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Substance Use and Co-occurring Disorders in Women and Girls

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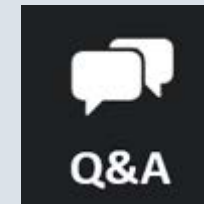
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PRESENTERS

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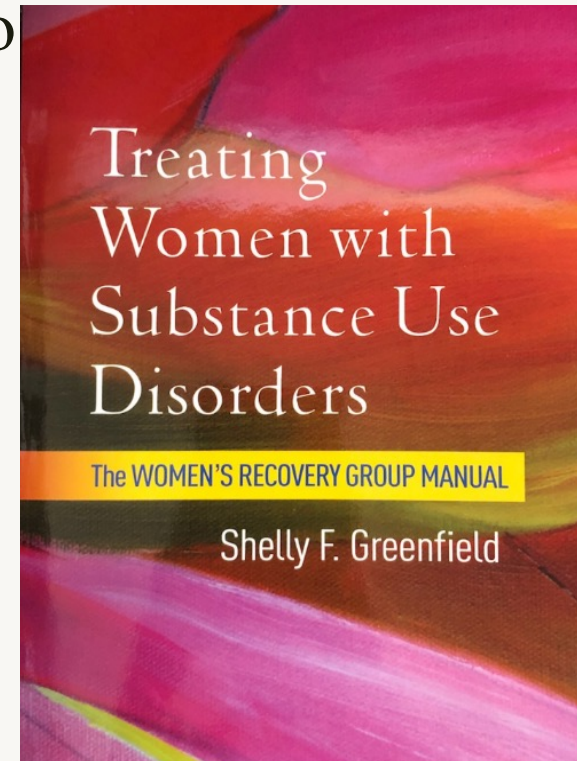
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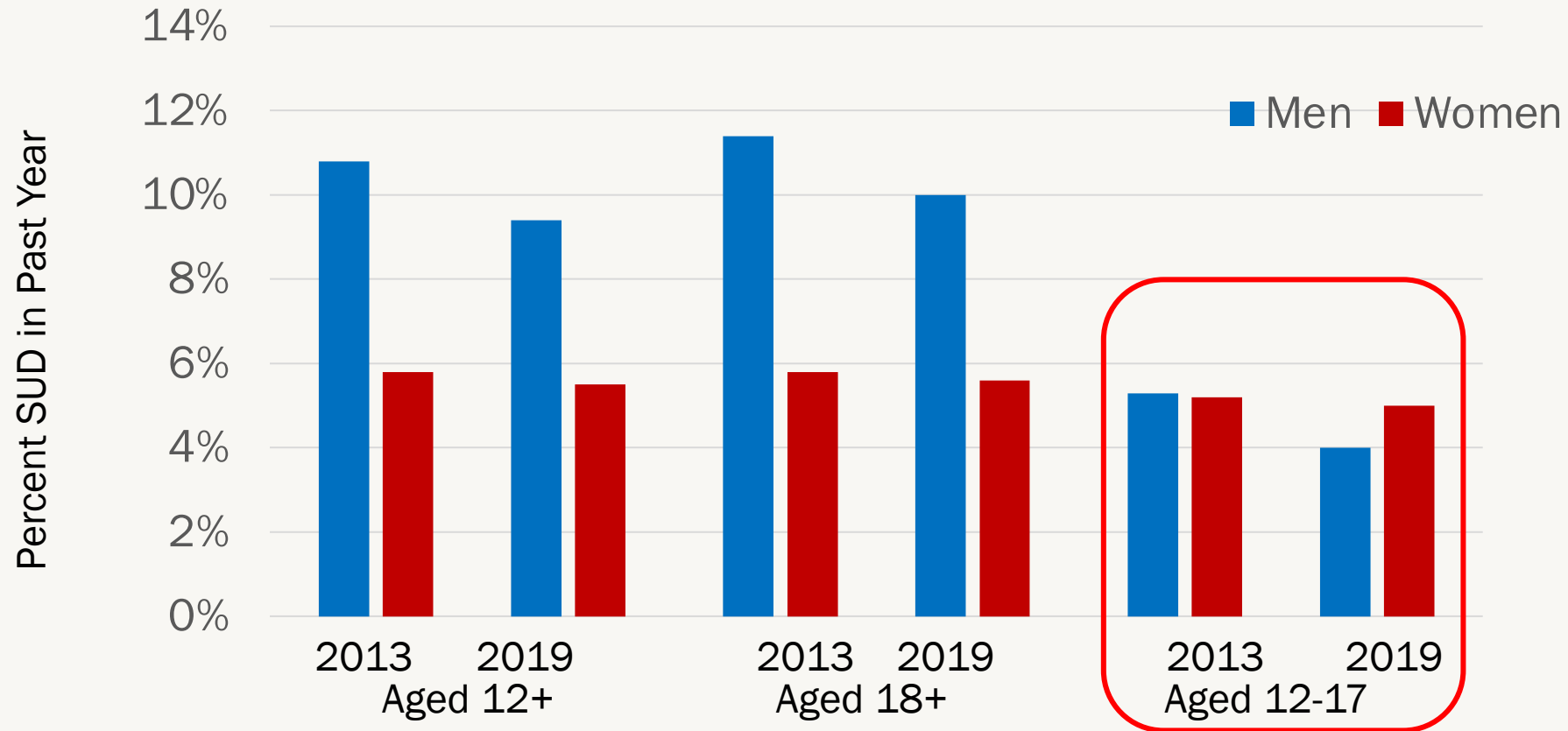
- No disclosures or conflicts of interest related to an ACCME defined commercial interest.
- Dr. Greenfield is the author of
 - *Treating Women with Substance Use Disorders: The Women's Recovery Group Manual* (Guilford Press, 2016)
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Overview

- Brief overview of public health trends in the prevalence of substance use in women
- Sex differences in clinical presentation of substance use and co-occurring disorders
- Treatment strategies for women and girls with substance use and co-occurring disorders

Before the Covid 19 Pandemic: Substance Use Disorders



*Data from the 2013 and
2019 National Survey on
Drug Use and Health*

Alcohol Use Disorders

Male:Female prevalence of Alcohol Use Disorders

- 1990 ECA Study: **5:1**
- 2001/2002 NESARC Study: **2.3/2.6:1** (12 month/lifetime)
- 2012/2013 NESARC III: **1.9/2.0:1** (12 month/lifetime)
- Women born after World War II have lower levels of abstaining from alcohol, and higher levels of alcohol use disorders compared with earlier birth cohorts born prior to World War II; whereas prevalence in men remained relatively constant (Grucza et al, 2008)

(Greenfield SF 2022)

Prevalence of Alcohol Use Disorders in Men and Women in U.S.

- In the decade between 2001/02 and 2012/13:
 - **16%** increase in the proportion of women who drink alcohol
 - **58%** increase in women's high-risk drinking* (compared with 16% in men)

*High Risk Drinking (5+ drinks in men & 4+ drinks in females on one occasion once/week)

- **84%** increase in women's one-year prevalence of an alcohol use disorder (vs 35% in men)

(Grant BF...Hasin DS. JAMA Psychiatry 2017;74:911-923)

Telescoping Course of Alcohol Use Disorders

Phenomenon known as “telescoping”:

- Women who drink progress more rapidly to serious alcohol related physical and social consequences than their male counterparts
- Shorter time between landmarks of illness progression
- This happens at lower doses of alcohol consumed less frequently
- Some evidence with other substances: stimulants, opioids, nicotine

(Randall et al, 1999; Piazza et al, 1989;
Lewis & Nixon, 2014)
Shelly F. Greenfield M.D., M.P.H.

Tobacco in the U.S.

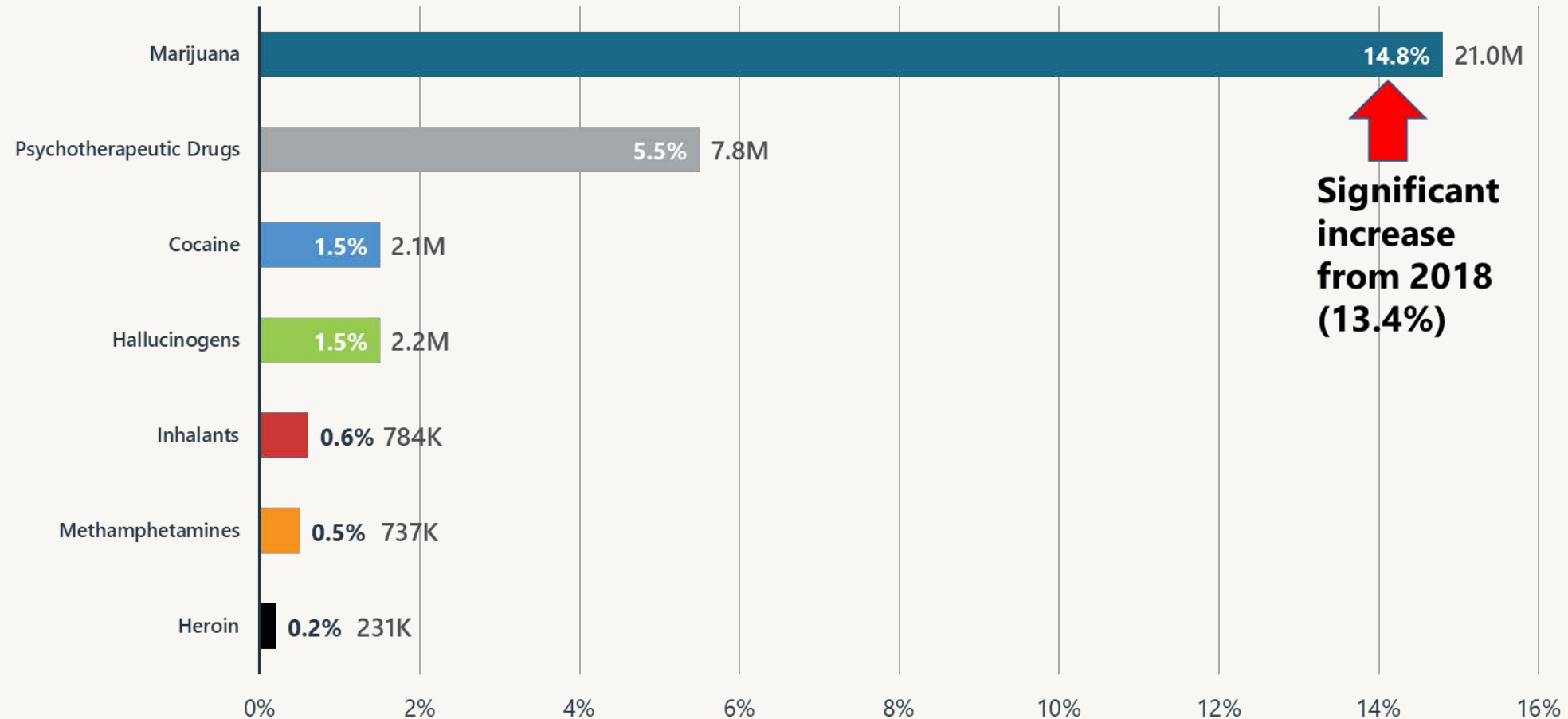
- Ratio of Adult Men-to-Women users of tobacco was **1.2:1** (34 million total smokers in 2019)
 - *Adult men (15.3%) and Adult women (12.7%)* (Center for Disease Control:2019;
https://www.cdc.gov/tobacco/data_statistics/fact_sheets/adult_data/cig_smoking/index.htm#:~:text=In%202019%2C%20nearly%2014%20of,with%20a%20smoking%2Drelated%20disease)
- Tobacco use in 2012 equal in adolescents (6.3%M & 6.8%F)
- **Women's risk of dying from smoking has more than tripled in 50 years and is now equal to that of men***
- Women: weight and mood related issues risk factors for smoking; fear of post-cessation weight gain may be barrier to quitting
- **Timing of quit attempts with menstrual cycle phase may be important for some women with greater success rates in follicular than luteal phase of menstrual cycle** (Allen et al, Addict Behav, 2010;Perkins et al, JCCP, 2000)

[*US Department of Health and Human Services. *The health consequences of smoking - 50 years of progress: a report of the surgeon general*, 2014. <http://www.surgeongeneral.gov/library/reports/50-years-of-progress/full-report.pdf> Accessed August 8, 2015.]

(Greenfield SF 2022) Resource: <https://women.smokefree.gov/>

Drug Use In Women

PAST YEAR, 2019 NSDUH, Women 12+



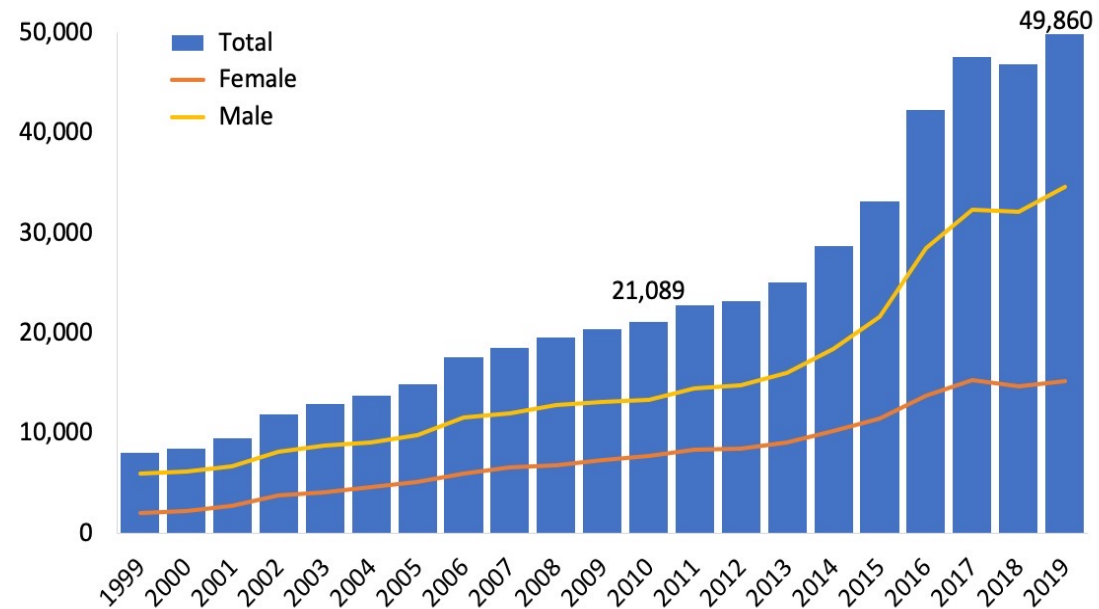
**Significant
increase
from 2018
(13.4%)**



Opioid Overdose

From 1999-2019:
640% increase in women
vs. 478% increase in men

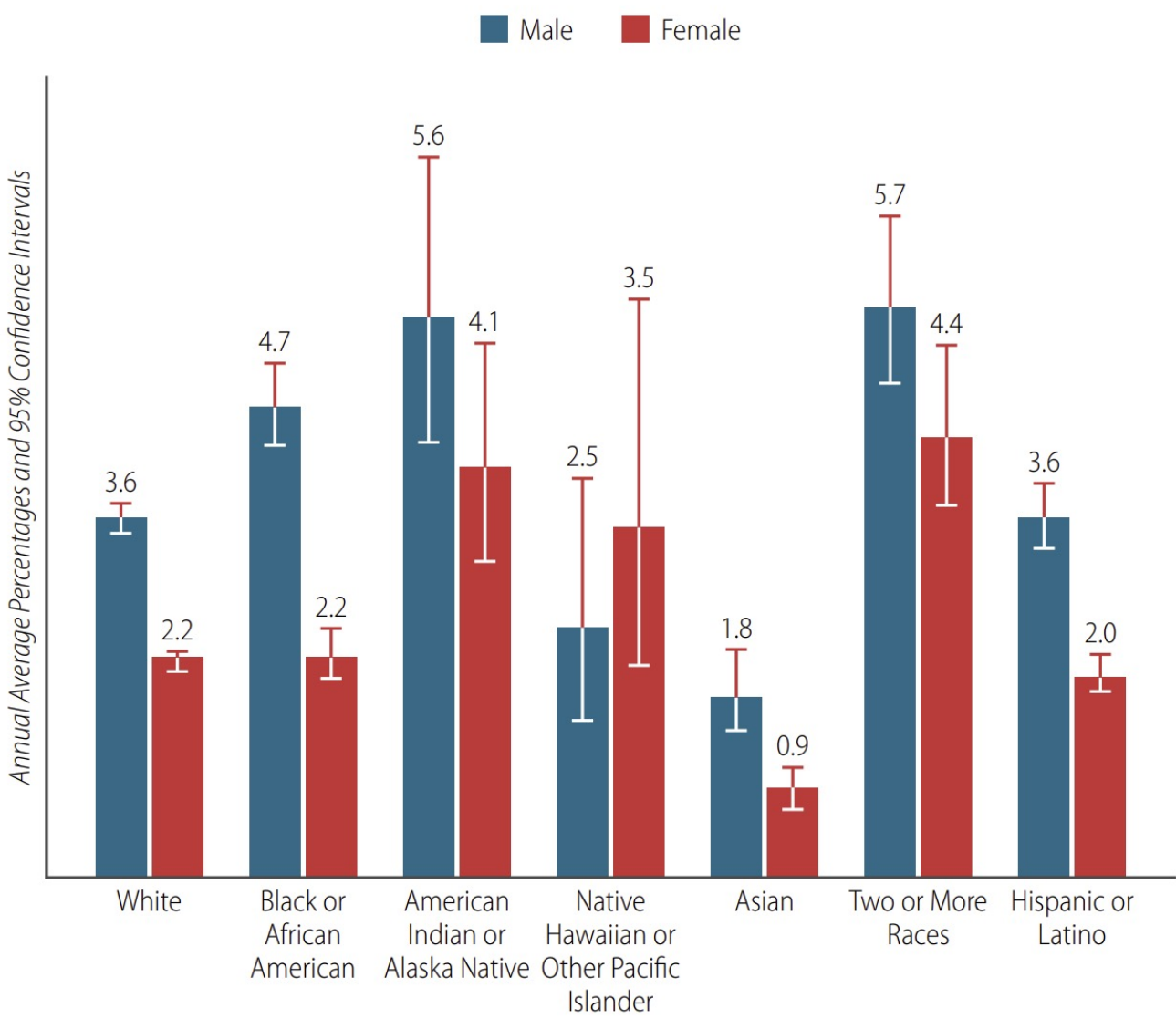
Figure 3. National Drug Overdose Deaths Involving Any Opioid, Number Among All Ages, by Gender, 1999-2019



*Among deaths with drug overdose as the underlying cause, the any opioid subcategory was determined by the following ICD-10 multiple cause-of-death codes: natural and semi-synthetic opioids (T40.2), methadone (T40.3), other synthetic opioids (other than methadone) (T40.4), or heroin (T40.1). Source: Centers for Disease Control and Prevention, National Center for Health Statistics. Multiple Cause of Death 1999-2019 on CDC WONDER Online Database, released 12/2020.

Source: CDC WONDER

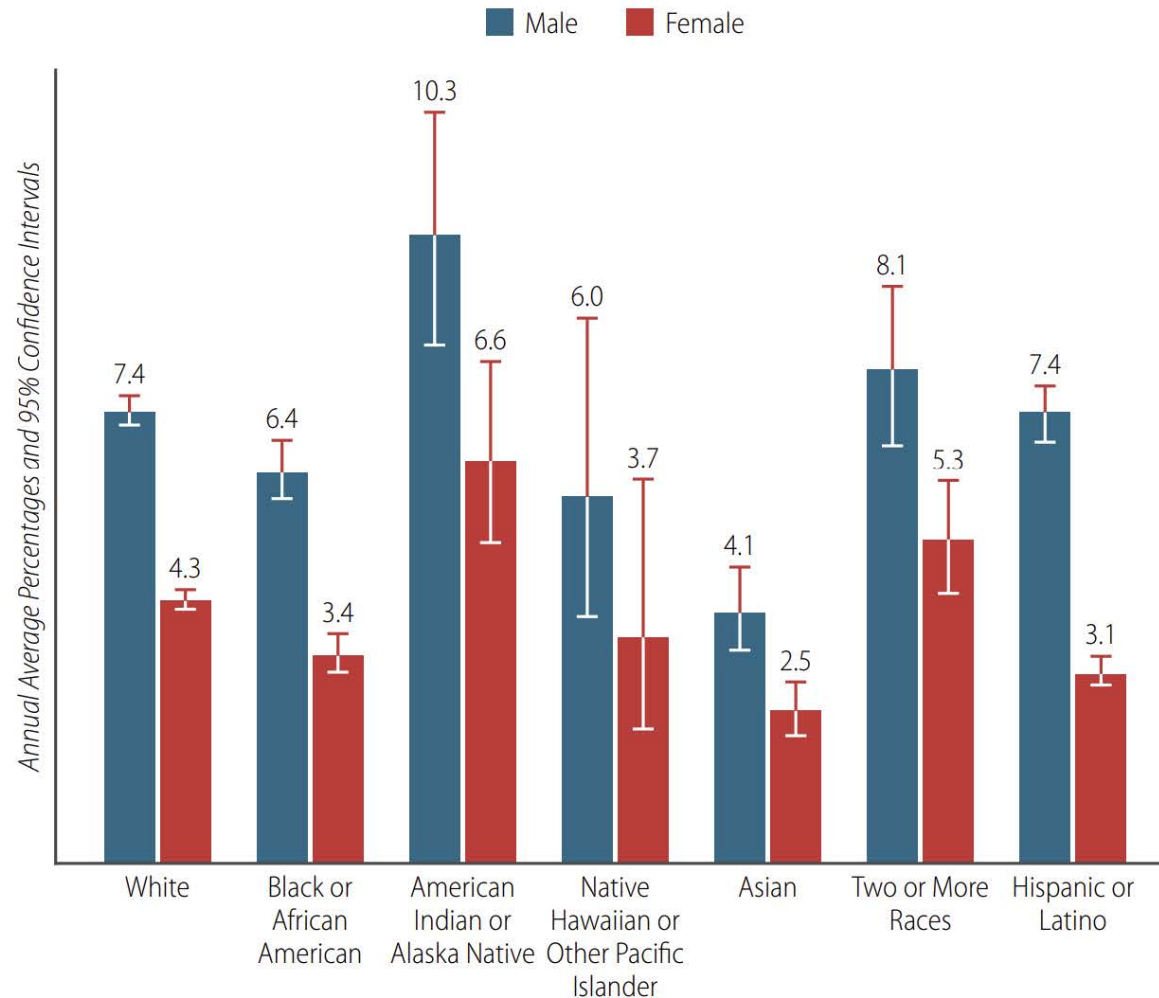
FIGURE 4.2 Illicit Drug Use Disorder in the Past Year among People Aged 12 or Older, by Race/Ethnicity and Gender: 2015–2019, Annual Averages



Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2015–2019.

- The pattern of past year illicit drug use disorder by race/ethnicity varied for males and females aged 12 or older (Figure 4.2).
- Males reporting two or more races had a higher estimate of past year illicit drug use disorder (5.7 percent) than Black, Hispanic, White, Native Hawaiian or Other Pacific Islander, and Asian males (4.7, 3.6, 3.6, 2.5, and 1.8 percent, respectively).
- Asian males had a lower estimate of past year illicit drug use disorder than males in all other racial/ethnic groups except Native Hawaiian or Other Pacific Islander.
- Estimates of past year illicit drug use disorder were higher for females reporting two or more races (4.4 percent) and for American Indian or Alaska Native females (4.1 percent) than for females in all other racial/ethnic groups except Native Hawaiian and Other Pacific Islander (3.5 percent).

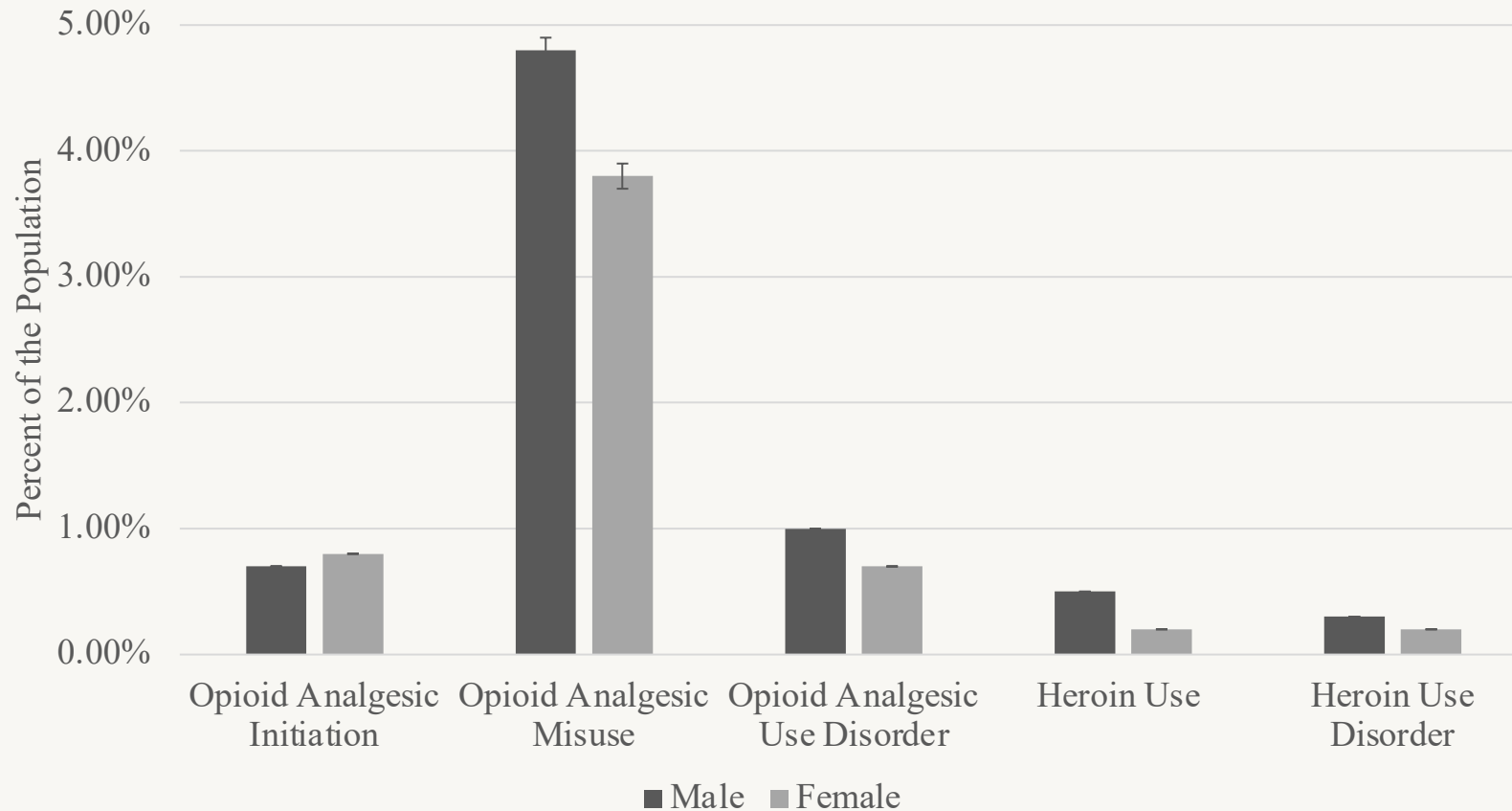
FIGURE 4.5 Alcohol Use Disorder in the Past Year among People Aged 12 or Older, by Race/Ethnicity and Gender: 2015–2019, Annual Averages



Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2015–2019.

- The pattern of past year alcohol use disorder by race/ethnicity varied for males and females aged 12 or older (Figure 4.5).
- Among males aged 12 or older, American Indian or Alaska Native males had the highest estimate of past year alcohol use disorder (10.3 percent) compared with males in all other racial/ethnic groups except those reporting two or more races (8.1 percent).
- Asian males had the lowest estimate of past year alcohol use disorder (4.1 percent) compared with males in all other racial/ethnic groups except Native Hawaiian or Other Pacific Islander (6.0 percent).
- The estimate of past year alcohol use disorder was higher for American Indian or Alaska Native females (6.6 percent) than the estimates for females in all other racial/ethnic groups except those reporting two or more races (5.3 percent).
- White females had a higher estimate of past year alcohol use disorder (4.3 percent) than Black, Hispanic, and Asian females (3.4, 3.1, and 2.5 percent, respectively).

Opioid Use and Misuse



McHugh R.K., Nguyen M.D., Chartoff E.H., Sugarman D.E., Greenfield S.F. (2021). Gender differences in the prevalence of heroin and opioid analgesic misuse in the United States, 2015-2019. Drug Alc Depend, 227, 108978

Substance Use Disorders and Mental Health in Women

PAST YEAR, 2019 NSDUH, Women 18+

Among women with a substance use disorder:

- 2 IN 5 (40.8% or 2.9M)** struggled with illicit drugs
- 3 IN 4 (72.5% or 5.2M)** struggled with alcohol use
- 1 IN 8 (13.3% or 956K)** struggled with illicit drugs and alcohol

5.6%
(7.2 MILLION)
People aged 18
or older had a
substance use
disorder (SUD)

3.6%
(4.6 MILLION)
People 18 or older
had BOTH an SUD
and a mental
illness

Among women with a mental illness:

- 1 IN 4 (26.6% or 8.4M)** had a serious mental illness

24.5%
(31.7 MILLION)
People aged 18
or older had a
mental illness

In 2019, **34.3M** adult women had a mental illness and/or substance use disorder—an increase of 6.8% over 2018 composed entirely of increases in mental illness.



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Clinical Presentation

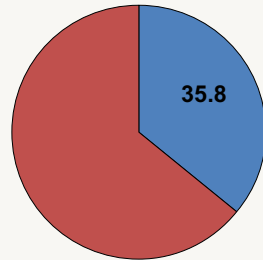
Women and Substance Use Disorders

- **Increased Prevalence in Women in past 3-4 decades** of alcohol and drug use with lower levels of abstaining and higher levels of dependence (Grucza et al, 2008; Compton et al, 2007)
- **Heightened vulnerability** of women to adverse medical and social consequences (Chatham et al., 1999; Gentilello et al., 2000; Henskens et al., 2005)
- **Telescoping:** Women **advance more rapidly** than men from regular use to first treatment episode (Randall et al., 1999; Piazza et al., 1989)
- At treatment entry, with fewer years of use, women have **more medical, psychiatric, and adverse social consequences** than males (Randall et al., 1999; Hernandez-Avila et al., 2004)

(Greenfield SF, 2022)

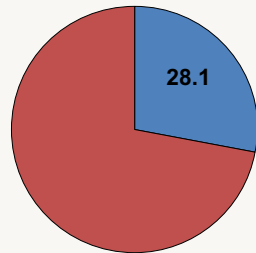
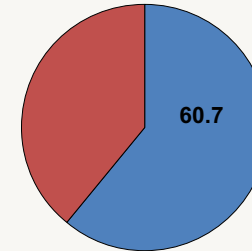
Lifetime Alcohol Use Disorders

Men

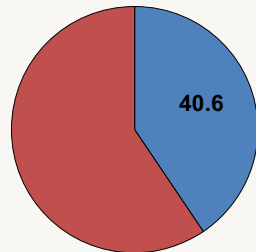
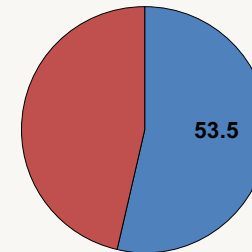


Anxiety Disorder

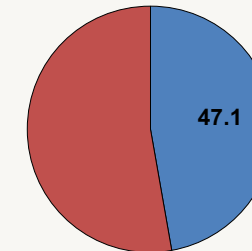
Women



Mood Disorder



Drug Dependence



Trauma/Abuse and Risk of Substance Use Disorders

- Violence/trauma common in substance use disorders
- Women more likely to experience childhood sexual/physical abuse
- Strong relationship between abuse history and substance use disorders in women

Risk Factors for Substance Use Disorders

For men and women:

- *Genetic factors/biological basis significant for men and women*
- *Early age of onset/initiation*

Particularly significant for women:

- *Heavy drinking/drug use by significant other/partner*
- *History of sexual or physical abuse and/or family violence*
- *Co-occurring psychiatric disorders (e.g., depression, anxiety)*
- *Possible sex differences in stress response*

(Blum et al, 1998, J of Women's Health, vol 7, 861)

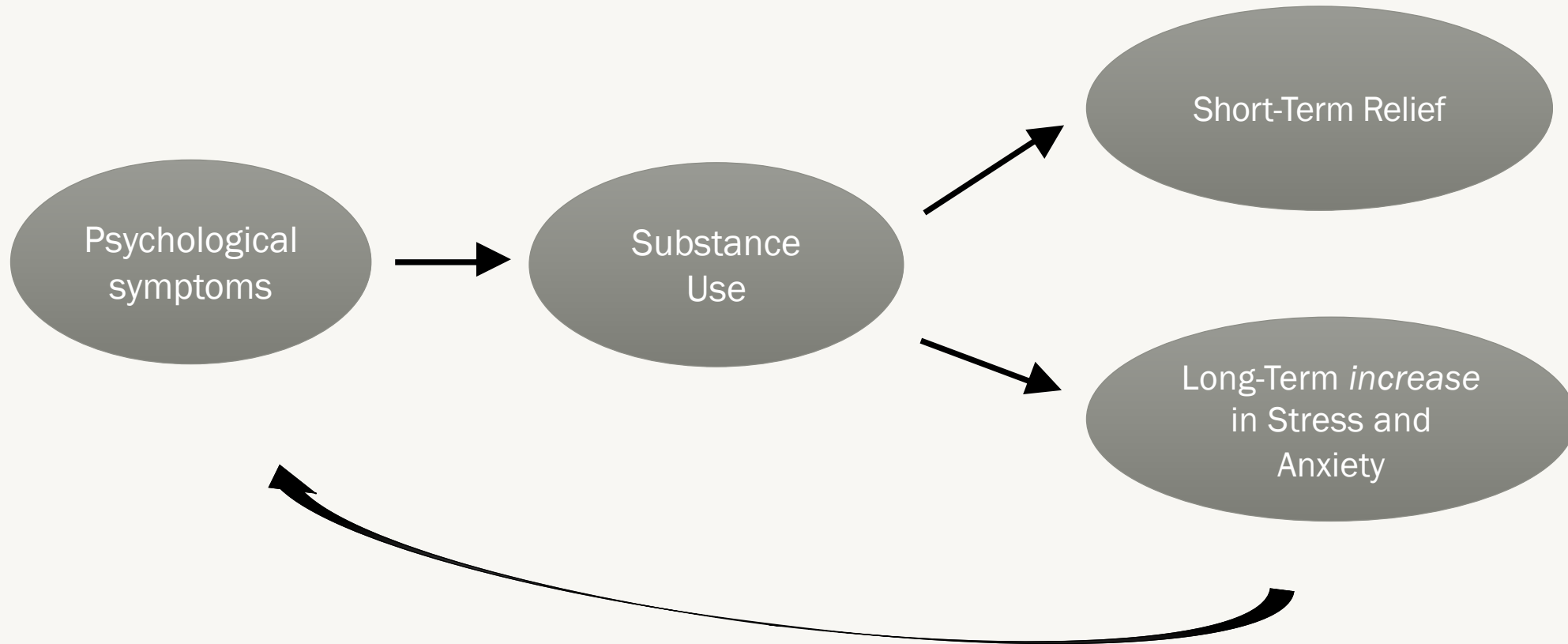
SUD & co-occurring psychiatric disorders

- More than 2/3 of women reporting SUD also had a co-occurring other psychiatric disorder (SAMHSA 2020)
- Among women with an eating disorder, >25% experience a SUD (Bahji et al, 2019)
- Binge eating is more closely associated with alcohol consumption, and dieting & purging are associated with sleep disturbance and misuse of sedative/hypnotics (Piran & Robins 2019)
- Mood disorders, anxiety and PTSD as well as eating disorders and binge eating behaviors should be addressed in conjunction with SUD treatment (SAMHSA 2020)

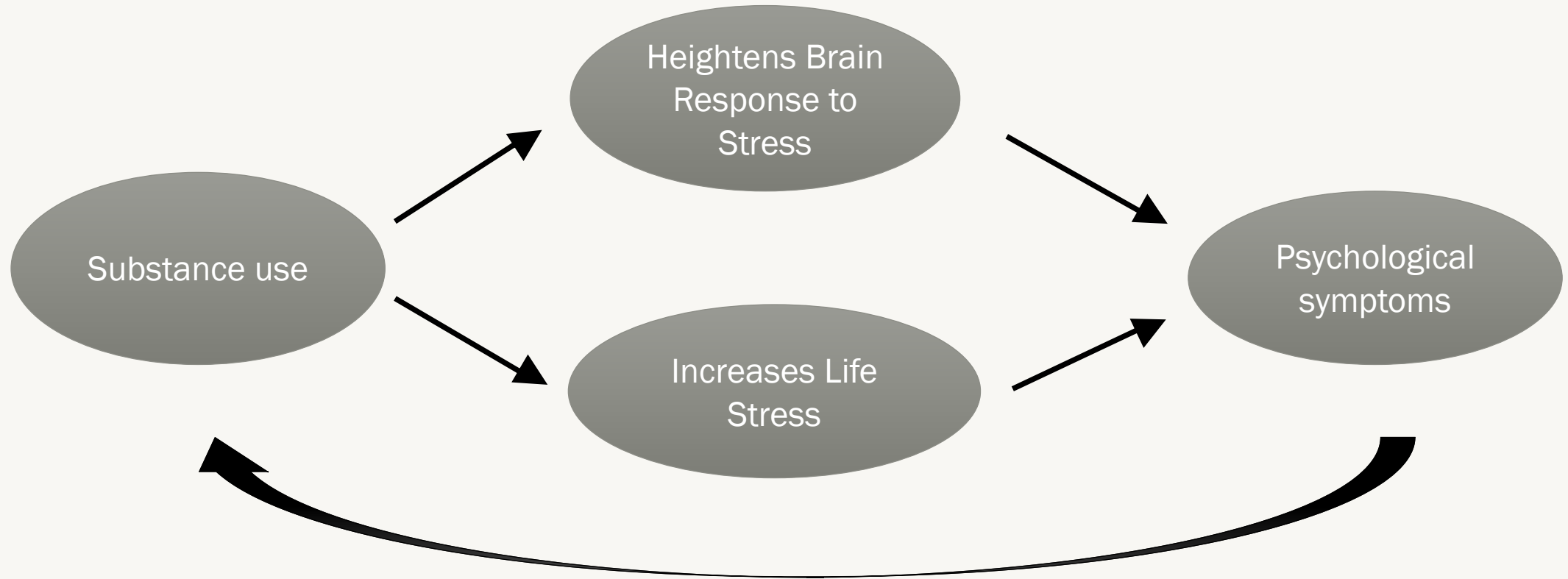
Sex and Gender Differences

- Access
- Perceptions of use and misuse
- Stigma
- Biological vulnerabilities and processes
- Psychological vulnerabilities and processes

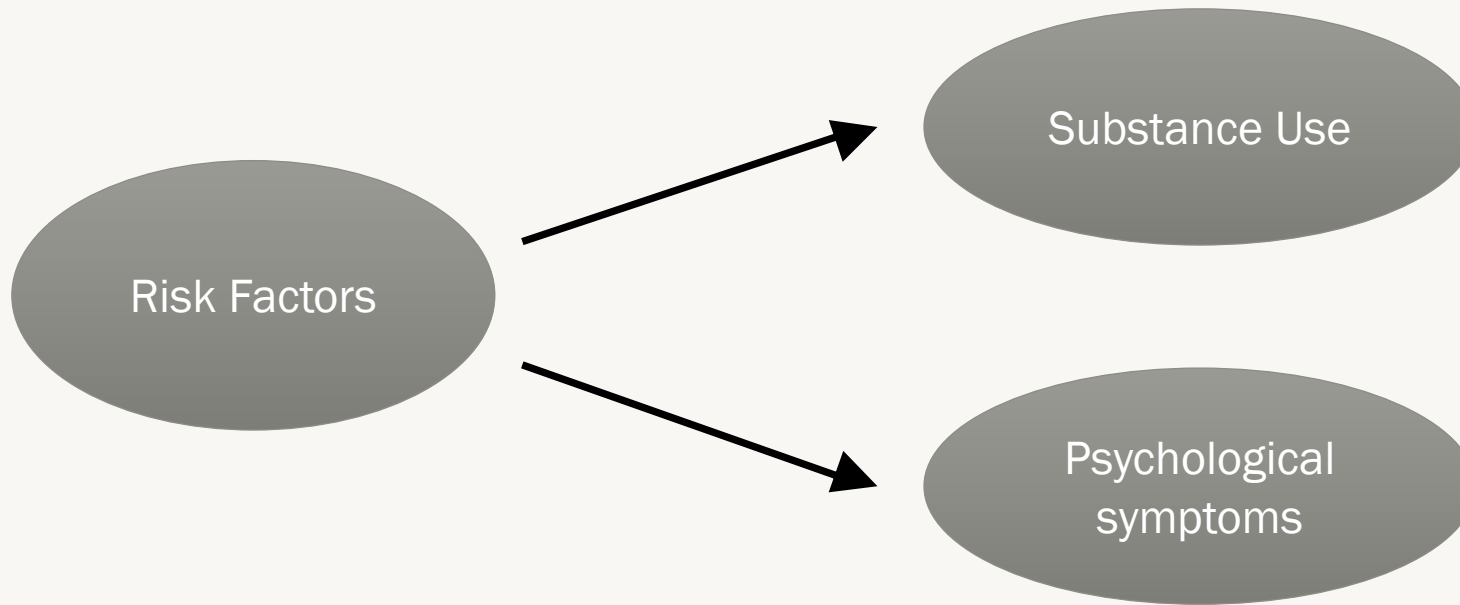
Pathways to Co-occurrence: 1



Pathways to Co-occurrence: 2



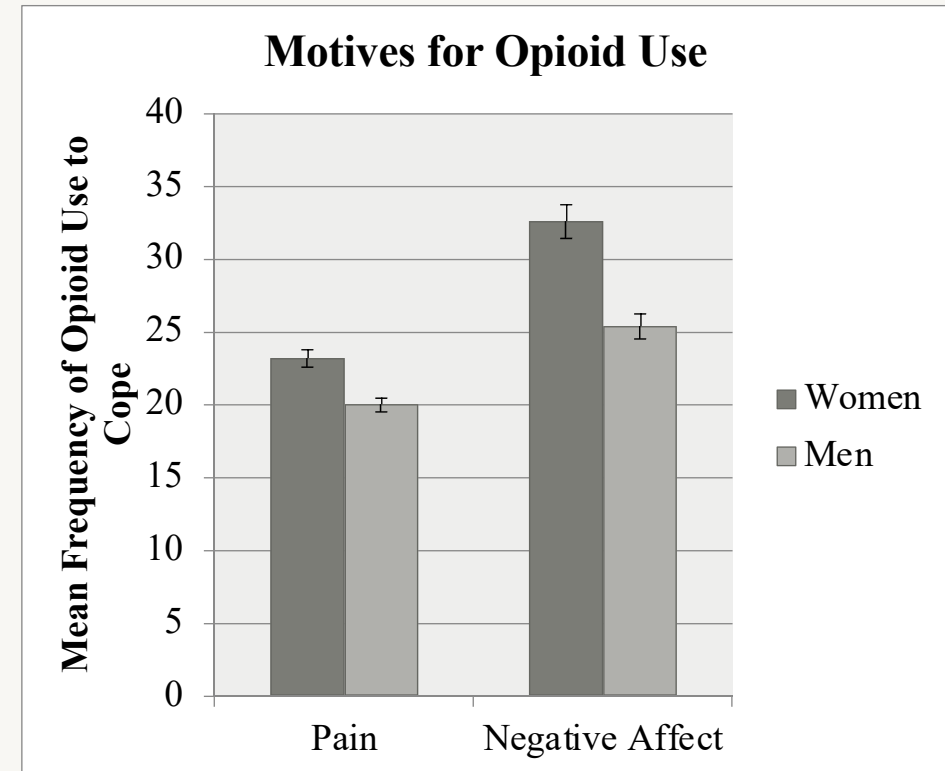
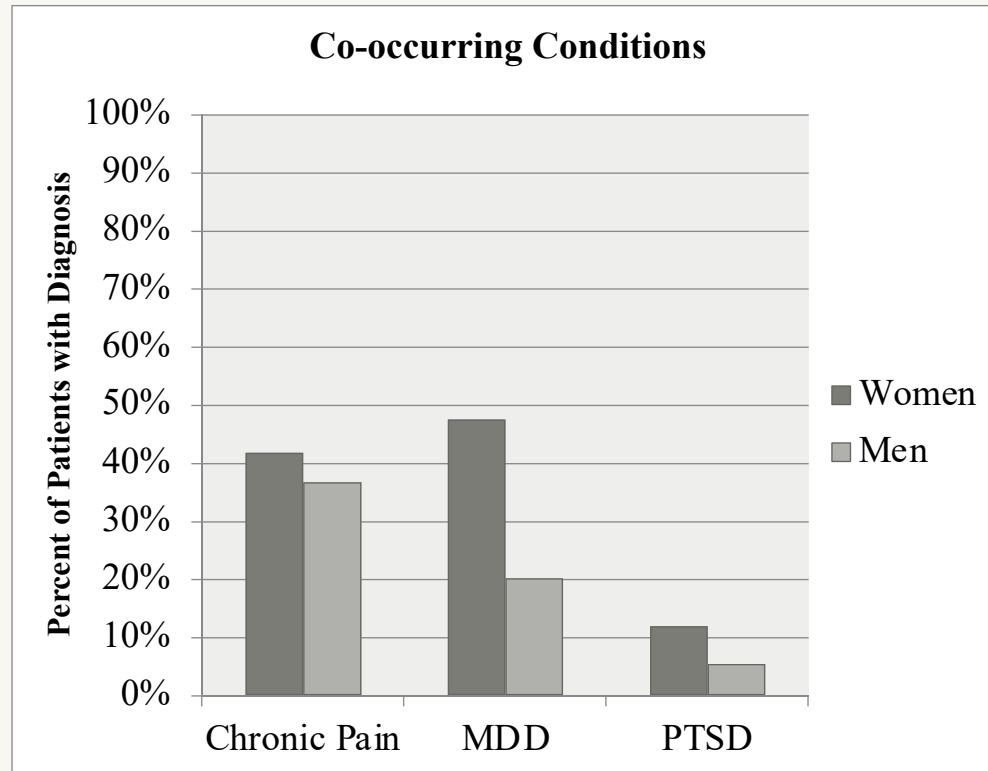
Pathways to Co-occurrence: 3



Sex Differences in These Pathways

- Disproportionate prevalence of certain disorders (e.g., depression, anxiety, PTSD) in women (externalizing disorders more common in men)
- Depression more likely to precede alcohol use disorder in women than men
- Exposure to trauma and PTSD more likely to precede substance use disorders onset in women
- More coping motives for substance use in women compared to men

Women with Opioid Use Disorder

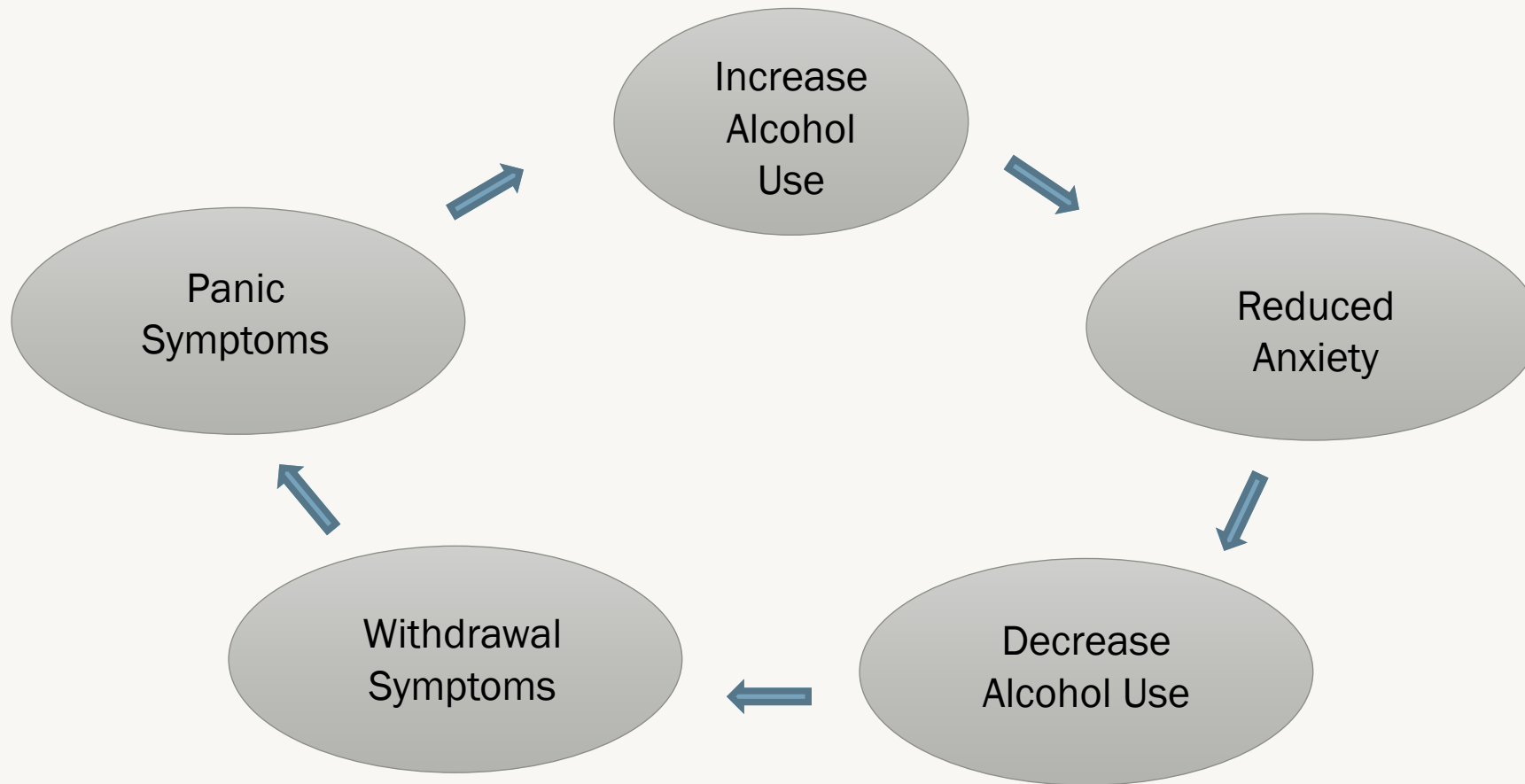


Treatment Considerations

Impact of Substance Use on Treatment

- Interference with therapeutic learning (e.g., fear extinction)
- Safety behavior/emotion-driven behavior
- Prolong negative mood states such as depression, anxiety symptoms
- Interference with sleep, diet, exercise
- Interference with psychosocial functioning

Overlap/Interaction of Symptoms



Treatment of Co-occurring Disorders

Significant knowledge gaps because...

1. Psychological disorder trials typically exclude substance use disorders
2. Substance use disorder trials often either do not include a full psychological diagnostic assessment or do not report psychiatric outcomes

Single Disorder or Sequential

- Single disorder approaches: treat one disorder and see if the other improves
- Sequential approaches: treat one disorder and then subsequently treat the other

Concurrent or Integrated Treatment

- Superior outcomes in trials for conditions such as depression, bipolar disorder, anxiety disorders, PTSD and serious mental illness
- “Single disorder” with interacting overlapping symptoms and likely shared mechanisms

Treatment Targets

Common maintaining processes for substance use and co-occurring disorders:

- Heightened negative affect
- Anhedonia/low positive affectivity
- Physiological arousal
- Maladaptive coping (escape/avoidance)

Specific Barriers to Treatment Entry For Women

- Less likely to be screened in primary and mental health care
- Lack of treatment services for pregnant women
- Lack of childcare services for parenting women
- Economic barriers (e.g., lack of insurance; other resources)
- Trauma histories
- Social stigma and discrimination
- **Higher risk for certain co-occurring psychiatric disorders such as mood, eating, anxiety, and post-traumatic stress disorder**

(Brady and Ashley, 2005; Pelissier and Jones, 2005; Grella, 1997;

Brady and Randall, 1998; Gordon et al, 2008; Killeen et al, 2011) (ADVISE Study Kaiser) (Greenfield SF et al 2007)

Gender Differences in SUD Treatment Outcomes

- Gender in itself **is not** a specific predictor of substance use disorder treatment outcomes
(Greenfield et al, Drug and Alcohol Dependence, 2007)
- **Known predictors** of treatment outcomes can **vary** in prevalence, severity, or significance **by gender** (e.g., co-occurring disorders, trauma histories, employment, educational attainment, social support)
- These predictors may have a **different level of significance** for men's and women's recovery
- Especially true for **co-occurring psychiatric disorders** and **histories of trauma** as predictors of outcome

What is Women-Focused/Gender-Responsive Treatment?

- Addresses **gender differences in antecedents and consequences of addiction** and the treatment process
- High prevalence and significance of **co-occurring other psychiatric disorders**
- **Trauma exposure** and associated physical and mental health needs;
- Central role **relationships** with children, intimate partners, and others play in women's addiction and recovery
- More likely to **provide adjunctive services** (childcare, job training, prenatal care) especially relevant to women's outcomes

Women-Focused Treatment and Relationship to Special Needs of Women

- Evidence of improved treatment outcome in women-focused programs that provide adjunctive services and address psychosocial needs (potential barriers) that are more common to some subpopulations of women with SUDs:
 - *Childcare needs*
 - *Financial concerns*
 - *Support for pregnant women*
 - *Job training*
 - *Life skills training*
 - *Transportation*
 - *Peer support*
 - *Special programming to minority women (e.g., Latinas, Native American women)*
 - *Mental Health care*
 - *Programming for women with trauma*

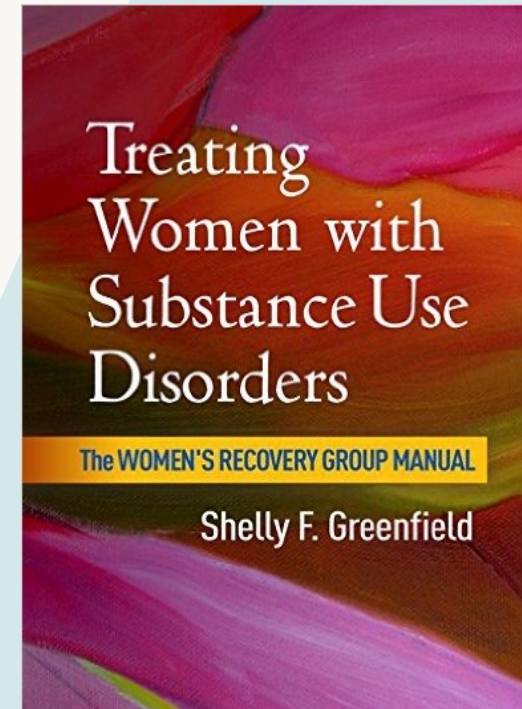
(Grella et al., 1999; Volpicelli et al., 2000; Hien et al., 2004; Greenfield SF et al 2007)

Women-focused treatments for co-occurring disorders

- Seeking Safety: For women with Co-occurring Substance Use Disorders and Posttraumatic stress disorder (Najavits, L)
- Women's Recovery Group: For women with SUD and other psychiatric disorders including depression, anxiety, eating and PTSD (Greenfield SF)
- Female Specific CBT (individual and group): alcohol-focused; not necessarily specific for co-occurring disorders (Epstein E, McCrady B- manual forthcoming)

Women's Recovery Group (WRG)

- Developed in Stage I and Stage II behavioral therapy development trials funded by NIH/NIDA (15 peer-reviewed publications)
- Single gender group treatment for women with substance use disorders (SUD)
- Manual-based relapse prevention group therapy with structured sessions and women-focused content
- The WRG is empirically supported, effective gender-responsive component of care
- Disseminated into practice in United States
- New Adaptations: Women Veterans; Young Adult Women
- Digital adaptation of content to adult women in SUD treatment & transitional age women with other mental health conditions (2 peer-reviewed publications)



Treatment of Women with SUDs: Guiding Principles

- **Use women-focused and gender-responsive approaches:**
- **Integrate conceptual and empirical evidence** about gender differences in antecedents and consequences of addiction and the treatment process
- Include treatment for **co-occurring other psychiatric disorders; trauma exposure** and associated physical and mental health needs;
- Address the central role **relationships** with children, intimate partners, and others play in women's addiction and recovery
- **Provide appropriate and necessary adjunctive services**

Guiding Principles (continued)

- Assess for the following (Consider research questions – frequency/prevalence of these practices?):
 - *Substance history: alcohol, drug, and tobacco use*
 - *Complete (or refer for) a full medical evaluation including reproductive health assessment*
 - *the full range of co-occurring psychiatric disorders (e.g., mood, anxiety, eating, and post-traumatic stress disorders)*
 - *potential motivators and rewards for substance use disorder treatment and recovery*
 - *potential obstacles for recovery including partner alcohol and drug use, co-occurring psychiatric disorders, shame and stigma, family, legal, and employment obstacles*
 - *safety risk including intimate partner and domestic violence*
 - *past history of trauma*
 - *risky behaviors for HIV and other sexually transmitted infections*

Thank you!



AUDIENCE Q&A



FINAL THOUGHTS

- A recording will be emailed to you in 2 weeks. It will include the presentation slides.
- Take our survey immediately after the webinar has concluded.

THANK YOU!

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Resources

Health Care Professionals Core Resources on Alcohol: <https://www.niaaa.nih.gov/health-professionals-communities/core-resource-on-alcohol/about-core-resource-alcohol>

NIAAA Treatment Navigator: https://alcoholtreatment.niaaa.nih.gov/healthcare-professionals?_gl=1*44pa71*_ga*OTY1ODk1NzA0LjE2NjU2NjQ3ODQ.*_ga_E2D8B2PVE9*MTY2NjQ3MTcyMy4zLjEuMTY2NjQ3MTc0NS4wLjAuMA

<https://women.smokefree.gov/> Smoking cessation website for women

Opioid Response Network <https://opioidresponsenetwork.org/>

NIAAA Rethinking Drinking: <https://www.rethinkingdrinking.niaaa.nih.gov/>

Helping Patients Who Drink Too Much: A clinician's guide
<https://pubs.niaaa.nih.gov/publications/practitioner/cliniciansguide2005/guide.pdf>

Understanding the Effects of Alcohol on Women's Health <https://www.youtube.com/watch?v=tJfBoiMRrMw>

Substance Use Disorders: Signs, Common Addictions, and How To Get Treatment
<https://www.youtube.com/watch?v=jOJrfjUeSCo>

Opioid Addiction: Signs, Symptoms, and Treatment <https://www.youtube.com/watch?v=Qa4v80LdM1w>

NIDA Screening tools: <https://nida.nih.gov/nidamed-medical-health-professionals/screening-tools-resources/chart-screening-tools>

<https://www.samhsa.gov/data/sites/default/files/reports/rpt35326/2021NSDUHSUChartbook102221B.pdf>

Racial/Ethnic Differences in Substance Use, Substance Use Disorders, and Substance Use Treatment Utilization among People Aged 12 or Older (2015-2019)

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