Long Term Outcomes of At Home/Chez Soi Participants

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Homelessness in Canada

- More than 30,000 people are homeless in Canada on any given night and over 200,000 Canadians are homeless each year.

- In Toronto, there are ~5,200 homeless people each night, >27,000 shelter users each year.

- People who are chronically homeless experience high rates of mental illness, substance use disorders, and chronic health conditions.


The State of Homelessness in Canada, CHRN 2013; Street Needs Assessment 2013
Fazel et al, 2014; Hwang et al, 2011; Stergiopoulos et al, 2015

Health and Homelessness

- Homeless individuals have higher mortality rates than the general population

- The prevalence of mental health problems among people who are homeless is high, with a pooled prevalence estimate of 12.7% for psychotic disorders and 11.4% for mood disorders such as major depression

- Rates of mental illness and addictions much higher among those experiencing chronic homelessness

Hwang, 2000; Culhane et al, 2001; Fazel et al, 2008

Neuropsychological Impairment Among Homeless People with Mental Illness

Stergiopoulos et al, 2015
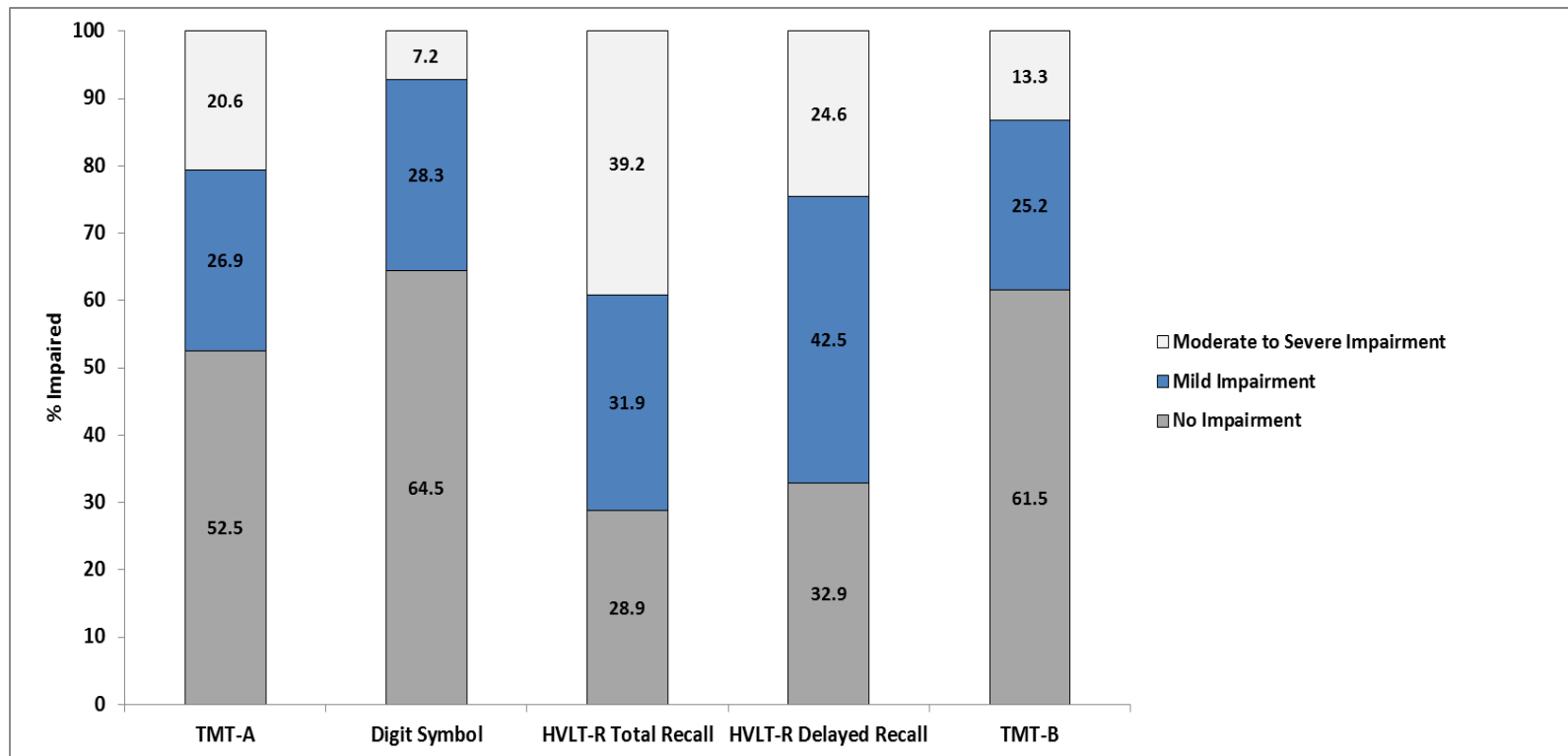
Neuropsychological Impairment Among Homeless People with Mental Illness

- 72% of a national sample (N=1500) of homeless adults with mental illness demonstrated cognitive impairment, including deficits in processing speed (48%), verbal learning (71%) and recall (67%), and executive functioning (38%)
  - ~16% of individuals at the AH/CS Toronto site had borderline or lower intellectual functioning

- Reduced neurocognitive performance was associated with older age, lower education, first language other than English or French, Black or Other ethnicity, and the presence of psychosis
  - Lifetime homelessness duration was approximately three years longer, or almost twice as long, for individuals with borderline or lower intellectual functioning

Stergiopoulos et al, 2015; Durbin et al, 2018

Interventions for Homeless Adults with Mental Illness

Treatment First

1. **Clients transition through several stages and housing types**
   -e.g. emergency shelters, addiction stabilization programs, transitional housing, group residences, and independent housing

2. **"Housing readiness" is contingent on abstinence from drugs/alcohol and/or acceptance of treatment for mental illness**

3. **Services are often provided on-site and success in services is linked to tenancy in housing type**

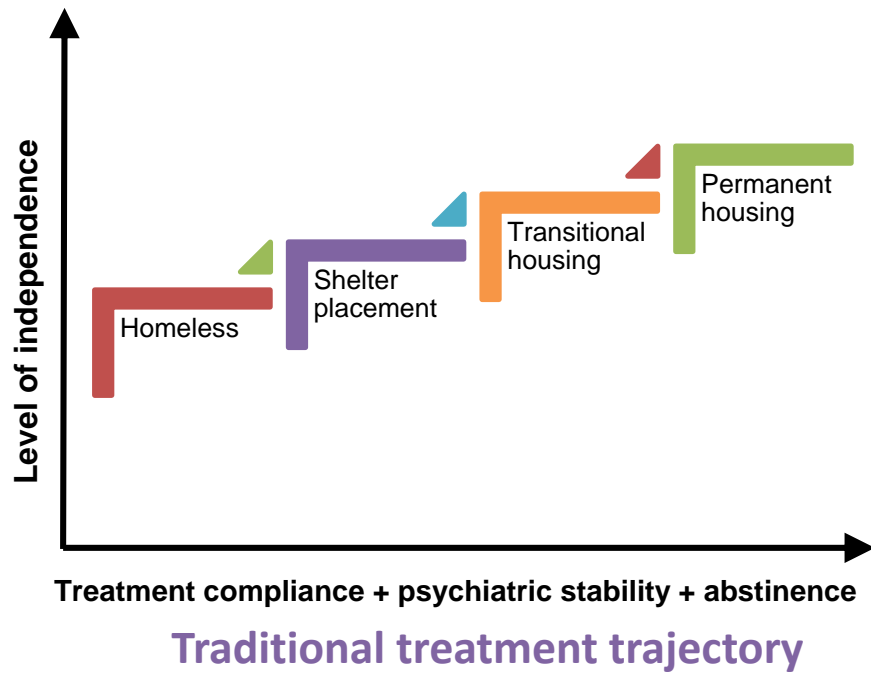4. **Abstinence and treatment participation in required and part of treatment plan.**

Housing First

1. **Rapid placement in independent housing**
   -typically in private market scattered-site apartments

2. **Participants in program are treated like regular tenants with typical leases**
   -rent supplements are provided to reduce barriers; ≤30% of client income used for rent
   -no need to demonstrate "housing readiness" (e.g. sobriety)

3. **Services are provided offsite and not tied to tenancy**
   -housing tenancy is not dependent on acceptance of services; clients have legal rights to tenancy

4. **Care is individualized and consumer driven**
   -services driven by consumer choice
   -recovery-oriented and harm reduction approach

Kertesz et al., 2009 (Mibank Q)   *Goering et al., 2011 (BMJ Open); Tsemberis, 2010: Tabol et al 2010*

Housing First

Level of independence

Homeless

Shelter placement

Transitional housing

Permanent housing

Treatment compliance + psychiatric stability + abstinence

Traditional treatment trajectory
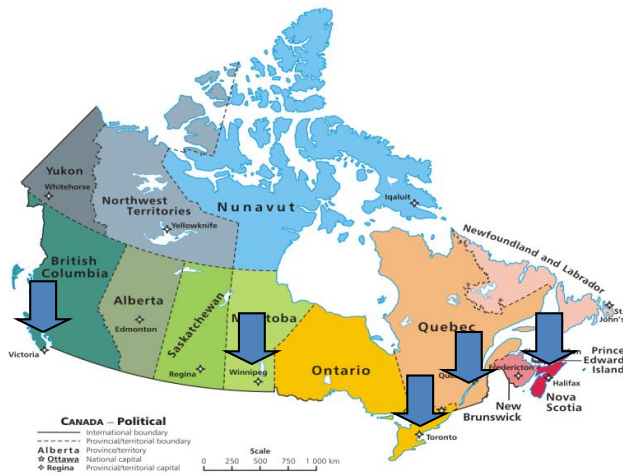
Homeless

Permanent housing

Housing First

Tsemberis, 2010

At Home/Chez Soi Study

- In 2008, the Federal Government of Canada invested $110 million with the Mental Health Commission of Canada

- 4-year research demonstration project in 5 cities (Vancouver, Winnipeg, Toronto, Montreal, Moncton)
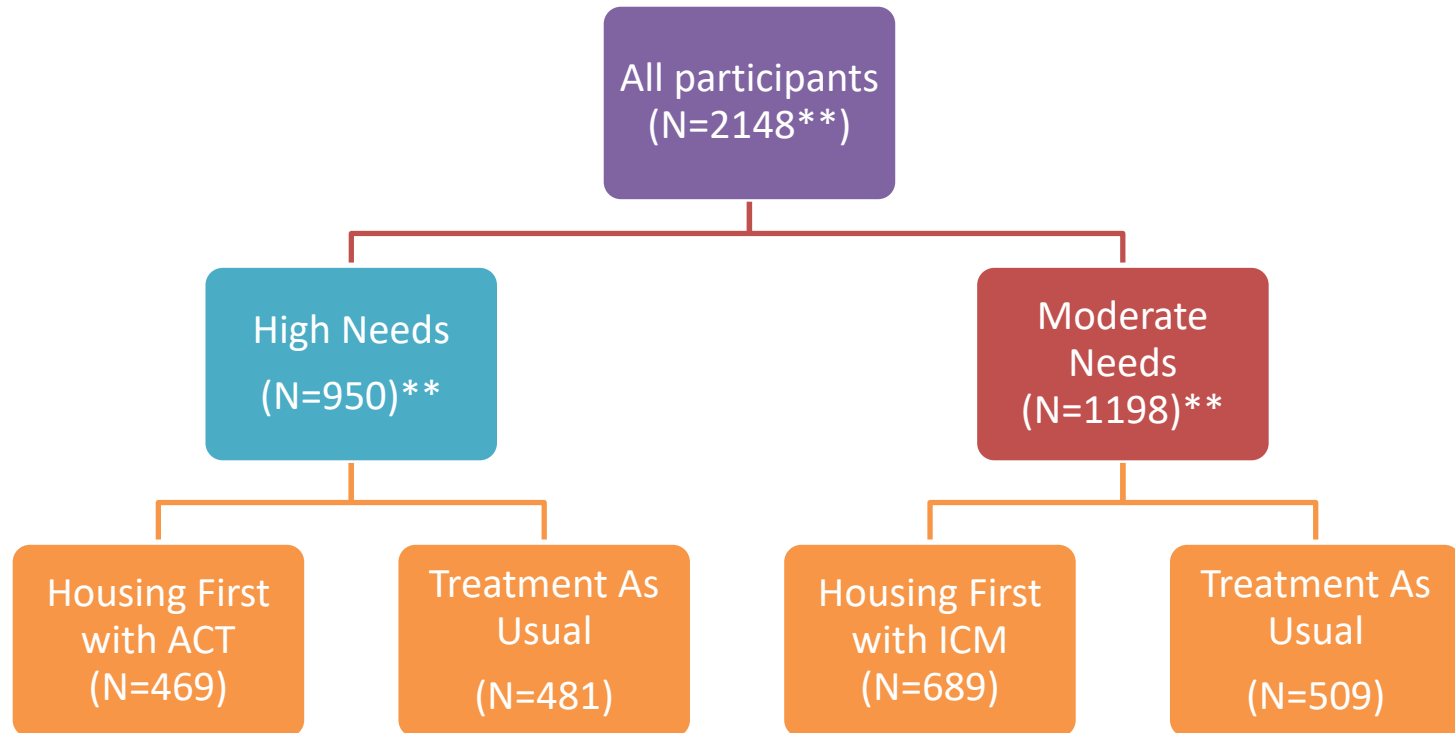

Study Objectives:
To determine the effectiveness and cost-effectiveness of a Housing First intervention for homeless people with mental illness in diverse settings

Goering et al, 2011

Study Eligibility

- ≥18 years old

- Literally homeless OR "Precariously housed" with history of absolute homelessness in the past year

- Presence of serious mental disorder with or without coexisting substance use problem

- Not currently receiving Assertive Community Treatment (ACT) or Intensive Case Management (ICM)

- Eligible to receive public benefits (i.e., legal status)

Goering et al, 2011

At Home: Randomization

All participants (N=2148**)

High Needs (N=950)**

Moderate Needs (N=1198)**

Housing First with ACT (N=469)

Treatment As Usual (N=481)

Housing First with ICM (N=689)

Treatment As Usual (N=509)

Although in total 2250 participants were enrolled in the study, some were excluded from the analyses from the Moncton and Vancouver sites. At the Moncton site, both moderate and high needs participants were randomized to HF+ACT or TAU while a group of participants at the Vancouver site were randomized to receive single-site Housing First with ICM services.**

AH/CS Participants

- Most participants recruited from shelters or the streets

- Wide diversity of demographic characteristics in each study site
  - Ethno-racial focus in Toronto, Aboriginal focus in Winnipeg, addictions focus in Vancouver

- Most participants experienced severe and multiple disadvantage:
  - Extreme poverty
  - Early childhood trauma
  - 56% did not complete high school
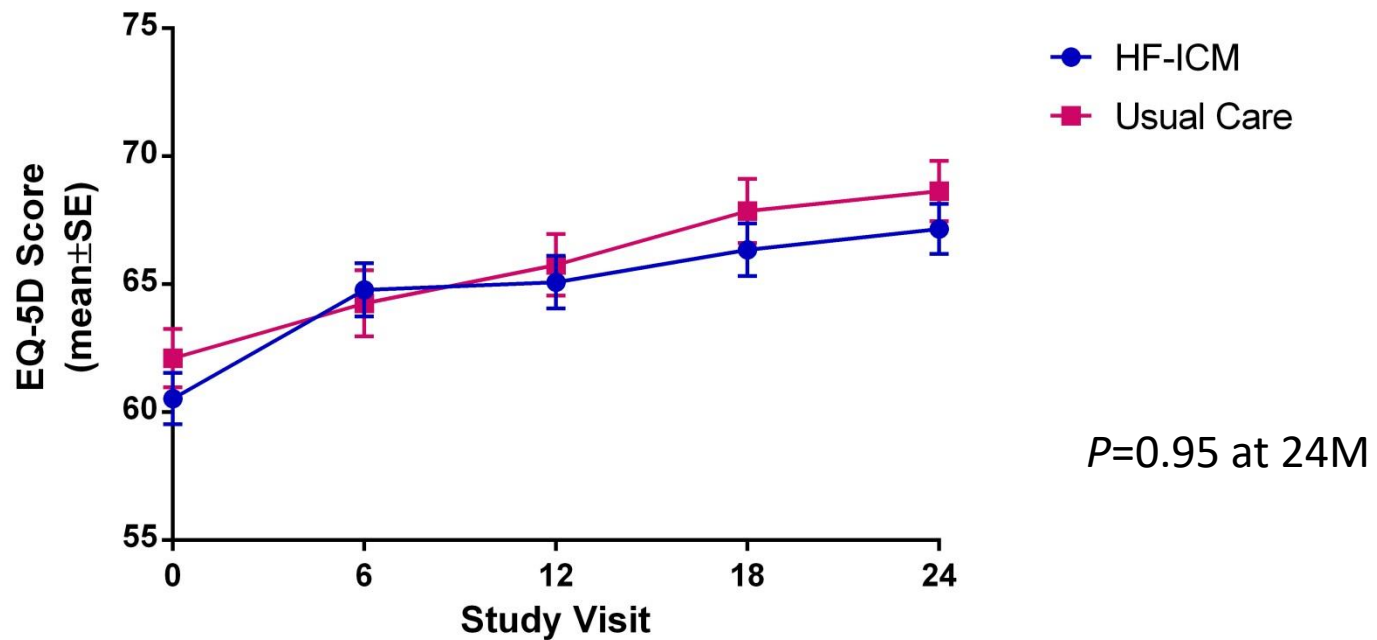 - >90% had at least one chronic physical health condition

Stergiopoulos et al, 2015
Aubry et al, 2016

At Home: Moderate Needs Participants (n=1198)

Characteristics	HF-ICM (n=689)	Usual Care (n=509)
Age, years, mean (SD)	42.2 ± 11.1	42.1 ± 11.3
Male	65%	68%
Single/never married	68%	68%
Member of Ethno-Racial minority	27%	29%
Aboriginal	25%	22%
Lifetime duration of homelessness, years, mean (SD)	4.7 ± 5.9	4.4 ± 5.1
Less than High School education	54%	50%
MINI Diagnostic Categories		
Depressive Episode	59%	59%
Post-Traumatic Stress Disorder	32%	31%
Panic Disorder	24%	27%
Psychotic Disorder	21%	23%
Alcohol Dependence	35%	37%
Substance Dependence	41%	41%

Stergiopoulos et al, 2015

Housing Stability: HF-ICM vs. TAU

Stergiopoulos et al, 2015

EQ-5D: HF-ICM vs. TAU

P=0.95 at 24M

Stergiopoulos et al., 2015
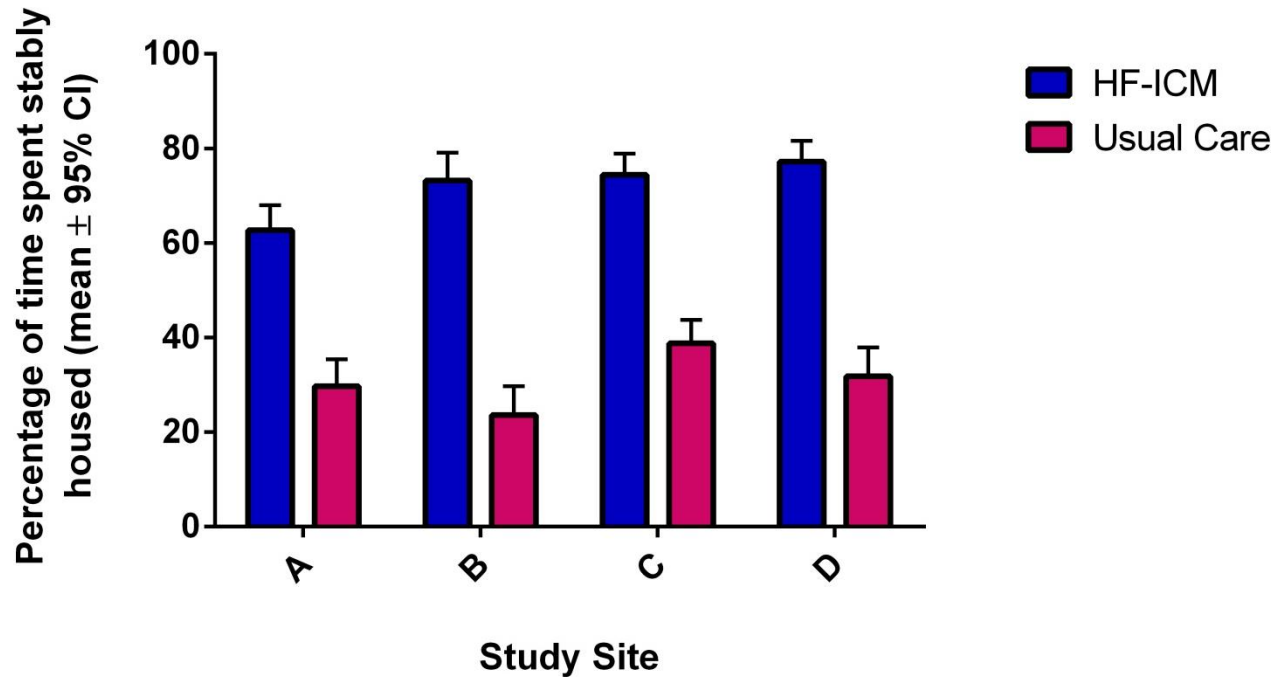
Quality of Life: HF-ICM vs. TAU

P=0.002 at 24M

Stergiopoulos et al., 2015
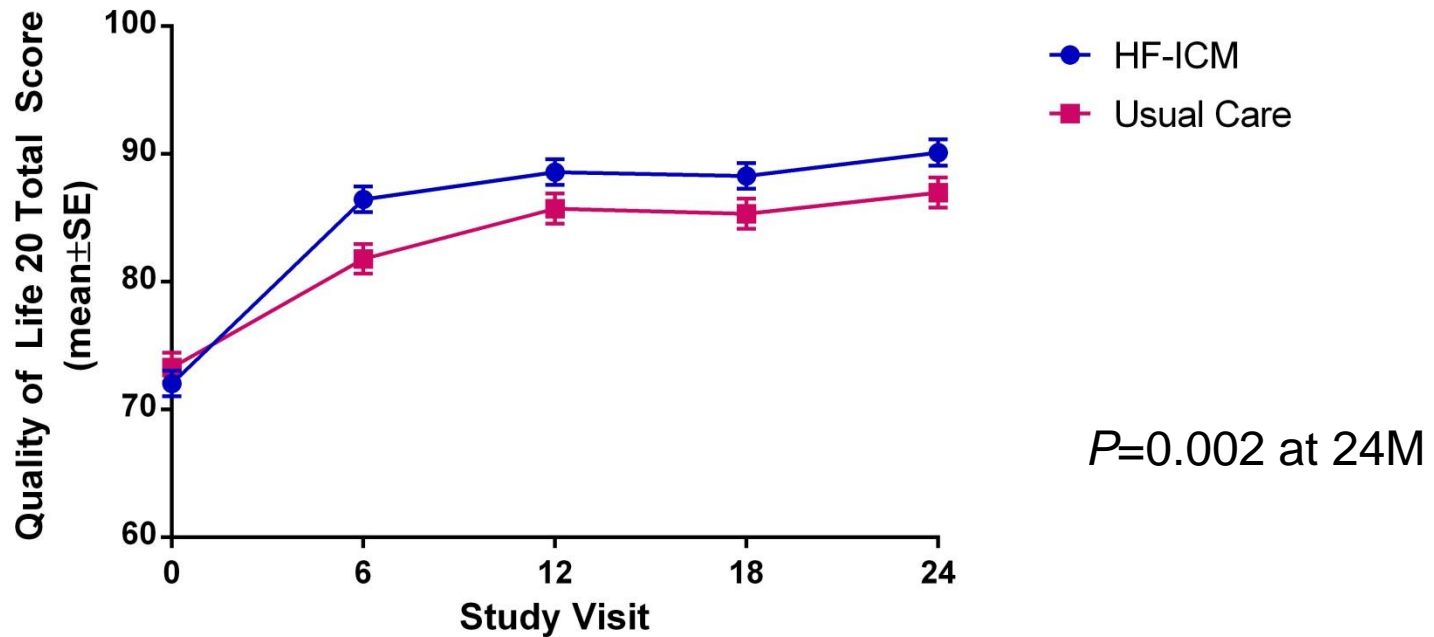
At Home: High Needs (n=950)

Characteristics	HF-ACT (n=469)	Usual Care (n=481)
Age, years, mean (SD)	38.9 ± 10.8	39.9 ± 11.2
Male	68%	68%
Single/never married	73%	74%
Member of racial/ethnic minority group	20%	21%
Aboriginal	19%	19%
Been homeless >2 years lifetime	60%	58%
Less than High School education	58%	60%
MINI Diagnostic Categories		
Depressive Episode	42%	44%
Post-Traumatic Stress Disorder	25%	29%
Panic Disorder	20%	23%
Psychotic Disorder	50%	53%
Substance Use Related Disorder	71%	75%

Aubry et al, 2016

Housing: HF-ACT vs. TAU
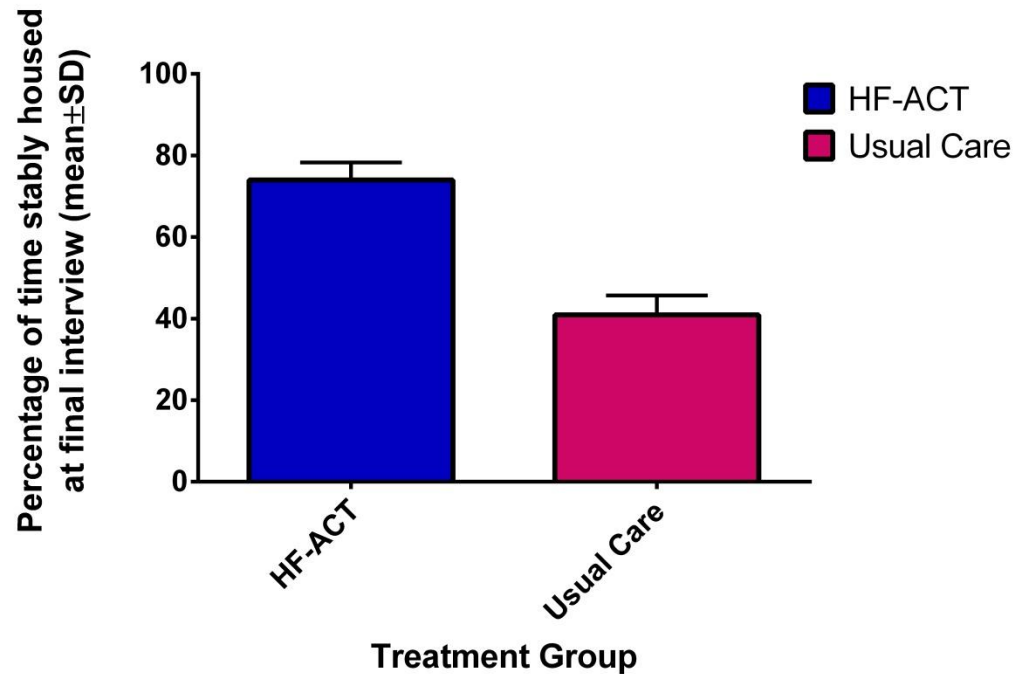
Adjusted absolute difference: 41.7%, 95% CI=37.9-45.4%, *P*<0.01

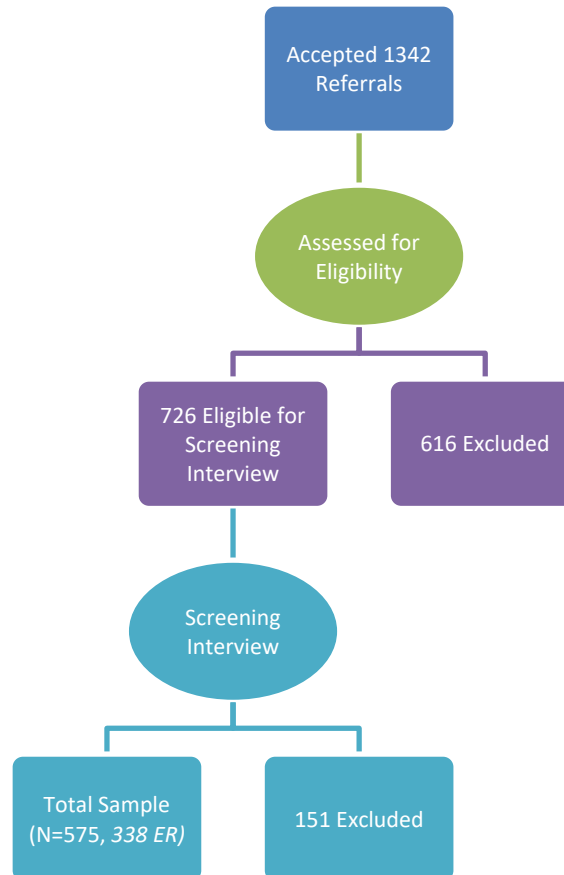Aubry et al, 2016

QoL & Community Functioning: HF-ACT vs. TAU
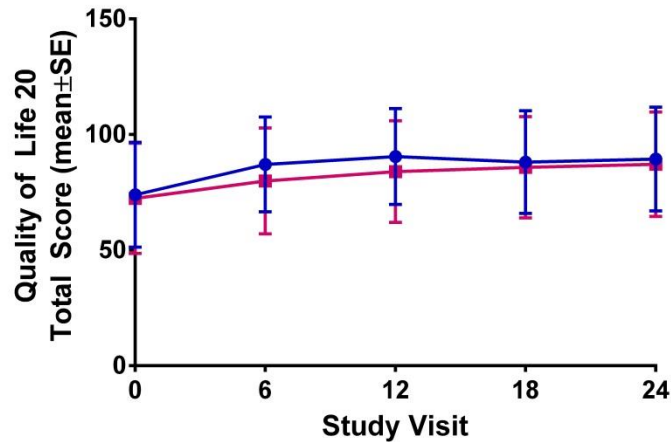
Aubry et al., 2016
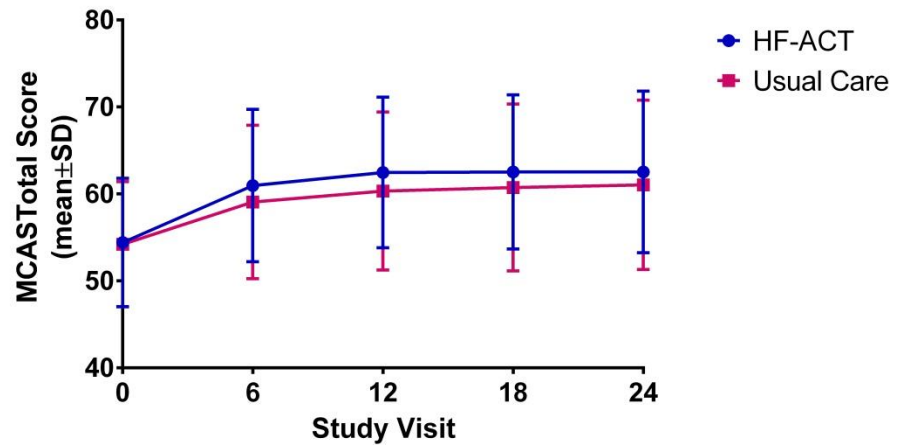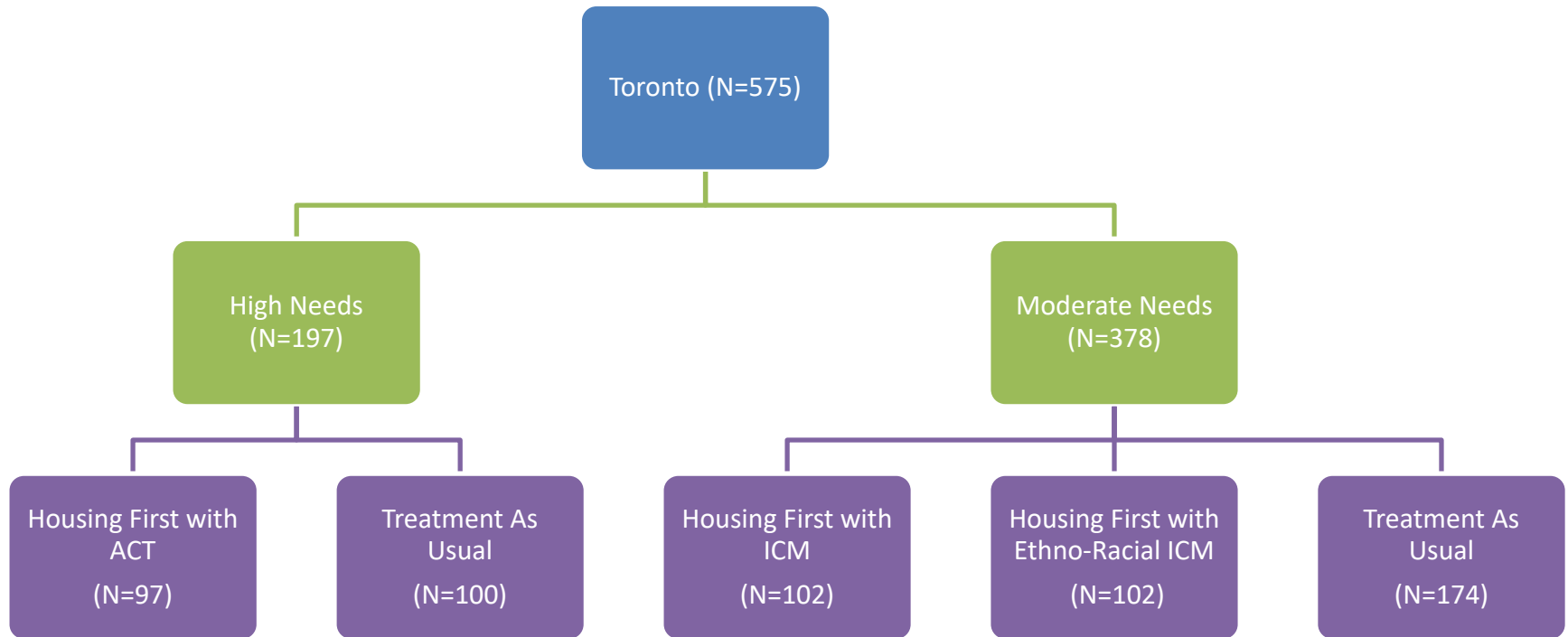
Summary of 2 Year Outcomes

- Housing First can rapidly end homelessness among homeless adults with mental illness

- Housing First is a solid investment, and has become a policy direction provincially, and federally.

- Despite improvements in housing, other recovery domains did no improve significantly over 24 months, compared to usual care.

- Nest steps:
  - Measuring long term HF outcomes: CIHR funded study-Toronto
  - Housing First: What Next?
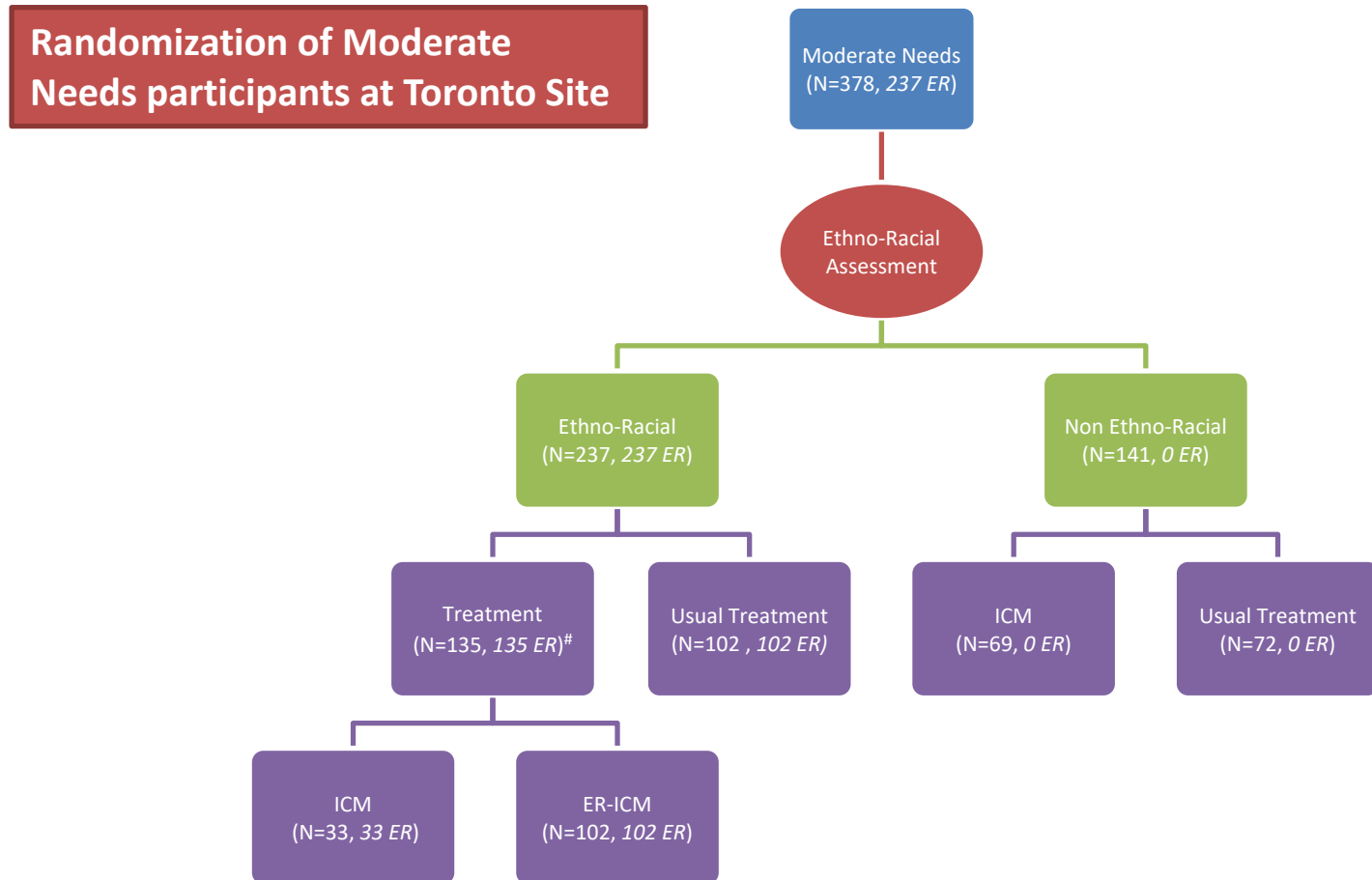   - STAR Learning Centre

Participant Recruitment: Toronto Site

Study Participants: Toronto Site
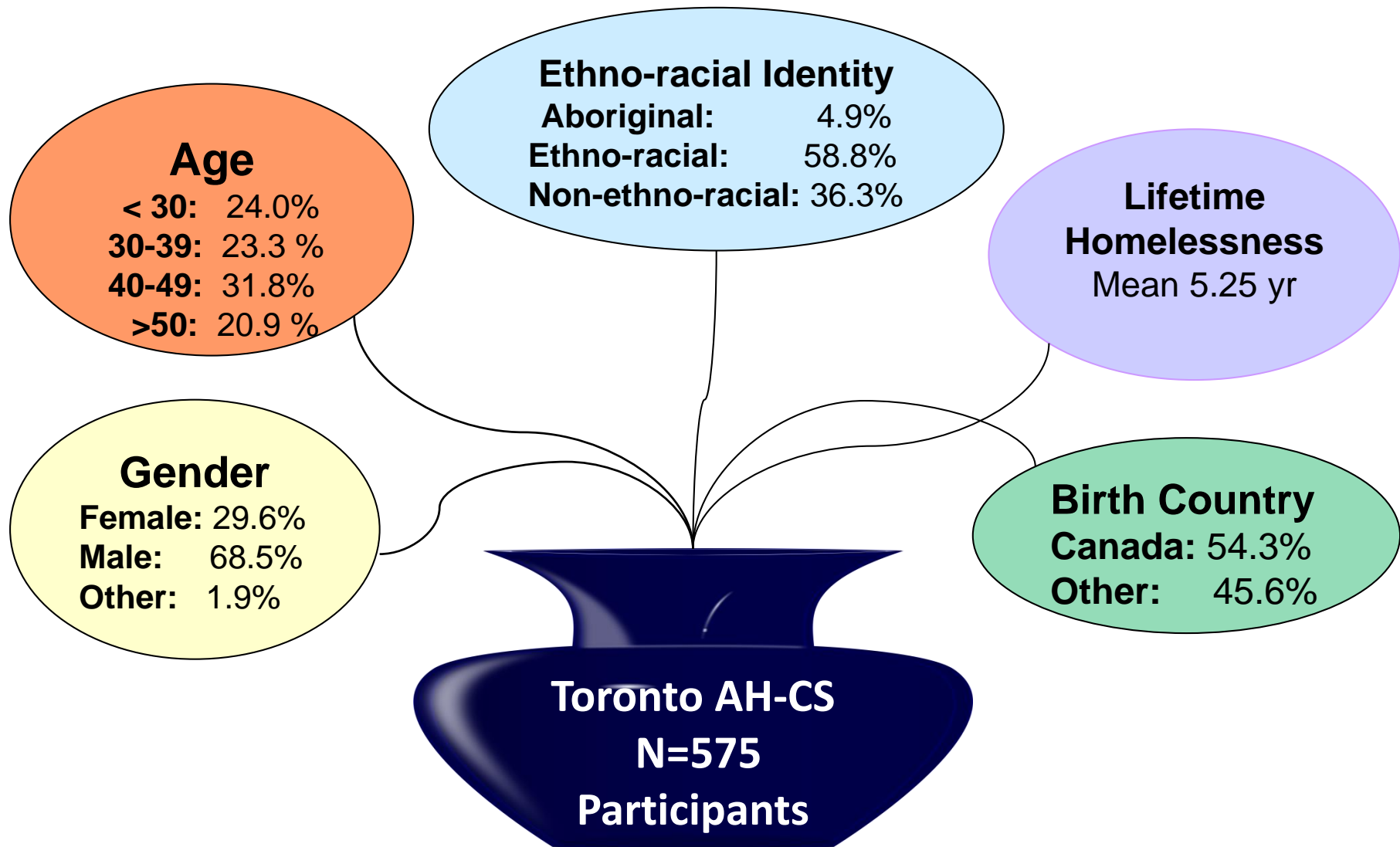
Study Participants: Toronto Site

Randomization of Moderate Needs participants at Toronto Site
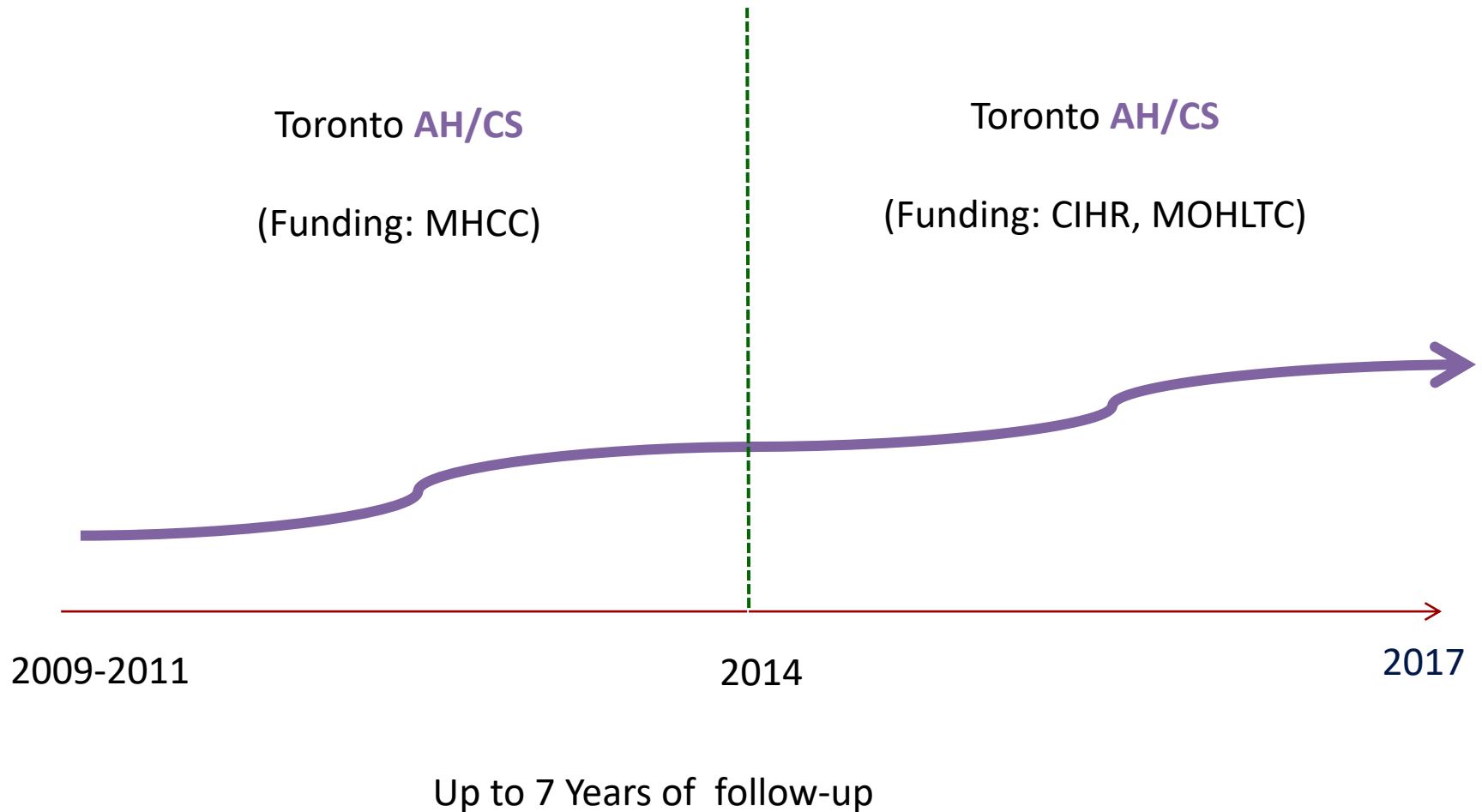
Moderate Needs
(N=378, *237 ER*)

Ethno-Racial
Assessment

Ethno-Racial
(N=237, *237 ER*)

Non Ethno-Racial
(N=141, *0 ER*)

Treatment
(N=135 , *135 ER*)^#

Usual Treatment
(N=102 , *102 ER*)

ICM
(N=69, *0 ER*)

Usual Treatment
(N=72, *0 ER*)

ICM
(N=33, *33 ER*)

ER-ICM
(N=102, *102 ER*)

Collaboration:
Toronto Project Partners

Toronto At Home/Chez Soi (AH-CS) Participants

Ethno-racial Identity
Aboriginal: 4.9%
Ethno-racial: 58.8%
Non-ethno-racial: 36.3%

Age
< 30: 24.0%
30-39: 23.3 %
40-49: 31.8%
>50: 20.9 %

Lifetime Homelessness
Mean 5.25 yr

Gender
Female: 29.6%
Male: 68.5%
Other: 1.9%

Birth Country
Canada: 54.3%
Other: 45.6%

Toronto AH-CS N=575 Participants

Toronto At Home/Chez Soi (AH-CS) Study

Toronto **AH/CS**

(Funding: MHCC)

Toronto **AH/CS**

(Funding: CIHR, MOHLTC)

2009-2011

2014

2017

Up to 7 Years of follow-up

# Mean Percentage of Days Stably Housed in Yearly* Intervals (MN Group)

Negative binomial GEE with log link was used to estimate rate of days stably housed per person-years
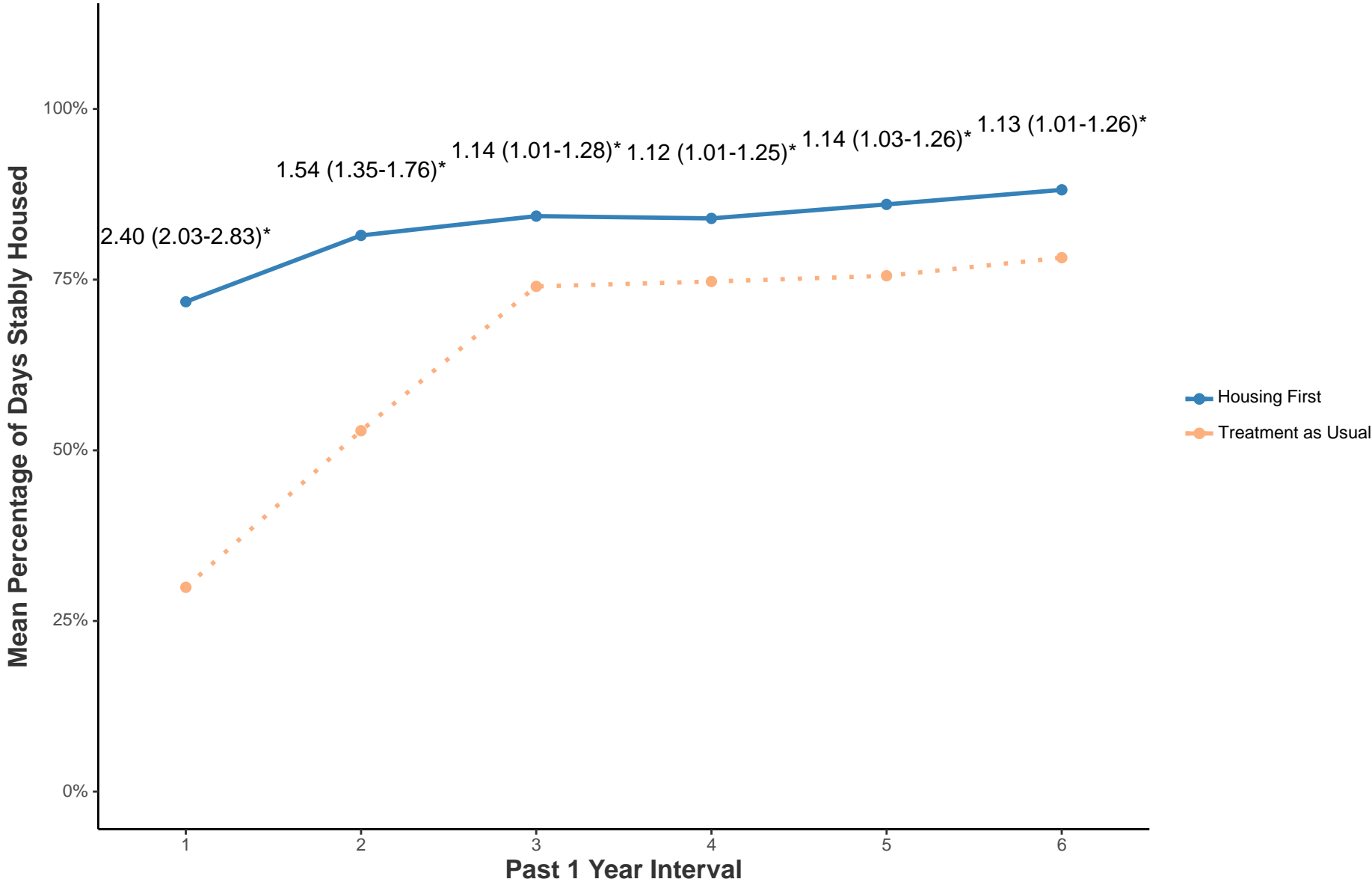
*HF vs. TAU IRRs for each year have been placed at the top of the housing first points

Mean Percentage of Days Stably Housed in Yearly* Intervals (HN Group)

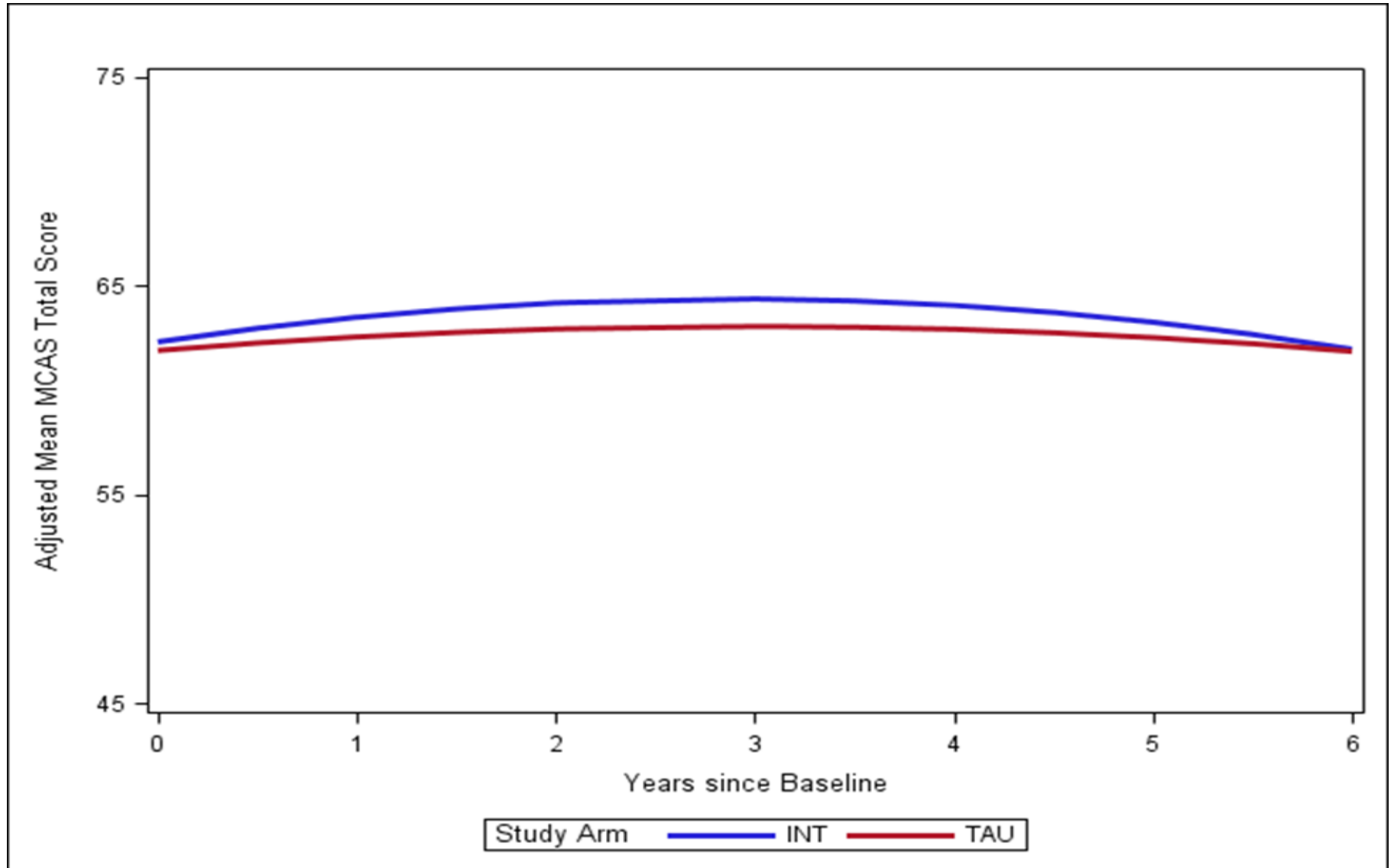Negative binomial GEE with log link was used to estimate rate of days stably housed per person-years
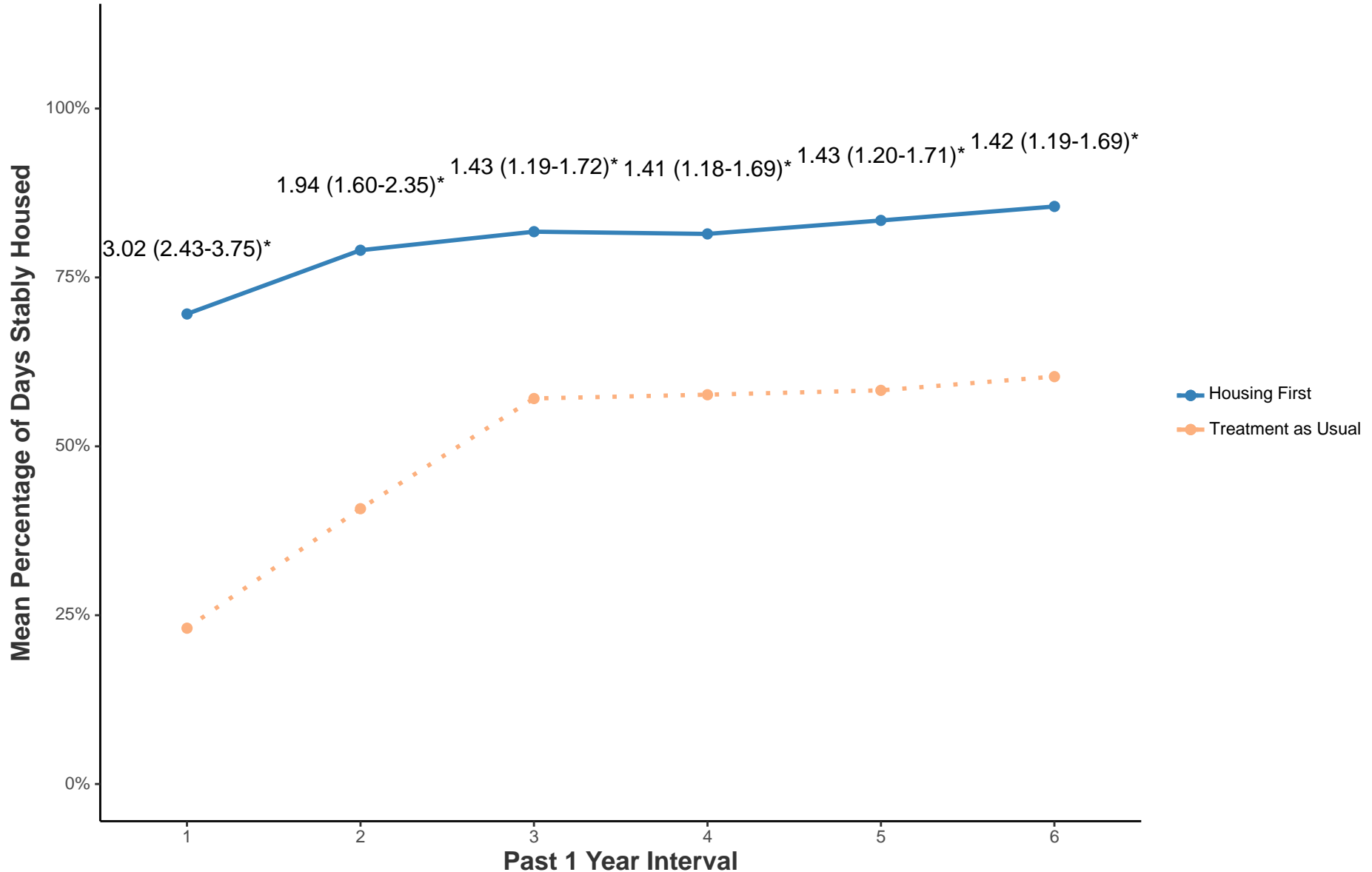
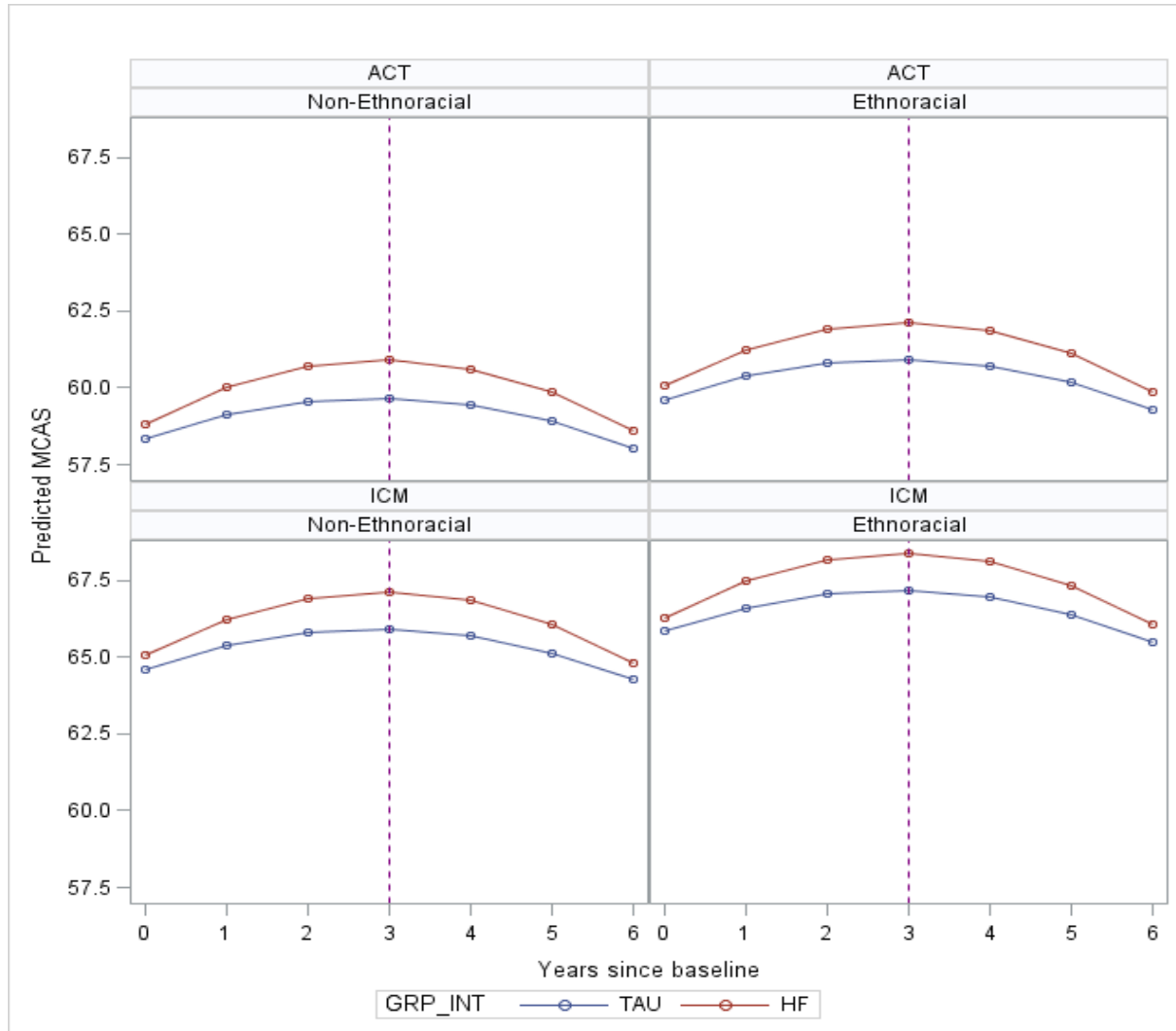*HF vs. TAU IRRs for each year have been placed at the top of the housing first points

Mental Health Symptoms Severity (CSI)
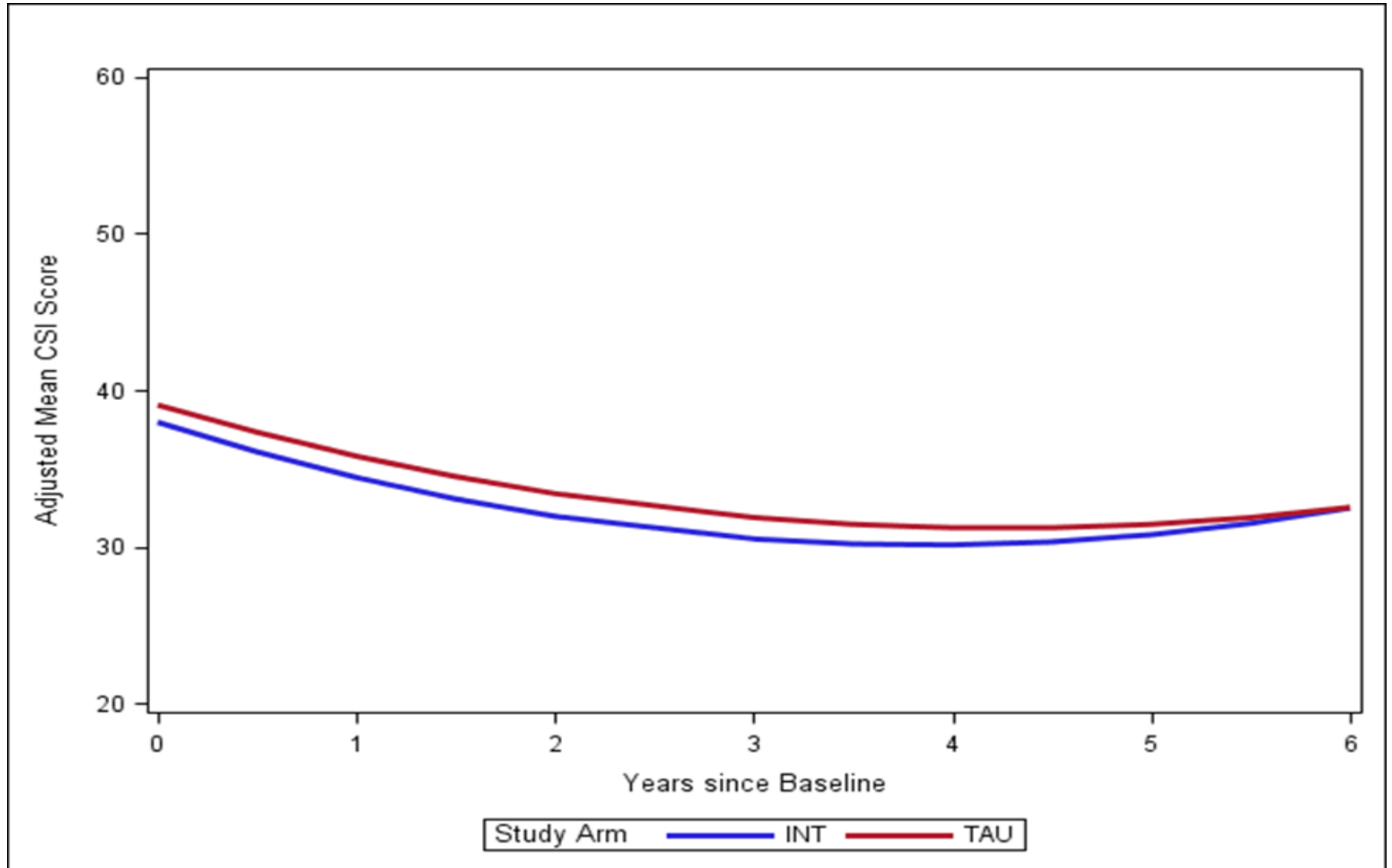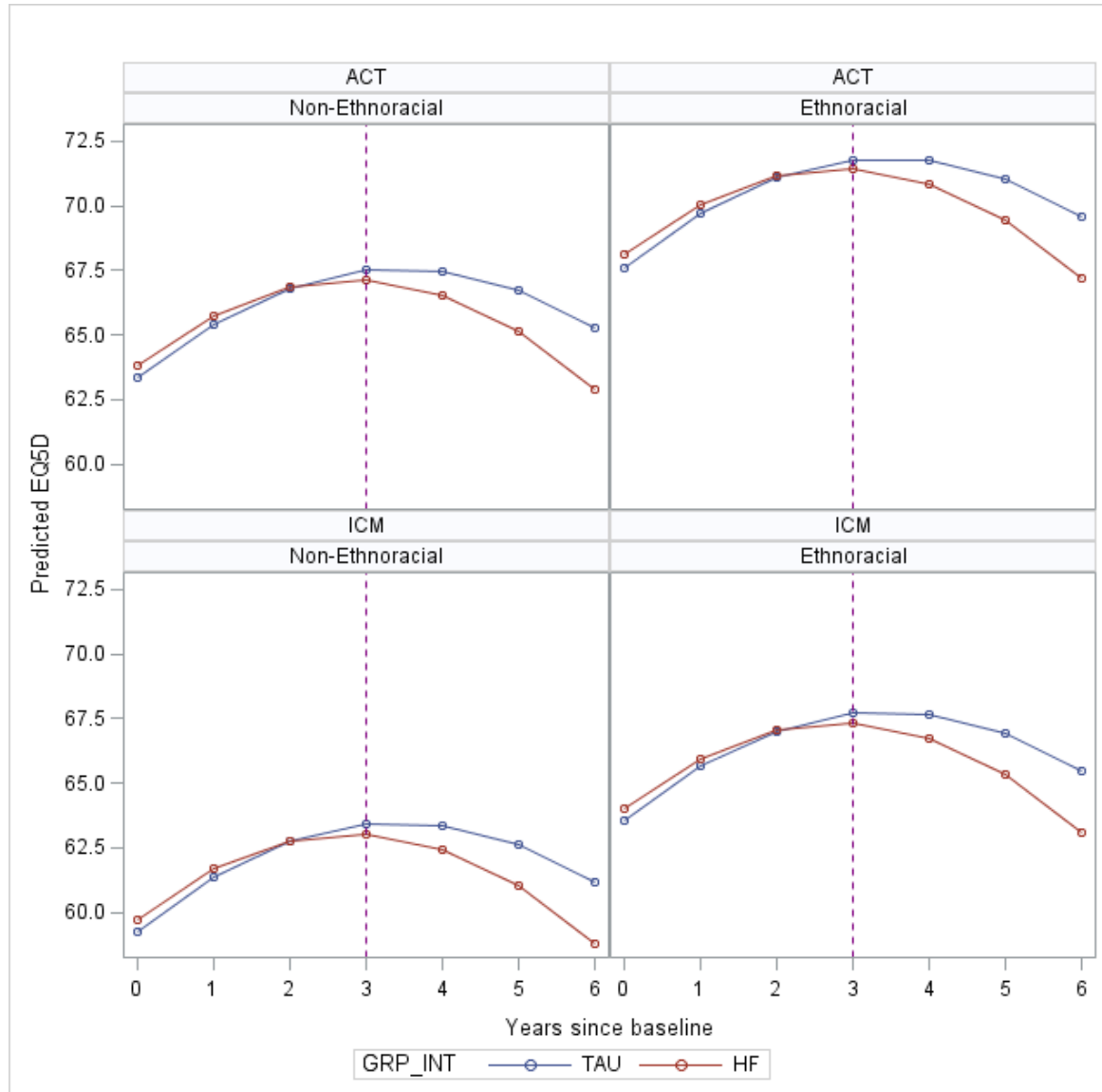
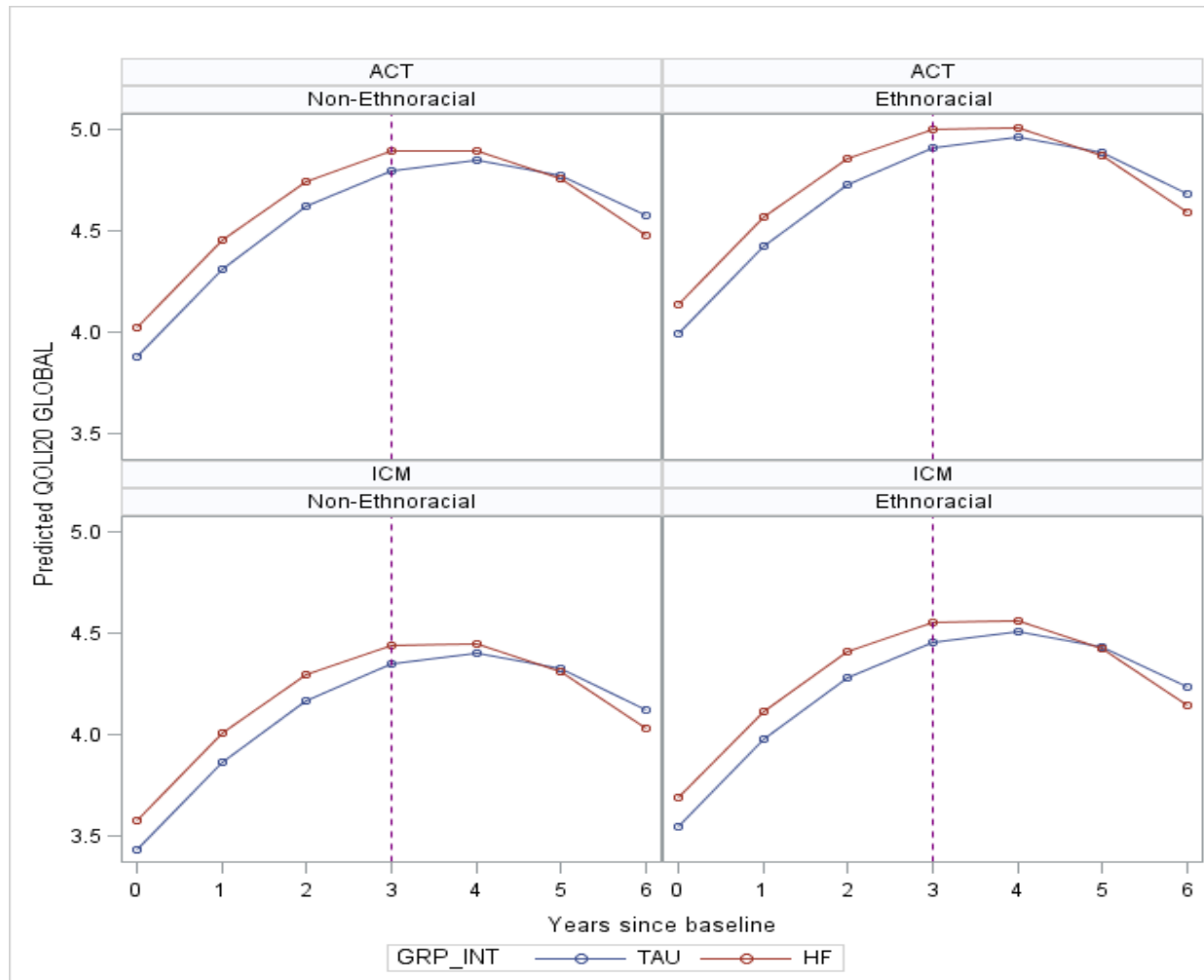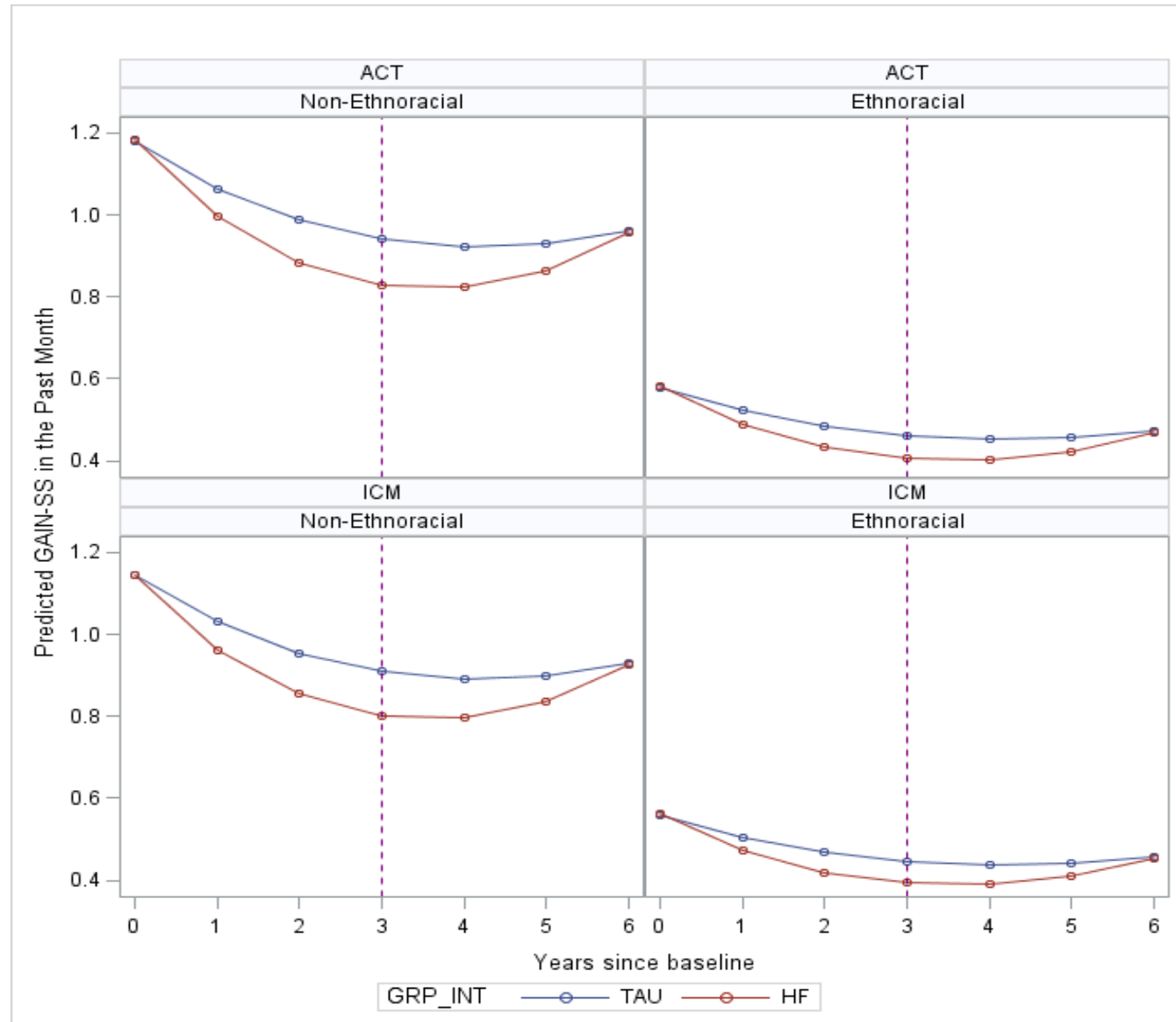# Community Functioning (MCAS)

Community Functioning (MCAS)

Generic Quality of Life (EQ5D)

Disease Specific Quality of Life (Qol-20)

Substance Use (GAIN –SS)

Days with Alcohol/Drug Problems
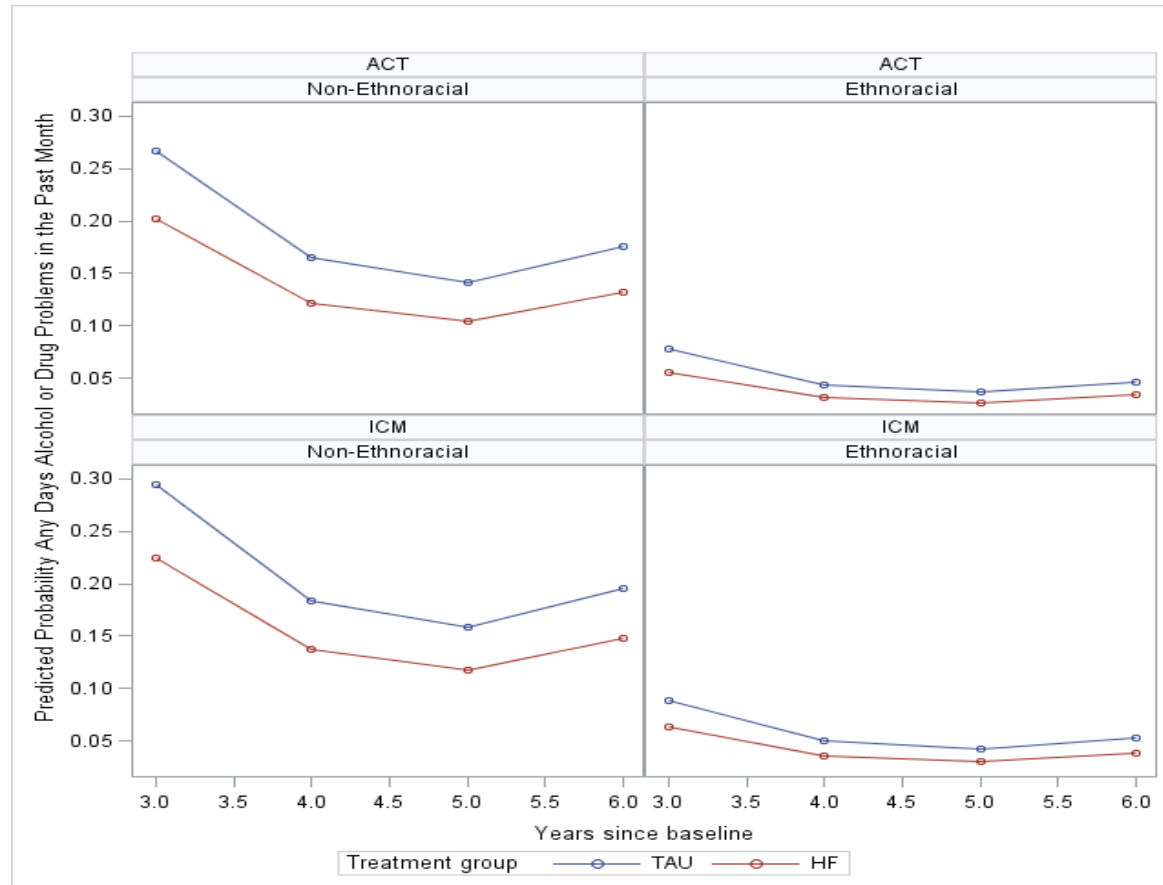
Conclusions

- HF participants maintained higher housing stability compared to treatment as usual participants over >6 years of follow up.

- Long term positive outcomes were more pronounced for individuals with high support needs.

- HF had no long term effect on Quality of Life, Community Functioning, Mental Health Symptom Severity, Alcohol or Drug Use.

Housing First : What Next?

- The Urban Angel Fund for Homeless People –a $10M endowment

- Innovation incubator for homelessness and mental health

- The innovation incubator's inaugural project – the STAR Learning Centre

- **Canada's first recovery college**

Recovery Education Centre Model

- Recovery: building a meaningful and satisfying life, as defined by the individual

- Emergent model developing in the US and the UK

- Providing recovery-oriented services through adult education, rather than traditional health care services

Recovery Education Centre Model Core Features

- Participants viewed as *Members*, not patients

- Emphasis on goal oriented/self directed recovery

- Peer leadership

- Co-production by professionals and people with lived experience

- Strengths based, holistic approach

Table 1 – Therapy and Education

A therapeutic approach

- Focuses on problems, deficits and dysfunctions;

- Strays beyond formal therapy sessions and becomes the over-arching paradigm;

- Transforms all activities into therapies – work therapy, gardening therapy etc;

- Problems are defined, and the type of therapy is chosen, by the professional 'expert';

- Maintains the power imbalances and reinforces the belief that all expertise lies with the professionals.

An educational approach

- Helps people recognise and make use of their talents and resources;

- Assists people in exploring their possibilities and developing their skills;

- Supports people to achieve their goals and ambitions;

- Staff become coaches who help people find their own solutions;

- Students choose their own courses, work out ways of making sense of (and finding meaning in) what has happened and become experts in managing their own lives.

Perkins, Repper, Rinaldi & Brown (2012). Recovery Colleges. London: Centre for Mental Health.

Table 2 – A Recovery College is not a day centre

From Day centre	To Recovery College
Patient or client: *"I am just a mental patient"*	Student: *"I am just the same as everyone else"*
Therapist	Tutor
Referral	Registration
Professional assessment, care planning, clinical notes and review process	Co-production of a personal learning plan, including learning support agreed by the student
Professionally facilitated groups	Education seminars, workshops and courses
Prescription: *"This is the treatment you need"*	Choice: *"Which of these courses interest you?"*
Referral to social groups	Making friends with fellow students
Discharge	Graduation
Segregation	Integration

Perkins, Repper, Rinaldi & Brown (2012). Recovery Colleges. London: Centre for Mental Health.

STAR Next Steps

- Fidelity tools, shared outcome measures (Mike Slade)

- Exploratory case study using realist approaches and mixed methods quasi experimental design underway
  - Does it work, how does it work, for whom does it work?
  - How are experiences for clients different from experiences with other services?

Acknowledgments

- Funded by Health Canada through the Mental Health Commission of Canada, CIHR, MOHLTC.

- AH/CS National Research Lead: Paula Goering.

- Project Team: Research scientists and staff, service and housing providers, Study participants.

- Toronto Co-PIs: Stephen Hwang, Pat O'Campo & Vicky Stergiopoulos.