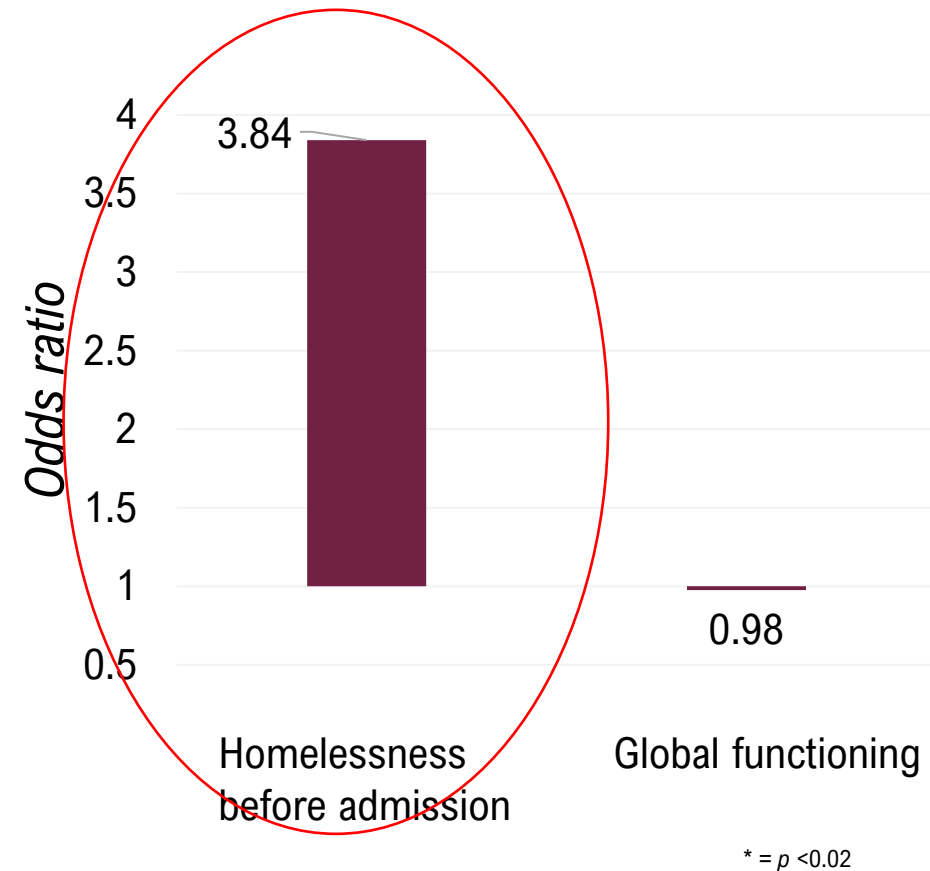
# Severe Consequences in FEP

## *Factors Associated with Violent Behaviours*

**Factors associated with violence in the premorbid phase**



**Factors associated with violence during the first psychotic episode**







# Why Should we Care About Homelessness in First Episode Psychosis: Impact on Outcome

# Youth Homelessness in North America: *A Concerning Issue*

1 in 10 young adults (aged 18 to 25 years old) in the US has already experienced homelessness



1 in 30 youth (aged 13 to 17 years old) in the US has already experienced homelessness



In Canada, young people aged between 13 and 24 years are estimated to make up about 1/5 of the homeless population.



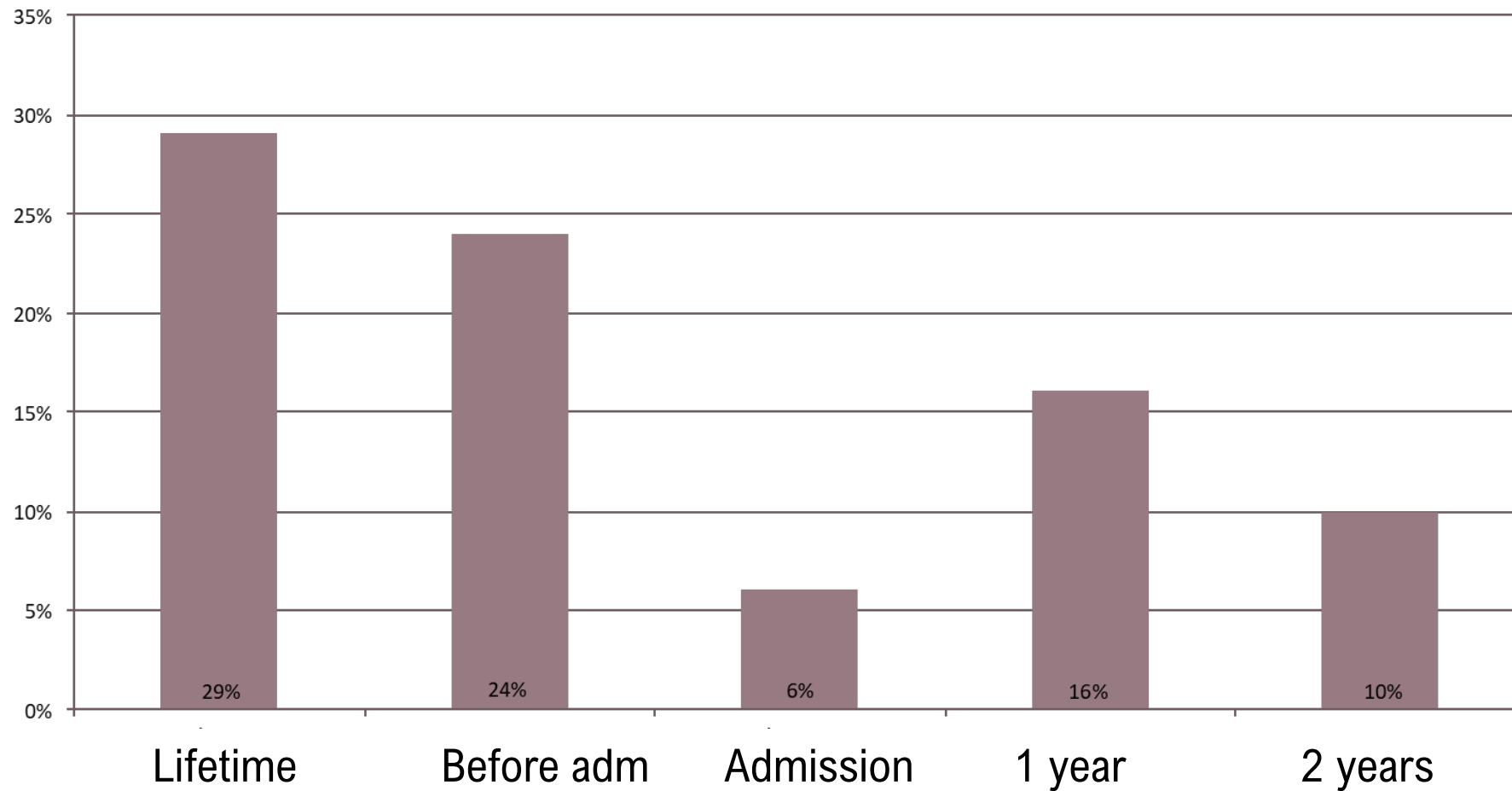
35 000 to 40 000 youth experience homelessness annually between 6000 and 7000 at any given night

Acknowledgment: Beatrice Todesco



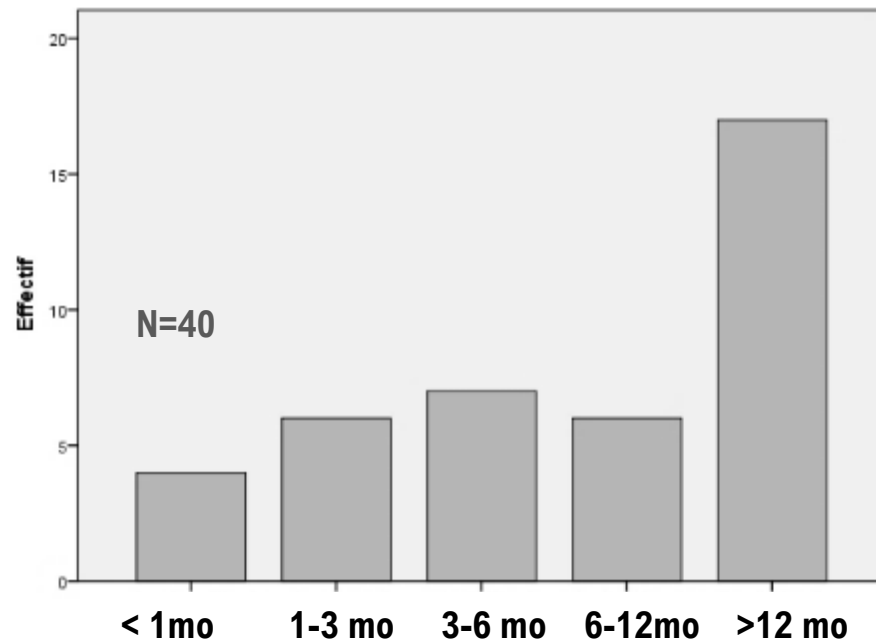


# Prevalence of Homelessness in FEP (n=168)

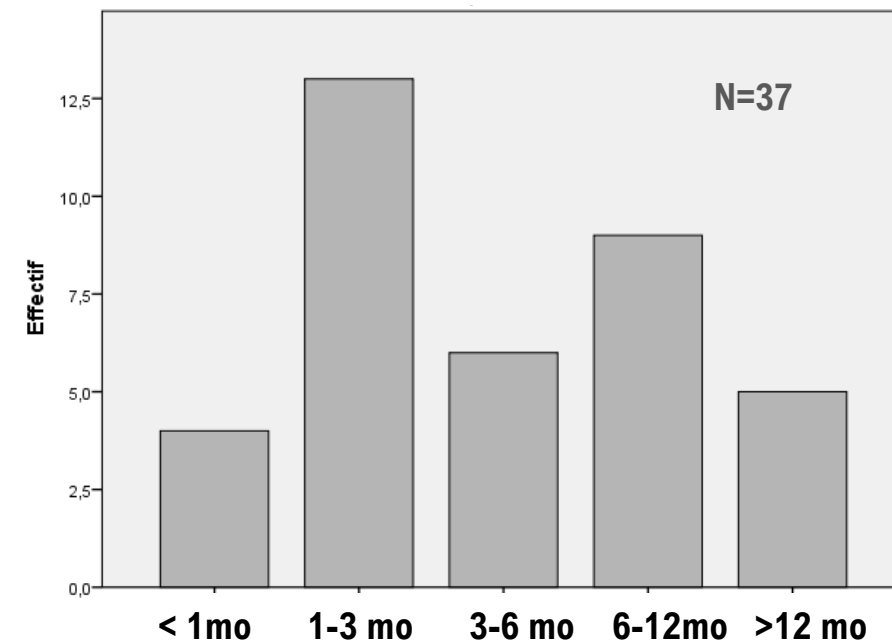


# Duration of Homelessness Before and During Follow-up in EIS

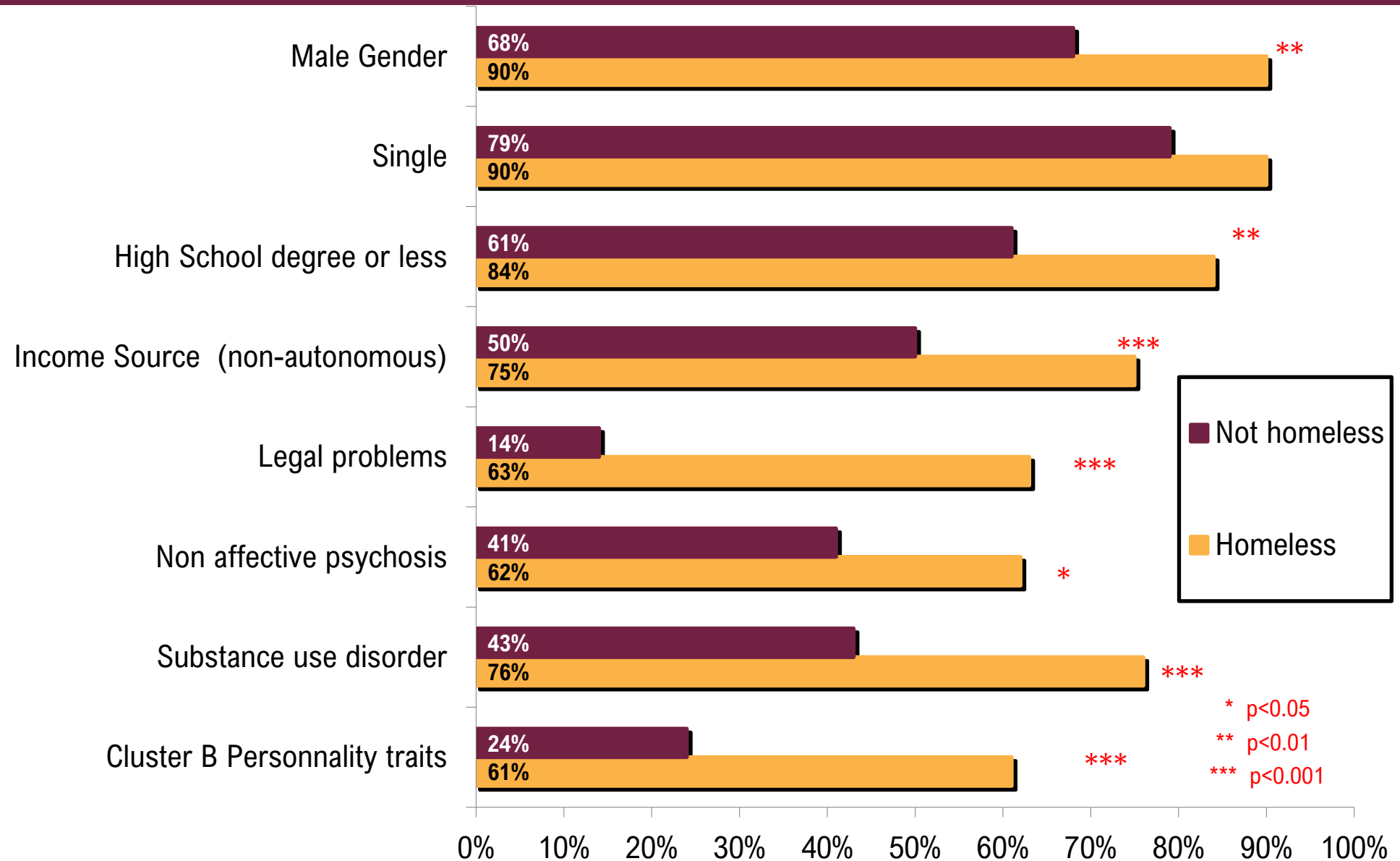
**Duration of homelessness  
BEFORE follow-up (months)**



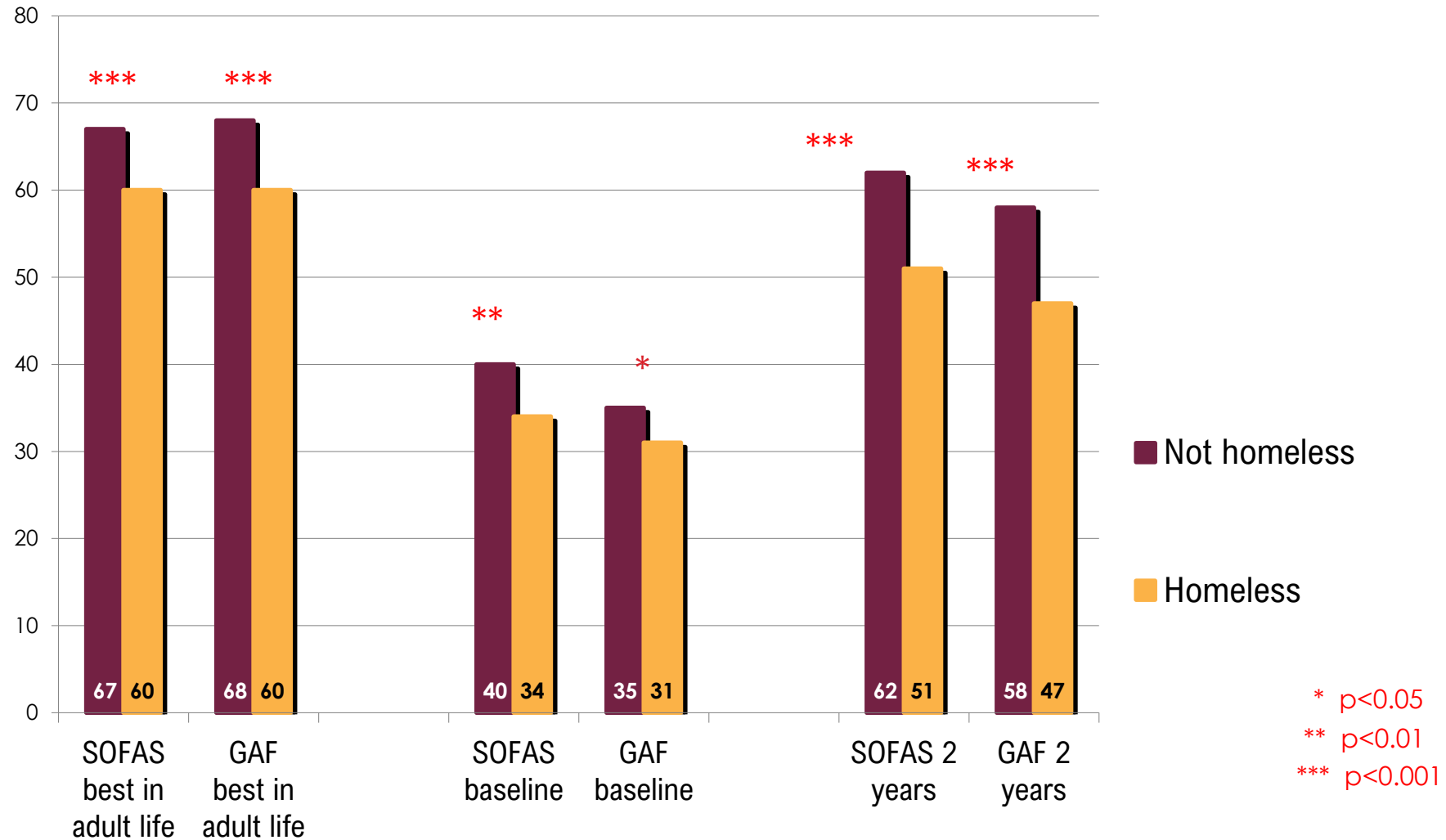
**Duration of homelessness  
DURING follow-up (months)**



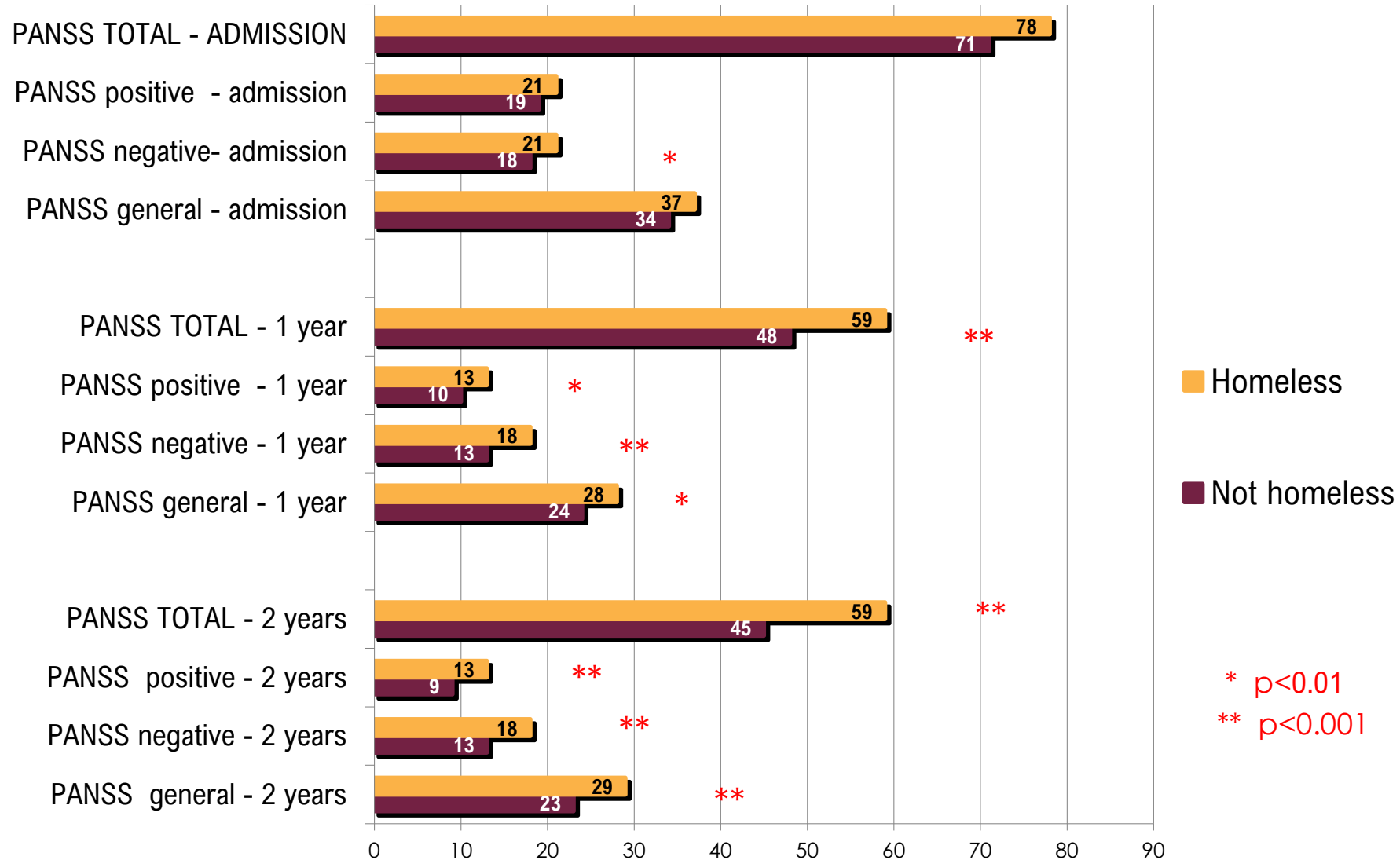
# Sociodemographic Characteristics at Baseline (n=168)



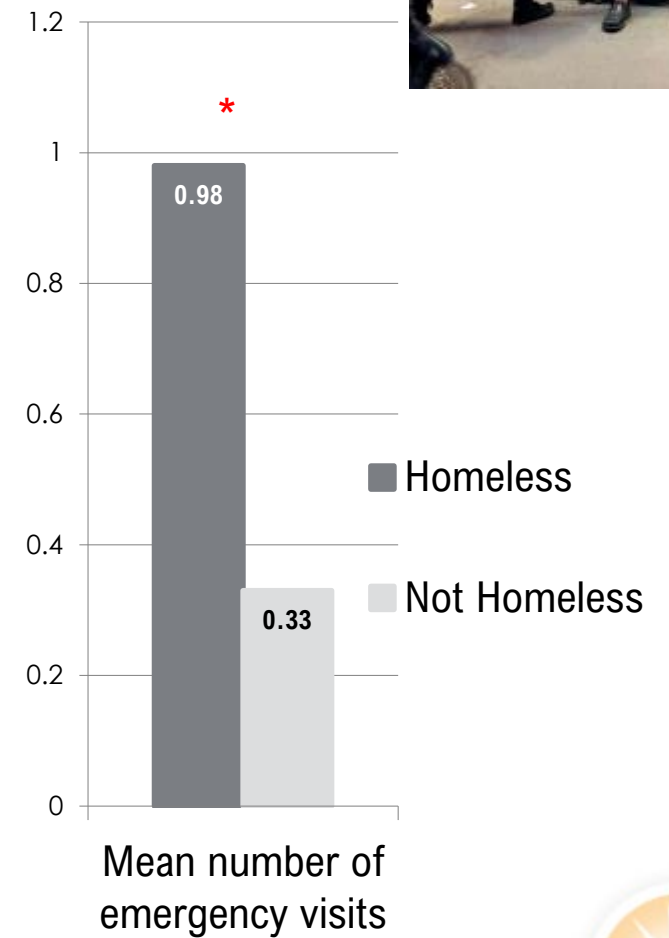
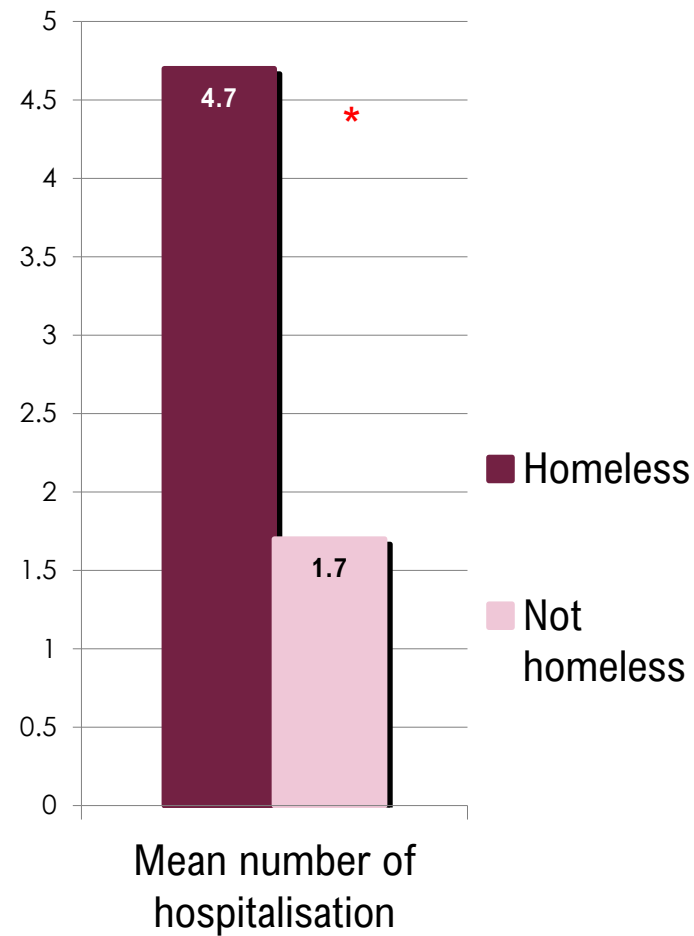
# Functional Outcome in Homeless Vs Not Homeless FEP (n=168)



# Symptomatic Outcome in Homeless Vs Not Homeless FEP



# Service Use of Homeless Vs Not Homeless FEP



\* p < 0.001



# Summary

## Homeless youth with FEP are more vulnerable when compared with FEP without homelessness

- Greater severity of psychotic illness
- More non-affective psychosis (vs affective psychosis)
- More substance use disorders
- More cluster B personality traits/disorder
- More legal problems and judicialization



# Summary

Despite intensive specialized intervention for early psychosis

- More **frequent use of inpatient and emergency** services than other FEP
- Require more frequently **treatment orders and more LAI** to reach similar level of medication compliance

However, their **disengagement is similar** to other FEP

Yet over 2 years F-up they show

- **Worse functional and symptomatic outcomes**





# Towards Solutions

- Is their outcome worse because despite relatively intensive intervention for youth with early psychosis, **the intervention is not sufficiently adapted to their needs?**
- A team to meet the specific needs of these young people?



# Intensive Community Care Team Dedicated to Homeless Youth with Psychosis and Substance Use Disorders

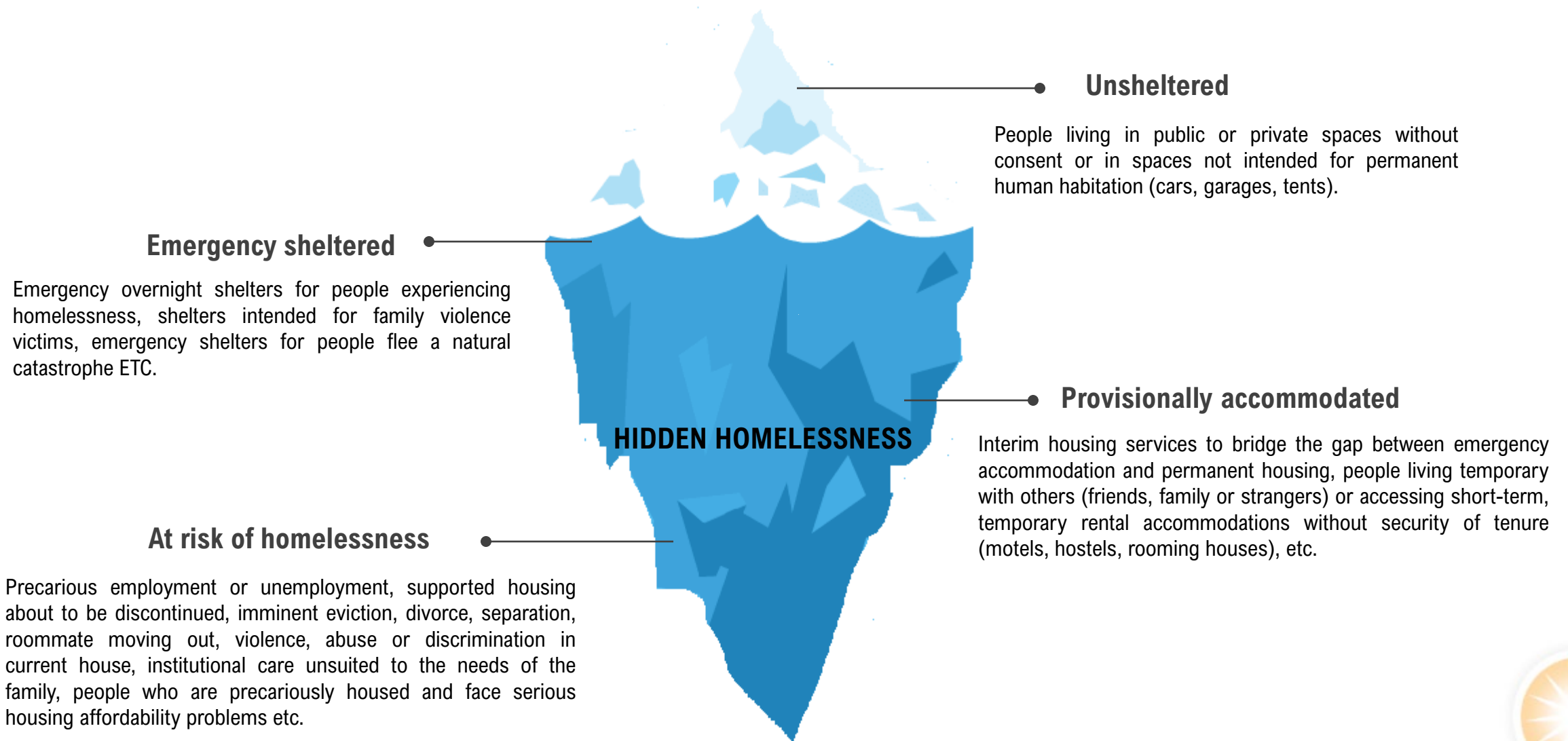
# Homelessness and Psychosis

## Homelessness and psychosis feed on themselves in a deleterious vicious circle

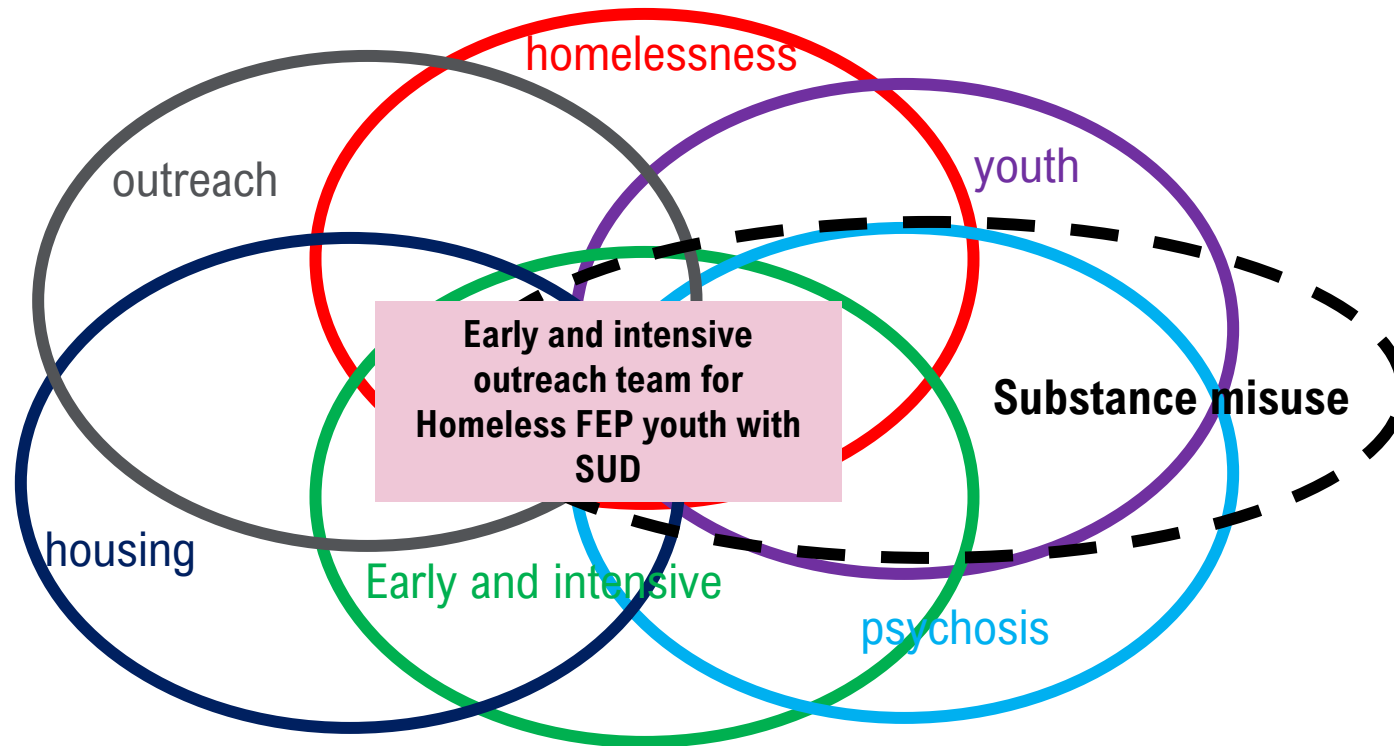
- Detrimental effect on mental health
- Extreme poverty
- Lack of basic security, chronic stress
- Constant hypervigilance and fear associated with street life
- Psychosis affects cognition, affect, interpersonal and working capacities as well as problem solving capacities to avoid and exit homelessness



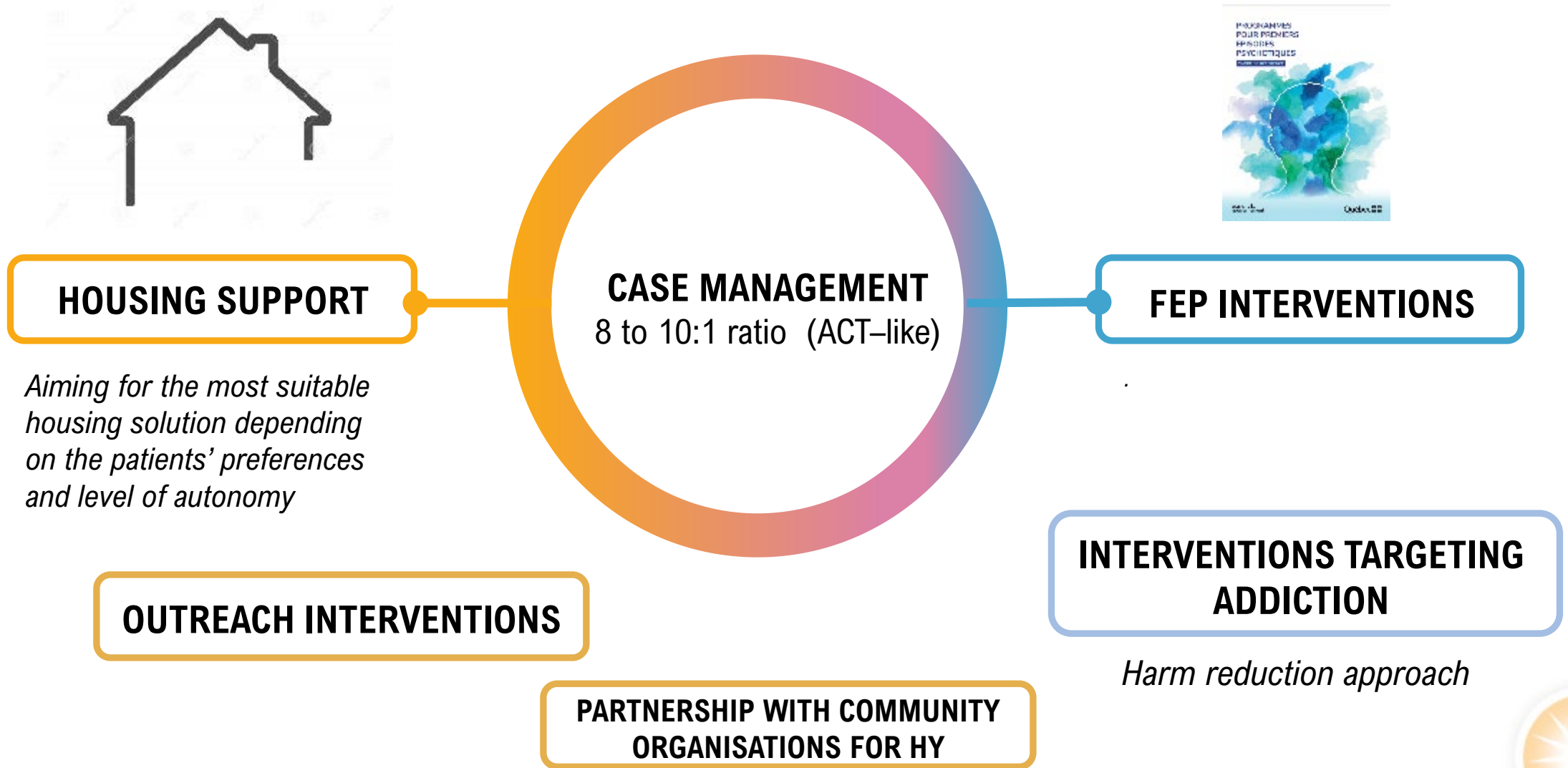
# Youth Homelessness is a Complex Phenomenon



# Characteristics of the Specific and Efficient Approaches in Populations Related to HY+ FEP+ SUD = **EQIIP SOL**



# The EQIP SOL Program





# Stake Holders

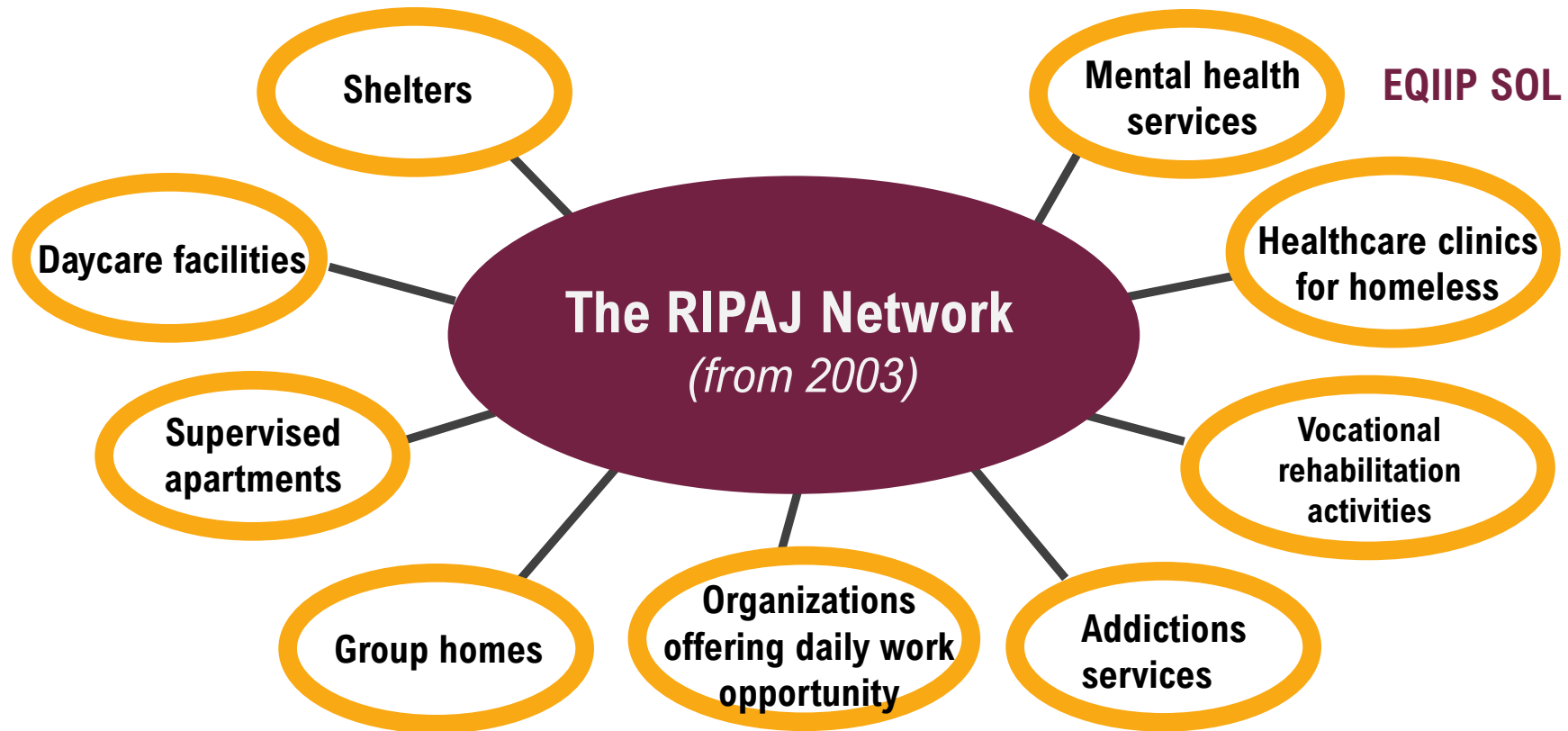
- Partnership between CHUM's First episode psychosis clinic (JAP) & Addiction psychiatry service (UPT) (**treatment**)
- **5 psychiatrists dedicated part-time AND 3-5 full time social workers, nurses**
- Montreal health and social service agency (\$)
- Partnership with Community organisation for HY and those at risk of homelessness in Montreal (**detection and housing**)

- Dans la rue – Refuge des jeunes – Clinique des jeunes de la rue – CLSC des Faubourg  
- Passage - St. Michael's Mission - Diogène - Maison St-Dominique – Portage TSTM  
- Médecins du monde – Pharillon - CRAN-Relais-Méthadone – Cactus  
- – Centre de réadaptation en dépendance de Montréal



# Improving Access to Mental Health Services for Homeless Youth

## *The RIPAJ Network in Montreal*





# The Relationship with Community Partners: *A cornerstone of EQIIP SOL project*

- Community organizations can **refer homeless** youth to EQIIP SOL team;
- First contact **either at the hospital or in the organization** frequented by the youth;
- Youth can eventually be **accompanied by** a trusted person, including **staff members** to the appointments;



- **Regular meetings** (at least monthly) with the partner organizations to share administrative information and, eventually, clinical updates;
- **Weekly visits on site** to facilitate communication and build reciprocal trust;
- **Training on psychosis** and its comorbidities by EQIIP SOL members to the partners.



# EQIIP SOL

**Frequency:** visits 1 to 5 times a week

- Interventions focused on youth needs
- Main focus: finding and maintaining adequate housing
- Other Objectives are the improvement of:
  - Substance misuse
  - Psychosis
  - Legal issues
  - Study / Work rehabilitation
- HY also have access to all other services (for patients + their families) and group therapies offered at the EIS



# **Does this model of care improve the outcome of homeless youth with FEP & complex comorbidities?**

# Comparative Study

*(with historical comparative group)*

**Comparing the outcome of 2 homeless youth cohorts suffering from FEP and SUD followed at the same EIS (Clinique JAP-CHUM, Montreal, Canada (urban center)**

- **1-Historical group (Treatment As Usual (TAU)):** All youth followed within the early intervention for psychosis service (**EIS alone**) which **were in unstable housing** at admission (admitted between 2005-2011, before the existence of EQIIP SOL)
- **2-Group EQIIP SOL (EIS + Homeless outreach team EQIIP SOL):** Includes all first episode patients referred to the same EIS and followed by EQIIP SOL (added to EIS) since they **were in unstable housing** at admission (admitted from 2012-2015 after the creation of EQIIP SOL)



# Baseline Sociodemographic and Clinical Characteristics for 2 Treatment Groups

	IHE group (n=24)	TAU group (n=26)	p-value
<b>Age mean ± SD</b>	24.1 ± 3.0	23.6 ± 3.5	0.595
<b>Gender (male) (N)</b>	91.7% (22)	92.3% (24)	0.664
<b>Visible minority (N)</b>	41.7% (14)	23.1% (20)	0.135
<b>Immigration (1<sup>st</sup> and 2<sup>nd</sup> generation) (N)</b>	50.0% (12)	42.3% (11)	0.397
<b>Marital status (single) (N)</b>	87.5% (21)	92.3% (24)	0.461
<b>Education mean ± SD</b>	8.7 ± 2.1	9.4 ± 2.9	0.382
<b>Not in school (N)</b>	95.7% (22)	80.8% (21)	0.125
<b>Unemployed (N)</b>	95.8% (23)	88.5% (23)	0.336
<b>Trauma during childhood† (N)</b>	90.5% (19)	76.2% (16)	0.205
<b>Abuse during childhood *(N)</b>	87.5% (21)	88.5% (23)	0.545
<b>Placement during childhood by youth protection services (N)</b>	38.9% (11)	41.7% (14)	0.555
<b>Legal problems (N)</b>	58.3% (14)	69.6% (16)	0.31
<b>Non-affective psychosis (N)</b>	62.5% (15)	80.0% (20)	0.149
<b>Cluster B personality traits (N)</b>	66.7% (16)	61.5% (16)	0.468
<b>Patients on LAI at 3 months (N)</b>	45.8% (13)	28.0% (18)	0.159
<b>Mean CPZ eq. at 3 months ± SD</b>	237.0 ± 257,5	195.5 ± 139,1	0.487

†Trauma in childhood: Includes abuse, neglect, placements, intimidation, death of a parent, separation from an attachment figure

\*Abuse during childhood: Includes physical abuse, psychological abuse, sexual abuse and neglect

**LEGEND:** Age and education in years; LAI, long-acting injectable antipsychotics; CPZ eq., chlorpromazine equivalent (antipsychotic medication converted to chlorpromazine equivalent, in mg); SD, standard deviation.



# Lost to Follow-Up at 24 Months?

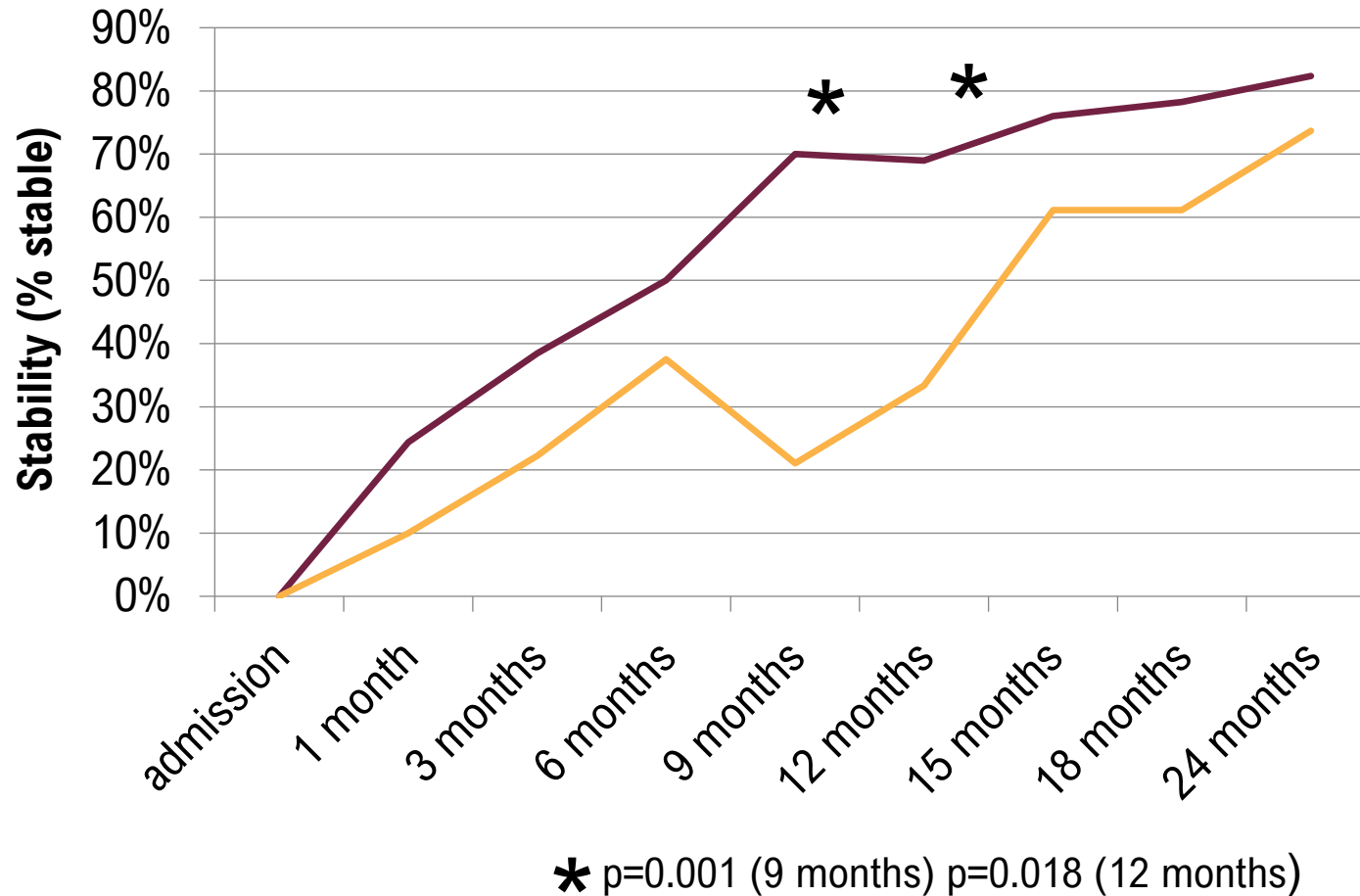
- IHE group (EQIIP SOL): 4/24 (16.7%)
- TAU group: 6/26 (23.1%)
- No statistically significant differences on baseline characteristics\* between participants lost to follow-up and those still being followed
- **Main reason: they went back to their home region or country (immigrants-refugees)**

\*in terms of gender, marital status, diagnosis, Cluster B personality traits/disorder, abuse and trauma in childhood, legal problems, immigration status, visible minority, education level and baseline GAF, SOFAS, CGI, housing condition, schooling and employment status at baseline and substance misuse at baseline.



# Housing Outcome

Figure 2 : Housing Stability

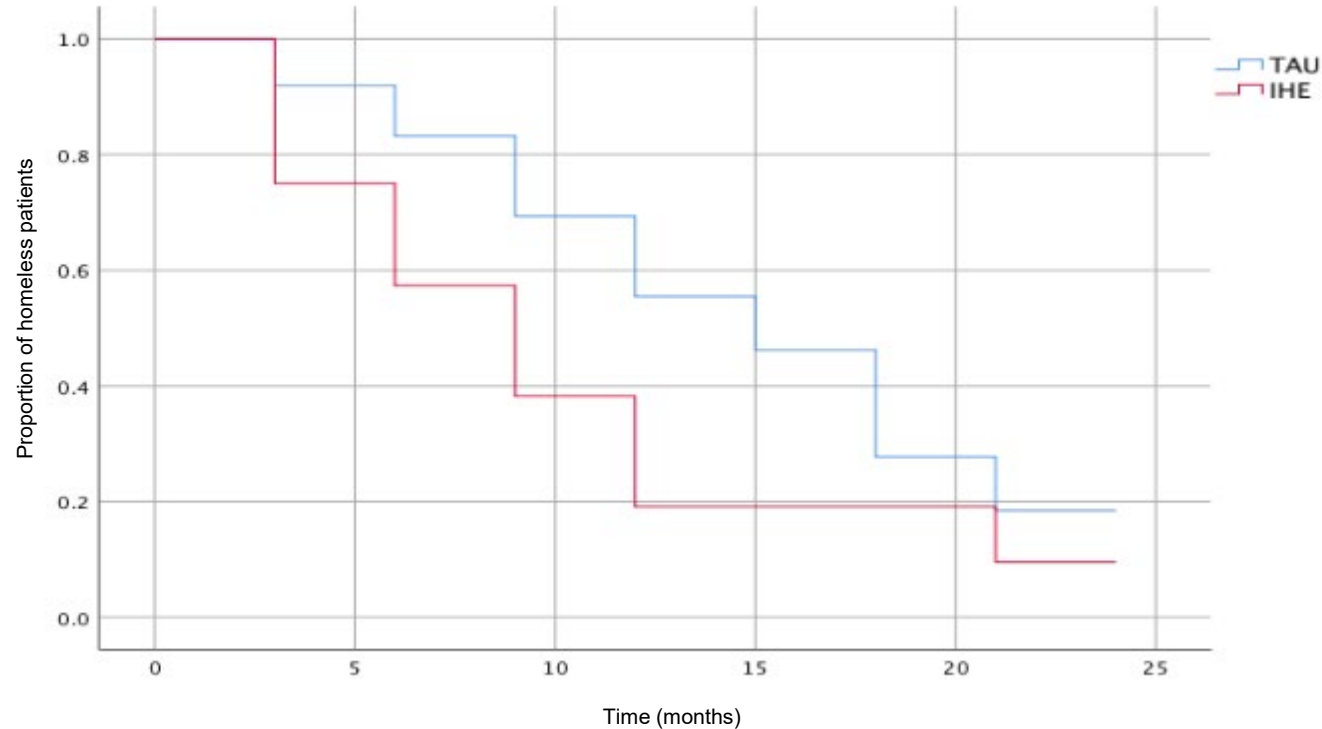


## How long before stability?

On average, **EQIIP SOL** participants attained housing stability after **7.15 months** vs **13.78 months** for **TAU (EIS alone)** (p=0.044)



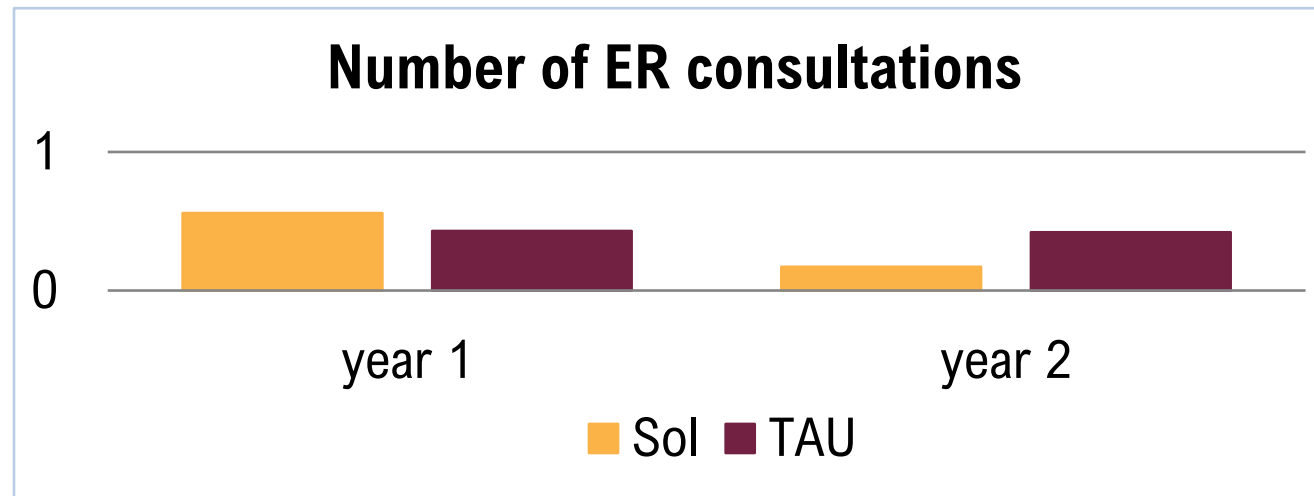
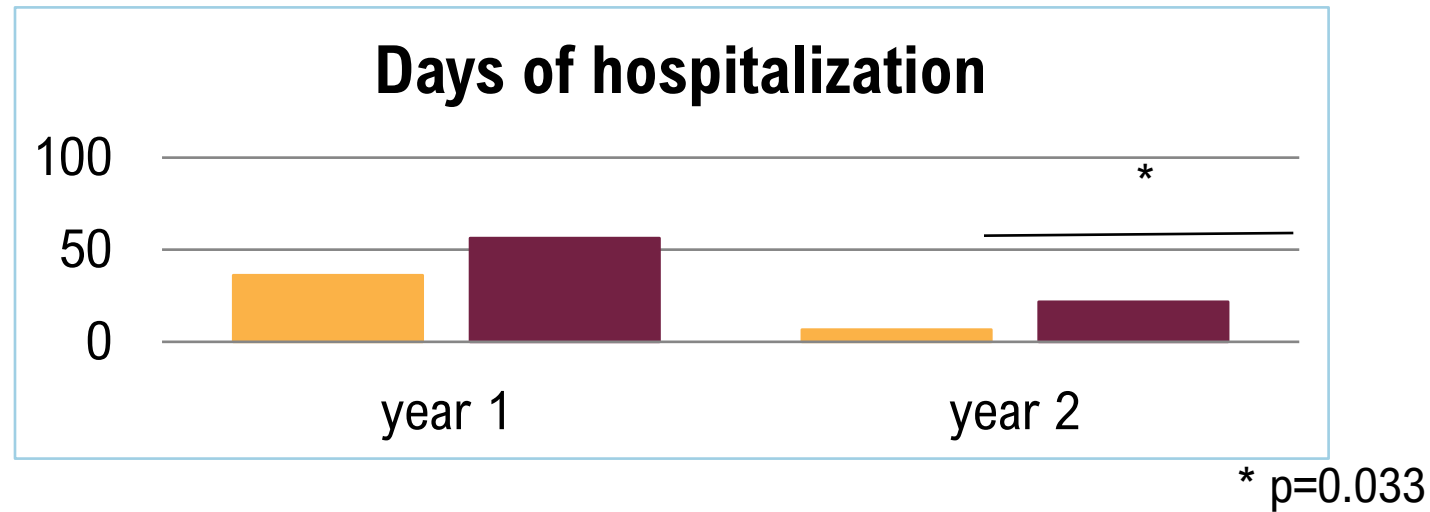
# Time to Housing Stability



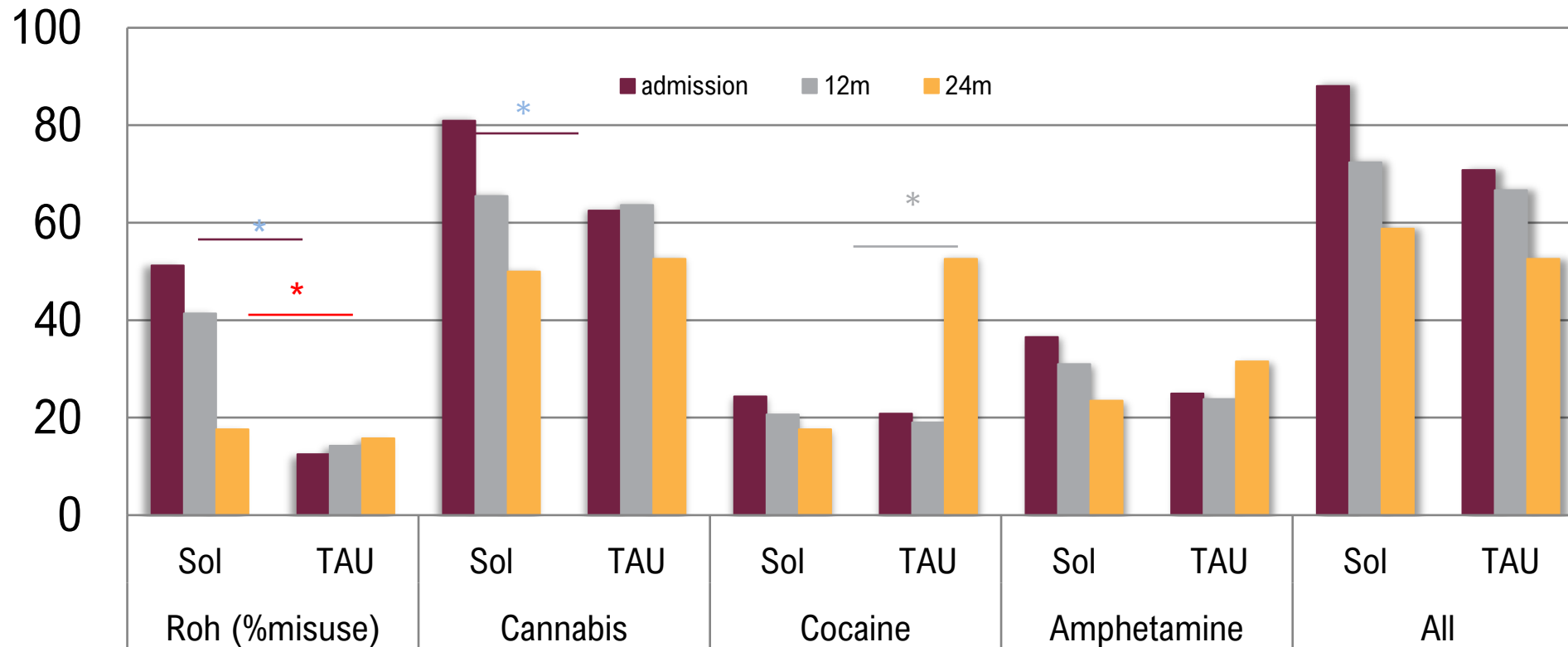
- Kaplan-Meier curves comparisons with log-rank test (RR=1.49, p=0.210)
- When confounding factors (SUD, psychiatric diagnosis, education level & cluster B personality) are included in the Cox regression model:
  - **IHE group (EQIIP SOL) was associated with an increased** likelihood of attaining **housing stability** (RR= 2.38, p=0.017)
  - **Cocaine use disorder** was associated with a **decreased probability of attaining housing stability** (RR=0.25, p=0.04)



# The Acute Mental Health Services use was Lower for the EQIIP SOL Group vs EIS Alone



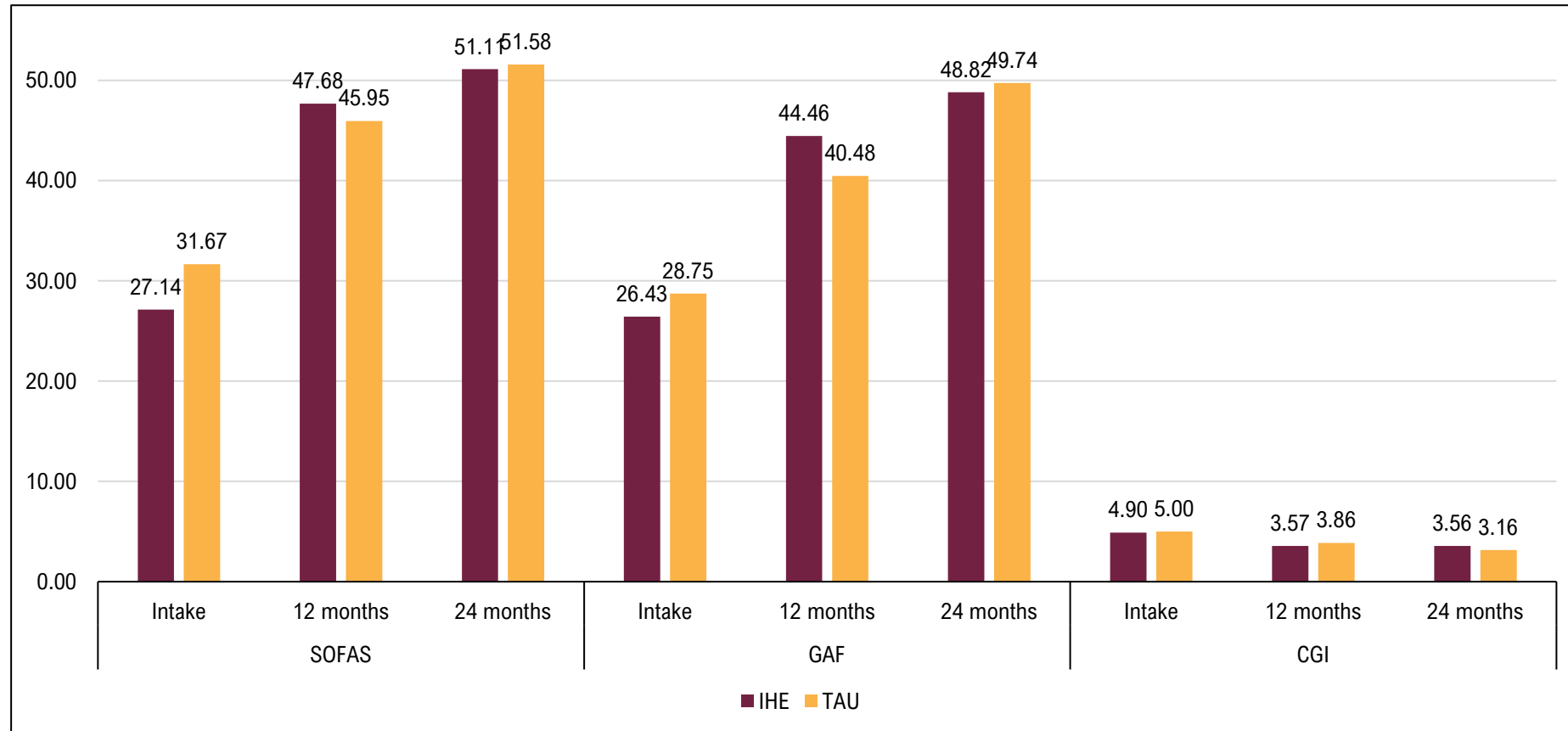
# Substance Misuse Outcome



Participants in the SOL group were more likely ( $p < 0.05$ ) to abuse alcohol and THC at baseline, a difference that disappeared after 24 months (ROH) and 12 months (THC). **Participants of the TAU group were more likely to abuse cocaine at the end of FU.**



# Social and Global Functioning + Clinical Severity



Significant Improvement over time for both groups ( $p < 0.0005$ )

No difference between groups, no interaction group x time



# Conclusion

This research suggests that an **intensive community care team (dedicated to homeless youth suffering from psychosis and addiction)** added to an early intervention for psychosis clinic, may help reach better outcomes:

- Attaining housing stability faster
- SUD reduction
- Reduction hospitalisation services

Did not seem to have a major additional impact on symptoms or other functional outcomes (including global & specific [work/study]).



# Study

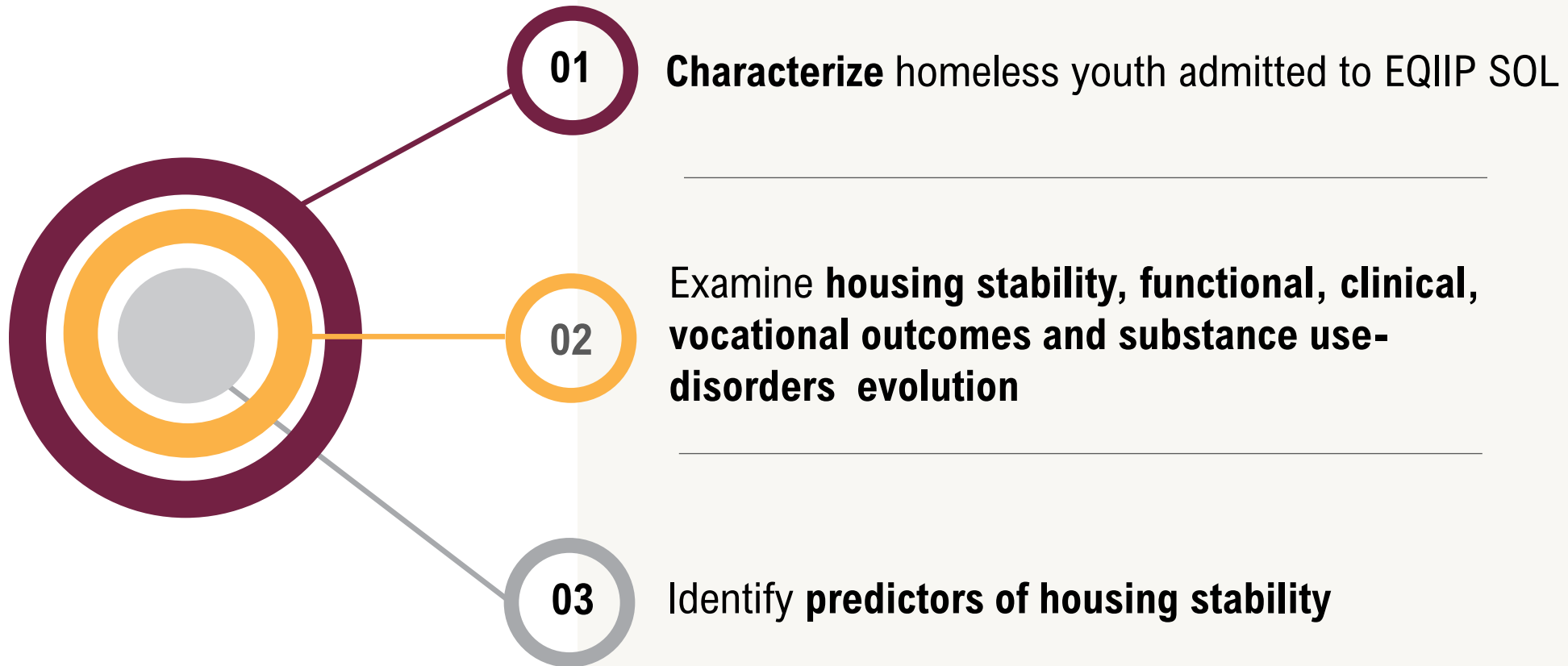
## **Addressing the complex needs of homeless youth with early psychosis and comorbid substance use: A naturalistic longitudinal study of 10 years' experience with EQIP SOL's specialized outreach service**

Todesco, B; Pires De Oliveira Padilha, P; Rabouin, D; Ouellet-Plamondon, C; Jutras-Aswad, D; Abdel-Baki, A.

- **Do the positive results of the pilot study last over time?**
- Substance misuse will improve over longer follow-up since it is a chronic illness for which changes usually tend to appear after longer periods
- Vocational recovery will pursue over time allowing a greater percentage to go back to work or school
- For how long this intervention would be needed to insure stability of these youth's condition.



# Key Research Objectives



# Methods

## Study design:

A **3-years longitudinal study** including all homeless youth (**18-30 y**) enrolled from February 2012 to April 2020.

## Inclusion criteria:

1. Being **aged between 18-30**;
2. Being **currently homeless or at risk** of homelessness at the time of the admission;
3. Being diagnosed with a **primary psychotic disorder** (untreated/treated <1y) +/- substance use.

## Outcomes:

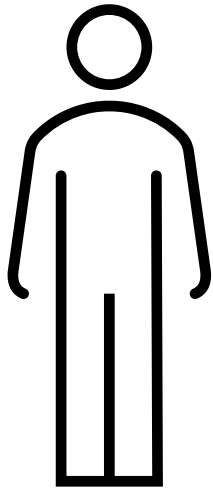
- **HOUSING STABILITY:** the patient is considered “**stable**” if, **for the last month at least, he has been living in adequate housing accommodation, which allows him to stay for the following 6-12 months** (evidence such as a lease should be available);
- **CGI-S, GAF, SOFAS;**
- **AUS, DUS** (evaluated annually);
- **Vocational outcome.**



## Analyses:

**Variables Statistically significantly associated to housing instability (Univariate analysis) were entered in a multivariate mixed effect model**

# Patients' Characteristics



Baseline characteristics	Total (n=177)
Age at admission (n=177)	23 [20-25]
Male sex	151 (84.8%)
Immigration	
First or second generation immigrant	75 (42.4%)
Marital status	
Celibacy	161 (91.0%)
Highest completed diploma	
Primary school degree or less	105 (59.3%)
High school degree or more	70 (40.0%)
Studying at baseline	11 (6.2%)
Working at baseline	21 (11.9%)
Income	
None	35 (19.8%)
Government aid/disability	115 (64.6%)
Autonomous or aid from the family	27 (15.3%)
Legal problems	36 (20.3%)
Childhood traumatic experiences	
Abuse- (neglect, physical, psychological, sexual)	128 (77.1%)
Placement in foster care	75 (42.6%)
Neglect	88 (53.7%)
Physical abuse	62 (40.3%)
Psychological abuse	63 (40.9%)
Sexual abuse	26 (17.2%)
Primary diagnosis at admission	
Schizophrenia spectrum psychosis	20 (11.3%)
Affective psychosis	34 (19.2%)
Other psychosis (including non specified psychosis)	122 (68.9%)
Last available diagnosis	
Schizophrenia spectrum psychosis	82 (46.3%)
Affective psychosis	58 (32.8%)
Other psychosis (including non specified psychosis)	37 (20.9%)

Legend. Data are median [IQR] for quantitative variables, n/N (%) for qualitative variables.





# Drop-Out and Missing Data

- **71.2% were evaluated at the 36m follow up,**
- **28.8% dropped out of the services before the 3 years**
- **2 deaths** during the follow up, one suicide and one overdose

## Reasons for dropout:

- 30% transfer to another service after stabilization for personal or work-related reasons (i.e., getting closer to the family)
- 16.3% left the region without notice/against therapeutic advice
- 12.2% had to go back to their home Countries due to irregular immigration status
- 8.2% erratic contact with the service
- 8.2% lost after a prison stay
- 20.4% lost for unknown reasons (20.4%)

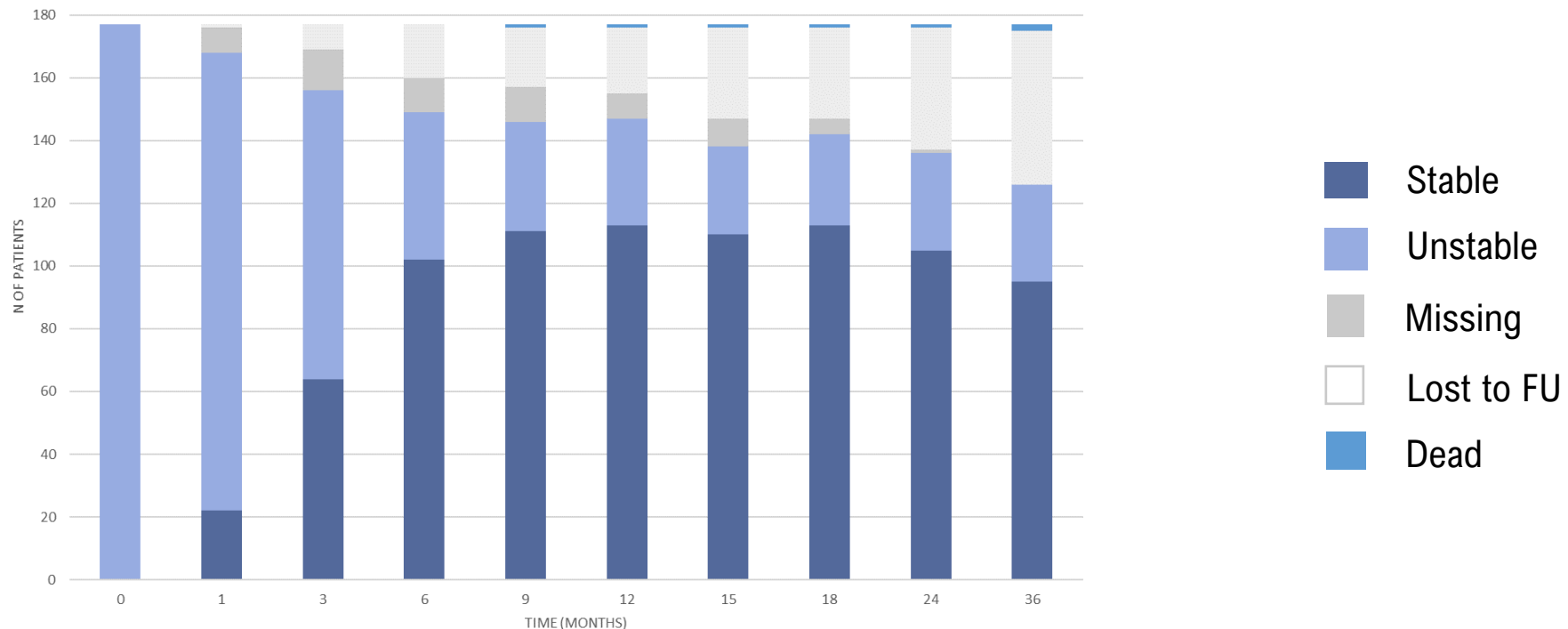
## Patients who missed one or more scheduled time points compared to those with optimal adherence more likely:

- To receive a diagnosis of unspecified Psychosis ( $p=0.009$ )
- To be involved with the legal system ( $p=0.009$ )
- Tended to depend less on governmental aid and to have more autonomous sources of income or financial support from the family ( $p=0.031$ )



# Do the Positive Results of the Pilot Study Last Over Time?

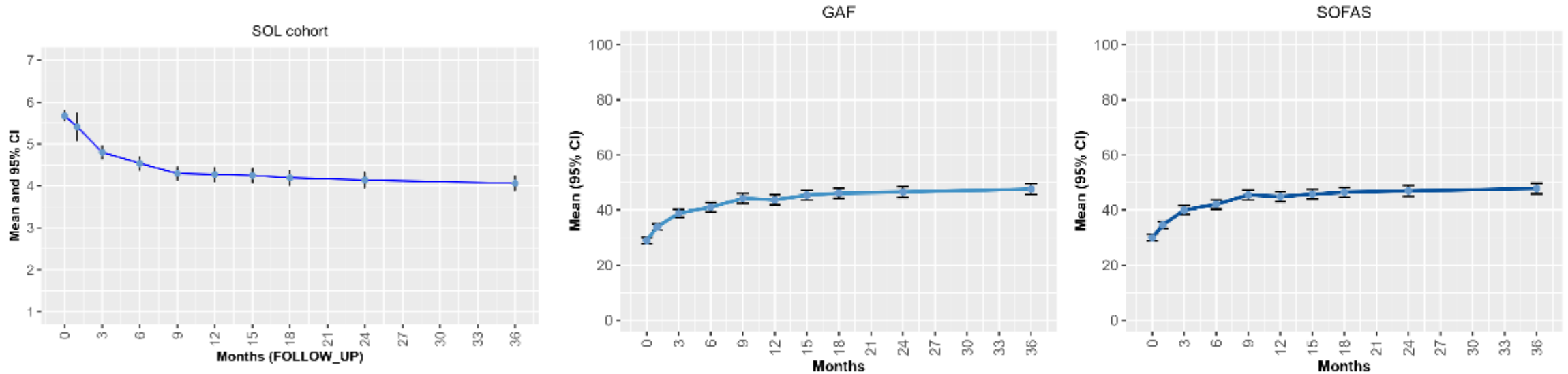
## Implementation – maintenance of the program over 10 years Evolution of housing stability



Globally, **81.4%** of patients were able to achieve housing stability (at least once) over the **3-year period**, within a **median time of six months**.



# Evolution of Clinical and Functional Outcomes



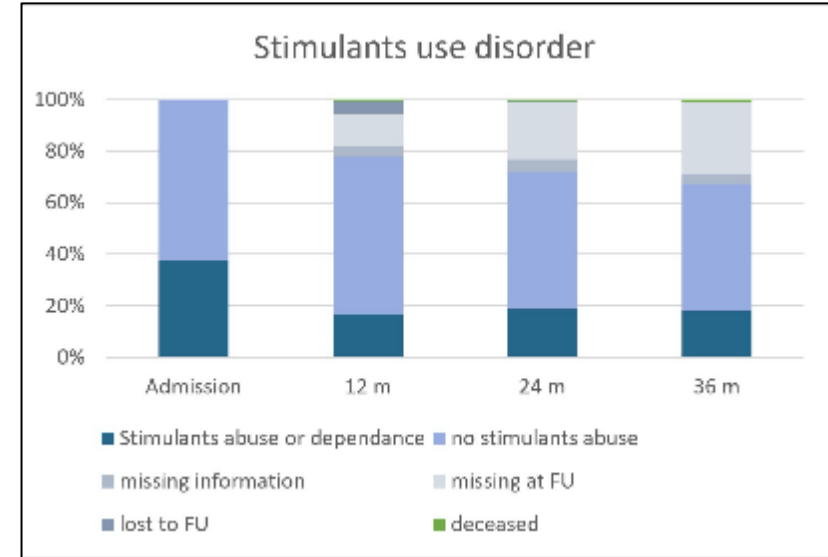
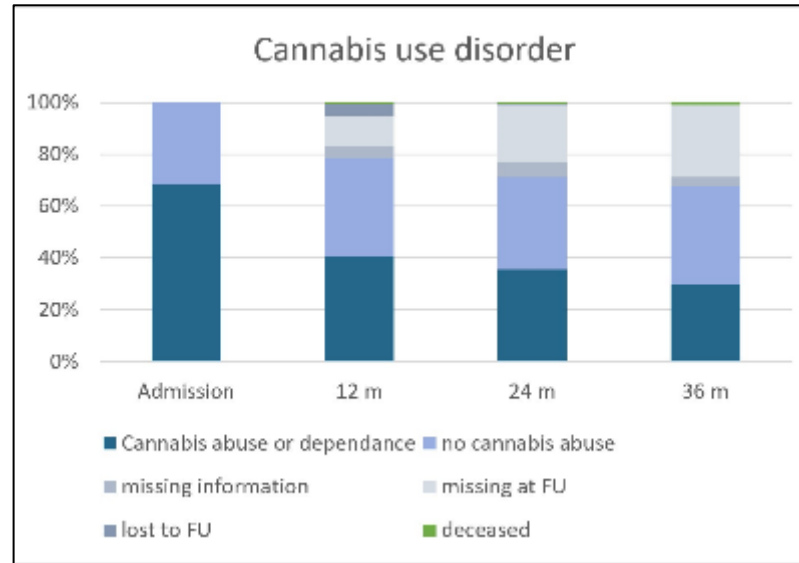
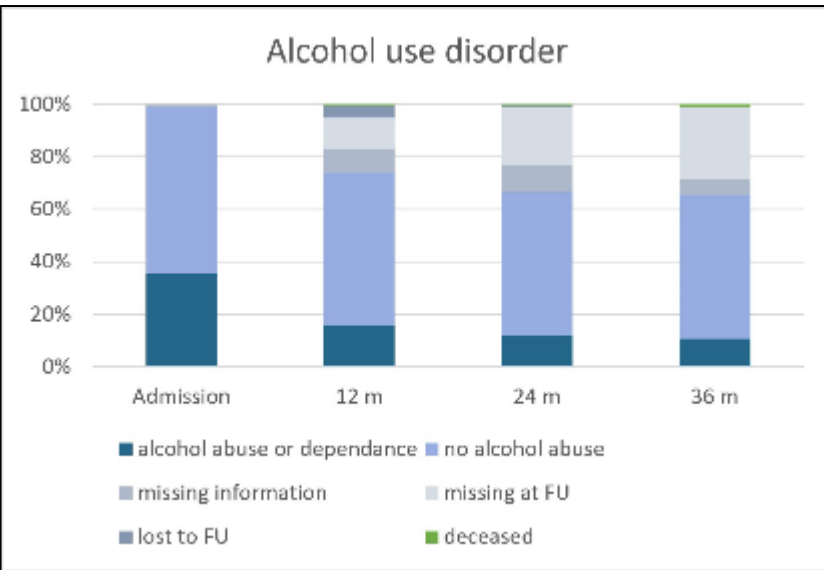
**Clinical severity** of illness (CGI-S) and **functioning** (SOFAS and GAF) improved concurrently **with housing stability, mainly during the first nine months**, with subsequent minor progression.

End of 3 year follow up:

- mean CGI-S score around 4, moderate level of illness severity
- mean GAF scores 47.6 and SOFAS 47.8 (below functional remission (SOFAS or GAF >61) and ability to engage in productive activities (SOFAS >50))
- vocational outcomes: 28.7% were working part-time or full-time and 6.4% were pursuing education



# Evolution of Alcohol and Substance Abuse Disorders



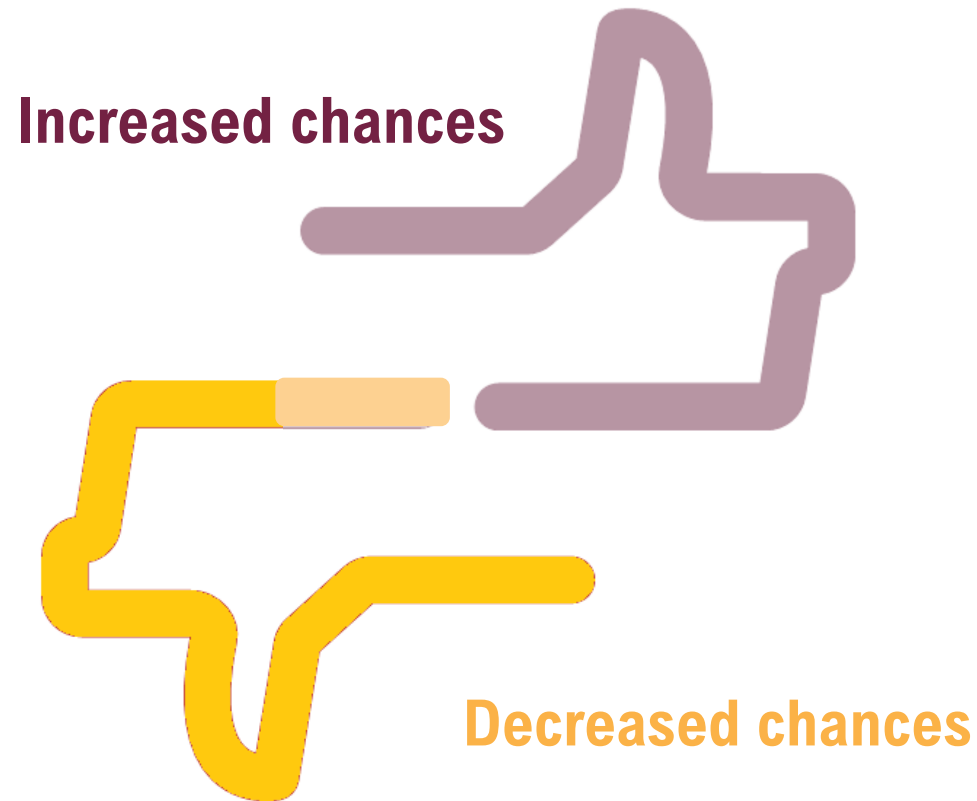
**Alcohol use disorder (36% at Baseline; decreased by half during the first two years.**

- Cannabis use disorder (70%) and psychostimulants use disorder (37%), both decreased by 1/3 during the first year, only a slight or no further improvement thereafter.**



# Factor Associated with the Chances of Achieving Housing Stability

- Being **“older”** at admission
- Forms of homelessness other than “on the street” or in night shelters (such as **housing instability** and couch surfing)
- **No history of chronic homelessness** (lasting more than 12 months)



- Being **“younger”** at admission;
- **Roofless** or emergency sheltered at admission;
- History of **chronic** homelessness;
- **Cocaine or amphetamines use disorder**



# Results



Our results suggest that **the earlier** in life a person becomes homeless and **the more he or she is entrenched in street life**, the **more difficult it is to get out of it**, irrespectively from other factors such as the type of psychosis or the symptoms severity.

Homelessness is a **traumatic experience** in itself. The longer the exposure to it, the more deleterious are the effects, particularly on mental health. Our findings reinforce **the importance of an approach centered on prevention and early intervention** to protect youth **against the effects of homelessness**.

Mental health services need to be reshaped to better respond to homeless youth needs, to facilitate access and use by these patients: **more flexible designs and constant networking and partnerships** with community services.





**Thank you for the attention**