

Connecting Drug Use and Suicidal Ideation

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Objectives

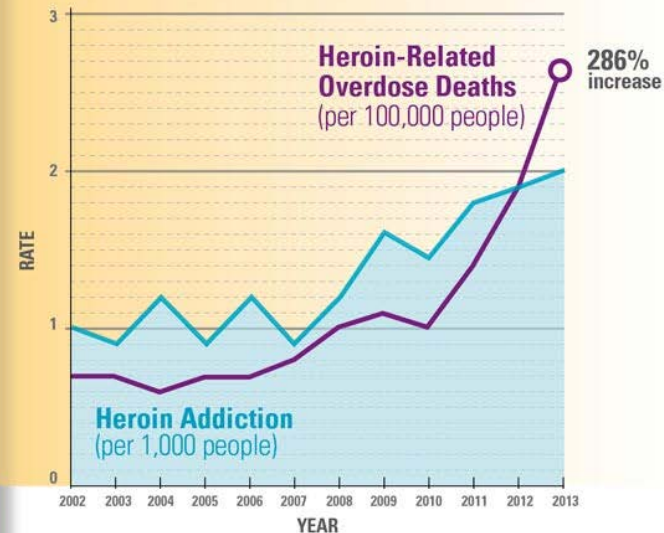
- ▶ Understanding the nature of co-occurring disorders
- ▶ Data analysis of secondary national data
- ▶ Developing a multi-disciplinary approach
- ▶ What next? (Qualitative Research and HEERO Program)

National Heroin Historical Addiction Trends

Heroin Use Has INCREASED Among Most Demographic Groups

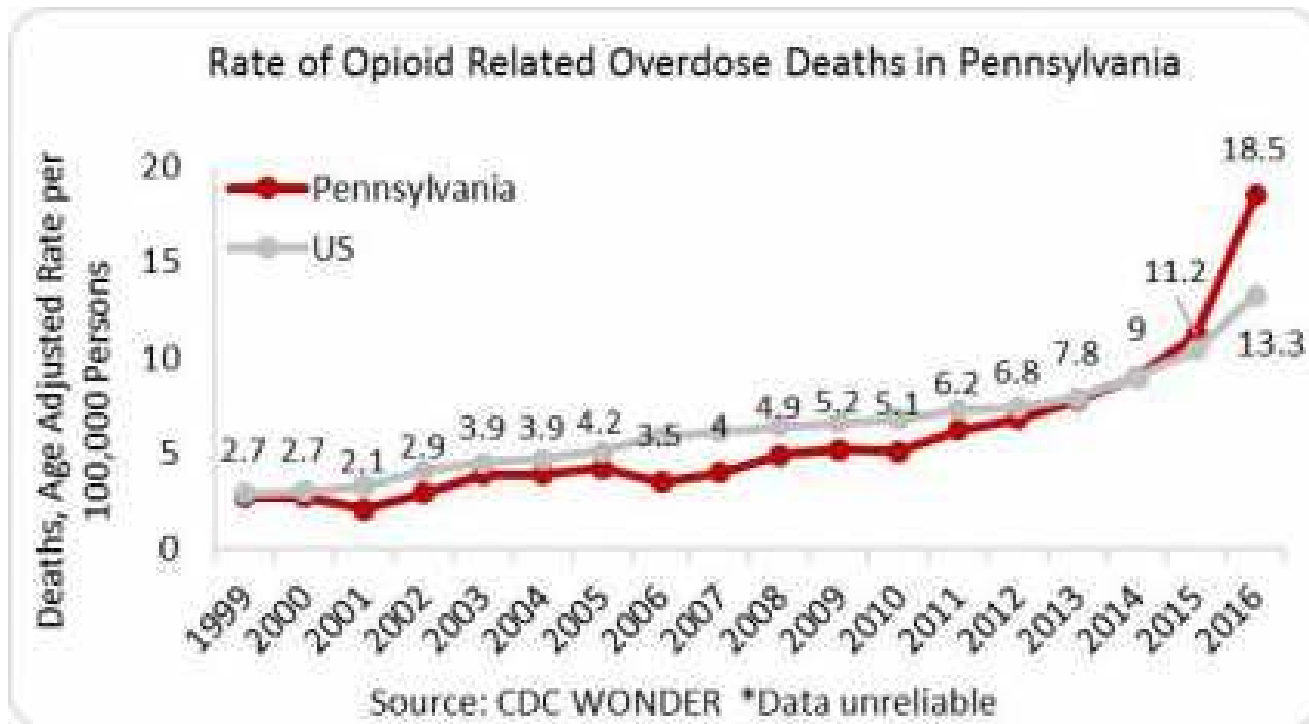
	2002-2004*	2011-2013*	% CHANGE
SEX			
Male	2.4	3.6	50%
Female	0.8	1.6	100%
AGE, YEARS			
12-17	1.8	1.6	--
18-25	3.5	7.3	109%
26 or older	1.2	1.9	58%
RACE/ETHNICITY			
Non-Hispanic white	1.4	3	114%
Other	2	1.7	--
ANNUAL HOUSEHOLD INCOME			
Less than \$20,000	3.4	5.5	62%
\$20,000-\$49,999	1.3	2.3	77%
\$50,000 or more	1	1.6	60%
HEALTH INSURANCE COVERAGE			
None	4.2	6.7	60%
Medicaid	4.3	4.7	--
Private or other	0.8	1.3	63%

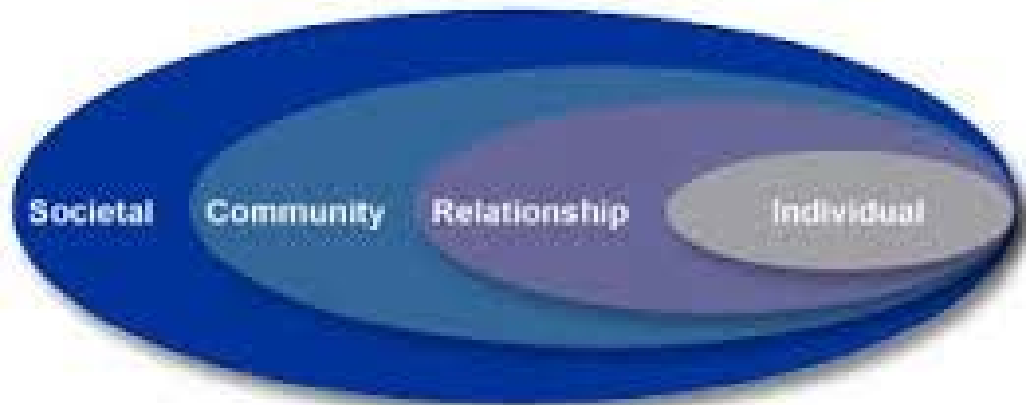
Heroin Addiction and Overdose Deaths are Climbing



SOURCES: National Survey on Drug Use and Health (NSDUH), 2002-2013.
National Vital Statistics System, 2002-2013.

Heroin Overdose deaths in PA





Engaging in Deviant Behavior and Violence

Social Withdrawal

Family Shame

Community disintegration

Heroin Case Study

- Adam is a 26-year-old Caucasian male
- College graduate from middle-class family
- Discovered Oxycontin in college, but was deterred by cost
- Turned to heroin once he moved back home to Lancaster County
- **Impact:** Family ashamed of addiction problem and Adam stole from family members for money

Nearly all people who used heroin also used at least 1 other drug.

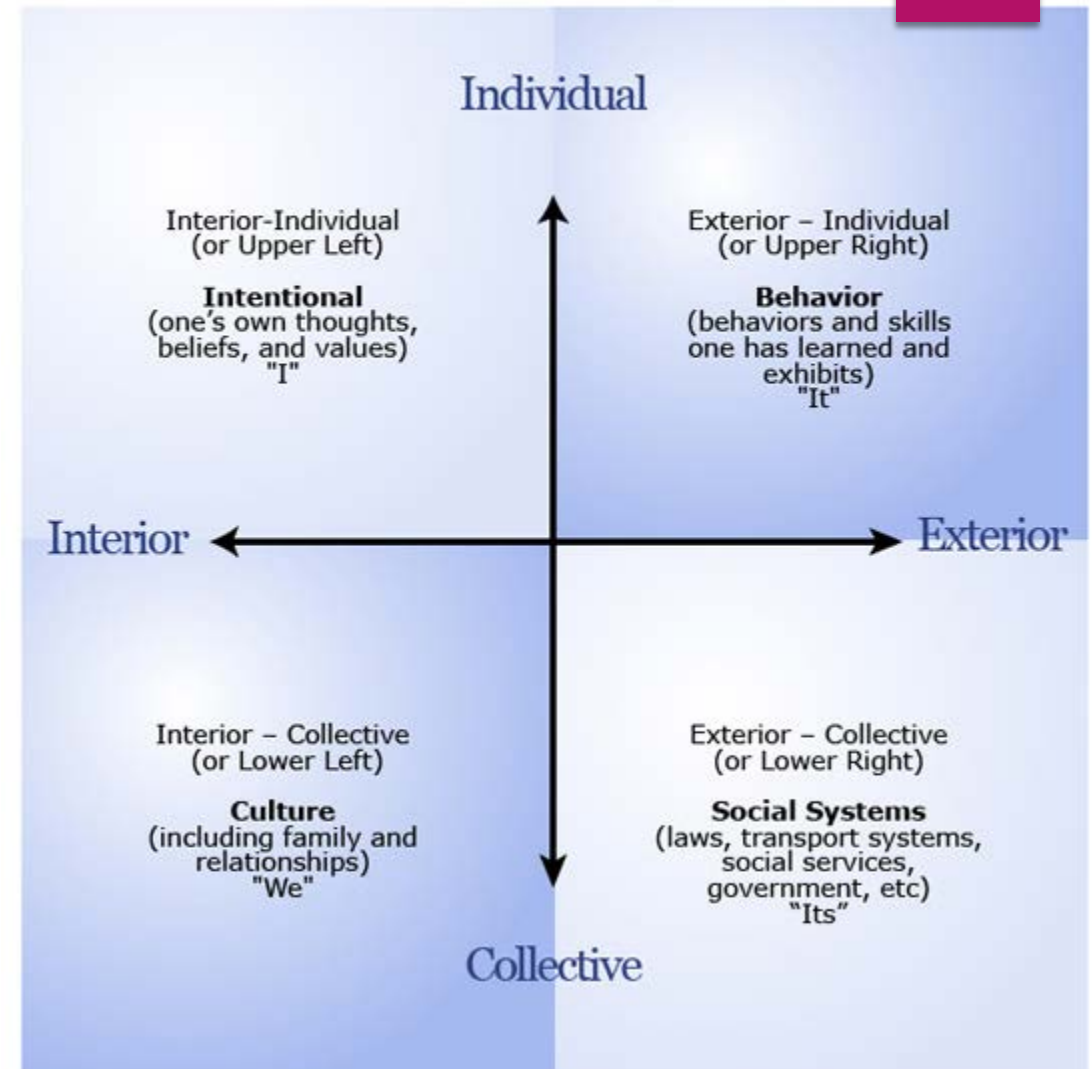
Most used at least **3** other drugs.

Heroin is a highly addictive opioid drug with a high risk of overdose and **death** for users.

Multicausal Model

- Continuum → Individual/Collective
- Continuum → Interior/Exterior
- Integrating social cognitive theory with the individual motivation creates Wilber's AQAL Model.
- Triangulation is necessary to validate the proper usage of each area

KEN WILBER'S AQAL MODEL



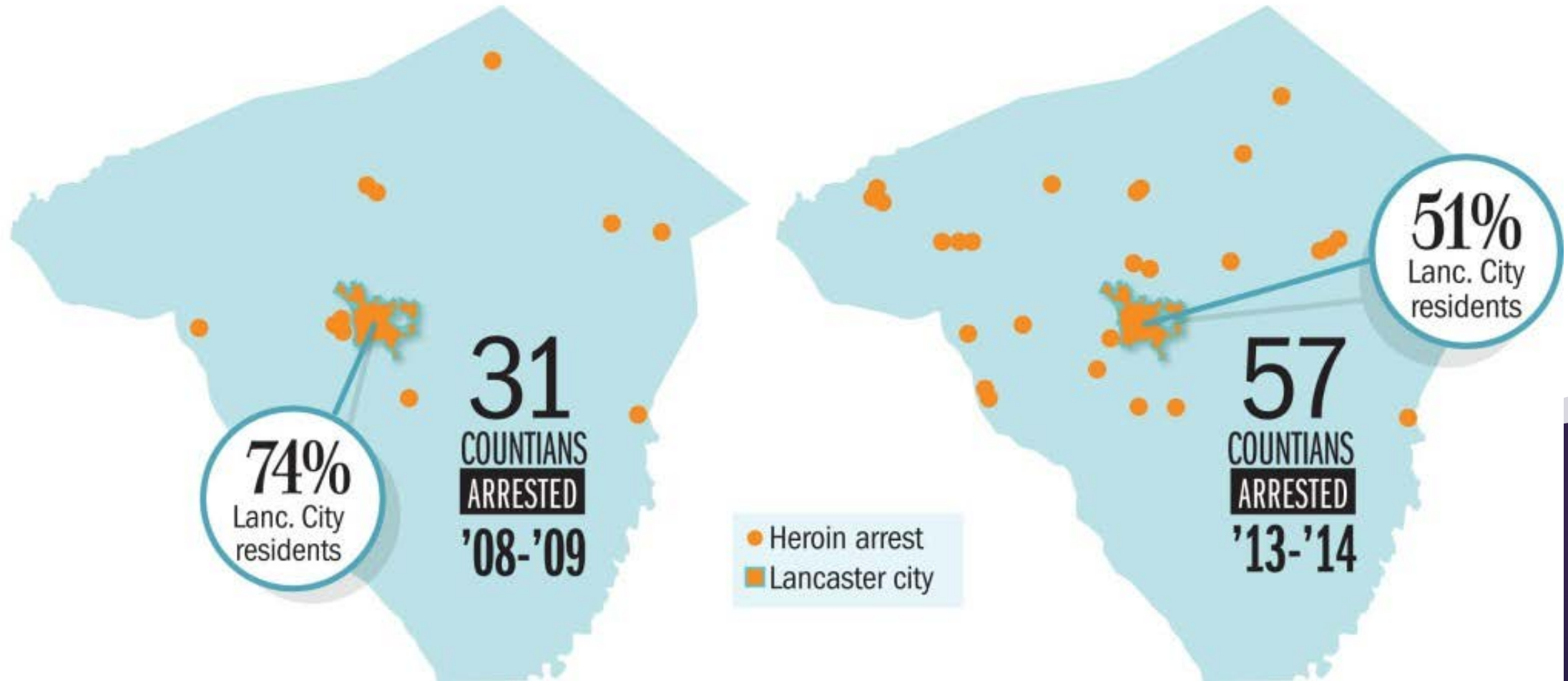
Application of HEERRO Program

- Heal through Hope
- Empower the individual into behavior change (Self-efficacy)
- Educate about social influences
- Resist the need to use and Relapse
- Opioid-use Reduction



Lancaster County heroin arrests

Lancaster countians arrested on heroin charges



Relevant Literature

- According to the National Survey on Drug Use and Health (NSDUH), individuals who are addicted to opioid painkillers are 40 times more likely to use heroin (CDC, 2017).
- The demographic patterns have shifted such that there is an even different distribution of heroin in different income distributions, races, and genders.
- Heroin usage has increased 109% among the 13-17 age groups.
- They face social withdrawal due to the preoccupation with the problem and the shame associated with the addiction.
- Based on data about suicides from National Violent Death Reporting System in 16 states, 20.8% for opiates, including heroin and prescription pain killers.

Methods-1



This is an annual survey done on the non-institutionalized population of the United States by Substance Abuse and Mental Health Services Administration (SAMHSA).



All respondents from this nationally representative study were 18 years and older.



Comparisons were performed using complex samples logistic regression to determine the relationship of heroin use and suicidal ideation.

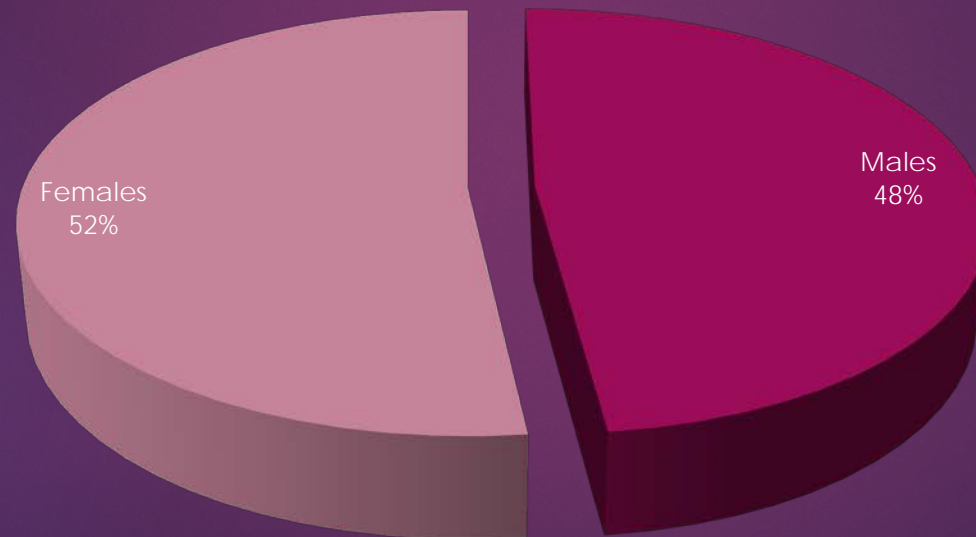
Methods-2

Suicidal ideation was defined by individuals who answered yes to the question, "Did you seriously think about killing yourself in the past 12 months?"

Dependent variable was delineated with the response to the question "Ever used heroin?". Individuals who were "not sure" were not included.

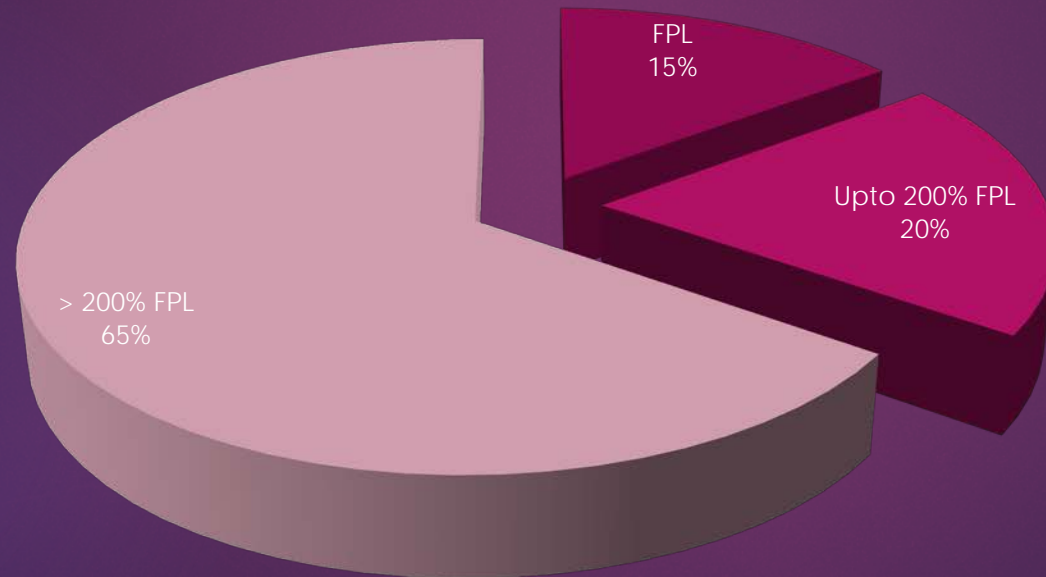
Gender Distribution of Study Participants (N = 41,442)

Gender Distribution of Respondents



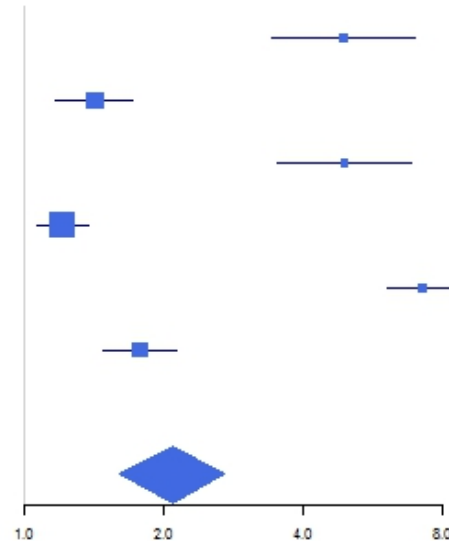
Income Distribution of Respondents according to Federal Poverty Level (FPL=\$15,930/year for family of two individuals)

Income Distribution of Respondents

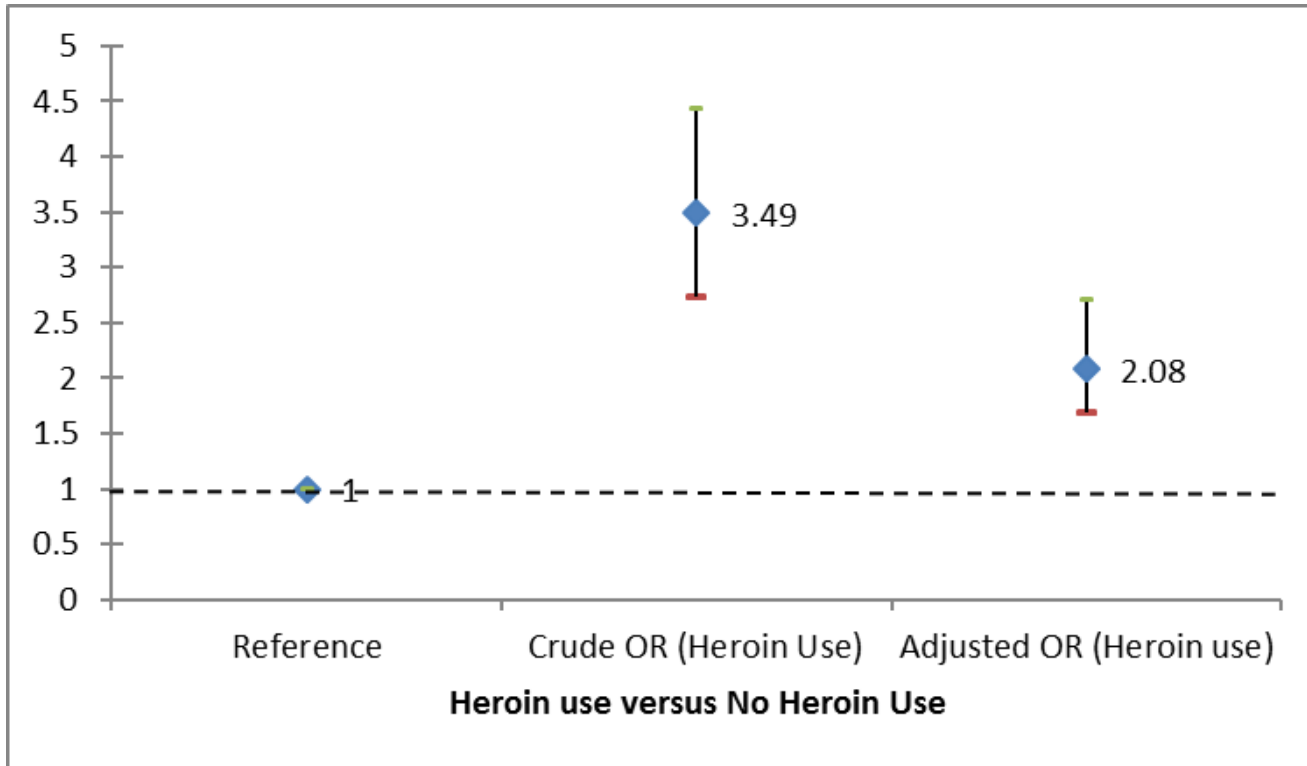


Adjusted Odds Ratio of Suicidal Ideation in Past Year

Covariate	AOR	CI
18-25 Years vs \geq 65 Years	4.89	3.43-6.95
Whites vs. Blacks	1.42	1.17-1.72
Poor Health vs. Excellent Health	4.90	3.51-6.85
Males vs. Females	1.21	1.06-1.37
Depressed vs. Not Depressed	7.23	6.05-8.64
Never Married vs. Married	1.77	1.48-2.12
Heroin vs. No Heroin Use	2.09	1.61-2.70



Adjusted Odds Ratio of Suicidal Ideation in Past Year (in conjunction with other covariates)



Crude and Adjusted Odds Ratio of suicidal ideation in those with heroin use (Adjusted for education status, poverty level, age, race, sex, marital status, overall health status, and depression)

Conclusions

- There is a 300% times higher chance of suicidal ideation among those individuals who have used heroin, even after controlling for depression and other risk factors.
- Risk factors like substance addiction need to be addressed in order to decrease mortality rates.
- There may be a cognitive component in relating depression and suicide in heroin users.

Next Steps

- ▶ Qualitative Research
- ▶ Blog Research
- ▶ Integrating Social Psychology with Public Health

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