

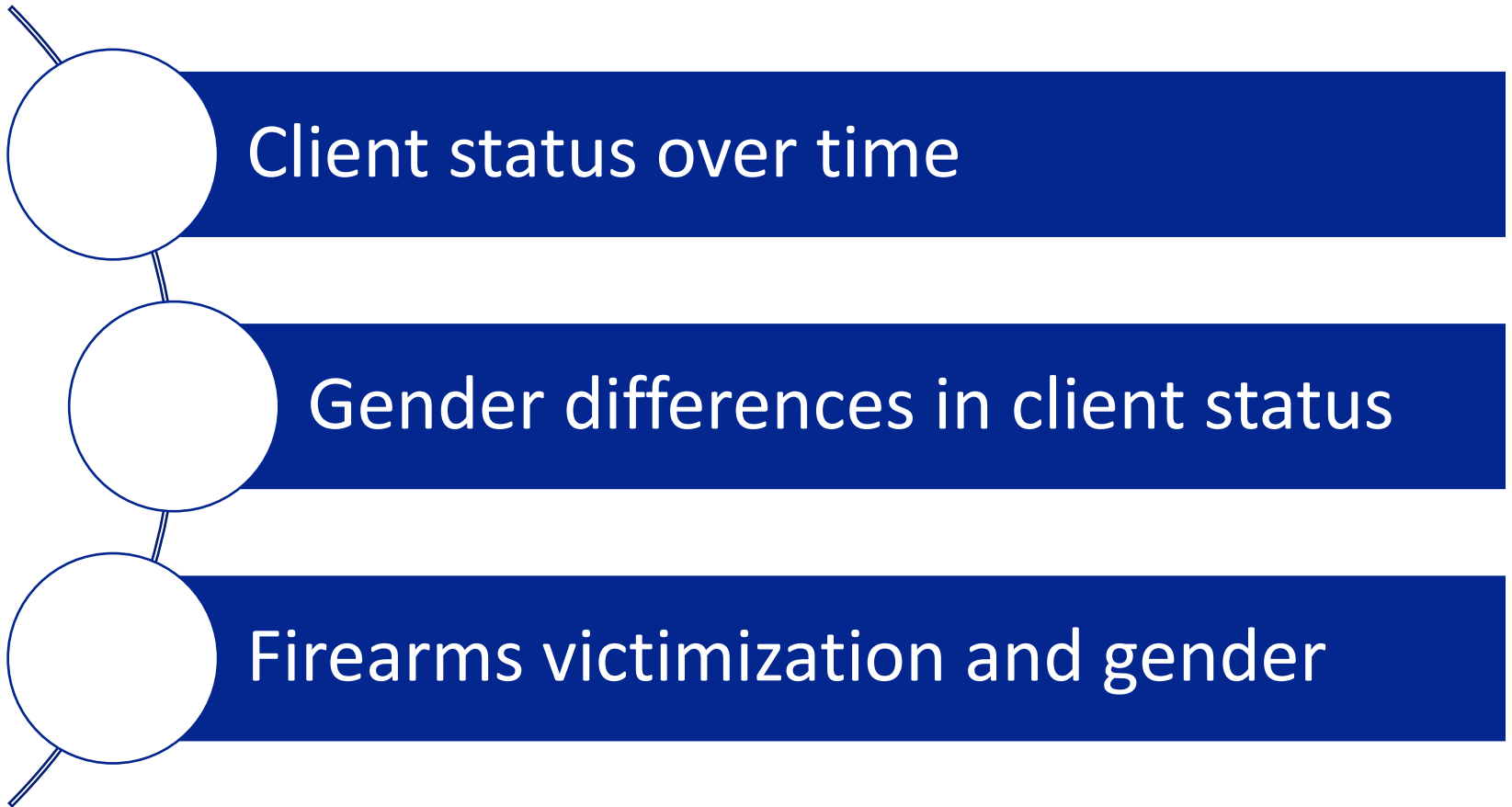
FINDINGS FROM THE **RECOVERY CENTER** **OUTCOME STUDY**

2022 ANNUAL REPORT

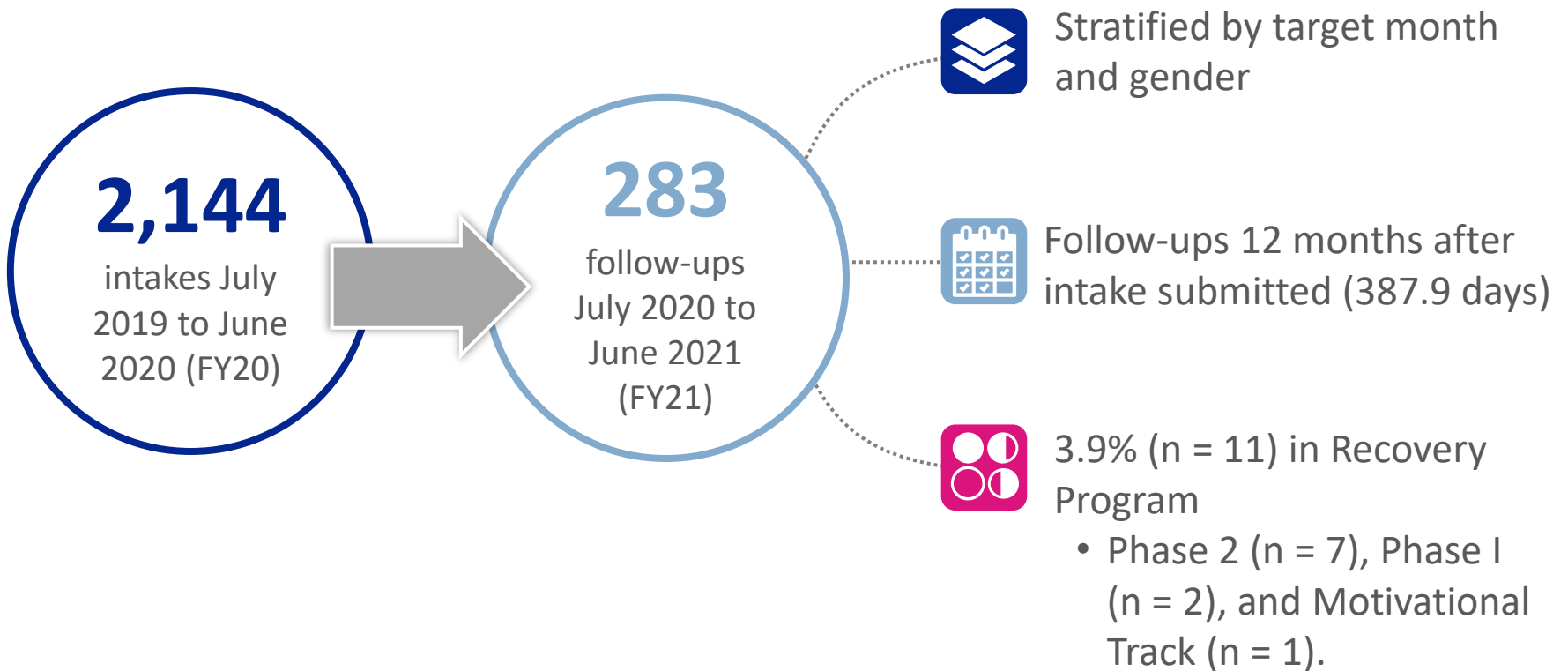
Dr. TK Logan
University of Kentucky
tklogan@uky.edu
(859) 257-8248

Intakes: FY20
Follow-ups FY21

Objectives



Client Status Over Time and Gender Differences



Comparison of Clients who were Followed Up and Clients who were NOT

	Not followed-up (n = 1,861)	Followed-up (n = 283)
Demographic	No difference	
Socio-economic status indicators (e.g., education, employment, living situation, inability to meet basic needs)	No difference	
Substance use, severity of alcohol and drug use	No difference	
Mental health (e.g., depression, generalized anxiety, suicidality)	No difference	
Criminal justice involvement (e.g., arrested, incarcerated)		More reported being on probation; more reported having been incarcerated at least one day
Treatment history	No difference	

Conducting Follow-up Surveys

2014

(n = 527)

VS

2020

(n = 521)

2,958

(an average of 11 outgoing calls for each completed follow-up)



PHONE CALLS

Total number of outgoing calls to reach client

4,715

(an average of 17 outgoing calls for each completed follow-up)

21

(an average of 0.07 outgoing texts for each completed follow-up)



TEXT MESSAGES

Total number of outgoing texts

355

(an average of 1.3 outgoing texts for each completed follow-up)

896

(an average of 3.2 mailings for each completed follow-up)



MAIL SENT

Total number of mailings sent (to client/contact/other)

1,286

(an average of 4.6 mailings for each completed follow-up)

29.8%



MAIL RETURNED

Percent of mail returned

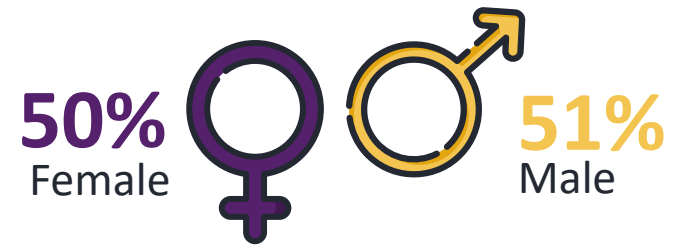
28.6%

Characteristics of Clients Who Were Followed-up (n = 283)

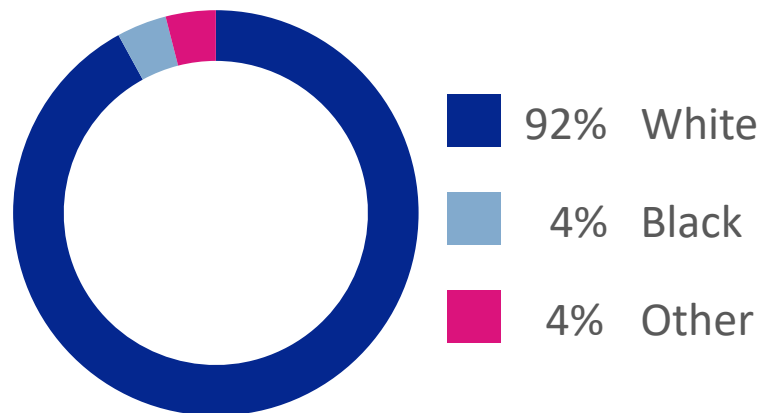
Average Length of Service



Gender



Race



35 years
Mean Age
(range 19-61)

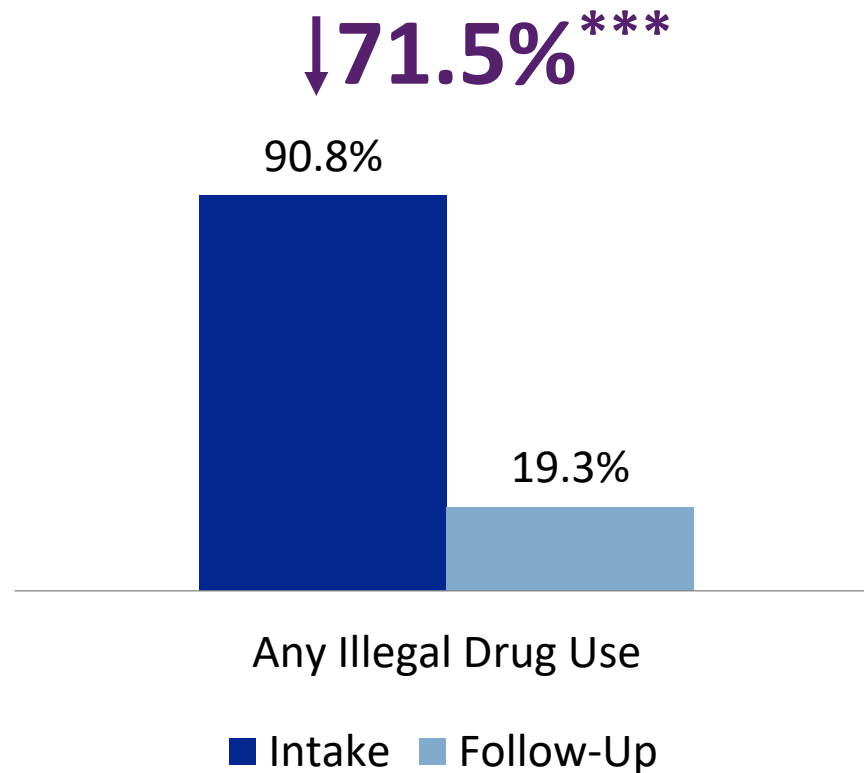
Substance Use

(Past 6 months)

For those not in a controlled environment for at least 1 month at intake and/or follow up (n = 238)

Illegal Drug Use

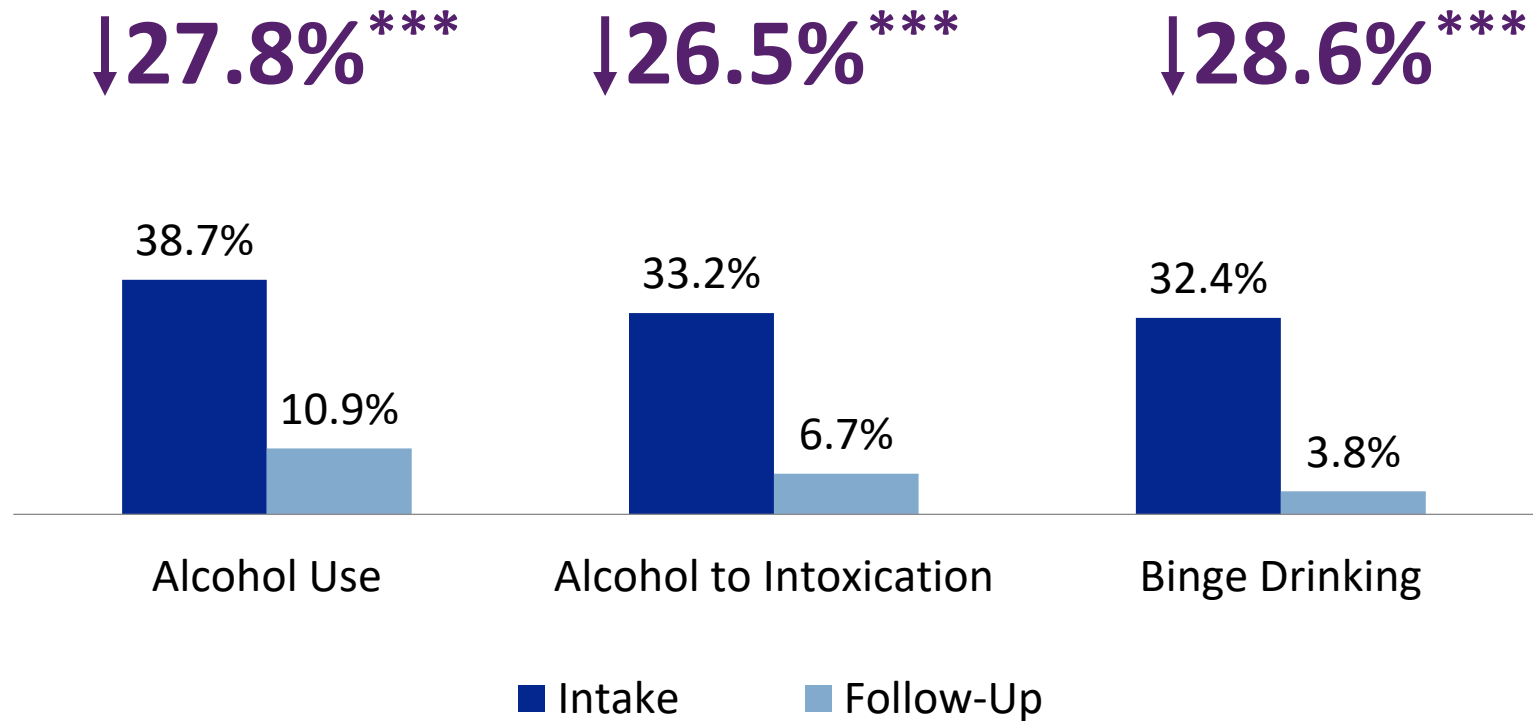
(6 Months Before Intake and Follow-up)



***p < .001.

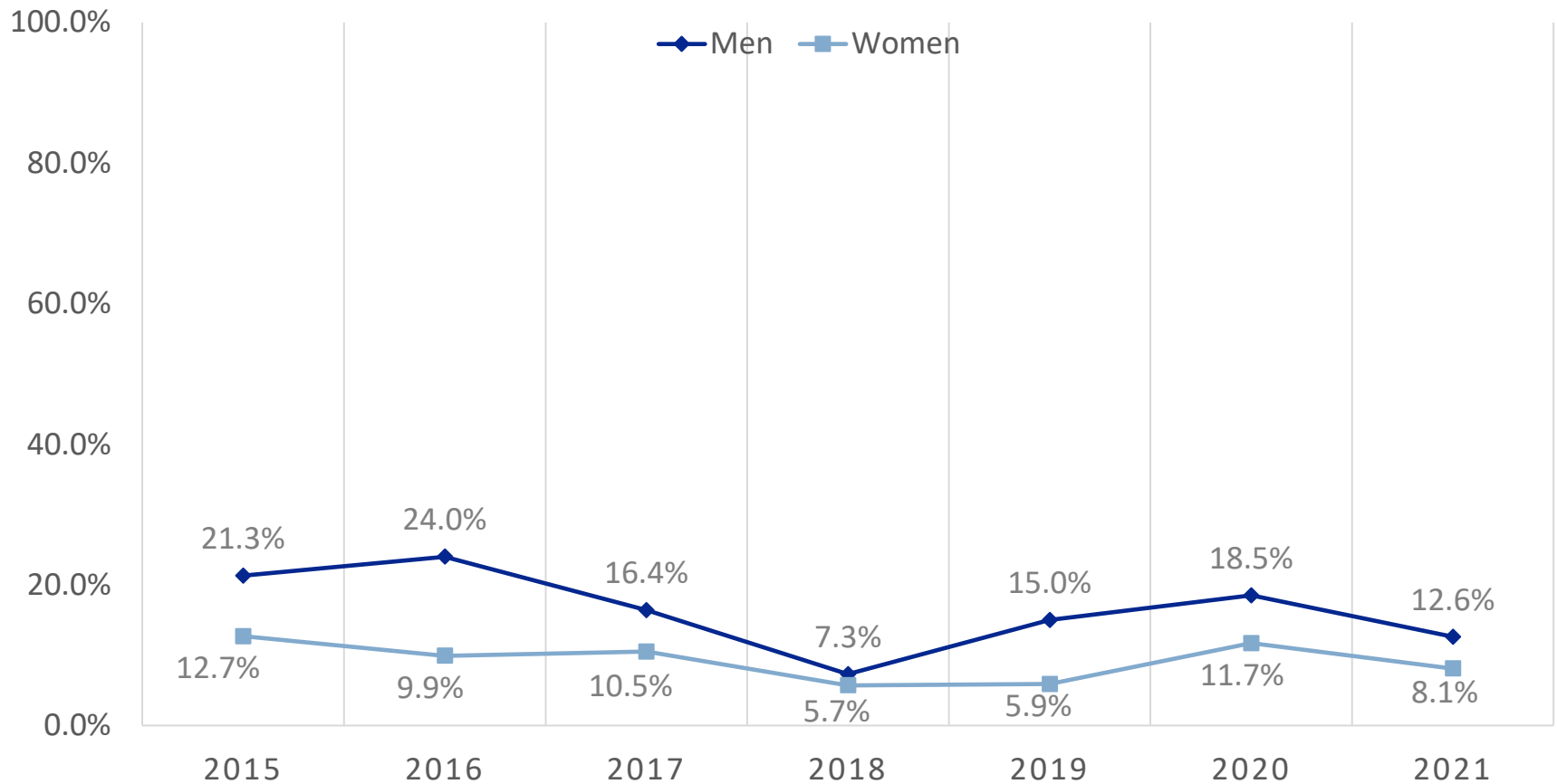
Alcohol Use

(6 Months Before Intake and Follow-up)



***p < .001.

Trends for problem alcohol use and/or illicit drug use unduplicated sample

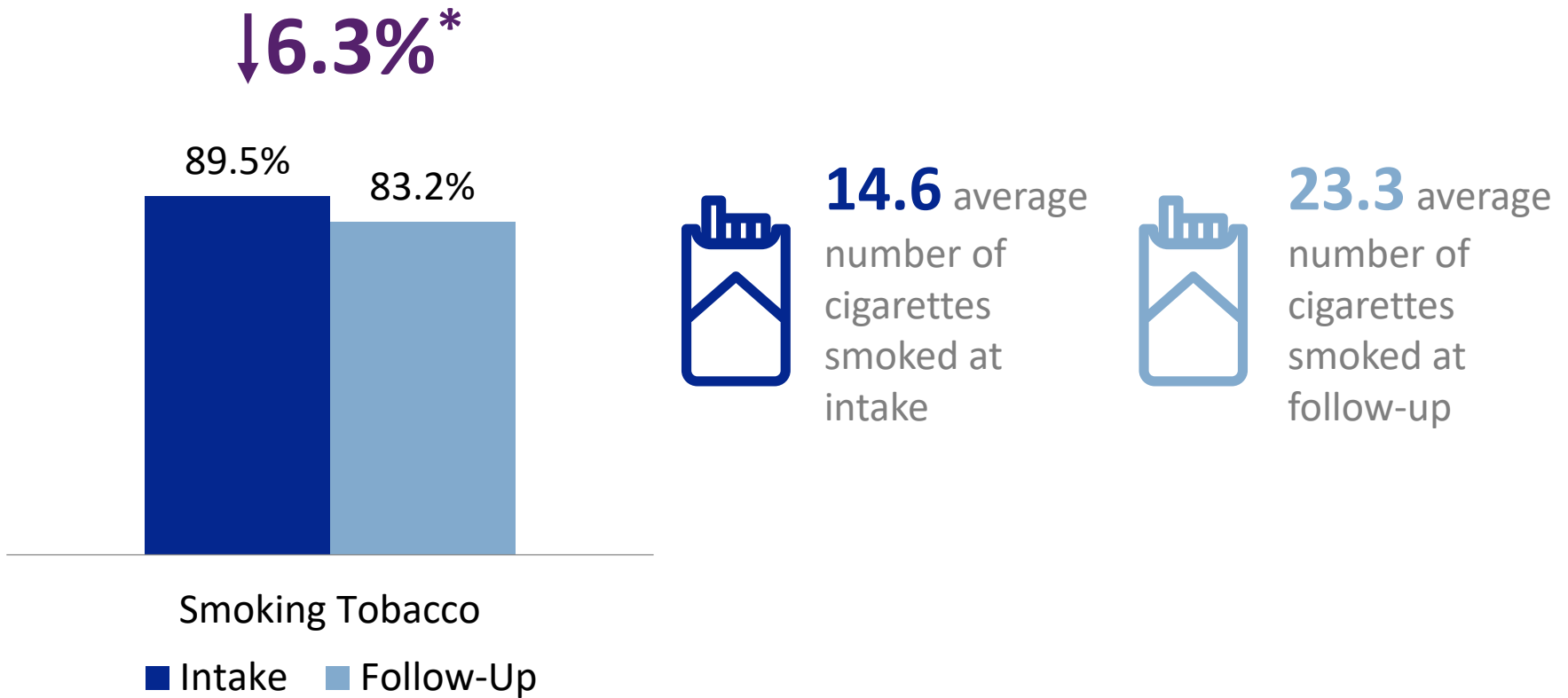


There were significant gender differences with men showing higher rates of problem alcohol or illicit drug use at follow-up (7.3%-24% compared to 5.7% to 12.7% for women).

Logan, T., McClouth, C., & Cole, J. (2022). Examining Recovery Status Trends Over Time for Clients with Homelessness and Criminal Justice System Involvement.

Smoking Tobacco

(6 Months Before Intake and Follow-up)

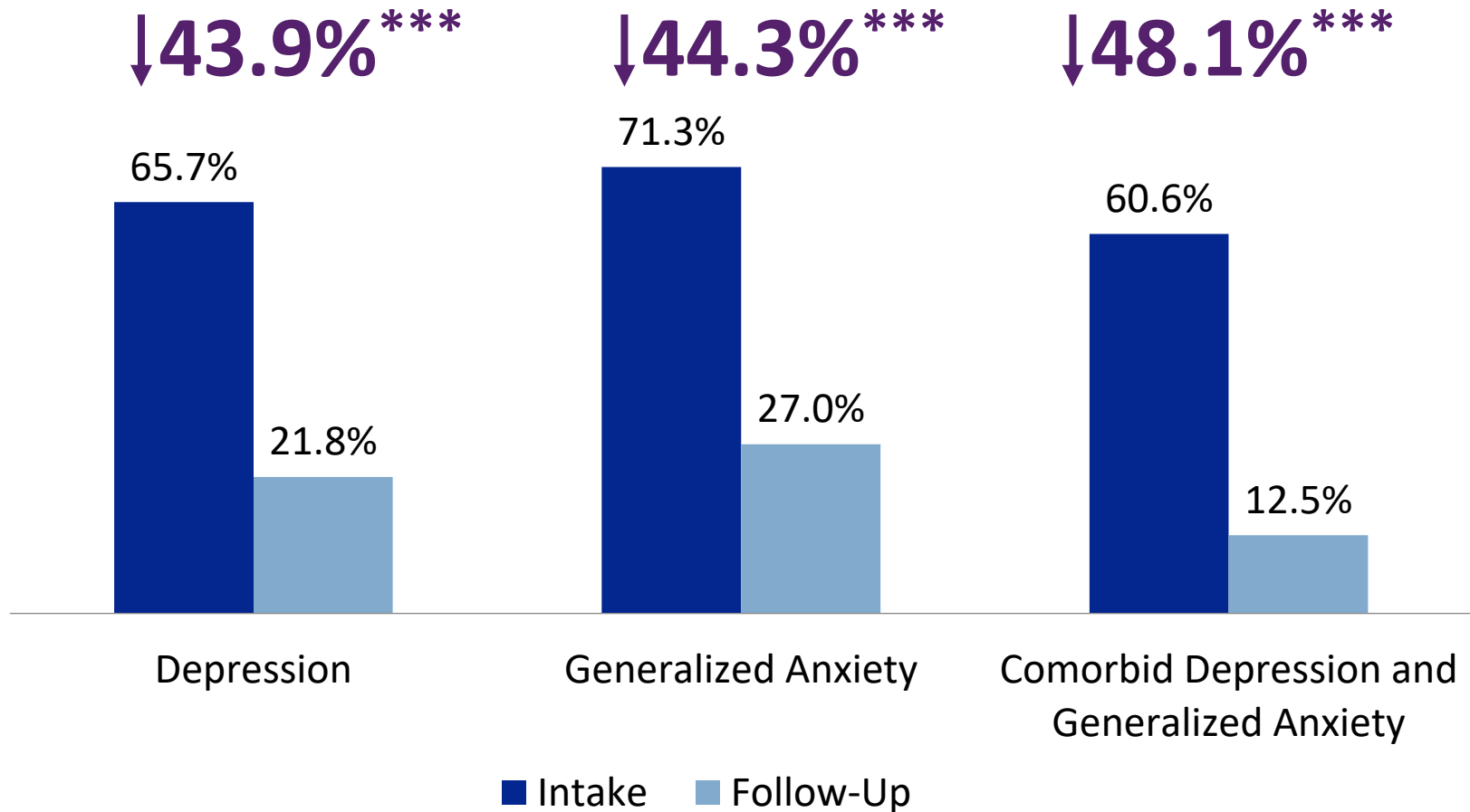


*p < .01.

Mental Health and Physical Health

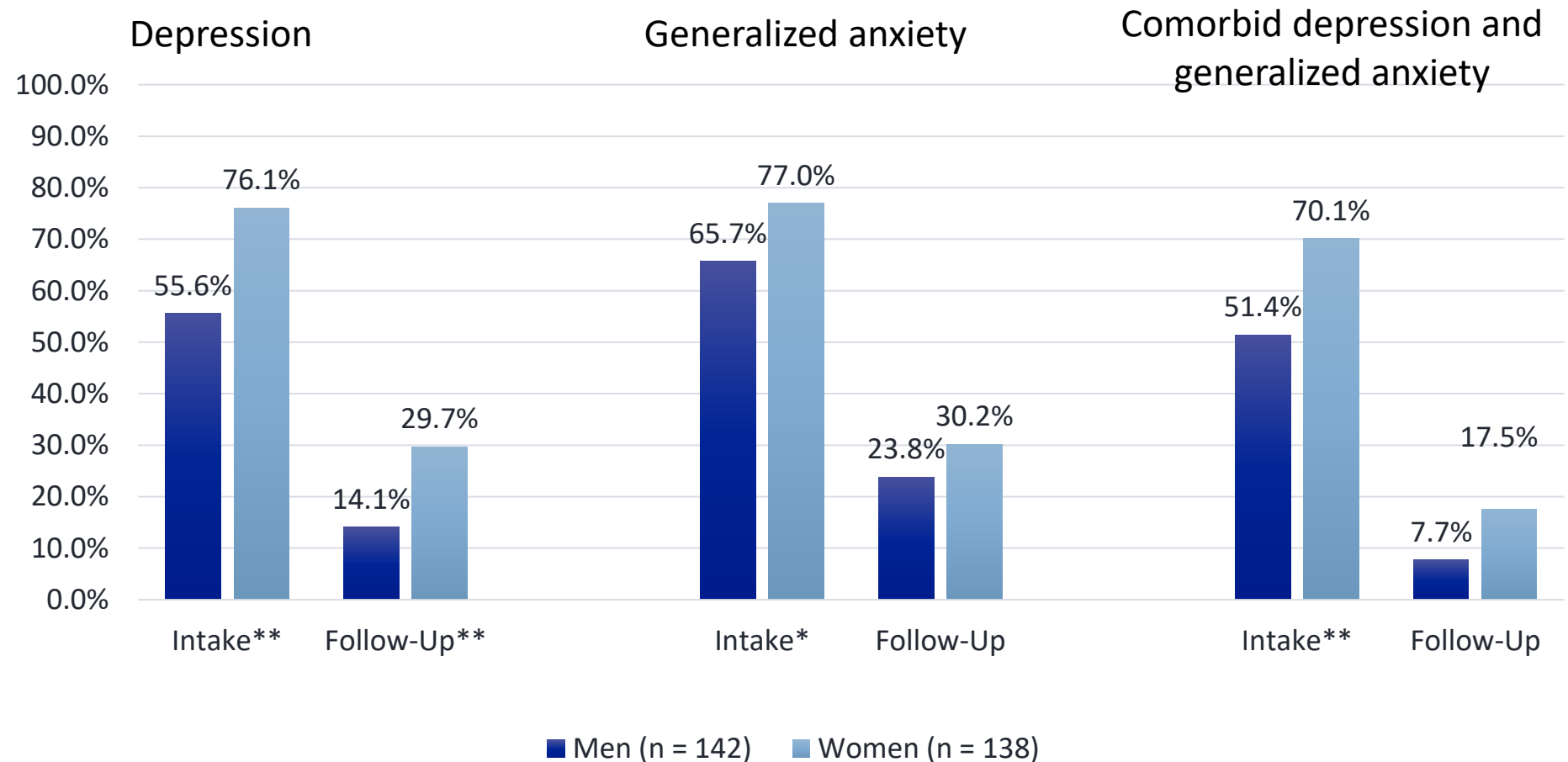
Mental Health

(6 Months Before Intake and Follow-up)



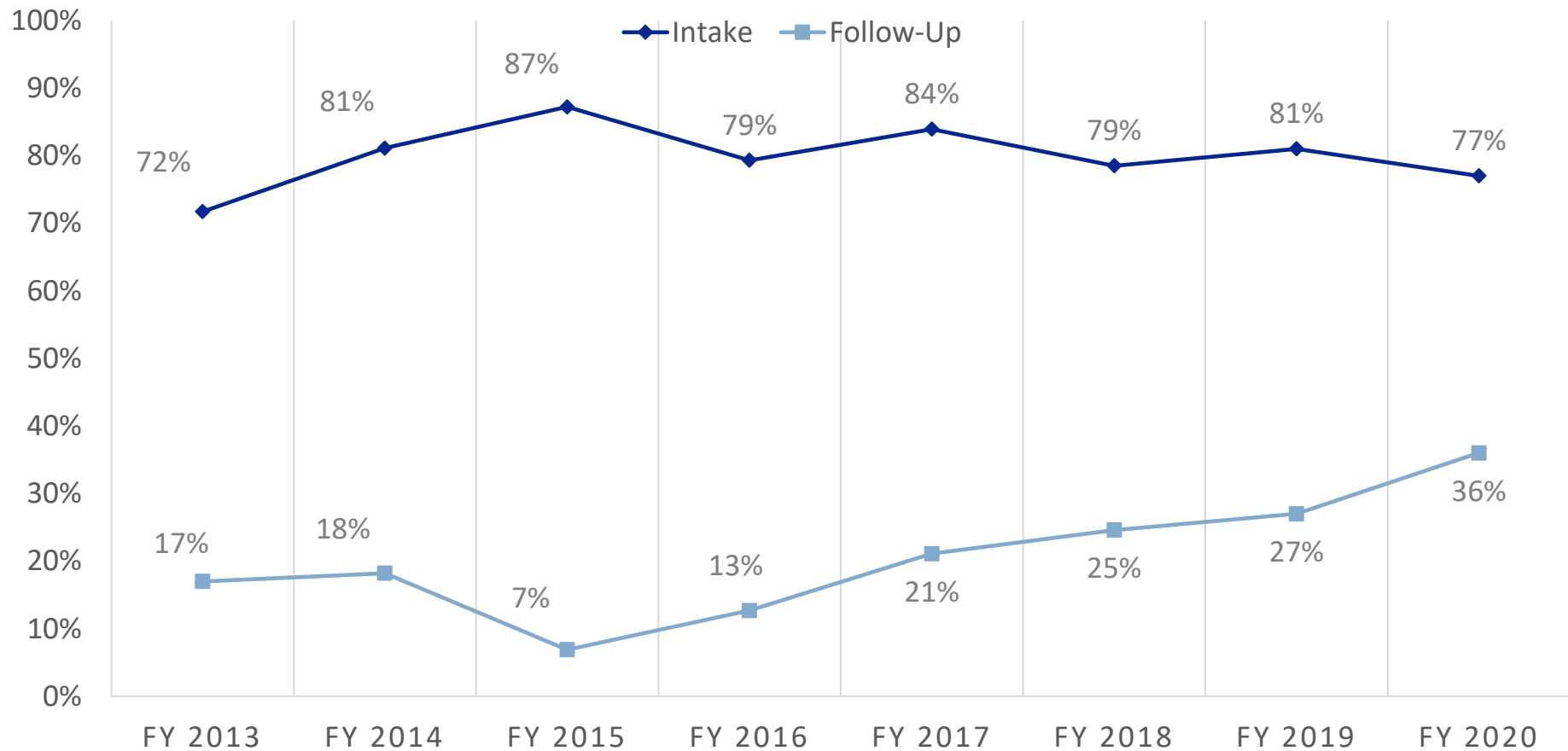
***p < .001.

Gender Differences in Meeting Criteria for Depression or Anxiety



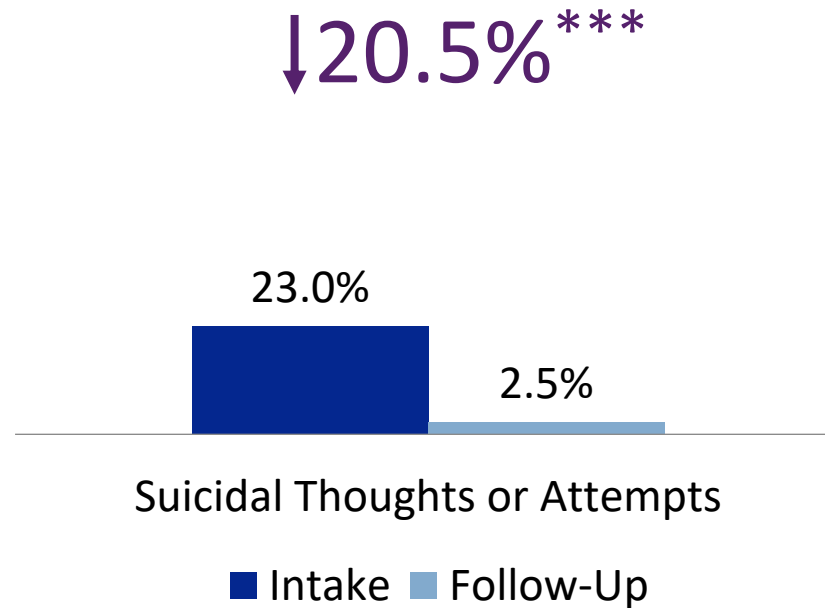
Trends in Meeting Criteria for Depression or Anxiety

(Past 6 Months)



Suicidality

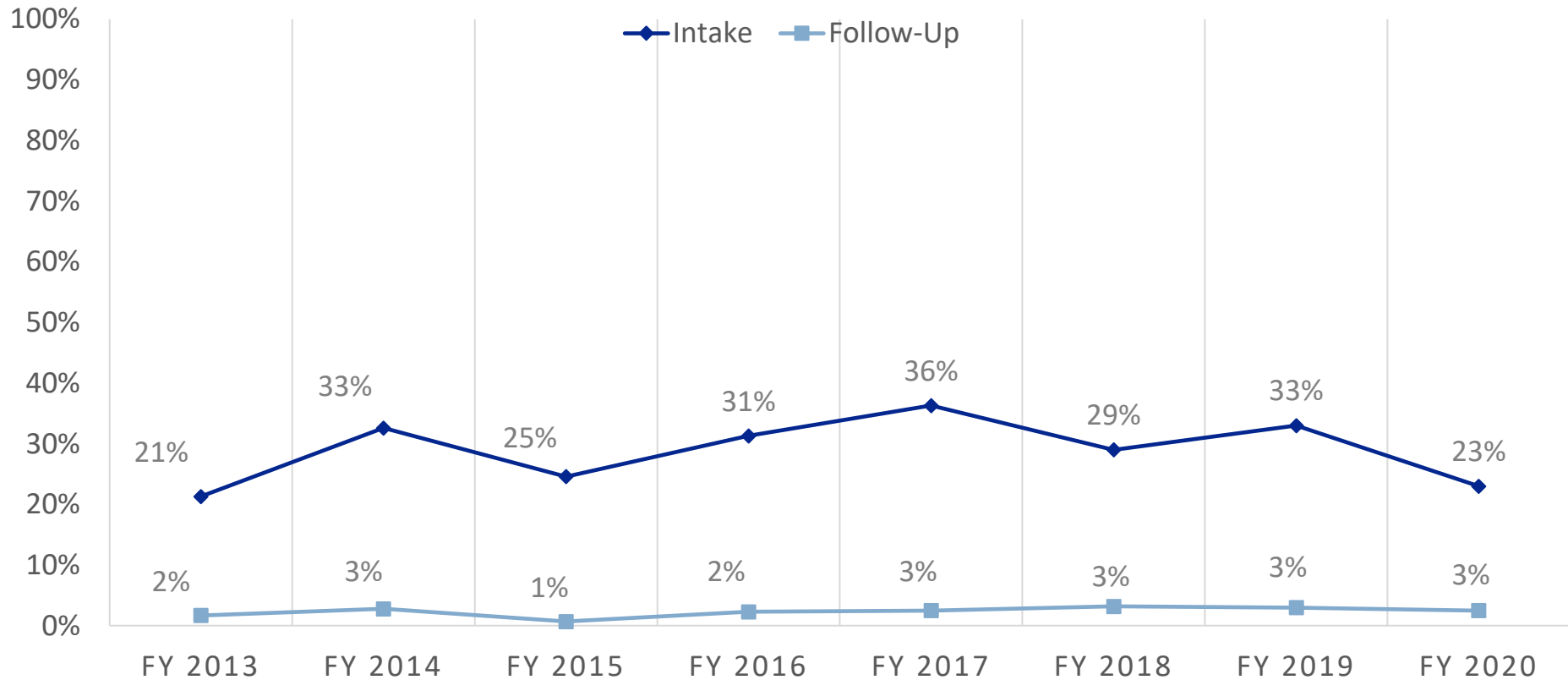
(6 Months Before Intake and Follow-up)



***p < .001.

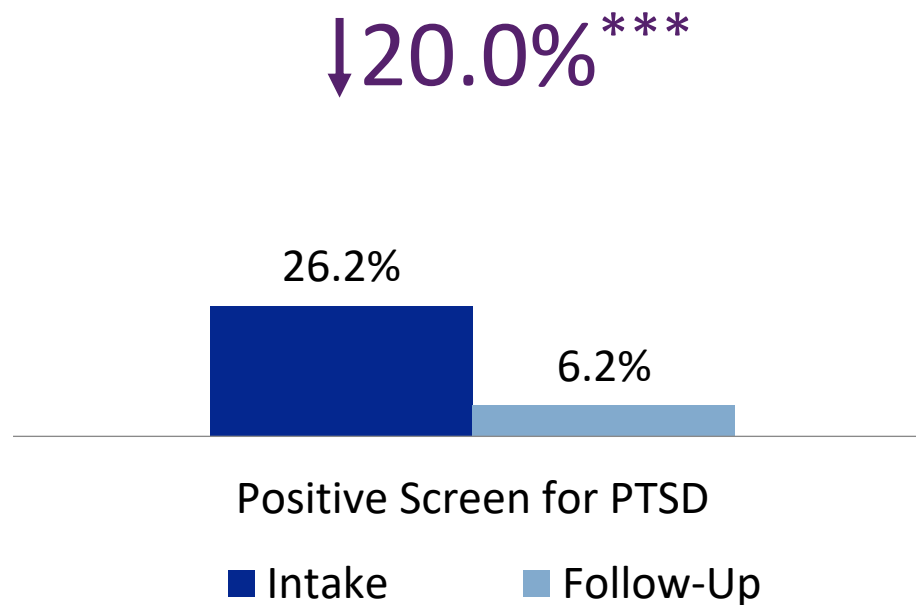
Trends in Suicidal Thoughts/Attempts

(Past 6 Months)



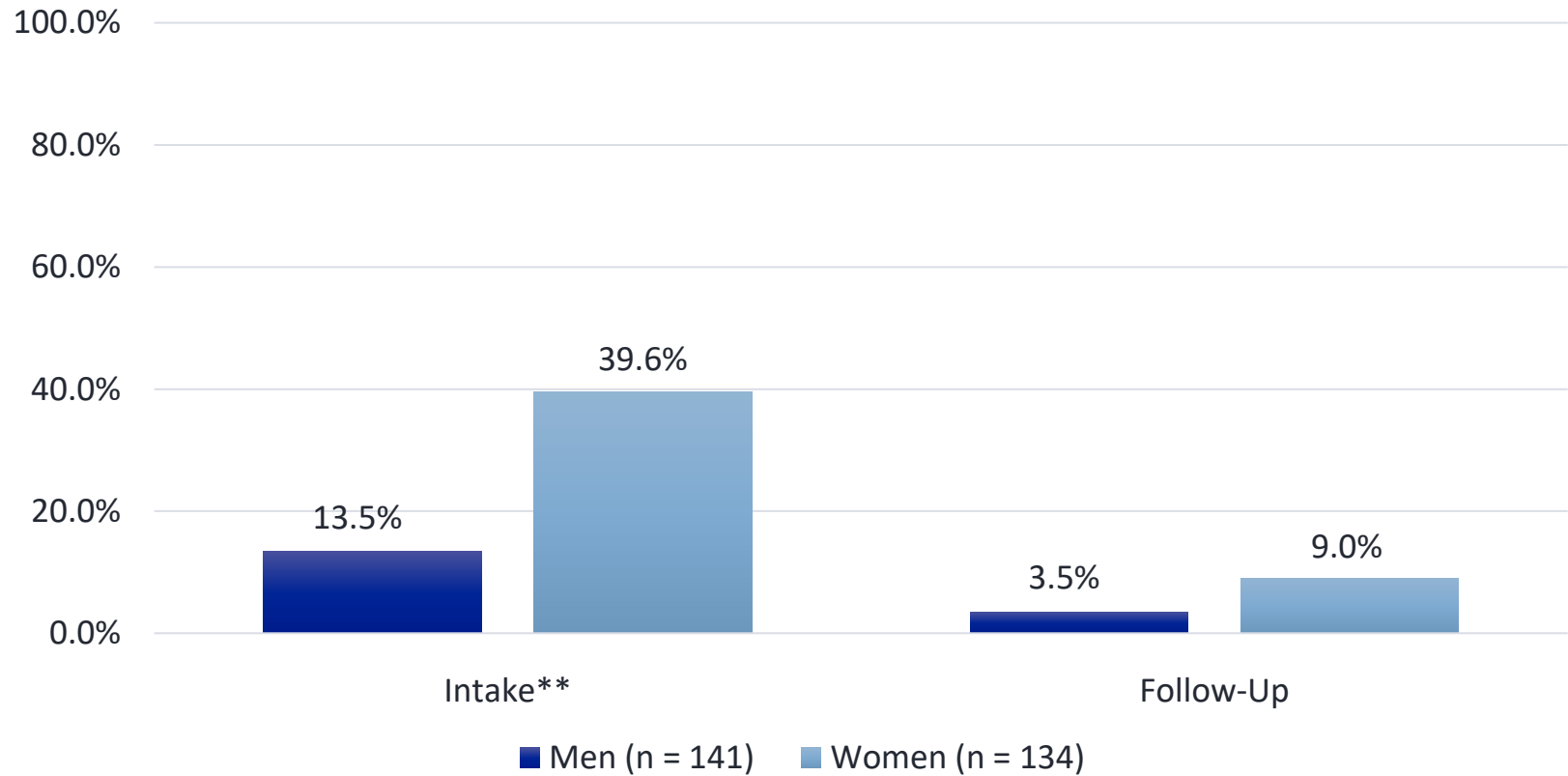
Post-traumatic Stress Disorder

(6 Months Before Intake and Follow-up)

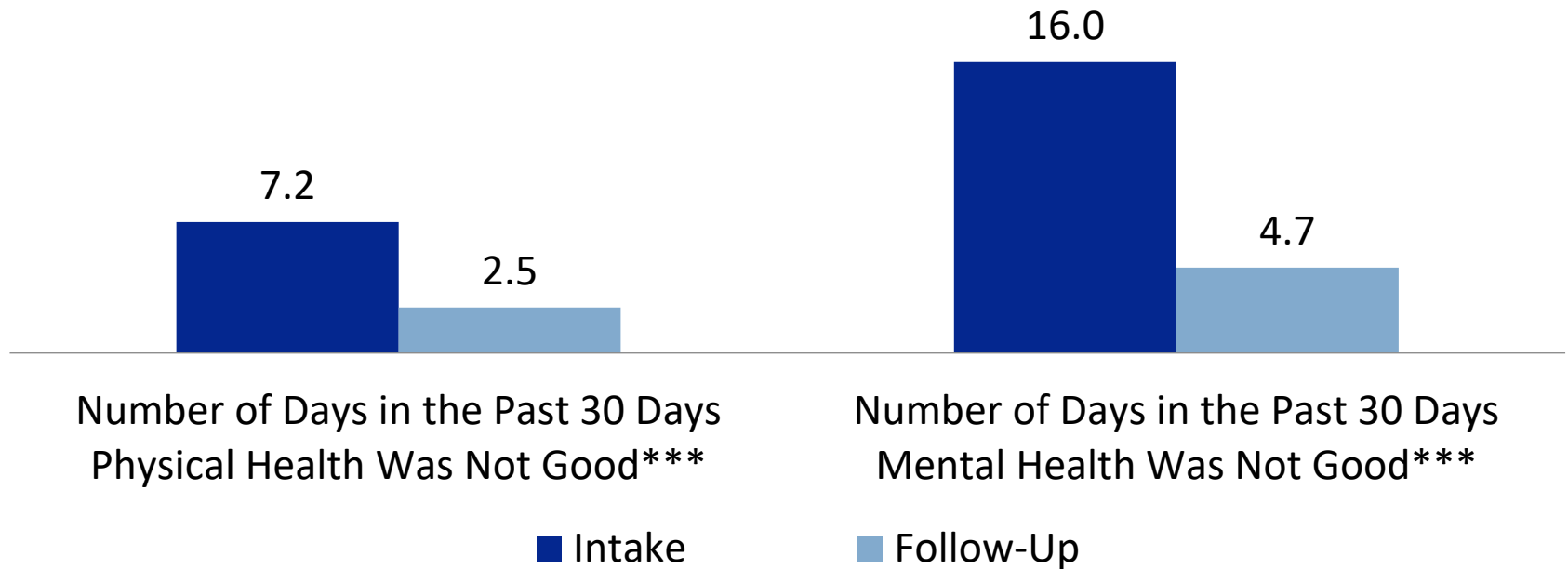


*** $p < .001$.

Gender Differences in PTSD

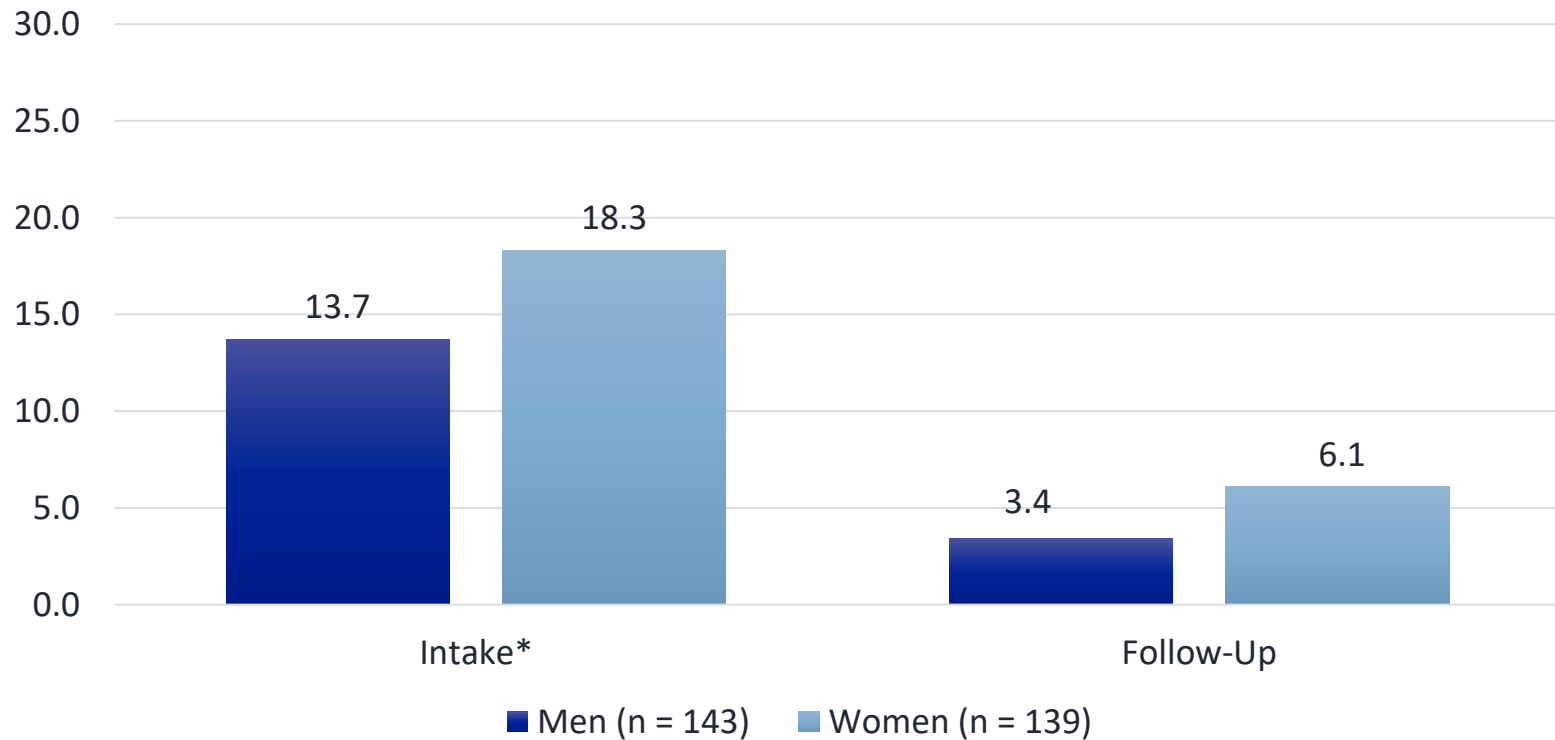


Average Number of Days Physical Health and Mental Health was Not Good (Past 30 Days)



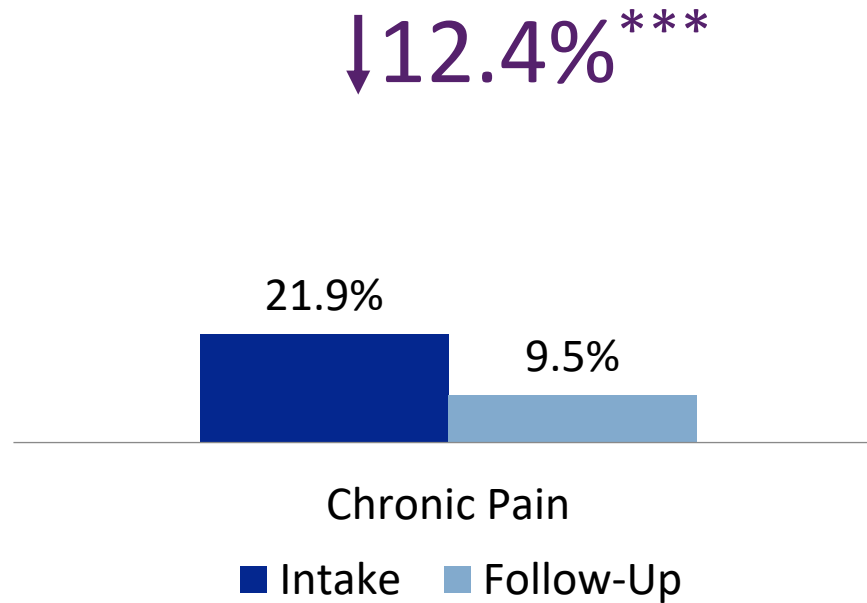
***p < .001

Gender Differences in Average Number of Days Mental Health was Not Good



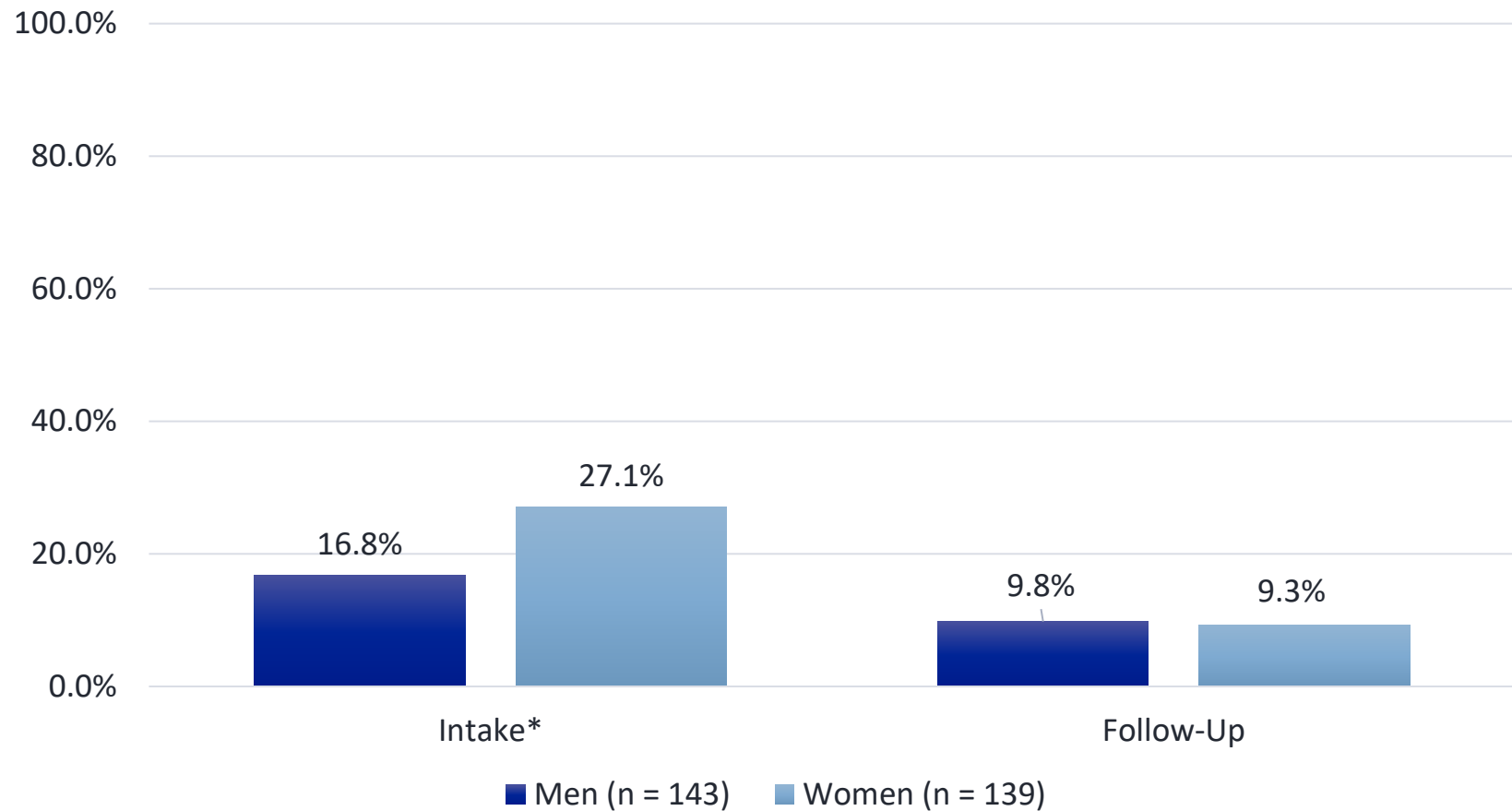
Chronic Pain

(6 Months Before Intake and Follow-up)



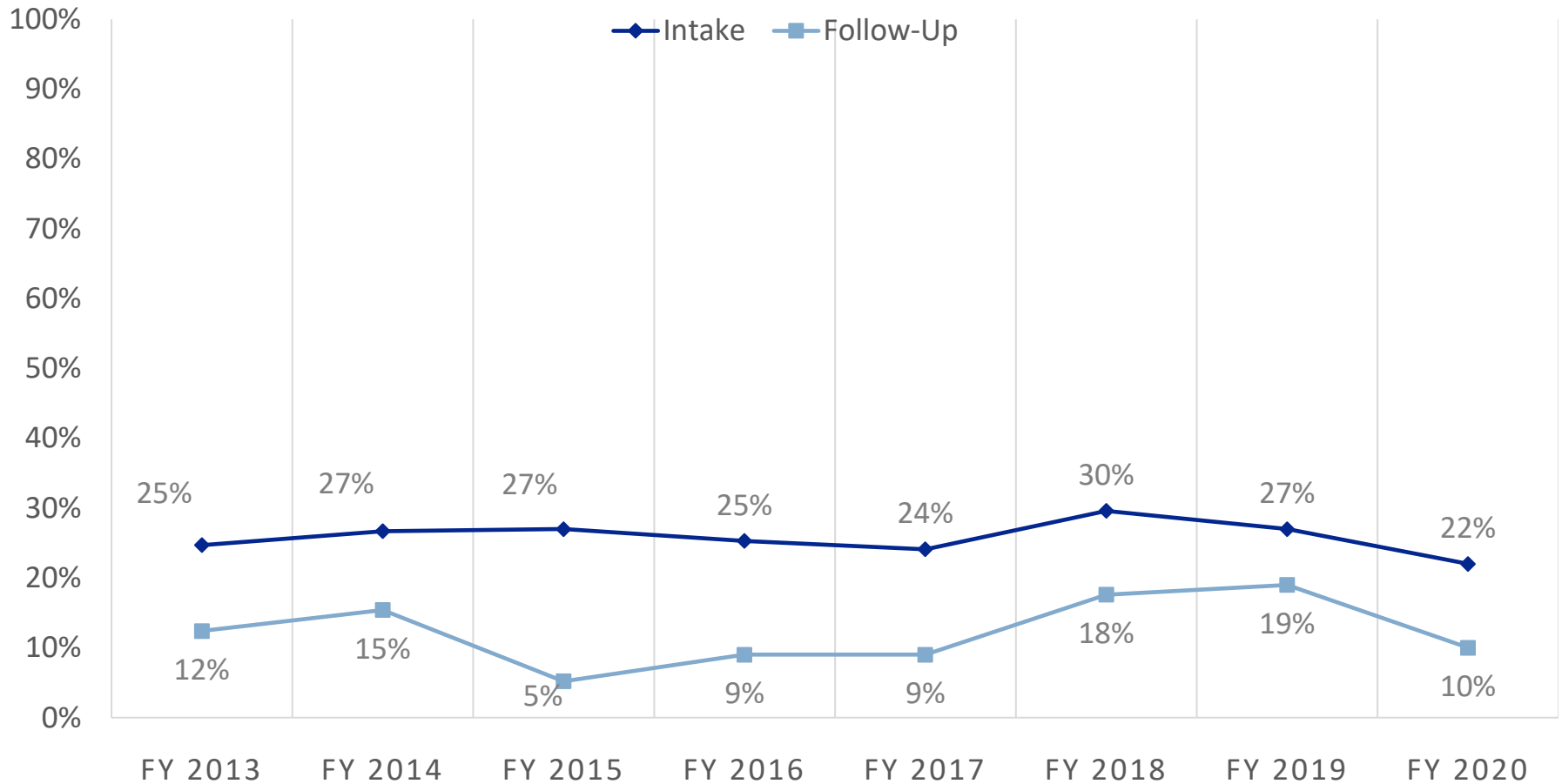
***p < .001.

Gender differences in chronic pain



Trends in Chronic Pain

(Past 6 Months)

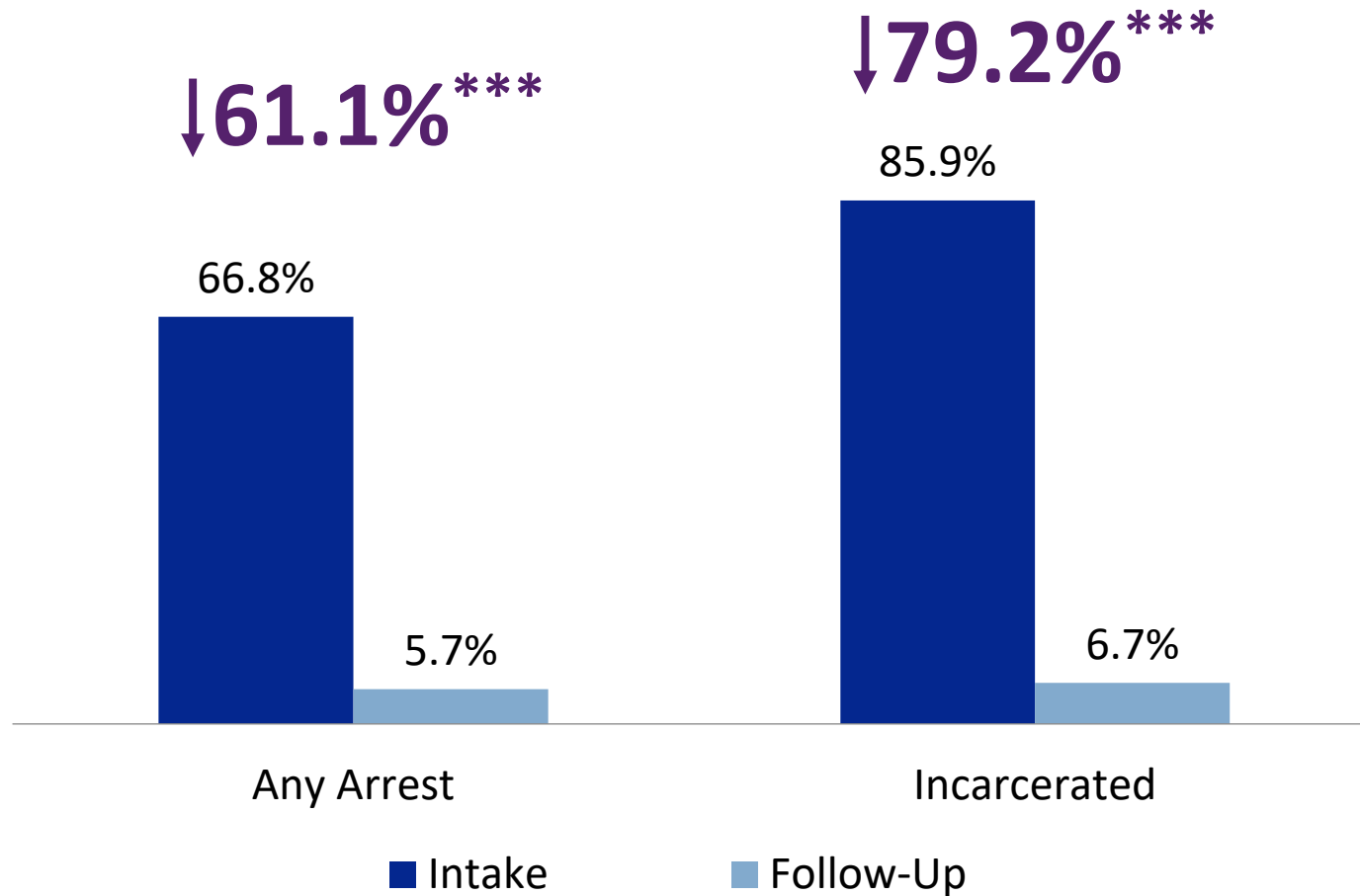


Criminal Justice System Involvement

(Past 6 Months)

Involvement in the Criminal Justice System

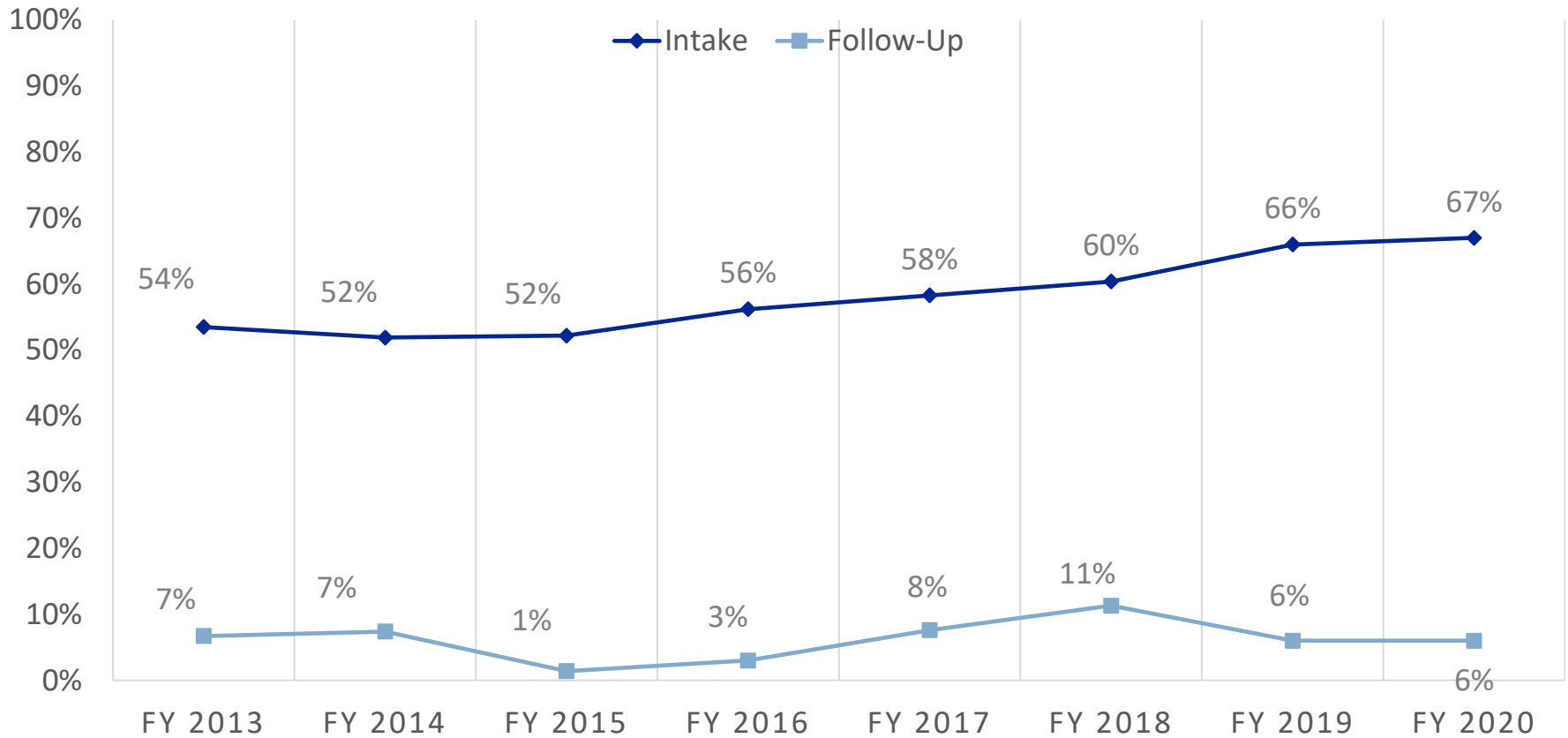
(6 Months Before Intake and Follow-up)



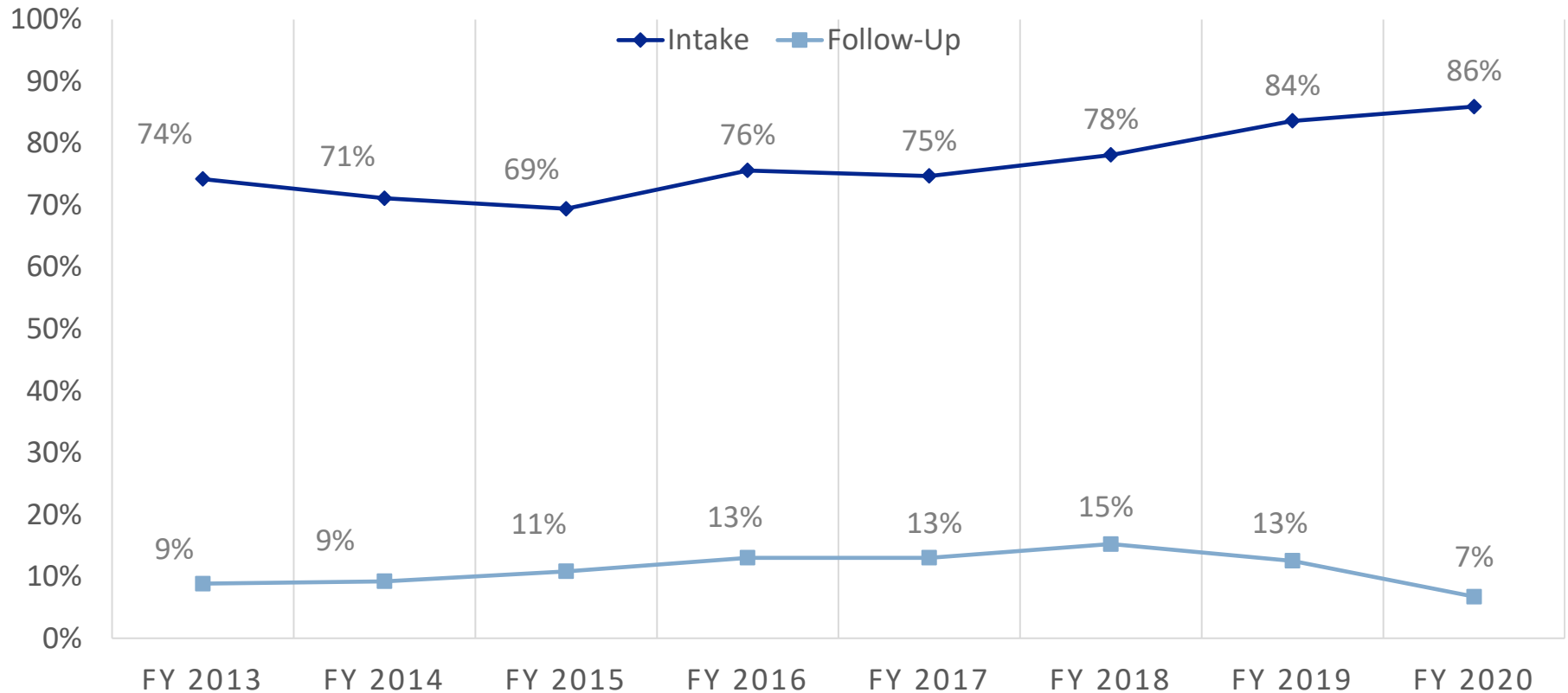
***p < .001.

Trends in Any Arrest

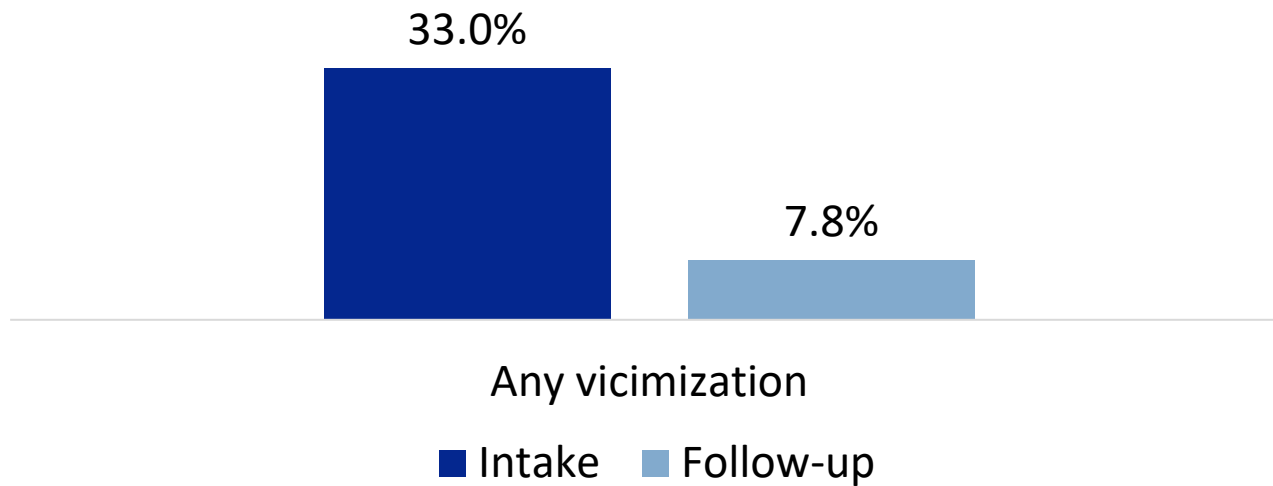
(Past 6 Months)



Trends in Any Incarceration (Past 6 Months)

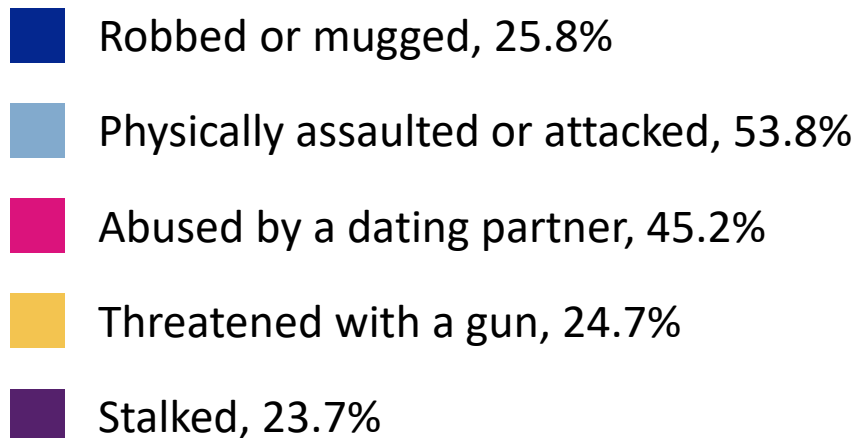
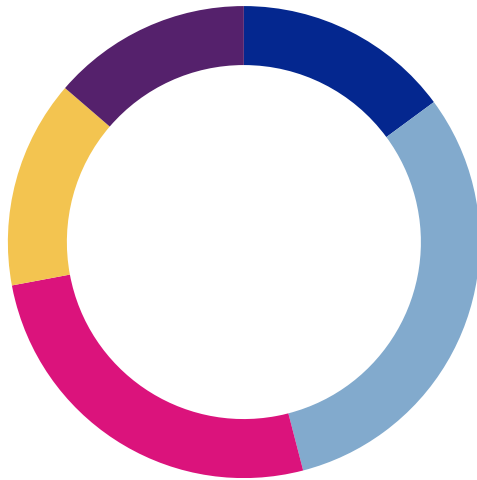


Any Victimization

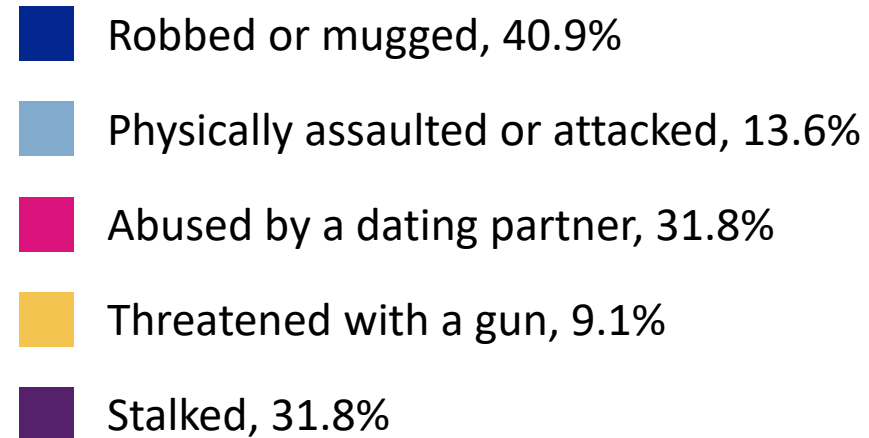
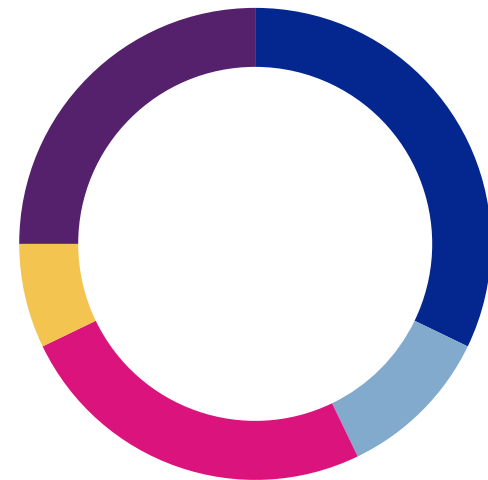


Of those reporting any victimization...

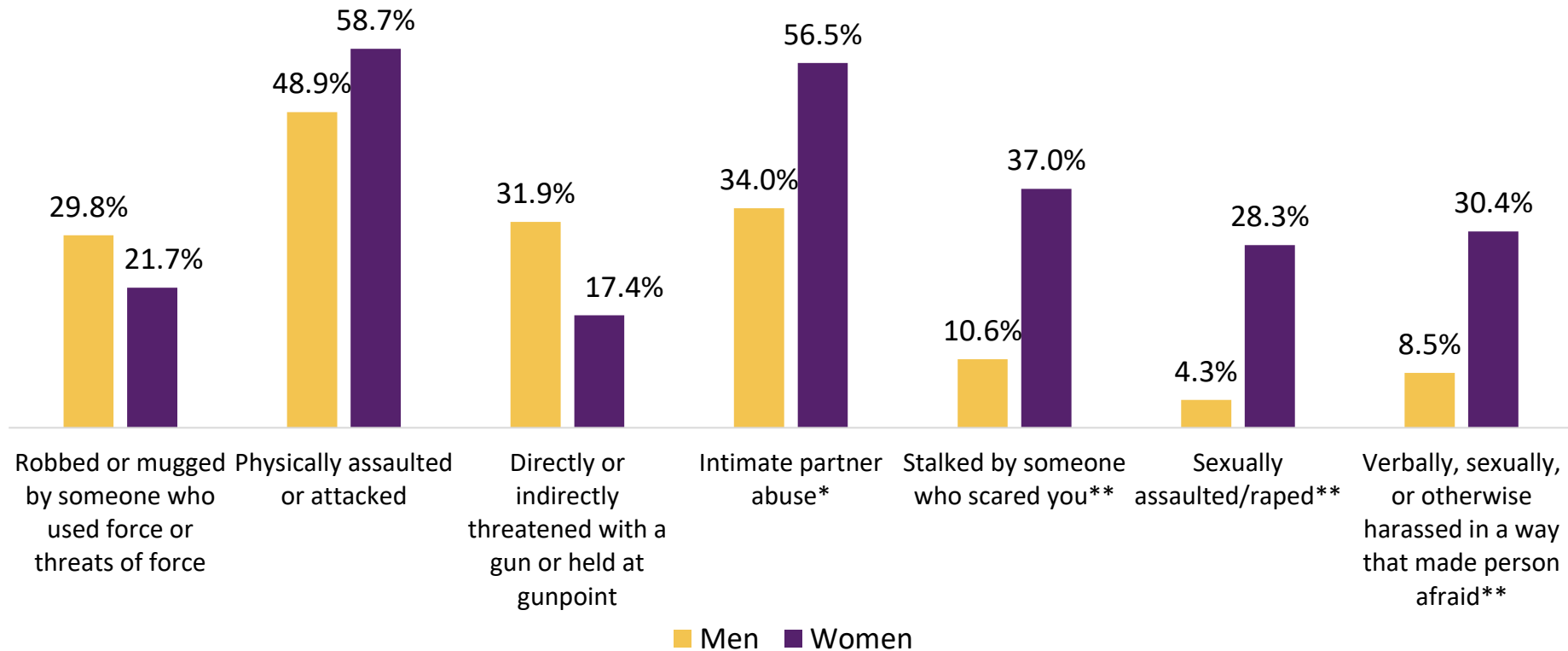
At intake (n = 93)...



At follow-up (n = 22)...



Of those reporting any victimization at intake (n = 93)

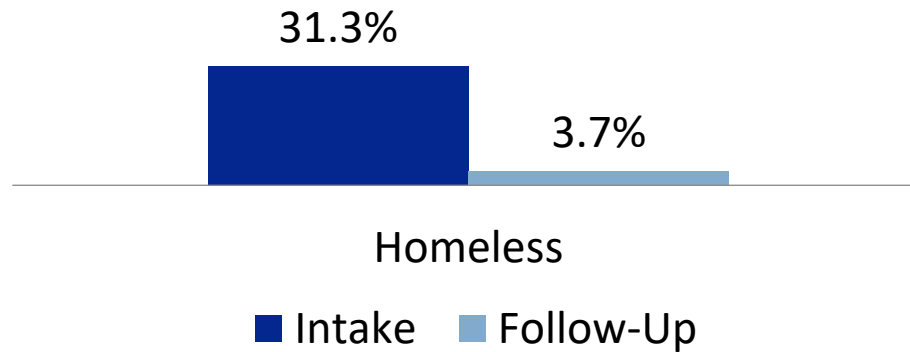


*p < .05, **p < .01.

Living Situation and Economic Hardship

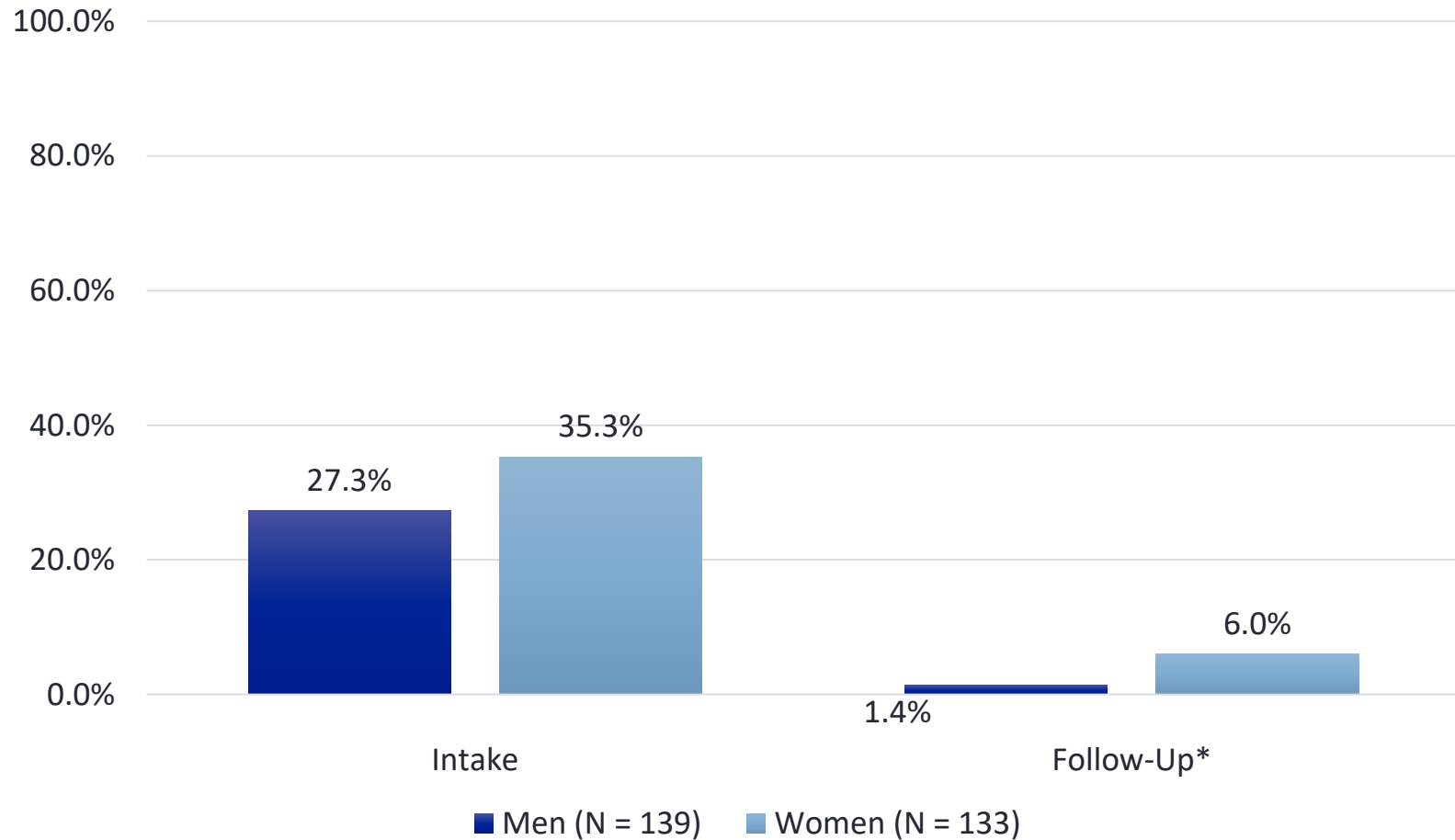
Current Homelessness

↓27.6%***

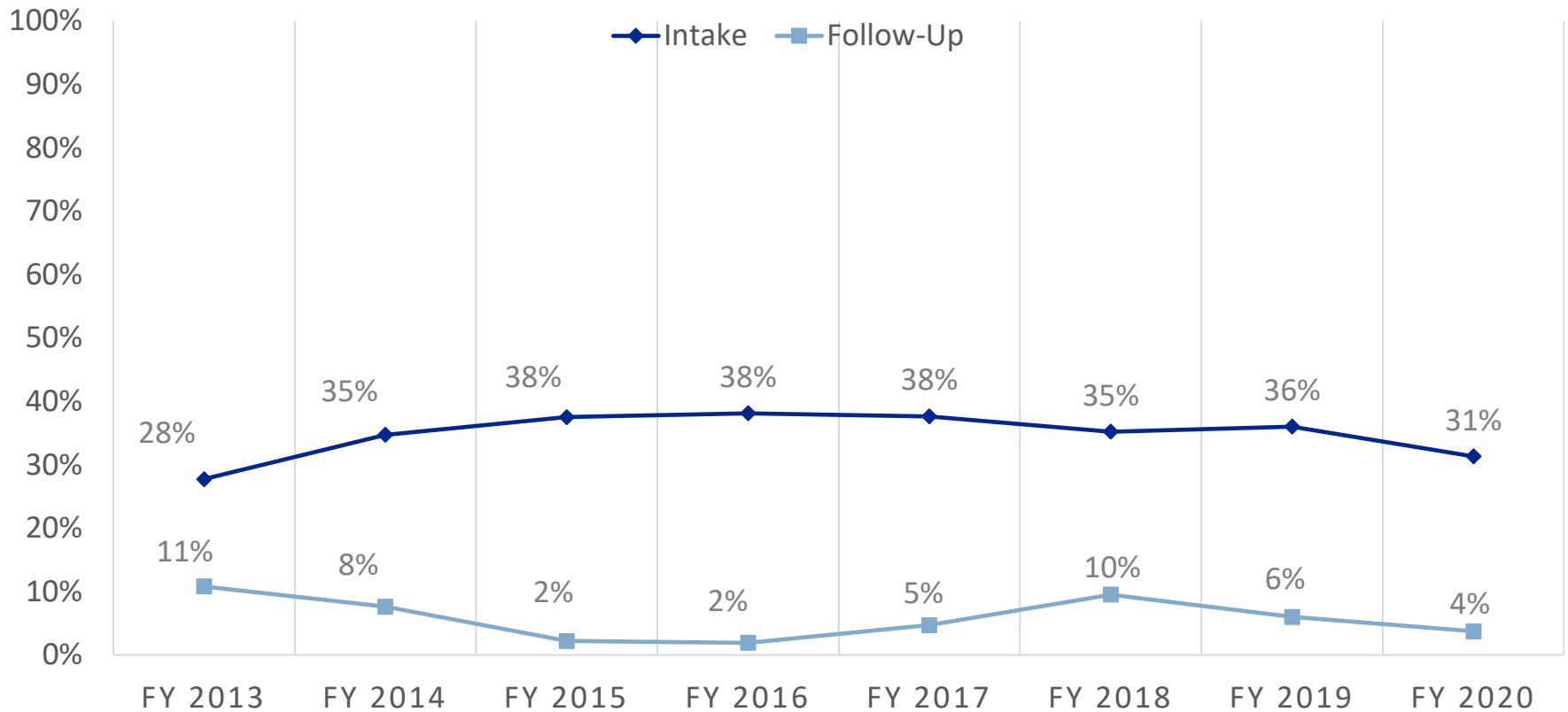


***p < .001.

Gender Differences in Homelessness

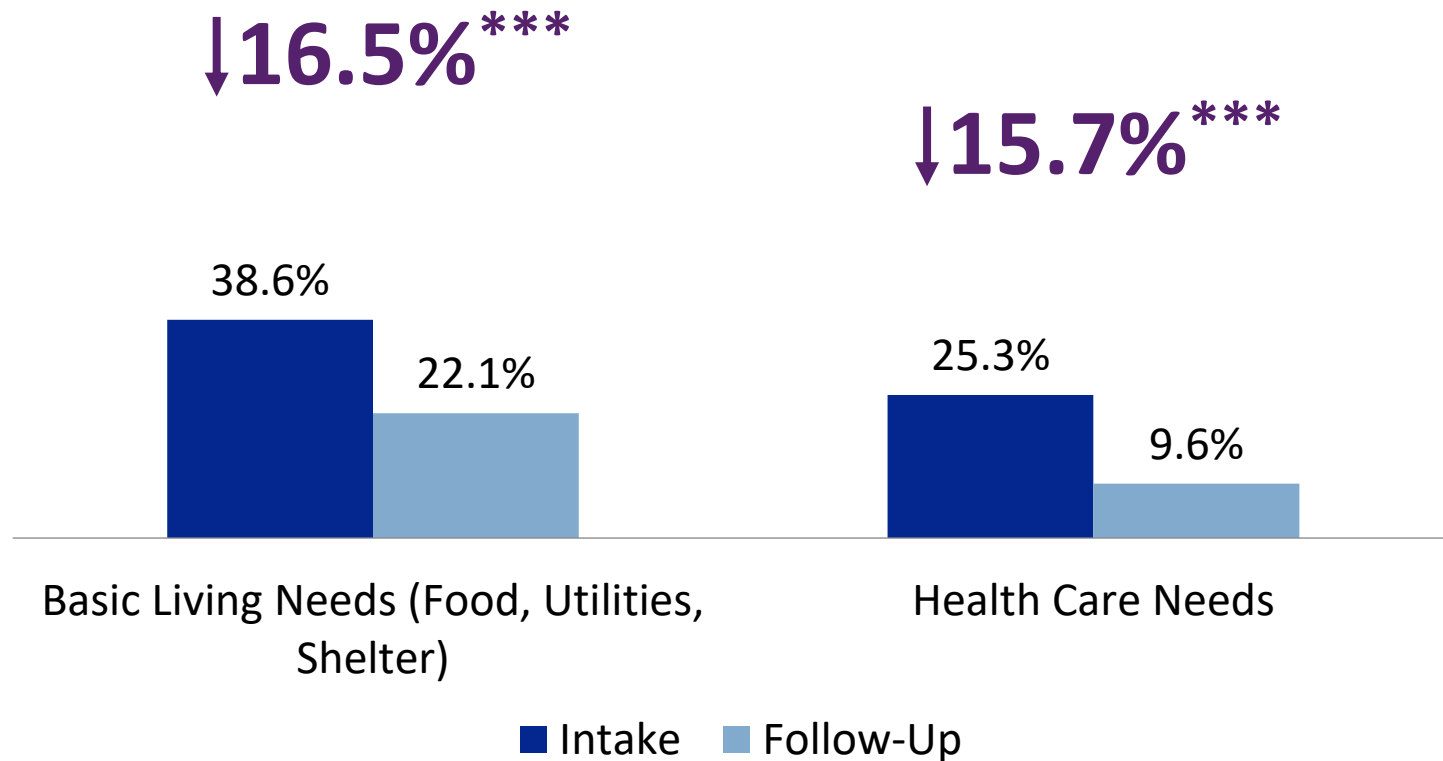


Trends in Current Homelessness



Difficulty in Meeting Needs for Financial Reasons

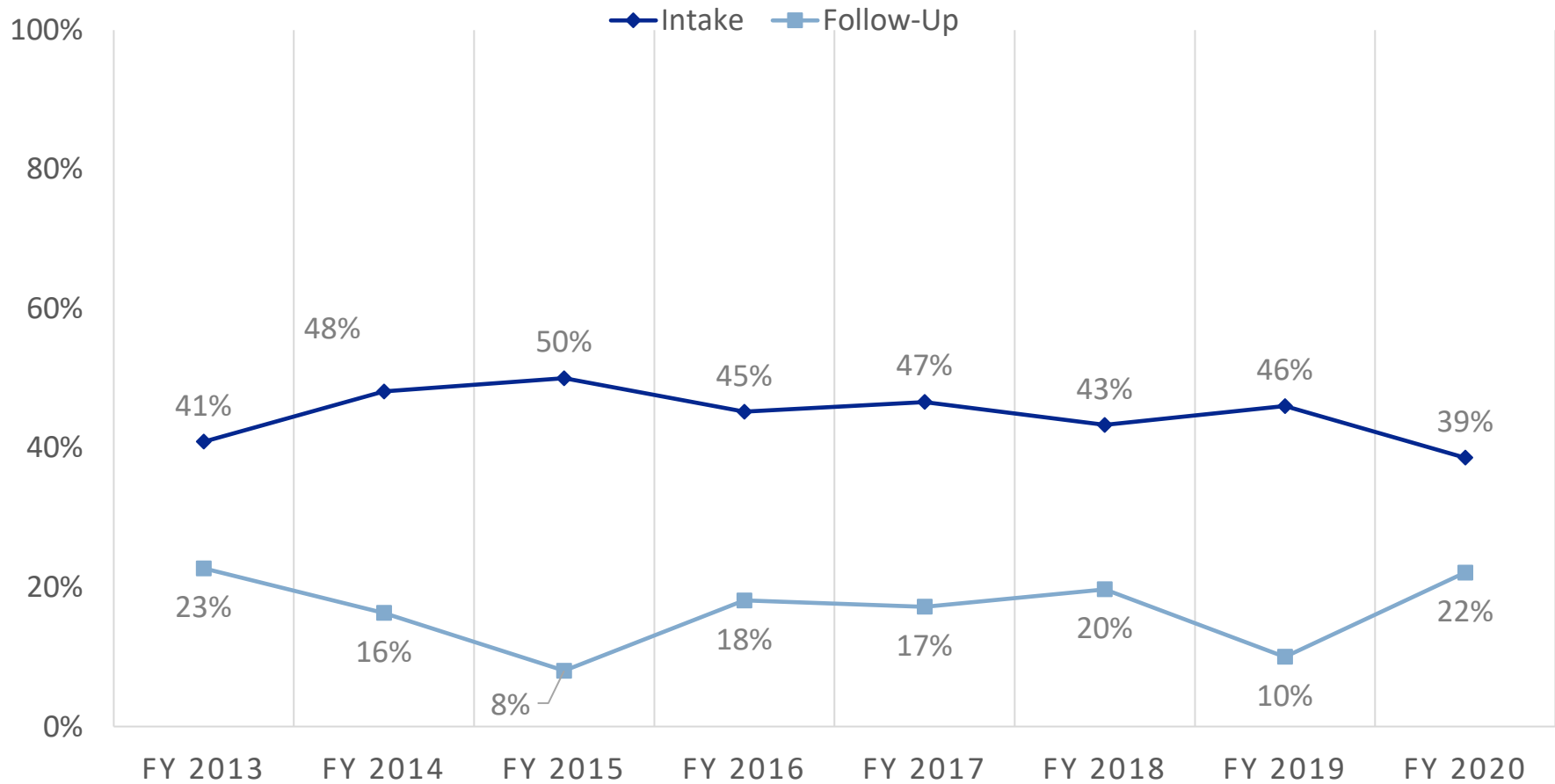
(Past 6 Months)



***p < .001.

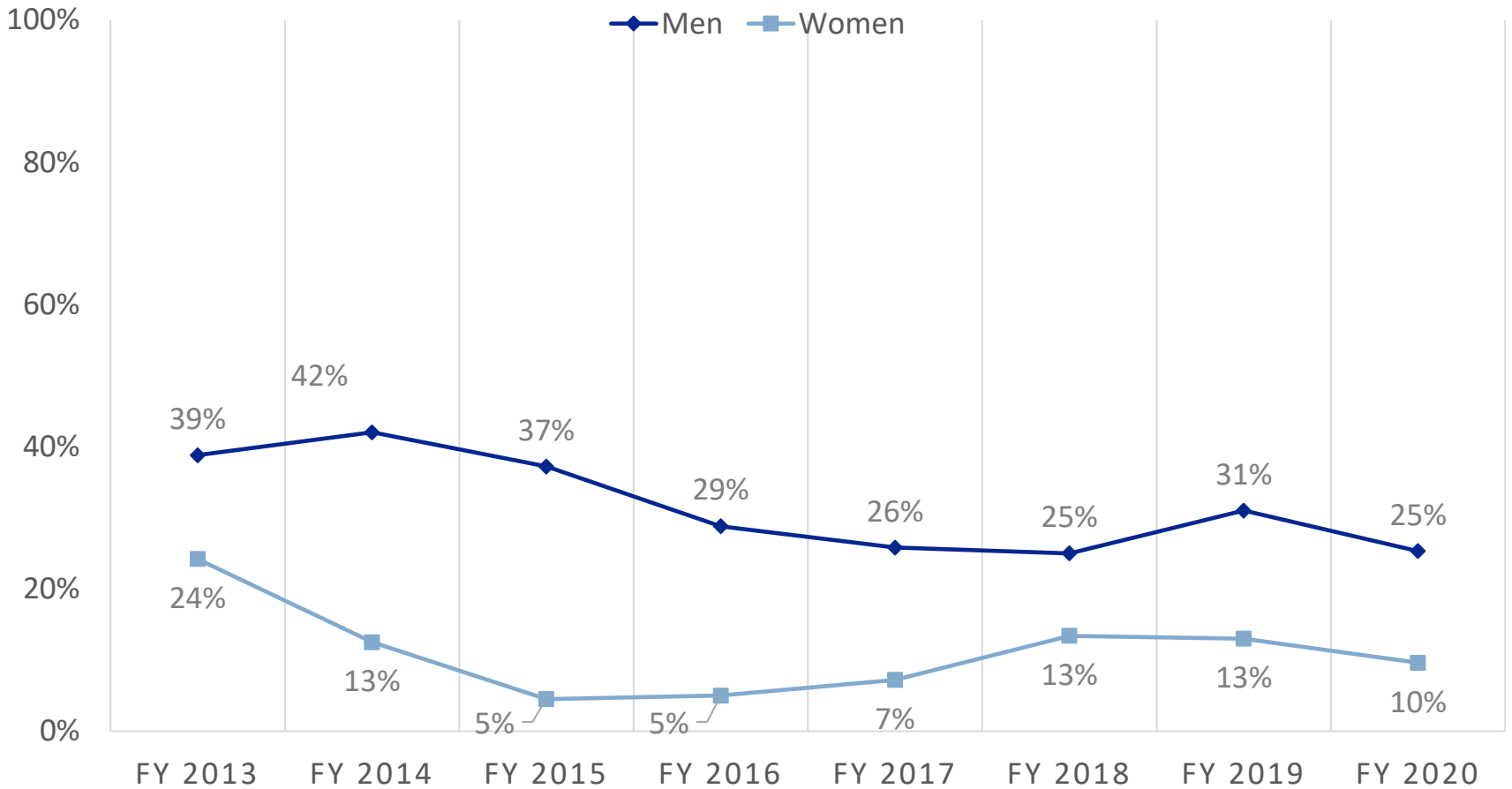
Basic Living Needs

(Past 6 Months)



Health Care Needs

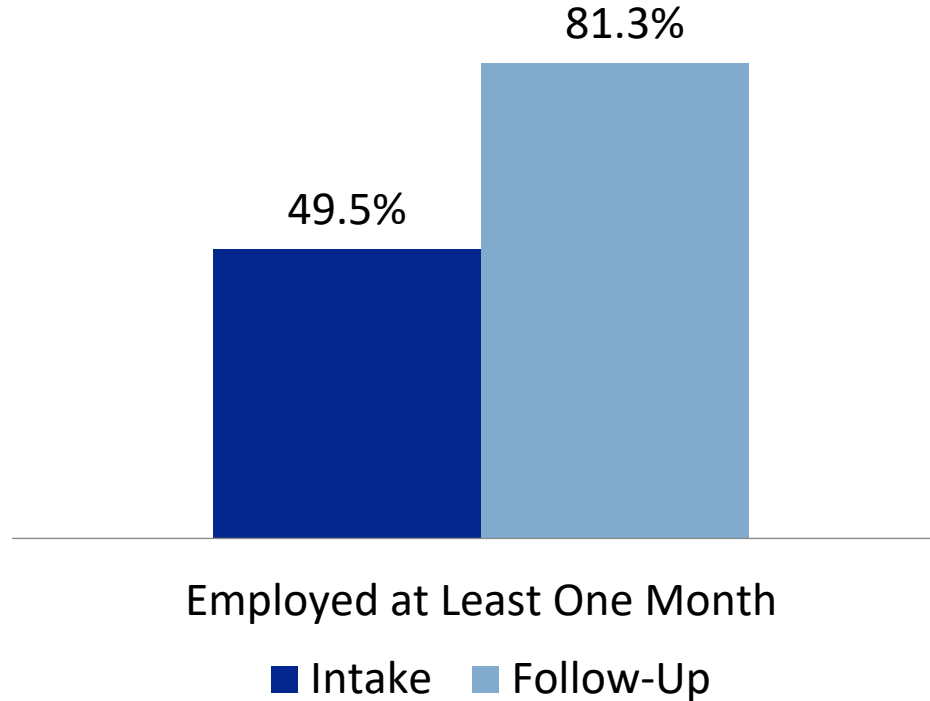
(Past 6 Months)



Education and Employment

Employment (Past 6 Months)

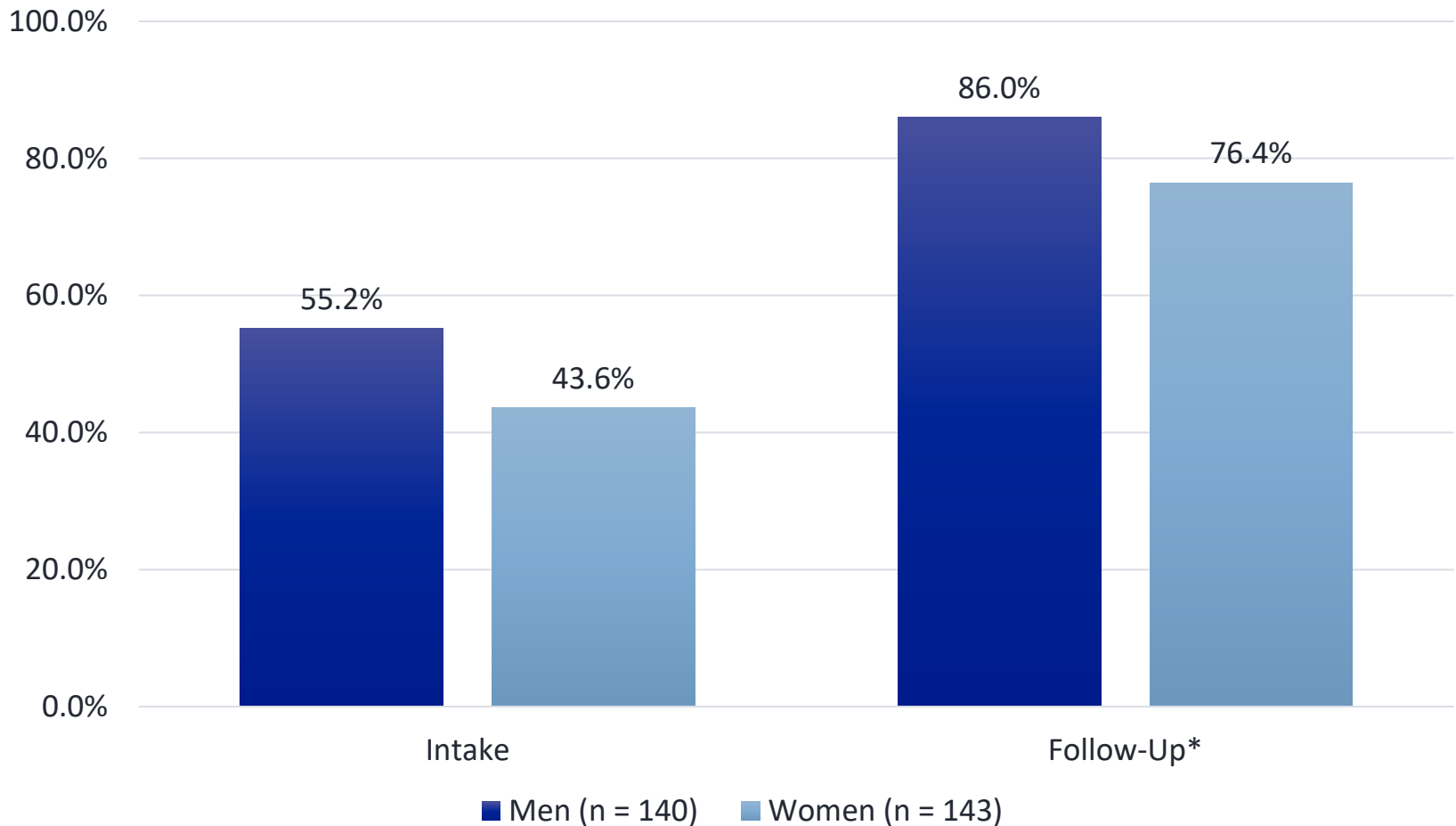
↑31.8%***



***p < .001.

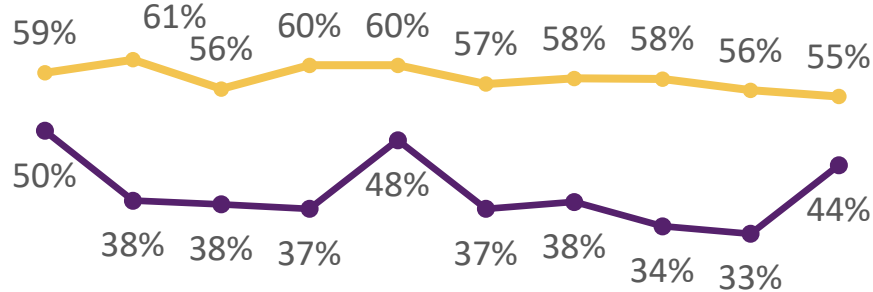
Gender Differences in Employment

(Past 6 Months)

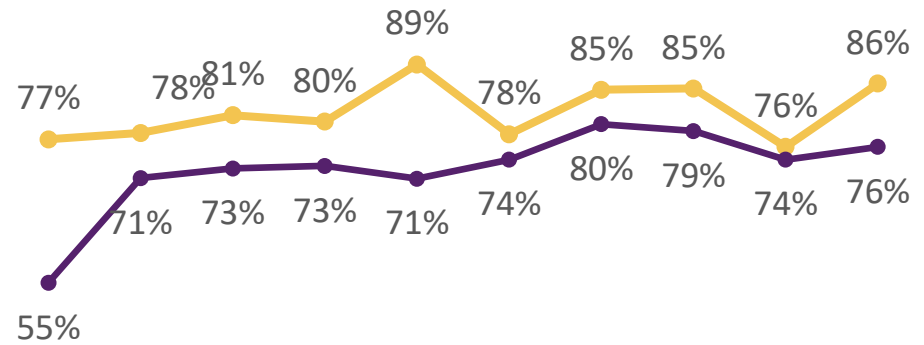


Trends in Employment* by Gender

Intake



Follow-up



.....

Men

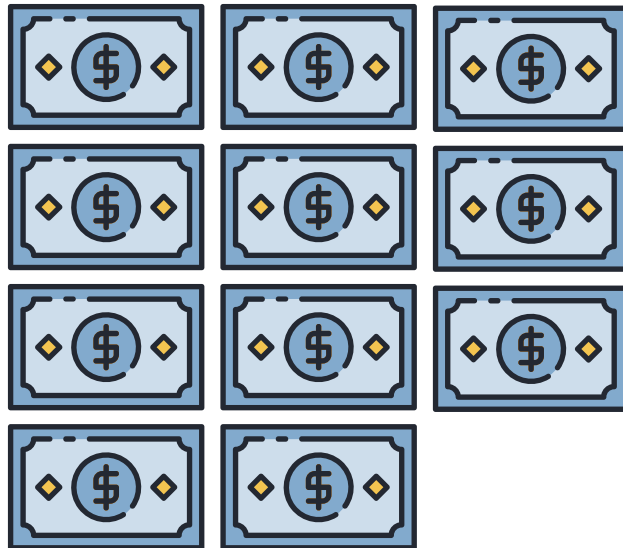
————

Women

* Includes both full-time and part-time employment for at least one month

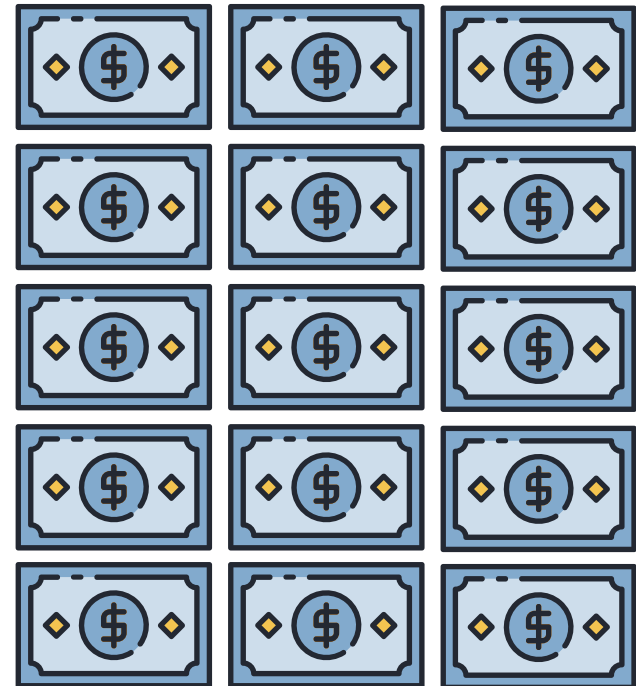
Median Hourly Wage (Past 30 Days)

Intake (n = 75)^a



\$10.75

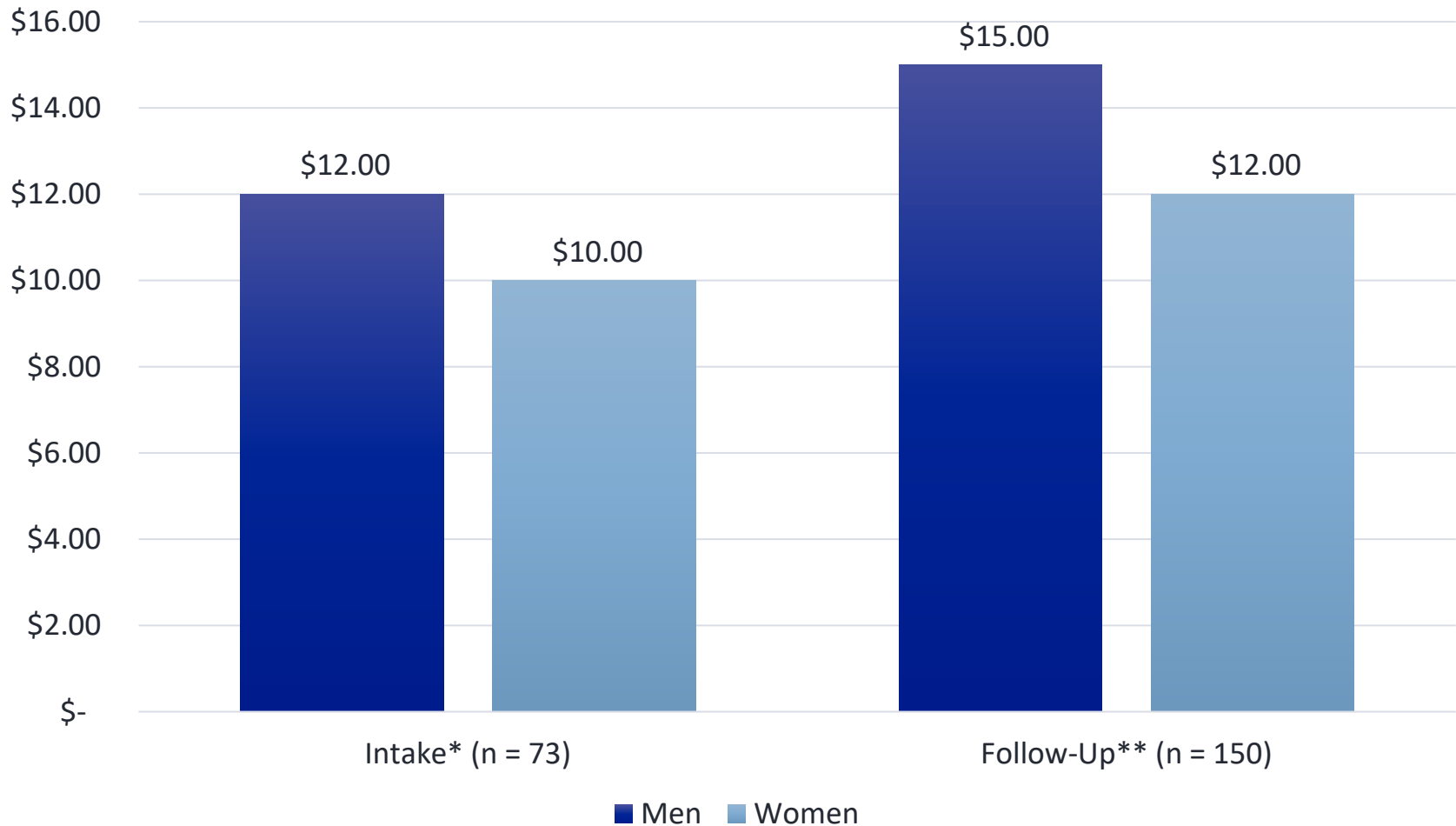
Follow-up (n = 150)^b



\$14.68

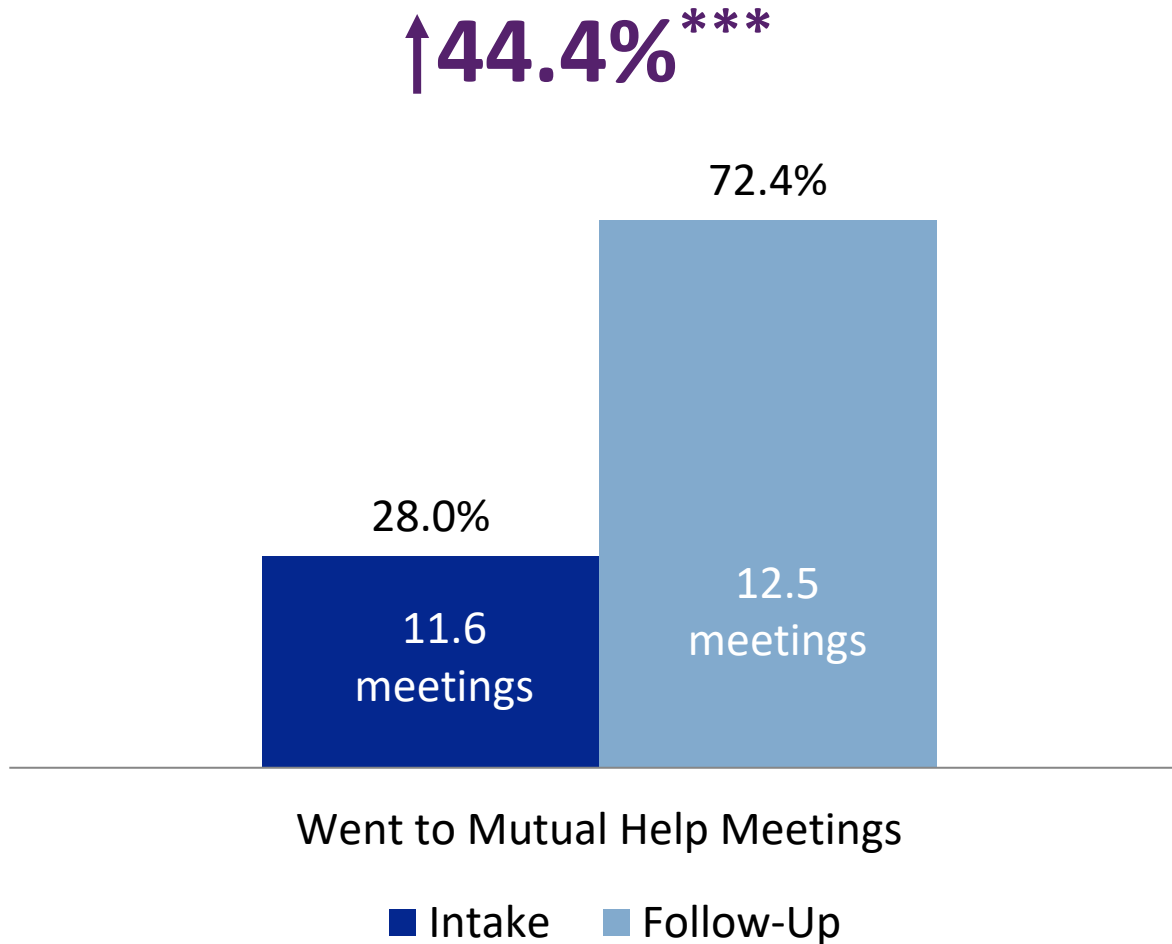
- a- Of those currently employed at intake (n = 74), 1 client had a missing value for hourly wage.
- b- Of those currently employed at follow-up (n = 175), 25 cases had missing values for hourly wage.

Gender Differences in Median Hourly Wage



Recovery Support

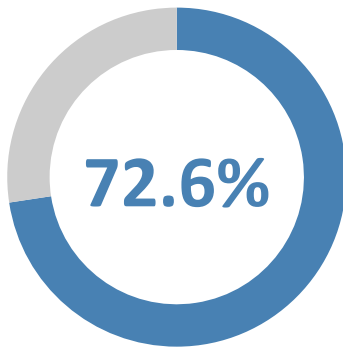
Mutual Help Recovery Group Meetings (Past 30 Days)



***p < .001.

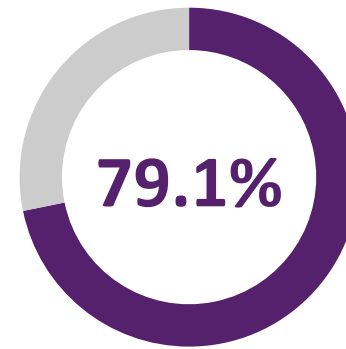
Closer Look at Recovery Support

Did **not** attend mutual help recovery meetings at intake (n = 201)



Did attend meetings at follow-up

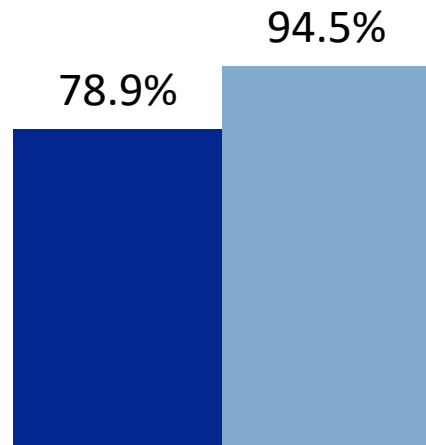
Did attend mutual help recovery meetings at intake (n = 78)



Continued attending meetings at follow-up

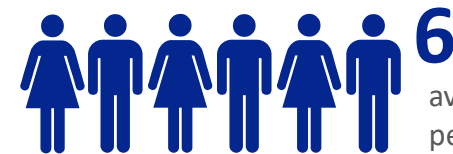
Recovery Supportive Interactions

↑15.6%***

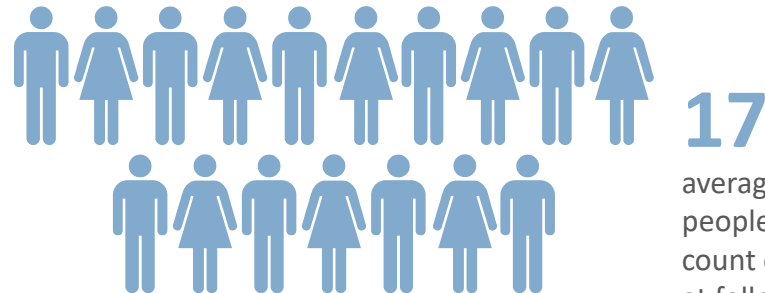


Recovery Supportive Interactions
With Family/Friends in the Past 30
Days

■ Intake ■ Follow-up



average number of
people client could
count on for support
at intake



average number of
people client could
count on for support
at follow-up***

***p < .001.

Quality Of Life Ratings & Program Satisfaction

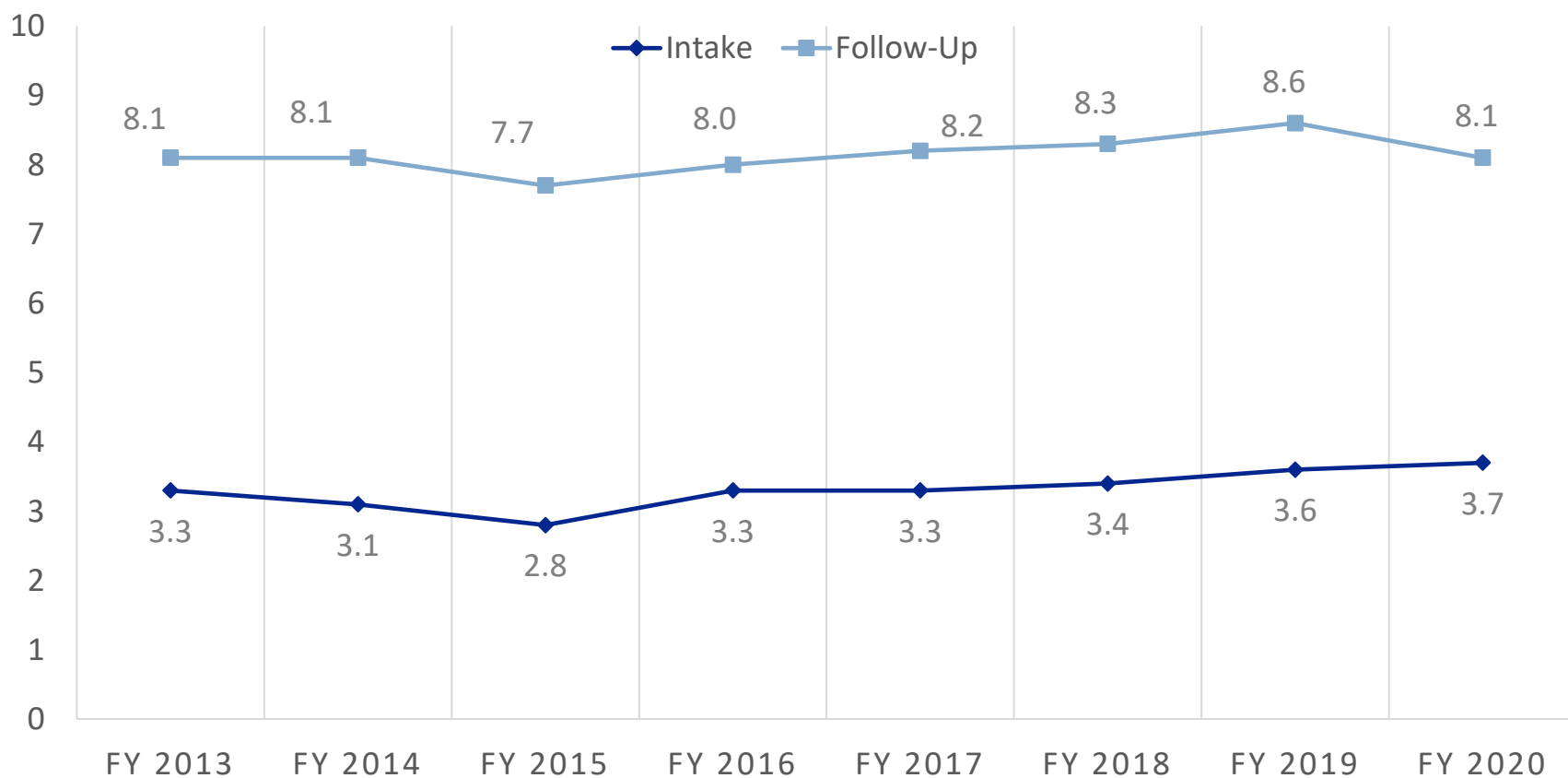
Overall Quality of Life

Worst
Imaginable

Best
Imaginable

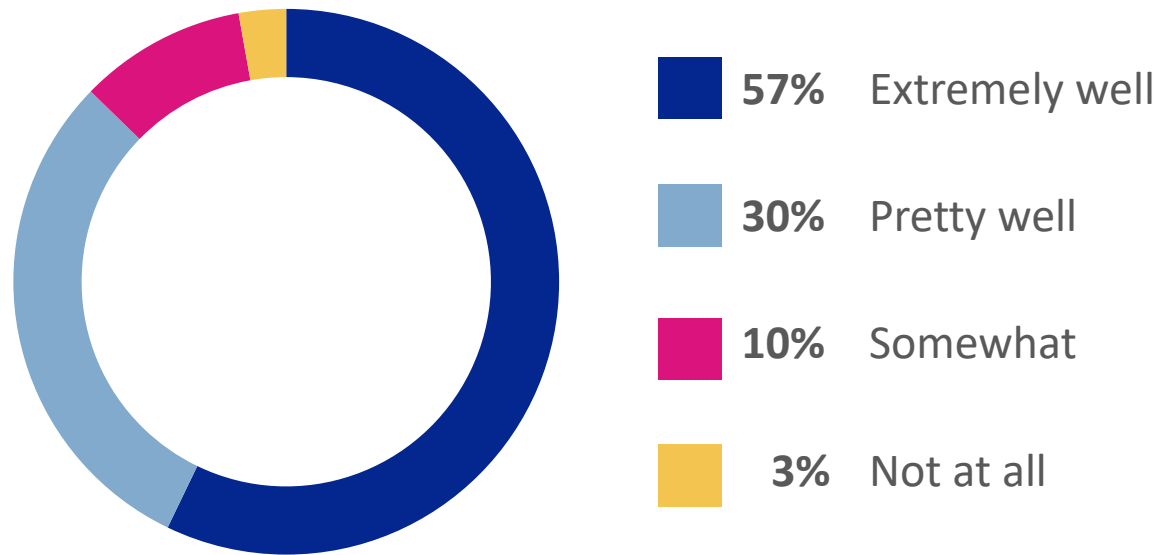


Trends in Quality of Life

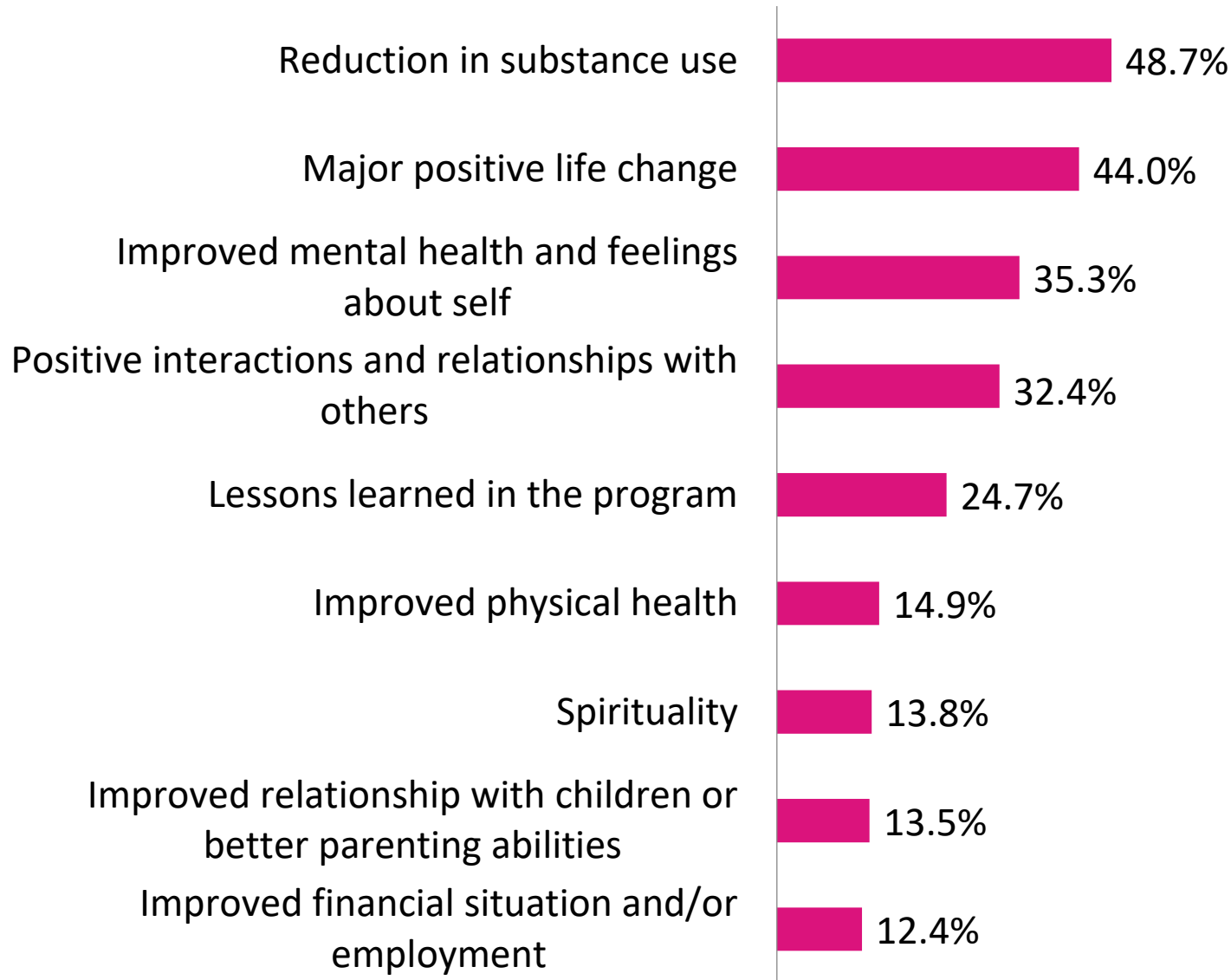


Clients' Perceptions of How Well the Program Worked for Them

(At Follow-up)



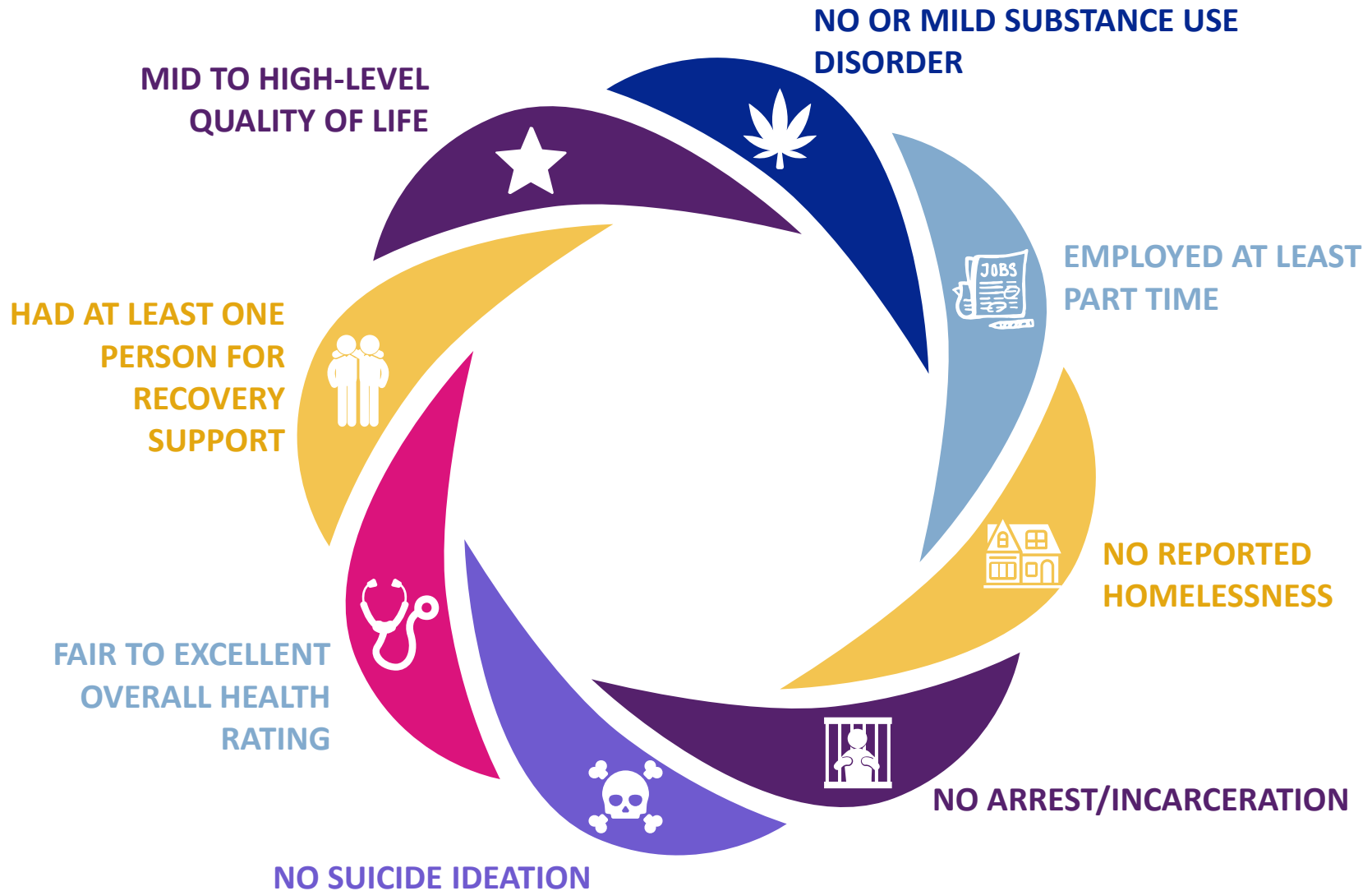
Most Positive Outcomes Experienced In Recovery Kentucky



Multidimensional Recovery Status

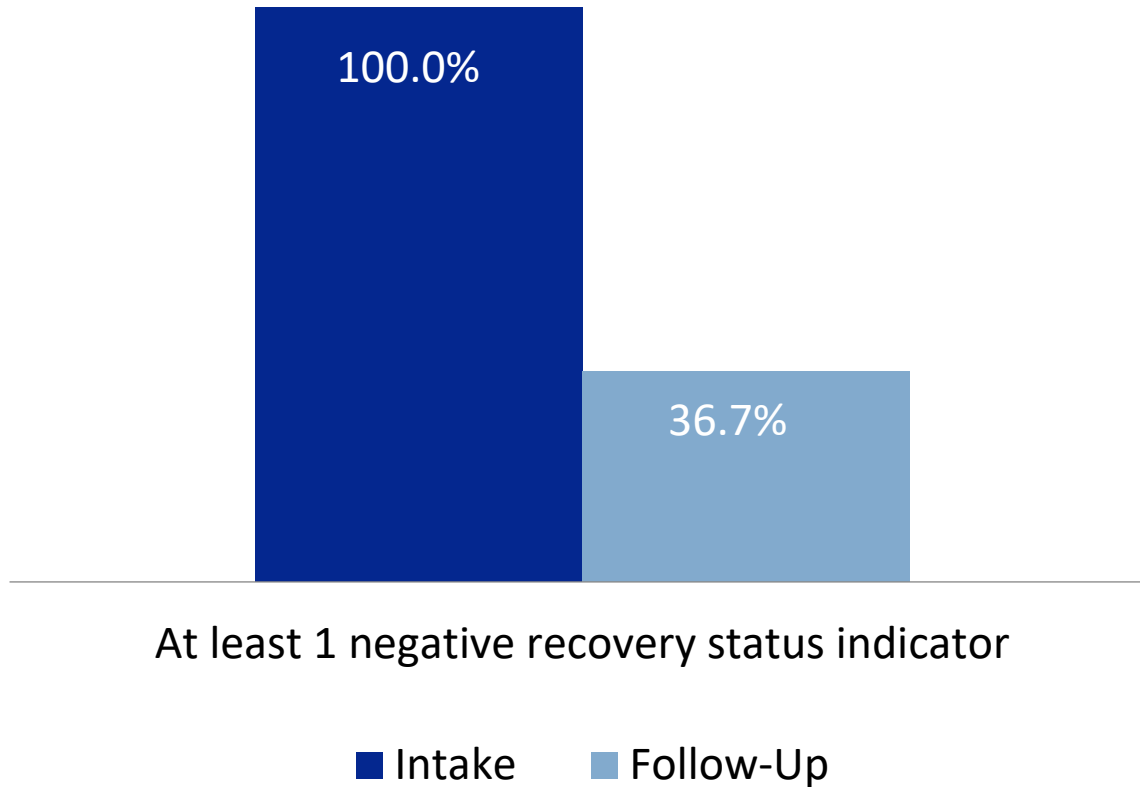
Logan, T., Cole, J., & Walker, R. (2020). Examining recovery program participants by gender: Program completion, relapse, and multidimensional status 12-months after program entry. Journal of Drug Issues, 50, 4, 436-454.

Indicators (n=8)

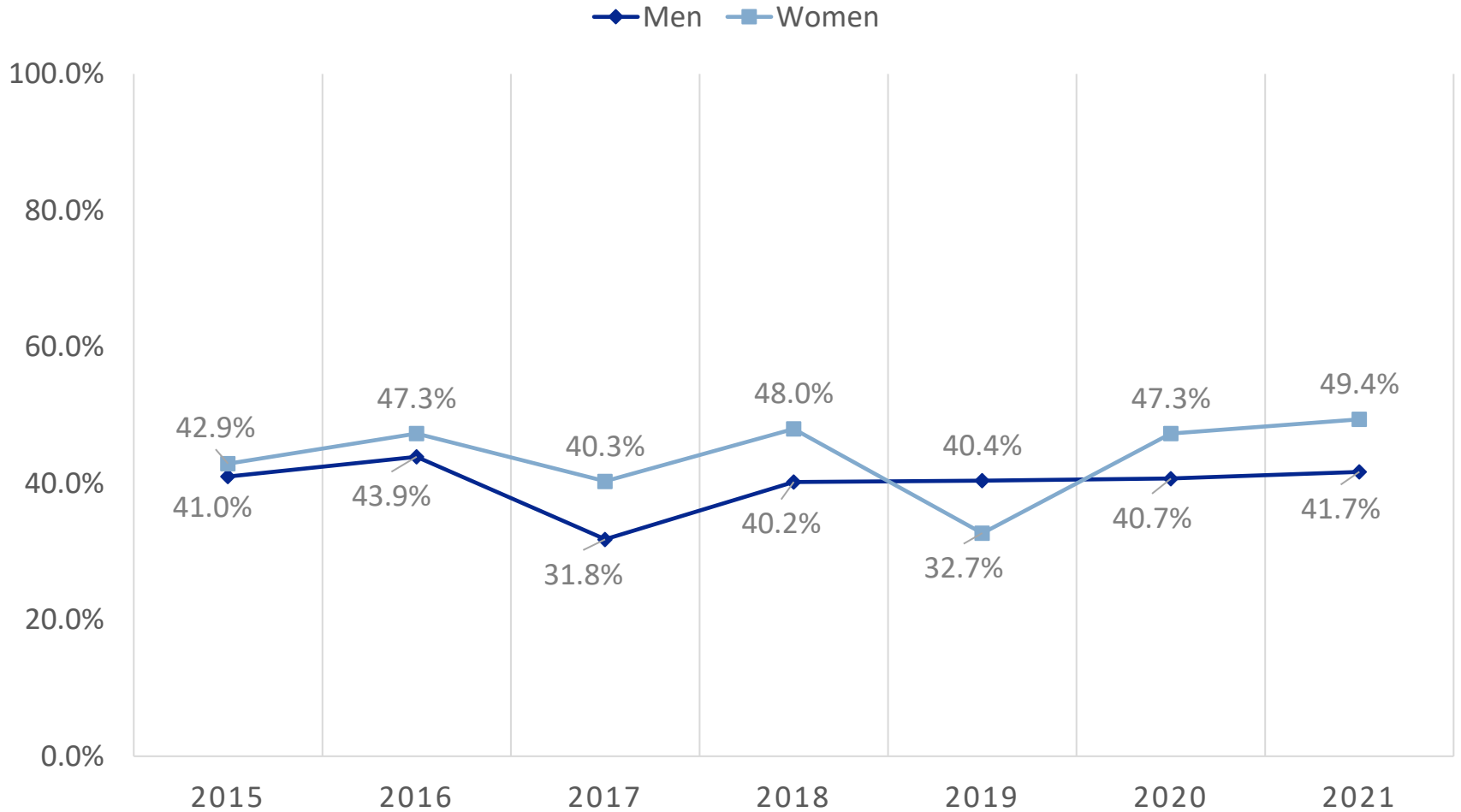


Multidimensional Recovery Status^a

(Includes those incarcerated for all 6 months/30 days)



At Least 1 Recovery Status Indicator at Follow-up by Gender unduplicated sample



Logan, T., McClouth, C., & Cole, J. (2022). Examining Recovery Status Trends Over Time for Clients with Homelessness and Criminal Justice System Involvement.

Areas of Success

Multidimensional
recovery

Recovery
support

Economic
hardship

Physical
health

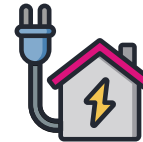
Homelessness

Criminal justice
involvement

Employment

Mental
health

Substance
use



Areas of Concern

Increasing methamphetamine use

- A higher percentage of RCOS clients reported they had used methamphetamine in the 6 months before entering the recovery center program (60%) than had used prescription opioids, which is the second year this has happened in the RCOS sample

Economic hardship

- 22% of clients still reported at follow-up they had difficulty meeting basic living needs (e.g., food, utilities, rent)

Smoking rates

- Number of RCOS clients who reported past-6-month use of smoking tobacco remained high from intake to follow-up

ACE and victimization

- ACEs were reported by 86% of men and 90% of women
- The majority of RCOS clients reported they had been physically assaulted as adults

Areas of Concern by Gender

Mental health problems

- More women entering the program had depression, anxiety, and PTSD and more days mental health was not good.
- Women had more days mental health was not good and more women had depression at follow-up.

Economic hardship

- More women reported homelessness at intake and follow up.
- Women reported working fewer months in the past 6 months at follow-up than men and earned a lower median hourly wage at intake and follow-up

Physical health

- More women had chronic pain at intake.

Victimization

- More women than men reported:
 - being robbed or mugged by someone who used force or threats of force,
 - being physically assaulted or attacked,
 - experiencing intimate partner violence (including controlling behavior),
 - being stalked by someone who scared them,
 - being sexually assaulted or raped, and
 - being verbally, sexually, or otherwise harassed in a way that made them afraid

Firearms Victimization by Gender

Logan, T. & Cole, J. (2022). Firearm-related threat exposure and associated factors among men and women entering a supportive housing substance use disorder recovery program. In Press [The American Journal of Drug & Alcohol Abuse](#)

Firearms research

1. Firearm violence is rising

- Before the pandemic firearm violence was rising. In fact, firearm-related deaths exceeded motor vehicle accident related deaths in 2017.
- Gun violence has risen with 2020 being one of the most violent years in decades and 2021 was very close to the rates in 2020.

2. Gun sales have also risen during this same time period

- Firearm sales boomed during 2020 with 20%-40% of sales going to new gun owners. In the first 6 months of 2021 firearm sales were even higher than in 2020.
- Kentucky had the second highest gun sales in the U.S. in the first six months of 2021 with over 7% of the guns sold nationwide, even though the state has only 1.3% of the U.S. population.

Firearms research

3. Firearm victimization is associated with increased mental health problems, substance use, firearm-related risks, and revictimization with and without a gun.
4. Heavy alcohol and illicit drugs have been associated with increased risk of victimization, injury and perpetration of gun violence.
5. Little is known about the impact of firearm-related risks among SUD programs or how firearm-related risks impact SUD program engagement and recovery.

Method

Intake data from RCOS July 2017 – June 2019

Sample Size

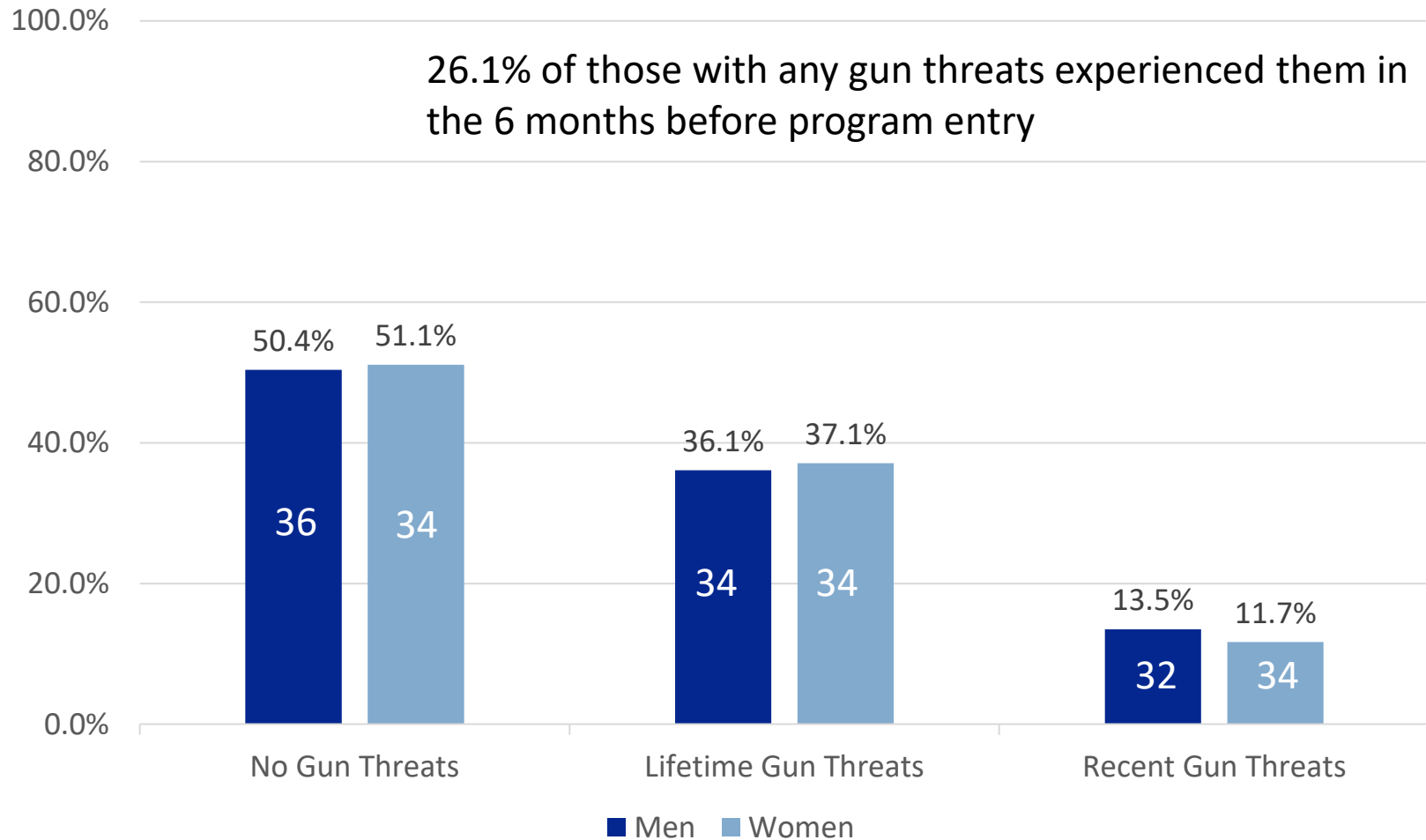
- Men (n=1,758)
- Women (n=1,066)
- Measure
 - Have you ever been threatened with a gun or held at gunpoint? Has it happened in the 6 months before program entry?

Firearm Threat Prevalence among Recovery Kentucky Clients

49.3%

report ever being threatened with a gun or held at
gunpoint

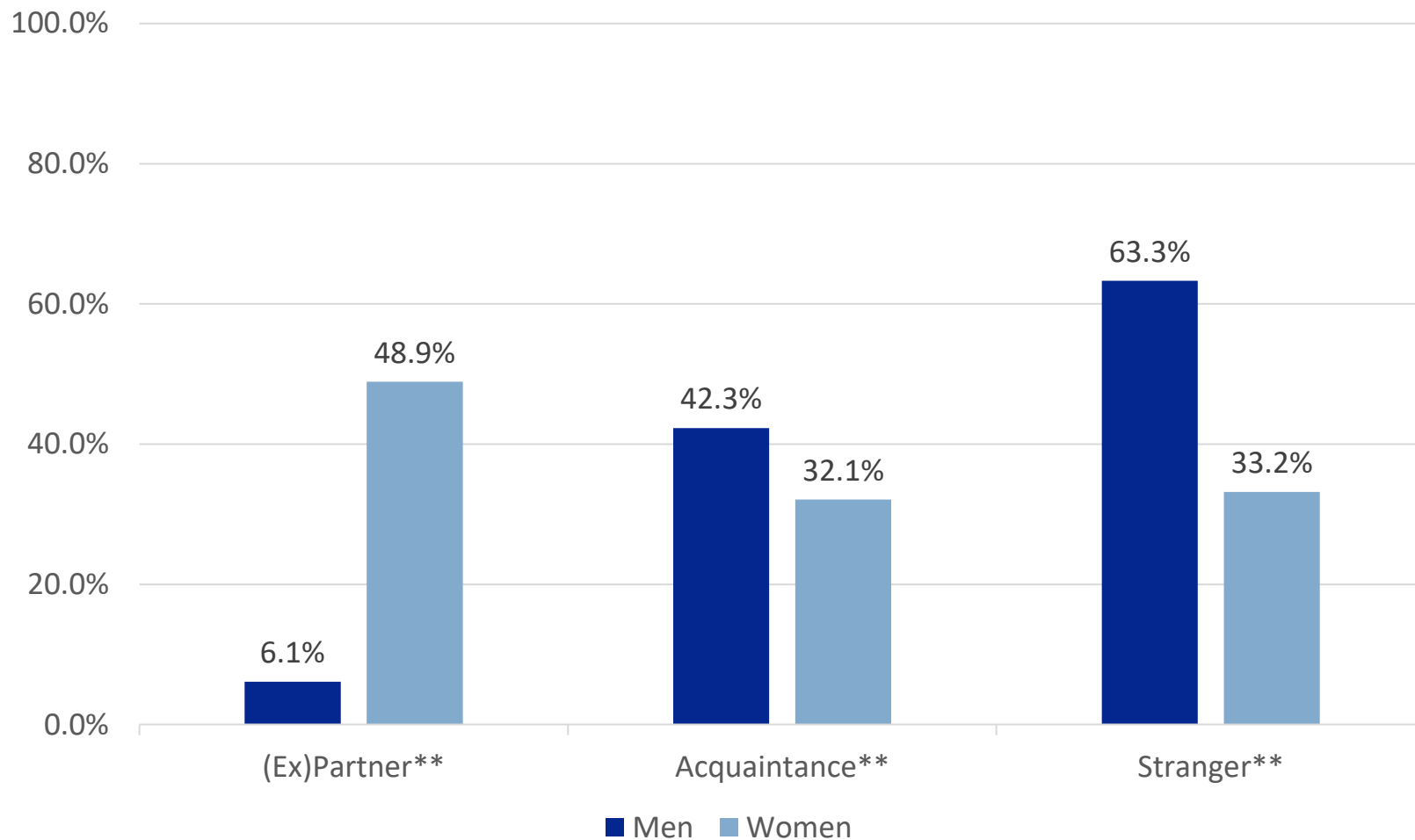
Firearm Threat Prevalence



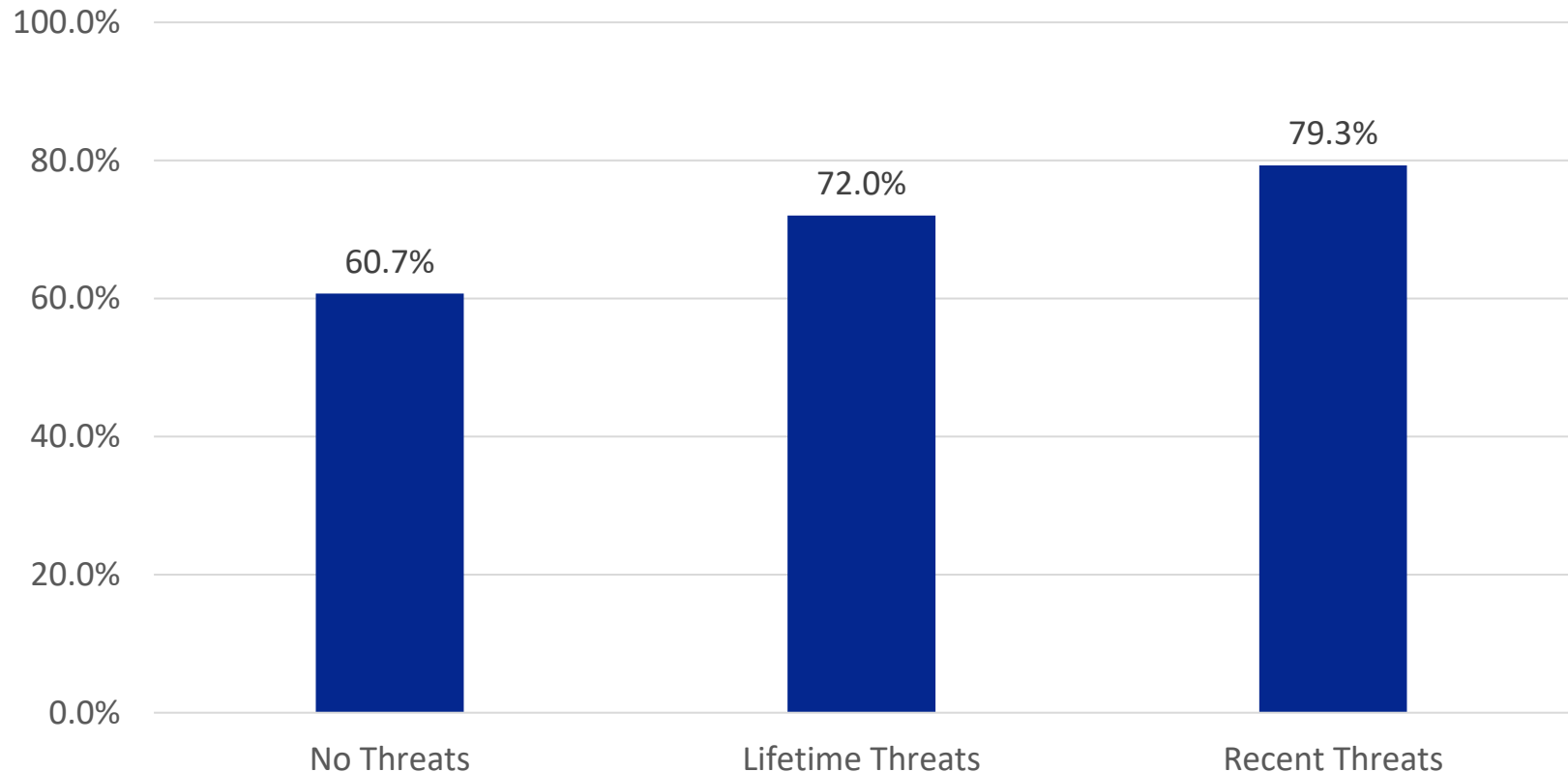
No gender differences in prevalence;

Men with recent firearm threats were significantly younger, while men with lifetime threats significantly younger than men with no threats

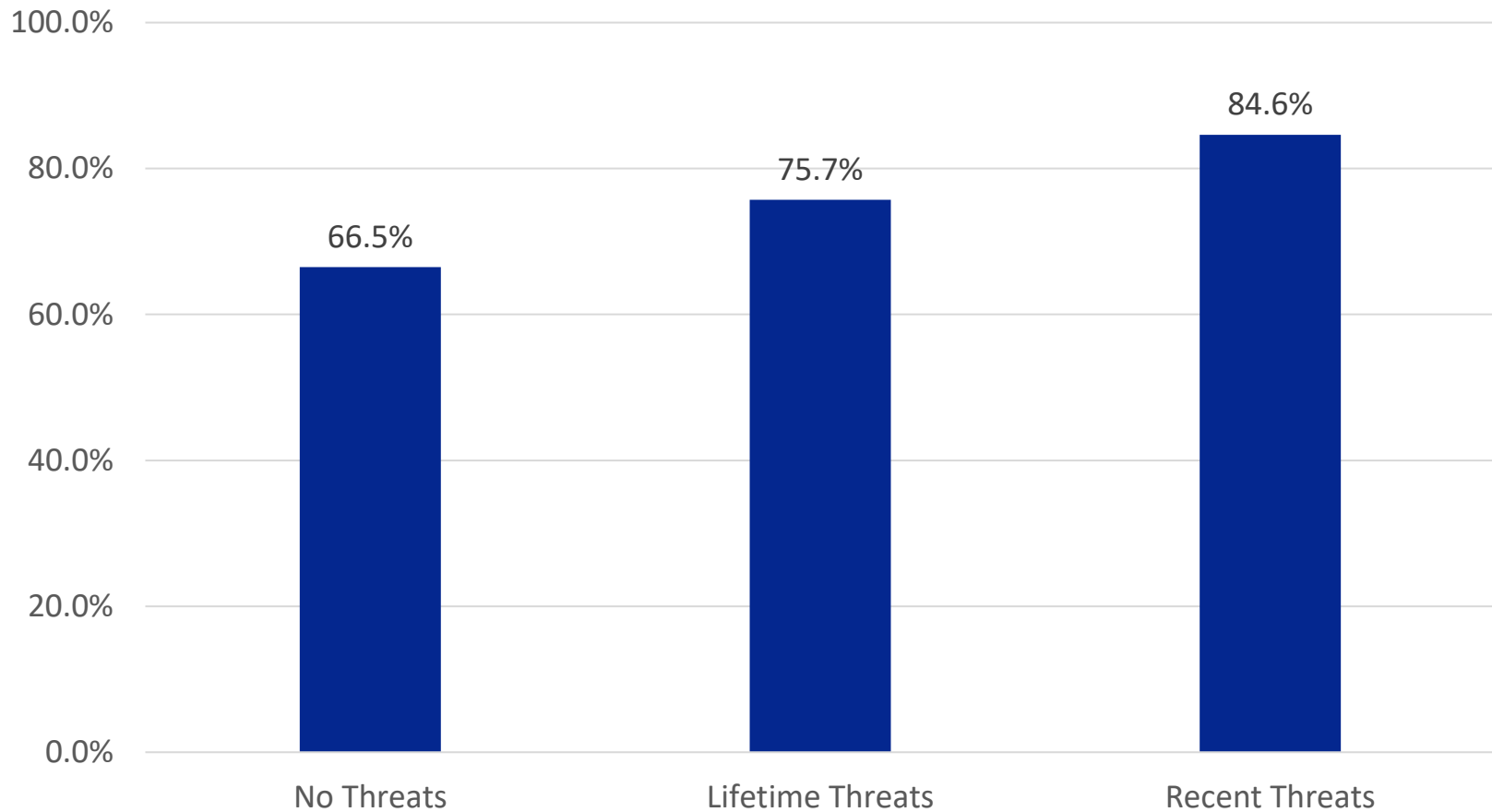
Firearm threat perpetrator by gender



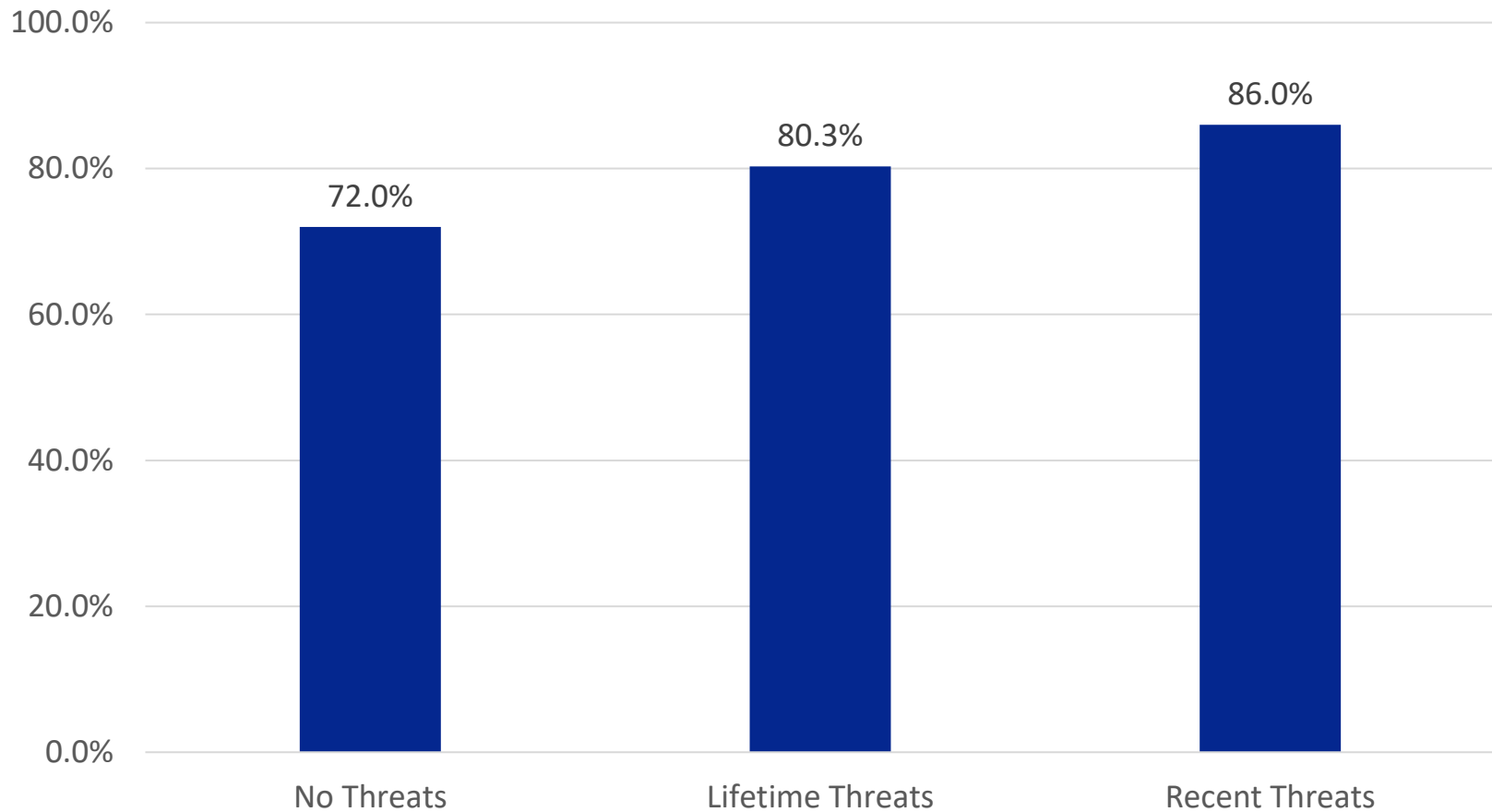
Homelessness or trouble meeting basic needs 6 months before program entry



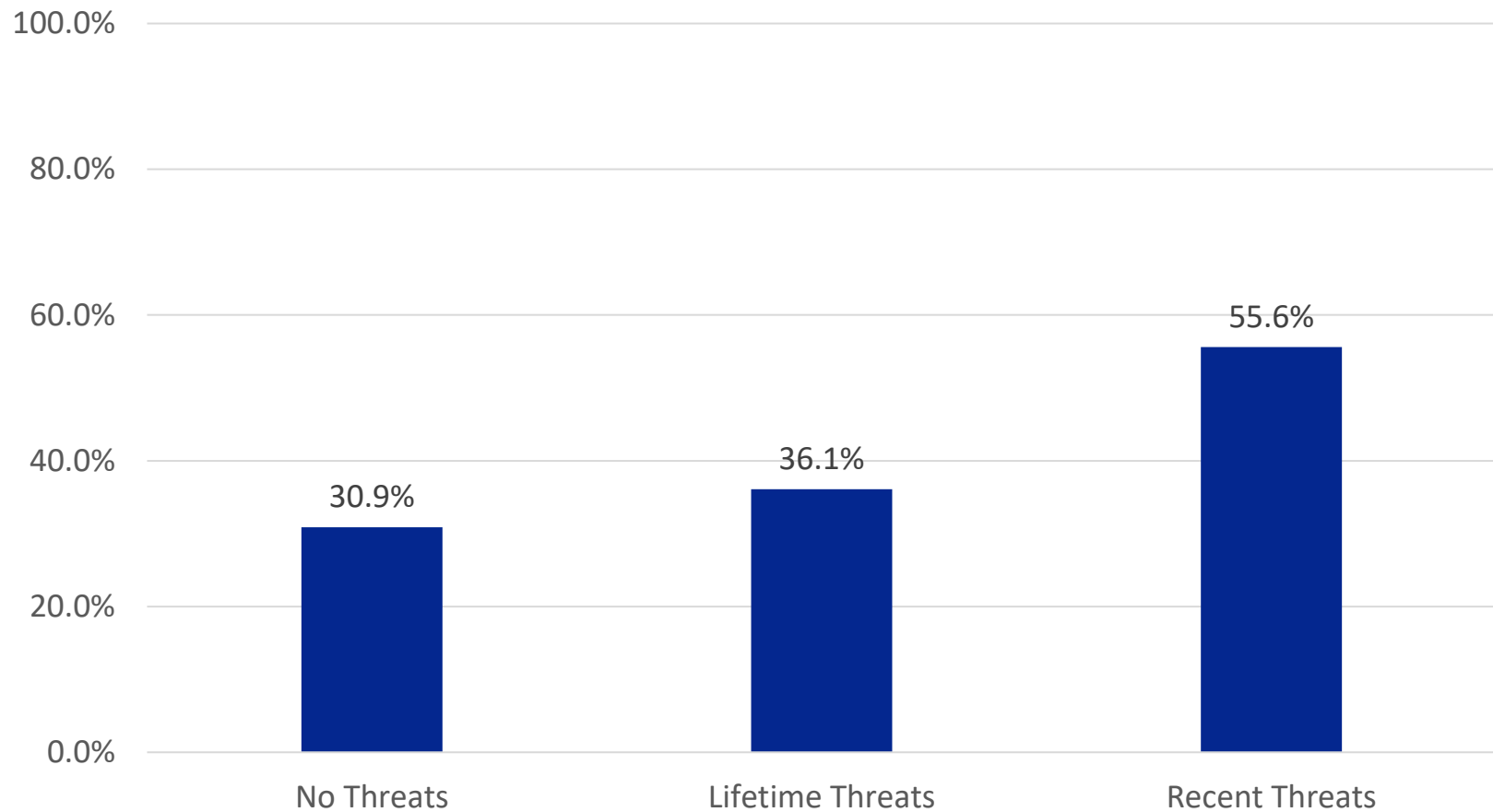
Depression at program entry



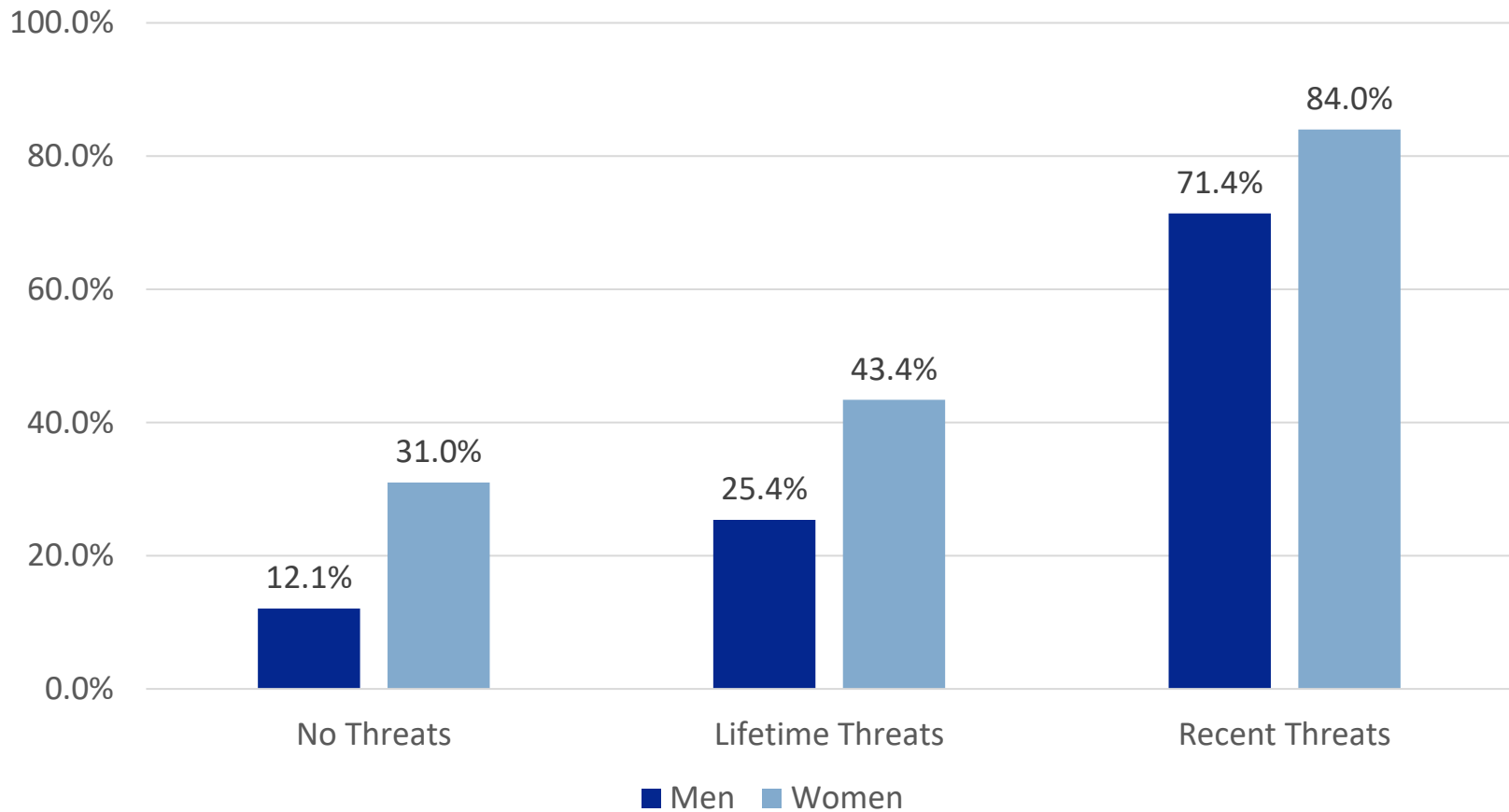
Anxiety at program entry



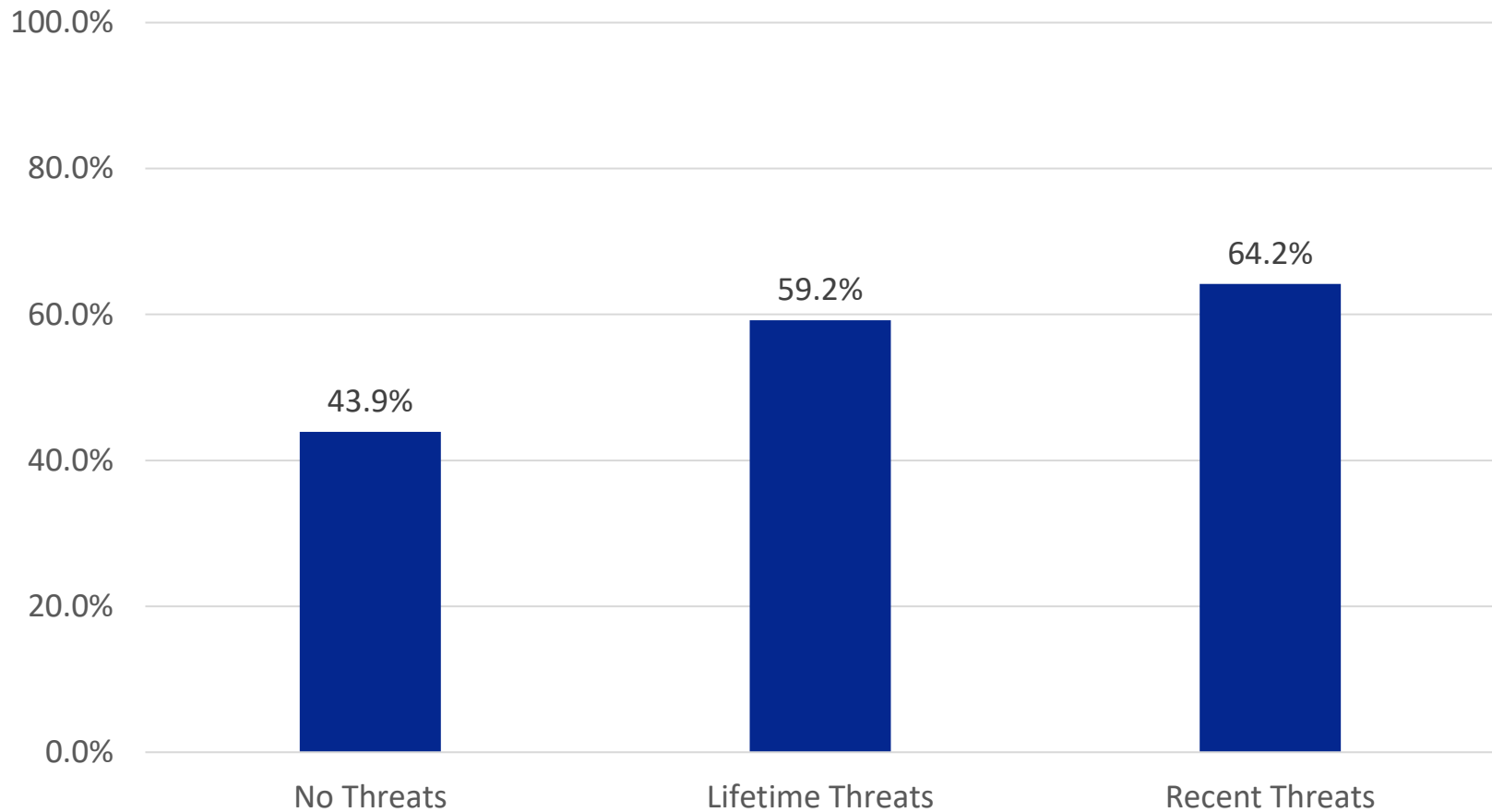
Suicidality at program entry



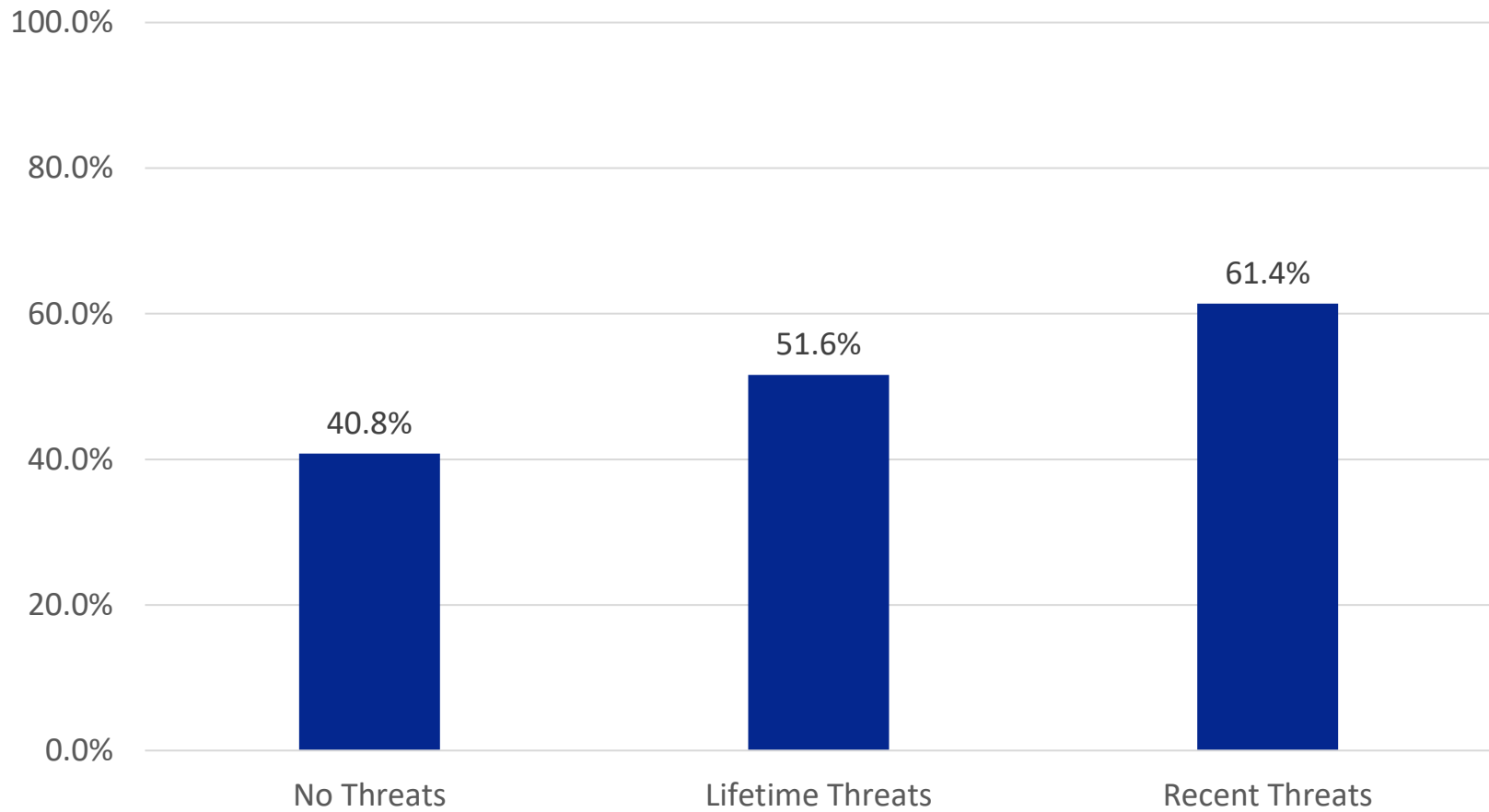
Recent Non-Firearm-related Victimization



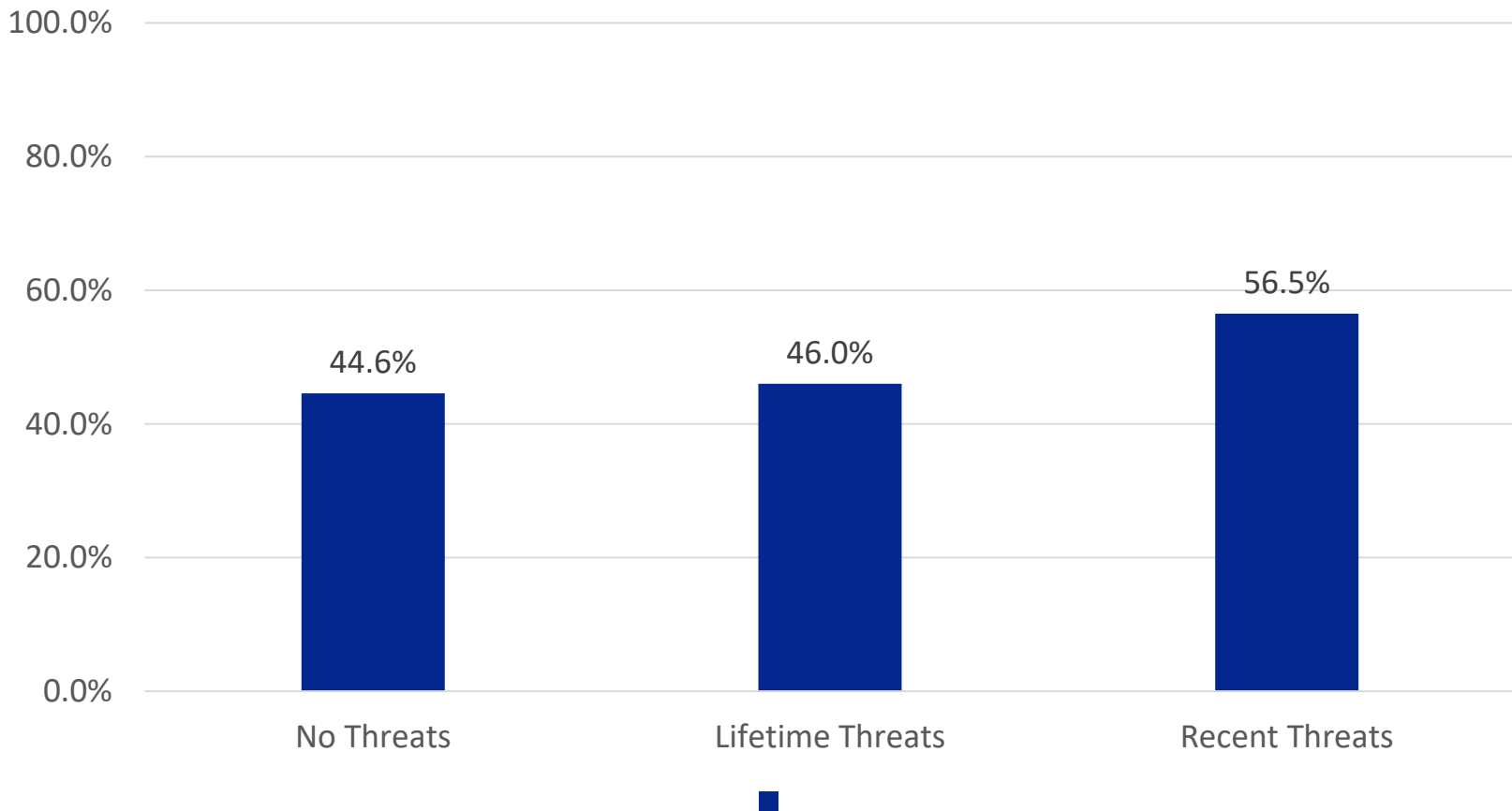
4 or more ACES



4+ drug classes



Use of both drugs and alcohol at program entry



Multivariate analysis:

No threat versus any threats

- Age,
- basic needs,
- homelessness,
- depression,
- anxiety
- Suicidality,
- polysubstance use,
- ACES,
- non-firearm-related victimization

No Gender Differences

Multivariate analysis: lifetime threat versus recent threat

- Age,
- basic needs,
- homelessness,
- depression,
- anxiety
- Suicidality,
- polysubstance use,
- ACES,
- non-firearm-related victimization

No Gender Differences

Conclusion

Results have been replicated for SUD clients of community mental health centers

- One-third experienced firearm threats
- Similar results

There is a lot more work to do on this.

There is a need for firearm-related risk reduction interventions for individuals in SUD recovery programs

Limitations

- The Recovery Center Outcome Study **does not address the specific Recovery Center program components**
- **Follow-up Sample Size:**
 - N=280 each year
 - but substance use results are reported only for those who were not incarcerated the full 6 months before the intake or follow-up, resulting in smaller sample sizes for the substance use analysis
- The Recovery Center Outcome Study does not include an alternative treatment comparison group

Want More Information?

Peer Reviewed Publications

1. Logan, T., McClouth, C., & Cole, J. (2022). Examining Recovery Status Trends Over Time for Clients with Homelessness and Criminal Justice System Involvement. Submitted for publication.
2. Logan, T. & Cole, J. (2022). Firearm-related threat exposure and associated factors among men and women entering a supportive housing substance use disorder recovery program. In Press. The American Journal of Drug & Alcohol Abuse
3. Logan, T., Cole, J., & Walker, R. (2020). Examining recovery program participants by gender: Program completion, relapse, and multidimensional status 12-months after program entry. Journal of Drug Issues, 50, 4, 436-454.
4. Walker, R., Logan, T., Chipley, Q., & Miller, J. (2018). Characteristics and experiences with Buprenorphine among poly-substance abusers. The American Journal of Drug and Alcohol Abuse, 54, 595-603.

Annual Reports and Other Information

<https://cdar.uky.edu/bhos/>



Questions?



Thank You