

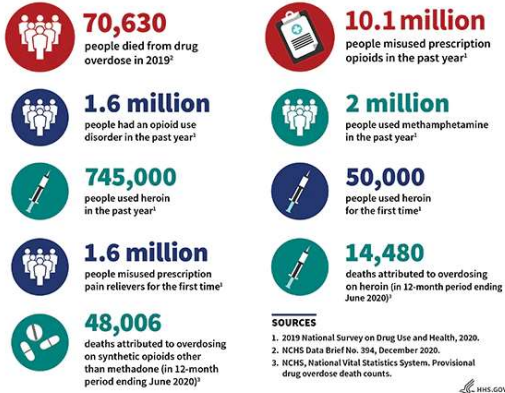
**Young adult opioid misuse indicates a general tendency toward substance use and is strongly predicted by general substance use risk**



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# Opioid Epidemic + Prevention

## THE OPIOID EPIDEMIC BY THE NUMBERS



Prevention is important strategy for combatting opioid epidemic

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As many of us here know, the opioid epidemic is a problem.

Young adults are particularly impacted by the epidemic

- Relative to older adults, YAs had greater odds of being diagnosed with opioid use disorder between 2015 and 2018 (Haider et al., 2020).
- About 20% of YA deaths in 2016 involved opioids (Gomes et al., 2018).
- Relative to older individuals, YAs were more likely to relapse during a medication trial for opioid use disorder (Fishman et al., 2020).

Efforts have focused on reducing supply, but it's also important to reduce demand— via prevention.

First, necessary to understand whether opioid misuse is a unique phenomenon with substance-specific risks. If unique then we may need new programming or need to adapt pre-existing prevention programs. If however, opioid misuse is related to broad substance use risk, then we could use several empirically supported, tested-effective prevention interventions aimed at broadly reducing substance use and other problem behaviors in youth

## Opioid Epidemic + Prevention

**RESEARCH OBJECTIVE:** To examine whether young adult opioid misuse reflects a general tendency to use substances and is influenced by general substance use risk or whether it is a different phenomenon from other drug use

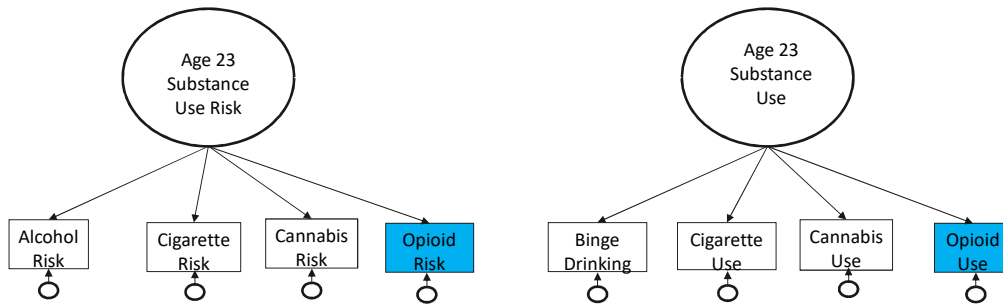
## Is Opioid Misuse unique?



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Question is: Is opioid misuse a unique phenomenon and uniquely predicted by opioid-specific risk factors?

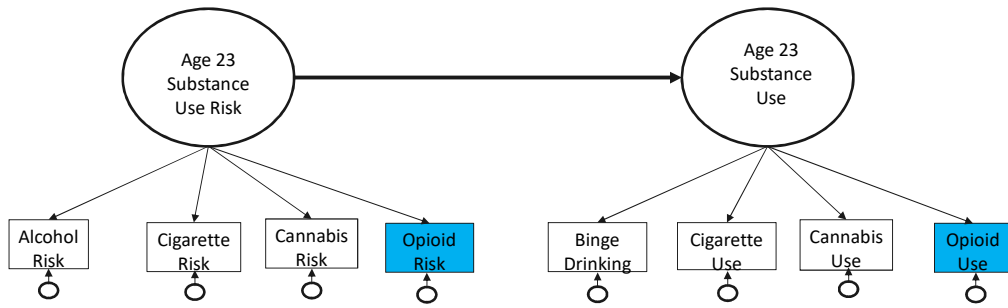
## Is Opioid Misuse unique?



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Or part of a general tendency toward substance use and general risk for substance use?

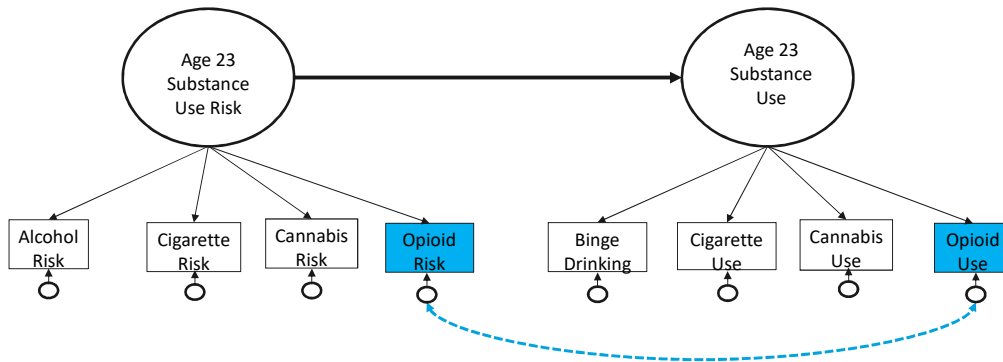
## Is Opioid Misuse unique?



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And, thus, predicted by risk for general substance use?

## Is Opioid Misuse unique?

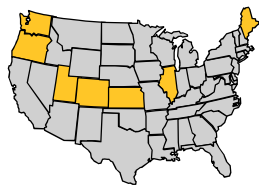


With little or no unique or opioid-specific pathway

We hypothesized that

- 1) opioid-specific risk scores would significantly load with other substance-specific risk scores onto a single latent factor of general substance use risk and
- 2) that opioid misuse would significantly load with other substance use onto a single latent factor of substance use.
- 3) After accounting for latent general substance use risk and latent substance use, the residual association between opioid-specific risk and opioid misuse would be statistically significant.

# Community Youth Development Study



**S** **D** SOCIAL DEVELOPMENT  
**R** **G** RESEARCH GROUP

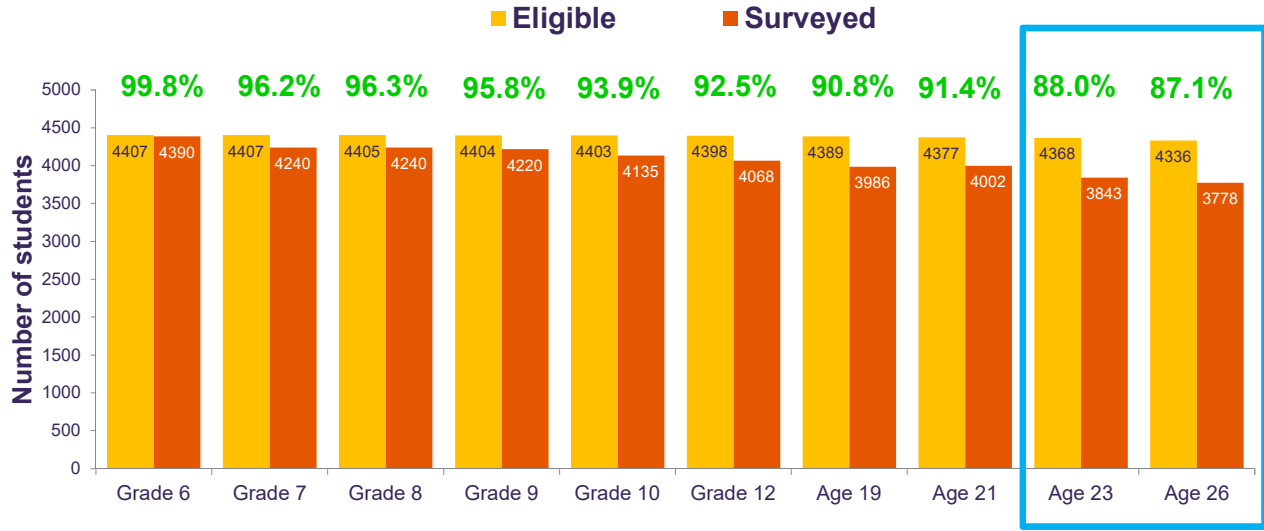
**W** SCHOOL OF SOCIAL WORK  
UNIVERSITY of WASHINGTON

- **Community-randomized controlled trial of Communities That Care (CTC)**
- 24 communities in 7 states
  - Washington, Oregon, Utah, Colorado, Kansas, Illinois, Maine
- Communities matched in pairs within state
- Randomly assigned to CTC or control condition
  - 12 intervention and 12 control communities
- All communities are small, incorporated towns with clear community names and boundaries
  - Average population 15,000 (max.~40K)



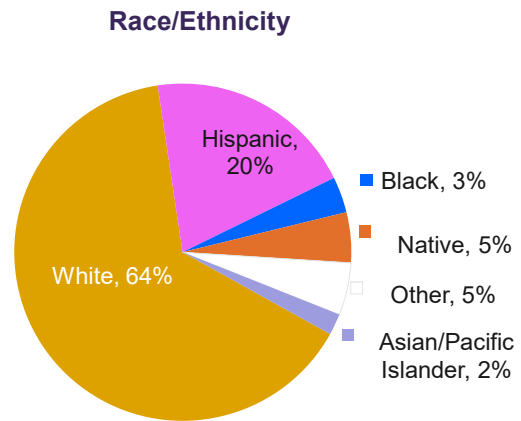
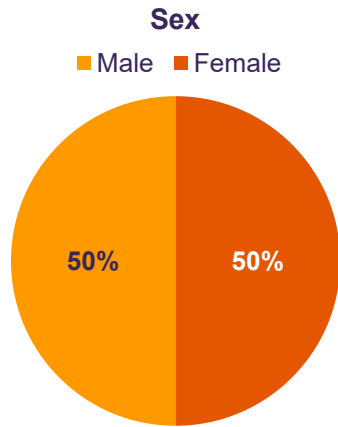
# Youth Sample (n=4407)

(of the active living sample)

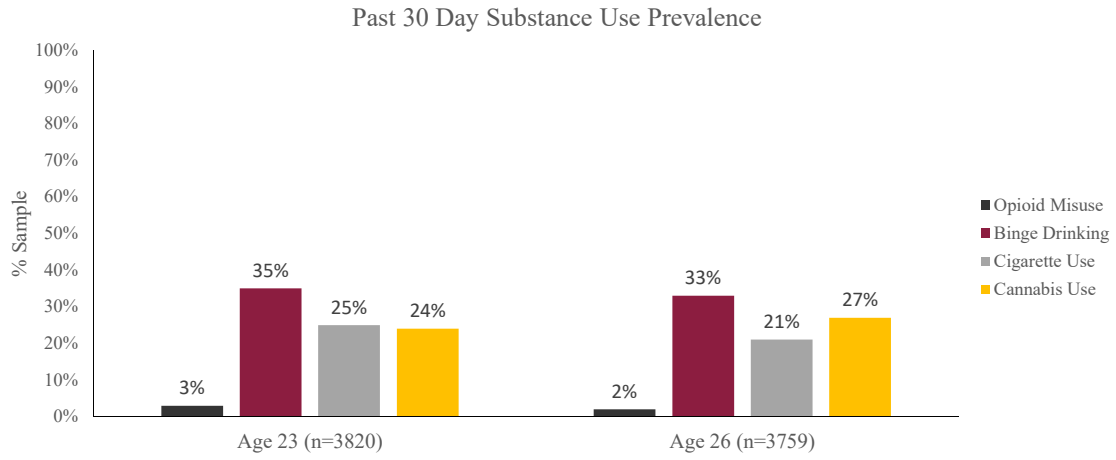


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# Sample Composition



# CYDS Data – Study Sample Substance Use Prevalence



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## Measuring Substance Specific Risk & Use

### Measures of Substance-Specific Risk

- Partner Regular Use in Past Year (Y/N)
- Peer Use in Past Year (Likert 1-4)
- Perceived Risk of Harm (Likert Scale 1-4)\*
- Favorable Attitudes (Likert Scale 1-4)

*RF Score: Standardized and calculated mean*

### Measures of Specific Substance Use

- Any use in past month? (Y/N)

#### 1. Opioid Misuse

(heroin; prescription opioids not prescribed to them by a doctor)

#### 2. Heavy Alcohol

(5+ drinks in a row past 2 weeks)

#### 3. Cigarettes

#### 4. Cannabis

## Covariates and Intervention Effects

### Covariates

Sex  
Ethnicity  
Race  
Past-year income  
Marital/Cohabitation Status

### CTC Intervention Effects

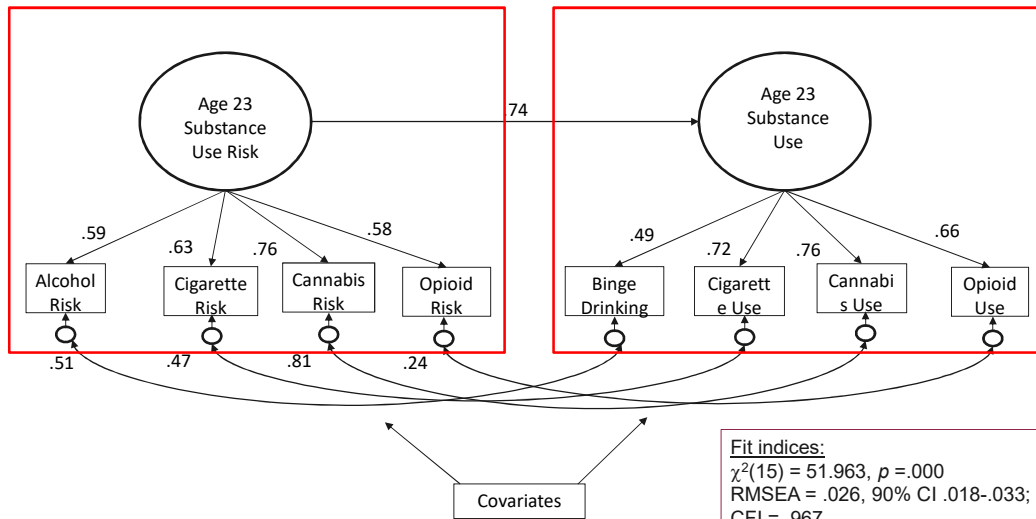
### Community Clustering

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**CTC Intervention Effects:** we tested for intervention effects in the measurement model and the relationships between factors but didn't find any evidence for intervention effects so are presenting results from the pooled sample

**Community Clustering:** Used the sandwich estimator. TYPE = COMPLEX specification in Mplus (Stapleton et al., 2016a; Stapleton et al., 2016b). we manually calculated p-values from a t-distribution with degrees of freedom equal to the number of clusters minus 1 rather than Z tests provided by Mplus.

## General Risk and Substance



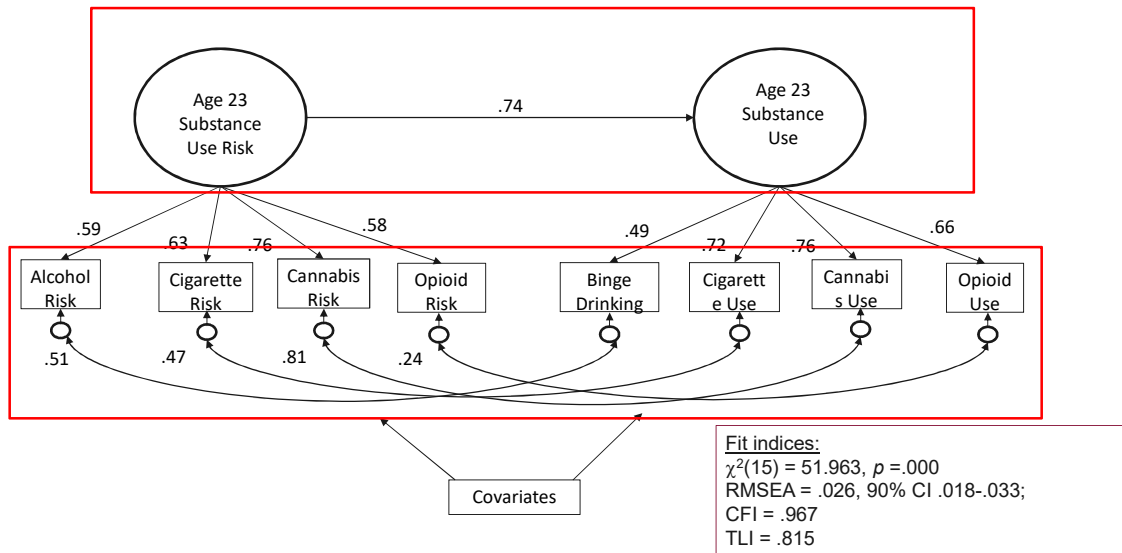
Estimated models for age 23 and 26, but just showing age 23 results here.  
 Parameter estimates here are standardized and statistically significant

Model fit was acceptable

-As hypothesized opioid misuse risk shared variance with alcohol, cigarette and cannabis use risk and all loaded onto the latent factor

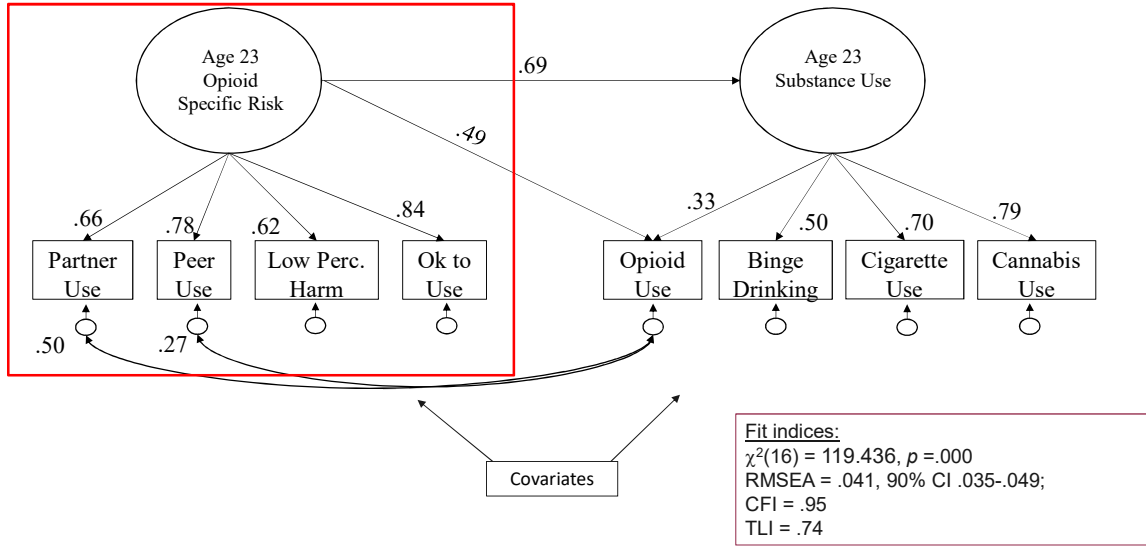
-Similar with substance use

## General Risk and Substance



Latent substance use risk factor was associated with the latent substance use factors. Residual correlations were significant and substance-specific, including opioid-specific misuse (as hypothesized).

## Opioid Specific Risk

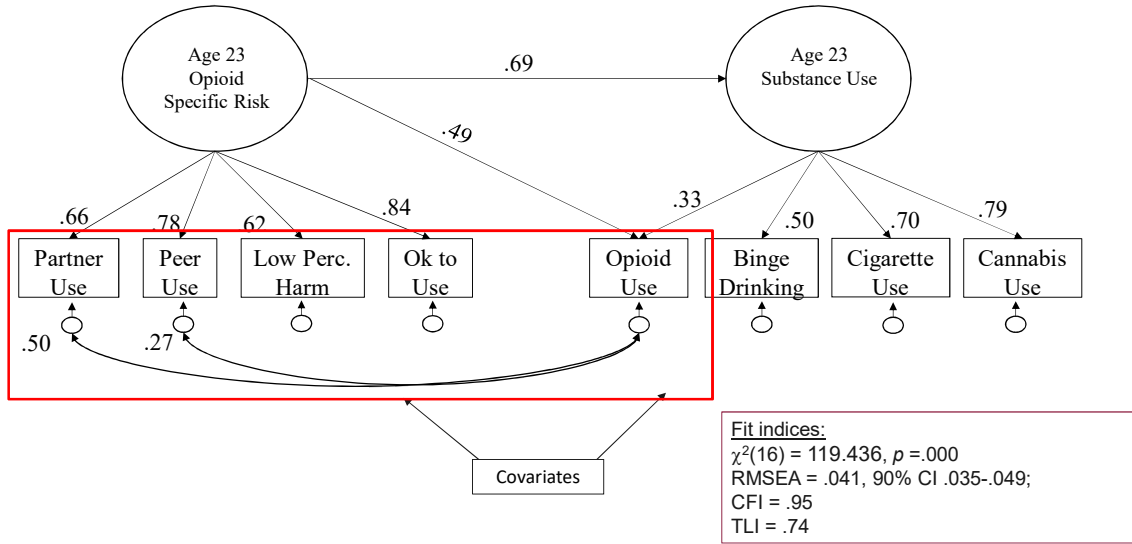


A secondary model examined which opioid-specific risk factors were associated with opioid misuse beyond use of other substances. Opioid specific latent risk factor using the four opioid-specific risk items as indicators, along with the general substance use latent factor described above. To identify specific risk factors that may uniquely contribute to opioid misuse, residual correlations of specific risk items (e.g. romantic partner opioid misuse, positive attitudes towards opioid misuse) with opioid misuse were tested one at a time to facilitate model identification.

The model had acceptable fit



## Opioid Specific Risk



Of the four residual correlations modeled between specific types of risk and past month opioid misuse, only partner and peer opioid use residuals were significantly associated with the opioid misuse residual

## In Summary

- Much of opioid misuse variance explained by a general tendency towards substance use
- Opioid-specific correlation between risk and misuse
- Partner and peer opioid misuse → unique risk for opioid misuse

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Is opioid misuse a unique phenomenon?

Opioid misuse largely accounted for by general risk for substance use and polysubstance.

## Implications

### Etiological

- Opioid misuse a unique phenomenon?

### Prevention Efforts

- Implementing existing prevention interventions is efficient next step
- Can target peer and partner opioid misuse



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Results and implications must be interpreted in context of study limitations:

-opioid misuse was low

-cross-sectional

-we only included commonly used substances –we know stimulant misuse and dependence are important, as are other substance specific risk factors other risk factors (mental health, educational attainment)

-Did not look at involvement with medical system, pain management

# Thank you!

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