SEOW Symposium AGENDA

May 18th, 2018

08:00 – 08:30	Registration and breakfast
08:30 – 08:40	Opening remarks *Joshua Vest, PhD, MPH*
08:40 – 09:00	Key findings from the 2017 SEOW report *Marion Greene, MPH, PhD(c)*
09:00 – 09:20	Tableau website presentation *Harold Kooreman, MA, MSW*
09:20 – 09:40	ACE's and their impact on substance use *Casey Balio, BA*
09:40 – 10:00	Substance use among young adults *Tamara Leech, PhD*
10:00 – 10:20	Break
10:20 – 10:40	Opioid-related ED visits *Kevin Wiley, Jr., MPH* *Casey Balio, BA*
10:40 – 11:00	Enhanced State Opioid Overdose Surveillance Raven Helmick, MPH, CPH
11:00 – 11:20	State-level evaluation findings for DMHA grantees *Hope McMickle, BA*
11:20 – 11:40	Division of Mental Health & Addiction *Julie Gries, MS*
11:40 – 12:00	Substance use in Indiana (panel discussion) Facilitator: *Joshua Vest, PhD, MPH* Panelists: *Joan Duwve, MD, MPH* *Dennis Watson, PhD* *Ben Gonzales*

Welcome to the SEOW Symposium

Opening Remarks

Joshua Vest, PhD, MPH
Director, Center for Health Policy
Associate Professor, Health Policy & Management
IU Richard M. Fairbanks School of Public Health
Research Scientist, Regenstrief Institute
joshvest@iu.edu

Alcohol, Tobacco, and Other Drugs in Indiana

(Key Findings from the 2017 SEOW Report)

Marion S. Greene

Chair, State Epidemiological Outcomes Workgroup

SEOW Symposium

May 18, 2018

INDIANA UNIVERSITY

CENTER FOR HEALTH POLICY

INDIANA UNIVERSITY

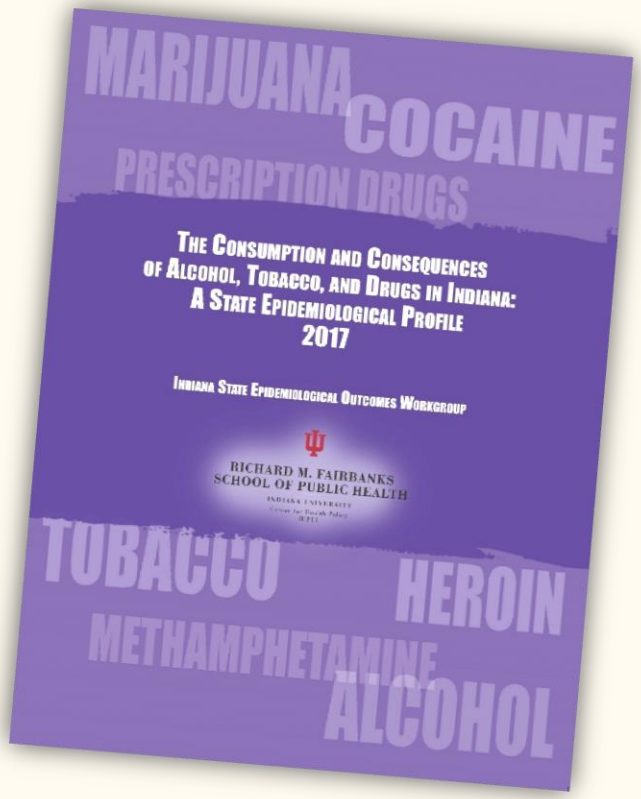
CENTER FOR HEALTH POLICY

Who is the State Epidemiological Outcomes Workgroup (SEOW)?

- Collaboration of representatives from various state agencies
- Established in 2006
- Primary objectives
  - Monitor substance use and its consequences in Indiana; expanded to include mental health indicators
  - Identify statewide prevention priorities
  - Disseminate findings to legislators, prevention planners, and community organizations to encourage data-driven decision-making

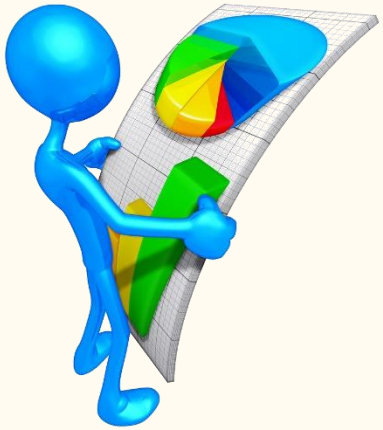
SEOW Publications

- Publishing annual epidemiological reports since 2006
- 2017 Report soon to be released
- Additional publications
  - Drug fact sheets
  - Prevention priorities
  - Behavioral health issue briefs
- Available on our website https://fsph.iupui.edu/research-centers/centers/health-policy



This year's SEOW line-up

- Table of contents
  - Alcohol
  - Tobacco
  - Marijuana
  - Opioids
  - Stimulants
  - Mental health and suicide
- Interactive online data tool
  - Tableau website (Harold)



KEY FINDINGS

ALCOHOL

- Most widely used and abused substance
- 52.0% of Indiana adults consumed alcohol in the past month and 17.5% engaged in binge drinking [5]
  - Binge drinking most prevalent among males and younger adults
- *Underage drinking*: 30.5% of high school students drank in past month and engaged in 17.4% binge drinking [2]
- An estimated 5.3% of Hoosiers ages 12 and older suffered from an alcohol use disorder in the past year [1]

TOBACCO

- Leading cause of preventable death in U.S.
- 28.7% of Hoosiers ages 12+ currently use a tobacco product, mostly cigarettes [1]
- Adult smoking prevalence in Indiana is 21.1% [5]
  - Significantly higher among people with lower educational attainment and income
- Current use of cigarettes & e-cigs in middle and high school students has decreased from 2014 to 2016
  - Cigarettes: 1.8% of MS students and 8.7% of HS students
  - E-cigs 2.8% of MS students and 10.5% of HS students [6]

MARIJUANA

- Most widely used illicit drug
- Current use among Hoosiers ages 12+ was 8.8% [1]
  - Highest among young adults ages 18-25 (19.6%)
- About 16% of Indiana high school students currently use marijuana [2]
- Marijuana use reported in nearly half (47.7%) of Indiana's treatment admissions [7]
  - Highest among males, blacks, and those under 18

STIMULANTS - COCAINE

- 1.3% of Hoosiers ages 12+ reported past-year cocaine use [1]
  - Rates were highest among 18- to 25-year-olds (3.9%)
- In 11% of Indiana treatment admissions cocaine use was reported [7]
  - Highest among blacks and adults over 45

STIMULANTS - METHAMPHETAMINE

- No state-level estimates for general population
- In nearly 18% of Indiana treatment admissions meth use was reported [7]
  - Meth use in treatment population is on the rise
  - Highest among females, whites, and people ages 25-44
- Indiana State Police seized 387 clandestine meth labs in 2017 [8]
  - Significant decrease from its peak in 2013 (1,721 lab seizures)

OPIOIDS – Prescription Opioids

- Pain relievers are the most commonly abused type of prescription drug
- 4.9% of Hoosiers ages 12+ reported misusing pain relievers in the past year [1]
  - Highest rate among 18-25 year-olds (9.9%)
- In nearly 22% of Indiana treatment admissions Rx pain reliever misuse was reported [7]
  - Highest use among females, whites, and 25-34 year olds

OPIOIDS – HEROIN

- Past-year use among Hoosiers ages 12+ was 0.4% [1]
- In about one in five Indiana treatment admissions heroin use was reported [7]
  - Still below U.S. percentage, but has increased significantly over the years
  - Highest use among females, whites, and 18- to 34-year-olds
- 13,697 unique patients were served in opioid treatment programs in 2017

POLYSUBSTANCE ABUSE

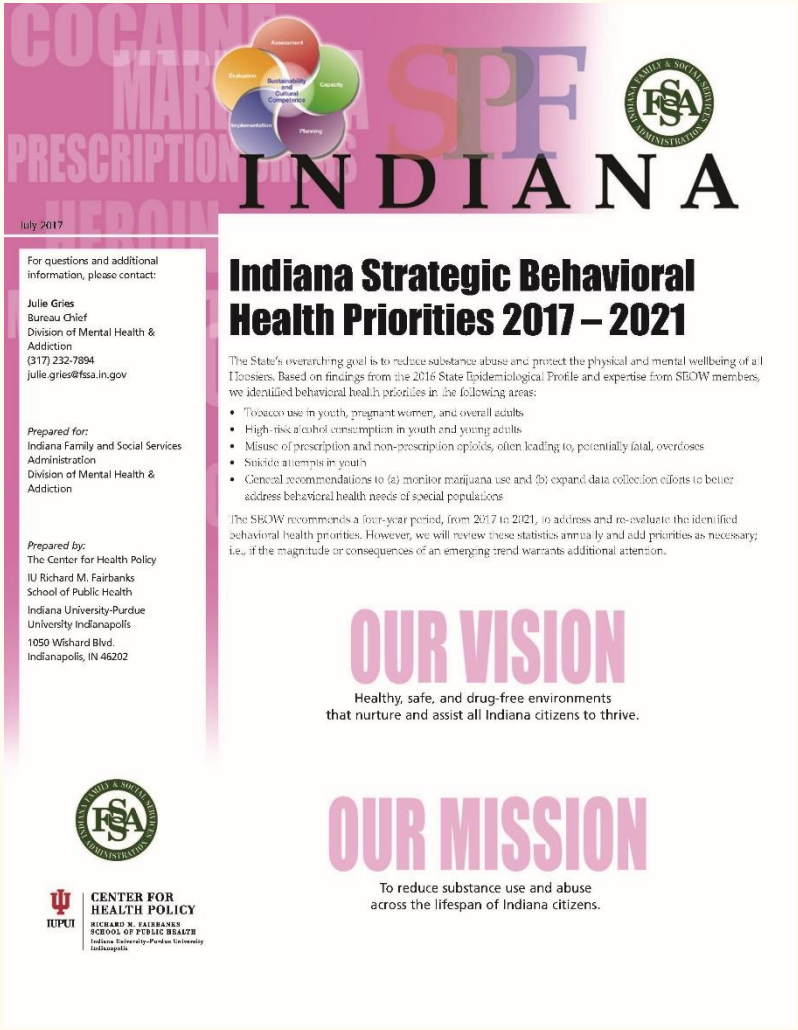
- Among those in treatment, more than two-thirds report using 2 or more drugs [7]
- Most polysubstance abuse involved either alcohol and some other drug or marijuana and methamphetamine [7]

Mental Health

- 20.0% of Indiana adults had a mental illness and 4.9% had a serious mental illness in the past year [1]
- 15.9% of Indiana adults experienced depression in their lifetime [5]
  - Rates higher for females (20.5%) than males (11.0%)
- 9.9% of Indiana high school students attempted suicide in the past year [2]
- Suicide mortality has increased significantly, from 10.4 per 100,000 in 1999 to 15.4 per 100,000 in 2016 [11]

Reviewing our Statewide Priorities

Tobacco (3 priorities)
Alcohol (2 priorities)
Opioids (2 priorities)
Mental health (1 priority)
General recommendations (2)



TOBACCO (NICOTINE)

Youth tobacco use

Reduce past-month use of any tobacco product, including e-cigarettes, in middle school students from 8.2% to 5.0% and in high school students from 26.9% to 20.0%.

Data source: IYTS, 2014

Target setting method: TPC recommendation and SEOW consent

Smoking during pregnancy

Reduce smoking in pregnant women from 14.3% to 8.0%.

Data source: Natality Report, 2015

Target setting method: TPC, 2020 Strategic Plan (p. 25)

Adult smoking

Reduce smoking among all adults from 20.6% to 18.0%.

Data source: BRFSS, 2015

Target setting method: TPC, 2020 Strategic Plan (p. 33)

Current Estimates

Youth tobacco use
Middle school: 4.9%
High school: 20.3%

Smoking during pregnancy
13.5%

Adult smoking
21.1%

ALCOHOL

Underage drinking

Reduce past-month alcohol use in 12- to 20-year-olds from 21.0% to 18.9%.

Data source: NSDUH, 2014-2015

Target setting method: 10% improvement (modified from Healthy People 2020, objective SA-13.1)

Binge drinking in young adults

Reduce past-month binge drinking in young adults ages 18 to 24 from 28.7% to 25.8%.

Data source: BRFSS, 2015

Target setting method: 10% improvement (Healthy People 2020, objective SA-14.3)

Current Estimates

Underage drinking
20.9%

Binge drinking in young adults
26.5%

OPIOIDS

***Drug overdose mortality*[1]**

Reduce fatal drug overdoses from 1,236 deaths to 927 deaths.

Data source: ISDH, 2015

Target setting method: 25% improvement (SEOW consent)

Prescription opioid misuse

Prescription opioid misuse is still a public health concern. Due to changes in the design of the National Survey on Drug Use and Health (NSDUH), state-level estimates were not available this year and future estimates will not be comparable to prior years. Therefore, we recommend re-evaluating next year's rate of prescription opioid misuse for inclusion in next year's priorities.

Current Estimates

Drug overdose mortality
1,518 deaths

Prescription opioid misuse
4.9% Hoosiers ages 12+
(2016 NSDUH)

MENTAL HEALTH

Suicide attempts in youth

Reduce the percentage of high school students who attempted suicide in the past year from 9.9% to not more than 8.9%.

Data source: YRBS, 2015

Target setting method: 10% improvement (SEOW consent)

Current Estimates

Suicide attempts in youth

No new data yet

GENERAL RECOMMENDATIONS

There has been a recent upward trend in marijuana use. Given the expanding legalization of marijuana (as of 2016, 28 U.S. states have legalized marijuana for medical/recreational purposes), the SEOW recommends to monitor its use in the general population and to consider its inclusion in the Prevention Priorities in future years.

The SEOW acknowledges the importance of consistent data collection, especially at the state and sub-state level. We recommend the state maintain and improve its efforts to collect relevant data on behavioral health indicators and to expand collecting information from special populations, including the LGBTQ community; racial/ethnic minorities such as African Americans, Latinos, and Native Americans/Indian Tribes; people involved with the criminal justice system; veterans and military families; people who live in rural areas; and people experiencing homelessness.

*Take home message

- Alcohol & tobacco continue to have the greatest impact; i.e., they affect the largest number of people
- Marijuana use is on the rise
- Opioids continue to be a public health concern
  - Addiction, overdose, transmission of HIV/AIDS and hepatitis B & C through IDU

Center for Health Policy

The Center for Health Policy collaborates with state and local government, as well as public and private healthcare organizations in health policy and program development to conduct high quality program evaluation and applied research on critical health policy-related issues.

Marion S. Greene, MPH, PhD(c)
Center for Health Policy
IU Richard M. Fairbanks School of Public Health at IUPUI
1050 Wishard Blvd, RG 5143
Indianapolis, IN 46202
317-278-3247
msgreene@iu.edu

References

[1] Substance Abuse and Mental Health Services Administration, Center for Behavioral Health Statistics and Quality. (2018). *National Survey on Drug Use and Health (NSDUH), 2016*. Retrieved from https://www.samhsa.gov/data/population-data-nsduh

[2] Centers for Disease Control and Prevention. (2017). *Youth Risk Behavior Surveillance System (YRBSS).* Retrieved from http://nccd.cdc.gov/youthonline

[3] Gassman, R., Jun, M., Samuel, S., Agley, J. D., King, R., Ables, E., Lee, J., & Wolf, J. (2017). *Indiana Youth Survey, 2017*. Indiana Prevention Resource Center, Indiana University. Retrieved from http://inys.indiana.edu/survey-results

[4] Inter-university Consortium for Political and Social Research, University of Michigan. (2017). *Monitoring the Future (MTF), 2017*. Retrieved from http://www.monitoringthefuture.org/data/data.html

[5] Centers for Disease Control and Prevention. (2018). *Behavioral Risk Factor Surveillance System (BRFSS) prevalence & trends data*. Retrieved from http://www.cdc.gov/brfss/brfssprevalence/index.html

[6] Indiana State Department of Health, Tobacco Prevention and Cessation Commission. (2016). *Indiana Youth Tobacco Survey, 2000-2016.* Data set made available to the Center for Health Policy at IUPUI (January, 2018).

[7] Substance Abuse and Mental Health Services Administration, Center for Behavioral Health Statistics and Quality. (2015). *Treatment Episode Data Set -- Admissions (TEDS-A), 2015*. Retrieved from http://wwwdasis.samhsa.gov/dasis2/teds.htm

[8] Indiana State Police, Methamphetamine Suppression Section. (2017). *Indiana meth lab statistics, 2017*. Data received on January 14, 2017, from Sergeant Katrina Smith.

[9] Indiana Professional Licensing Agency. (2017). *Controlled substances dispensed in Indiana (INSPECT 2013 – 2016)*. Information received January 9, 2017, from Amanda Garrett, Director of Operations, INSPECT, Indiana Professional Licensing Agency.

[10] U.S. Department of Health and Human Services. (2014). *The Health Consequences of Smoking -- 50 years of progress: A Report of the Surgeon General.* Atlanta, GA.: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office of Smoking and Health.

[11] Centers for Disease Control and Prevention. (2018). *Compressed Mortality, 1999-2016*. Retrieved from https://wonder.cdc.gov/cmf-icd10.html

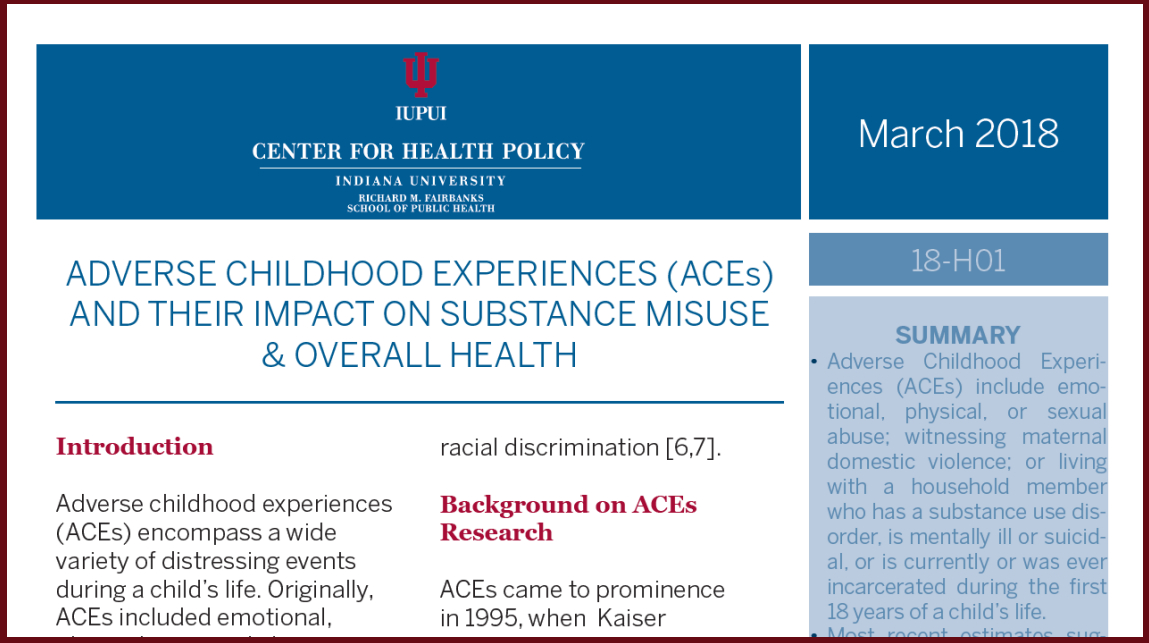
Tableau Website Presentation

Harold Kooreman, MA, MSW
Policy Analyst, Center for Health Policy
IU Richard M. Fairbanks School of Public Health
hkoorema@iu.edu

The Relationship between Adverse Childhood Experiences, Substance Misuse, & Future Health

Casey Balio
PhD Student, Department of Health Policy & Management
Richard M. Fairbanks School of Public health

ACE Issue Brief



IUPUI
CENTER FOR HEALTH POLICY
INDIANA UNIVERSITY
RICHARD M. FAIRBANKS SCHOOL OF PUBLIC HEALTH

March 2018

18-H01

ADVERSE CHILDHOOD EXPERIENCES (ACEs) AND THEIR IMPACT ON SUBSTANCE MISUSE & OVERALL HEALTH

SUMMARY

- Adverse Childhood Experiences (ACEs) include emotional, physical, or sexual abuse; witnessing maternal domestic violence; or living with a household member who has a substance use disorder, is mentally ill or suicidal, or is currently or was ever incarcerated during the first 18 years of a child's life.

Introduction

Adverse childhood experiences (ACEs) encompass a wide variety of distressing events during a child's life. Originally, ACEs included emotional, racial discrimination [6,7].

Background on ACEs Research

ACEs came to prominence in 1995, when Kaiser

Can access full issue brief (and others) at: bit.ly/SEOWissuebriefs

Agenda

- What are ACEs?
- The Kaiser Study
- Prevalence of ACEs
- ACEs and Substance use
- ACEs and Health
- Causality
- Recommendations
- Questions

ACE Definition

Occurence of any of the following during childhood:

- Emotional, physical, or sexual abuse
- Witnessing maternal domestic violence
- Living with a household member who has a substance use disorder or mental illness, is suicidal, or who is currently or was ever incarcerated [1]

Expanded ACE Definition

More recent definitions include:

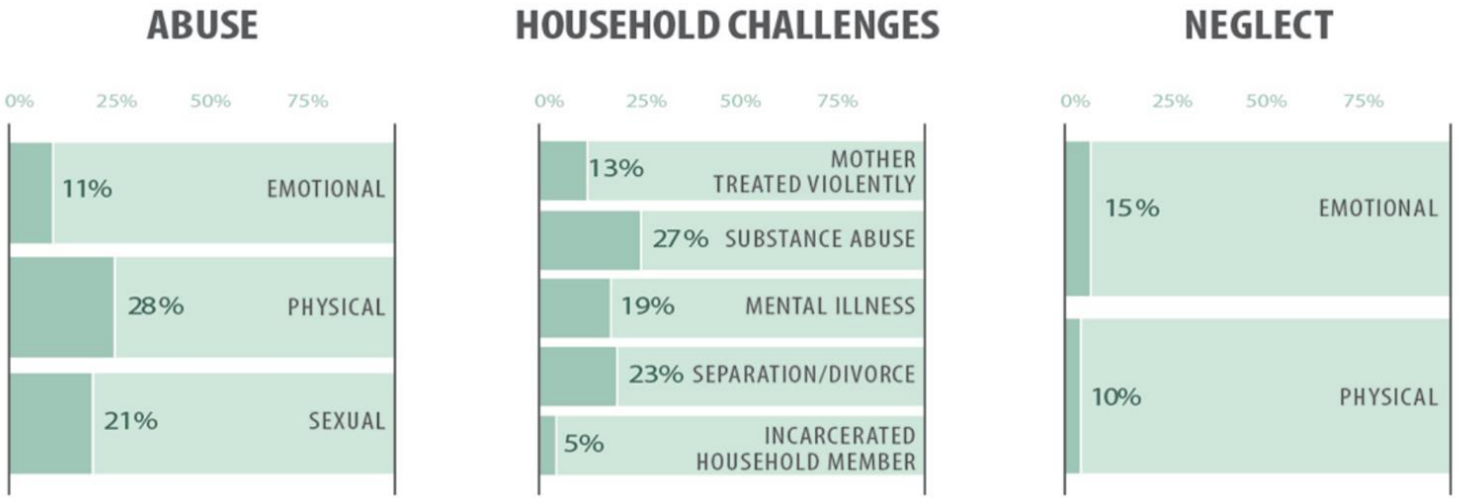
- Living with a household member who smokes [2]
- witnessing any inter-partner violence in the household
- having parents who are separated or divorced
- withstanding physical or emotional neglect [4,5]
- experiencing parent or guardian death [6,7]
- Witnessing neighborhood violence [6,7]
- enduring socioeconomic hardship [6,7]
- experiencing racial discrimination

The CDC-Kaiser ACE Study [1,8]

- Commissioned by the CDC, began in 1995
- Surveyed 9,500 adults from Kaiser's HMO population
- Having experienced each type of ACE
- Subsequent and current health status and behaviors
- Since then, have continued to monitor, complete additional studies with the same and different populations
- Kaiser has also implemented screening/addressing ACEs in primary care visits

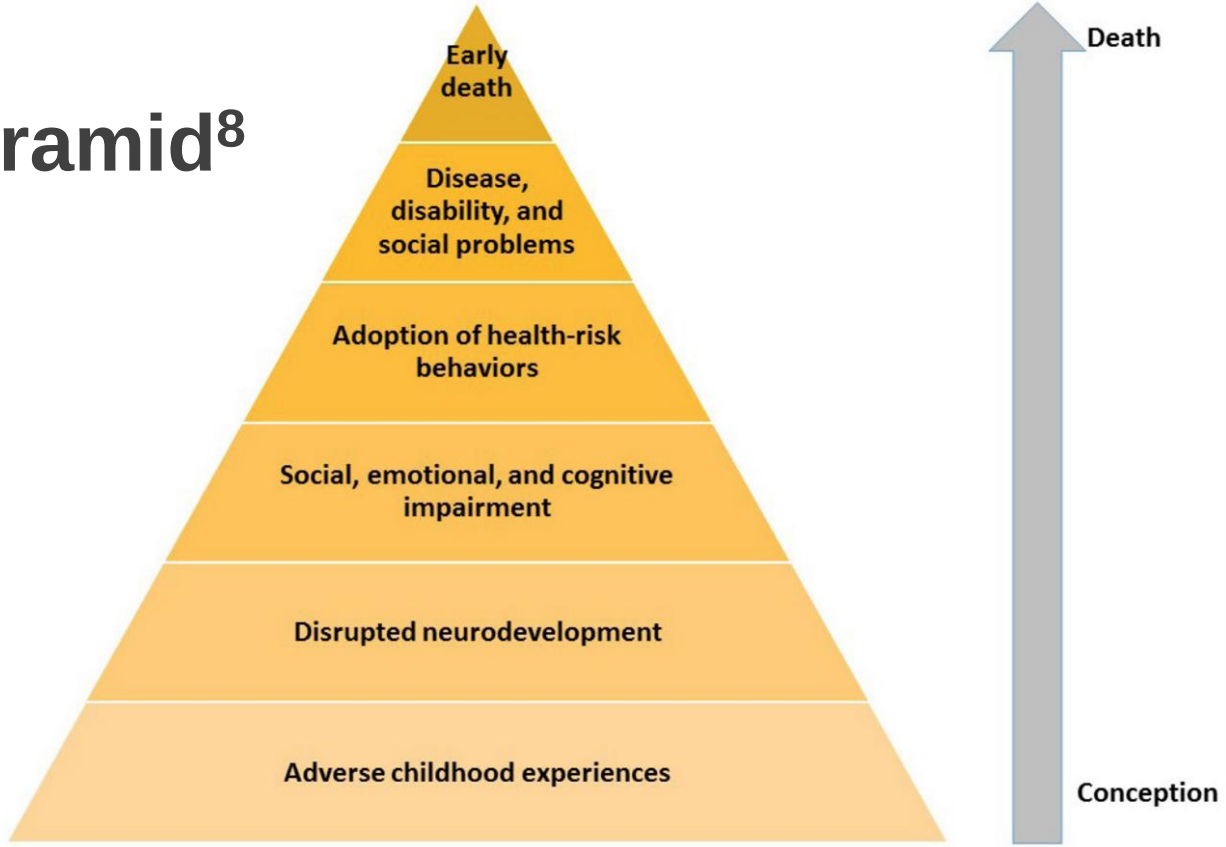
Early Findings from the CDC-Kaiser Study [1,8]

- 52% of the adult population has experienced at least one ACE
- ACEs are often experienced in “clusters”
- A dose-response relationship exists with future mental & physical health status



Source: CDC Adverse Childhood Experiences Presentation Graphics
https://www.cdc.gov/violenceprevention/acestudy/ACE_graphics.html

ACE Pyramid[8]



Current Prevalence

	2011-2012		2016	
	Indiana	**US**	**Indiana**	**US**
Any ACE	**52.3**	**47.9**	**47.3**	**46.3**
1 ACE	25.3	25.3	23.1	24.6
2 or more ACEs	27.0	22.6	24.2	21.7

Source: National Survey of Children's Health

ACEs & Substance Use

Alcohol

- Early initiation of alcohol use
- Heavy drinking
- Self-reported alcoholism
- Marrying an alcoholic

Tobacco

- Current smoking status
- Frequent tobacco use

Illicit Substances

- Lifetime drug use
- Lifetime injection drug use
- Early initiation of drug use
- Drug addiction

56% of prevalence of lifetime drug use attributable to ACEs[9]

Other Risk Behaviors

- Anger control
- Interpartner violence
- Sexual risk behaviors
- Early & unintended pregnancy

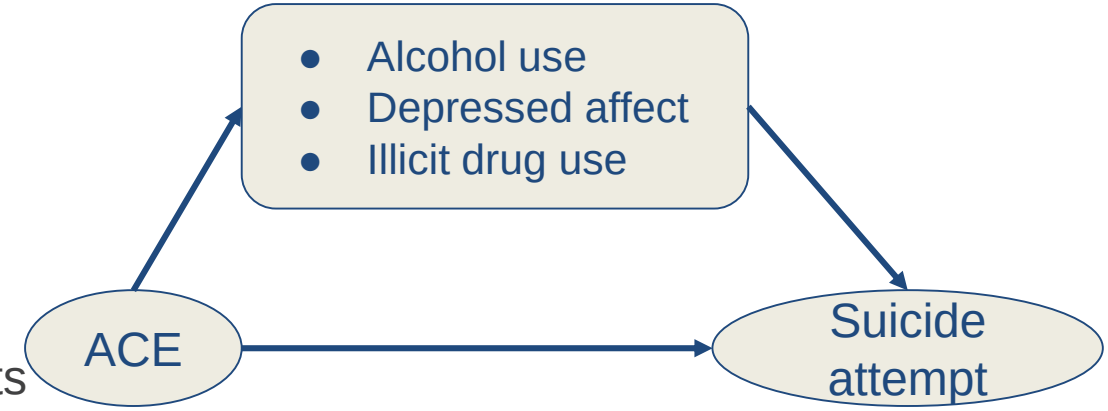
ACEs & Health

Mental Health

- Antisocial behavior
- Depressive symptoms
- Mood & anxiety disorders
- Perceived stress
- Disrupted sleep
- Suicidal thoughts & attempts
  - mediated

Mental Health

- Antisocial behavior
- Depressive symptoms
- Mood & anxiety disorders
- Perceived stress
- Disrupted sleep
- Suicidal thoughts & attempts
  - mediated



Mental Health

- Antisocial behavior
- Depressive symptoms
- Mood & anxiety disorders
- Perceived stress
- Disrupted sleep
- Suicidal thoughts & attempts
  - mediated

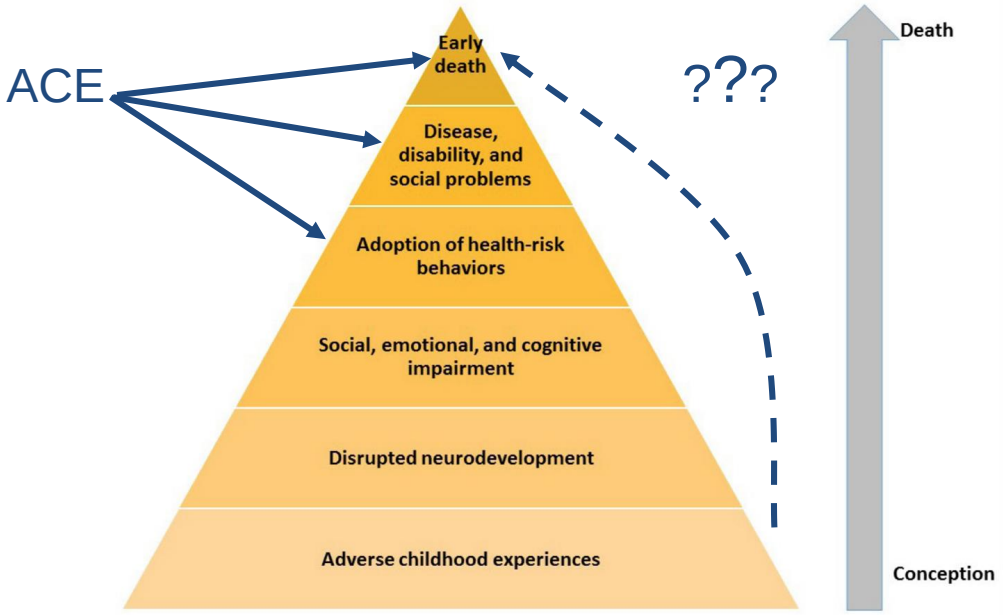
An estimated 80% of childhood/ adolescent suicide attempts attributable to ACEs while 67% of lifetime attempts & 64% of adult attempts are attributable to ACEs[14]

Physical Health

- Self-rated general health status
- Mortality (although mediated by other factors)*
- Prescription drug utilization

On average, individuals with 2 ACE categories die 2 years earlier than those with none, while individuals with 6+ ACE categories died nearly 20 years earlier [10]

ACEs & Causality



- Correlation ≠ causation
- Hill Criteria for assessing causality when randomization isn't possible
  - Strong correlation
  - Biological plausibility
  - Temporality
  - Graded relationship
- CDC-Kaiser study has established several of these

Summary

ACEs are associated with future physical, mental, and general health as well as substance use, risk behaviors, healthcare spending, and mortality.

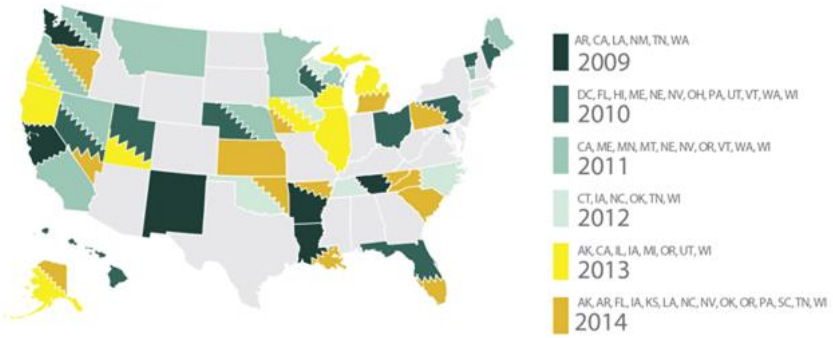
&

Rigorous evidence that these relationships may be causal.

What now???

Policy Recommendation 1:
Increase data collection in Indiana

- BRFSS has an ACE module, 32 states have participated at least once but Indiana has not
- Questions that reflect current ACE definitions
- Ideally obtained from children and young adults for better reliability
- Indiana Youth Survey



Source: CDC Adverse Childhood Experiences Presentation Graphics
https://www.cdc.gov/violenceprevention/acestudy/ACE_graphics.html

Policy Recommendation 2:
Increase screening for ACEs in clinical settings

- Kaiser has implemented a screening for adults in primary care [12]
  - Took substantial effort to implement, both cost and provider support
  - Associated with reductions in ED visits and hospitalizations, suggested possibly because of an improved relationship and trust between the patient and provider
- Suggested to be implemented in both pediatric and adult settings
  - Pediatricians already include a variety of familial/household conditions during well-child visits
  - American Academy of Pediatrics endorses this but only 4% ask about all ACEs while 32% ask about none [13]

Full issue brief at: bit.ly/SEOWissuebriefs

SAMHSA Webinar: Trauma & Adverse Childhood Experiences: Implications for Preventing Substance Misuse

Contact Information: Casey Balio cbalio@iu.edu

IUPUI

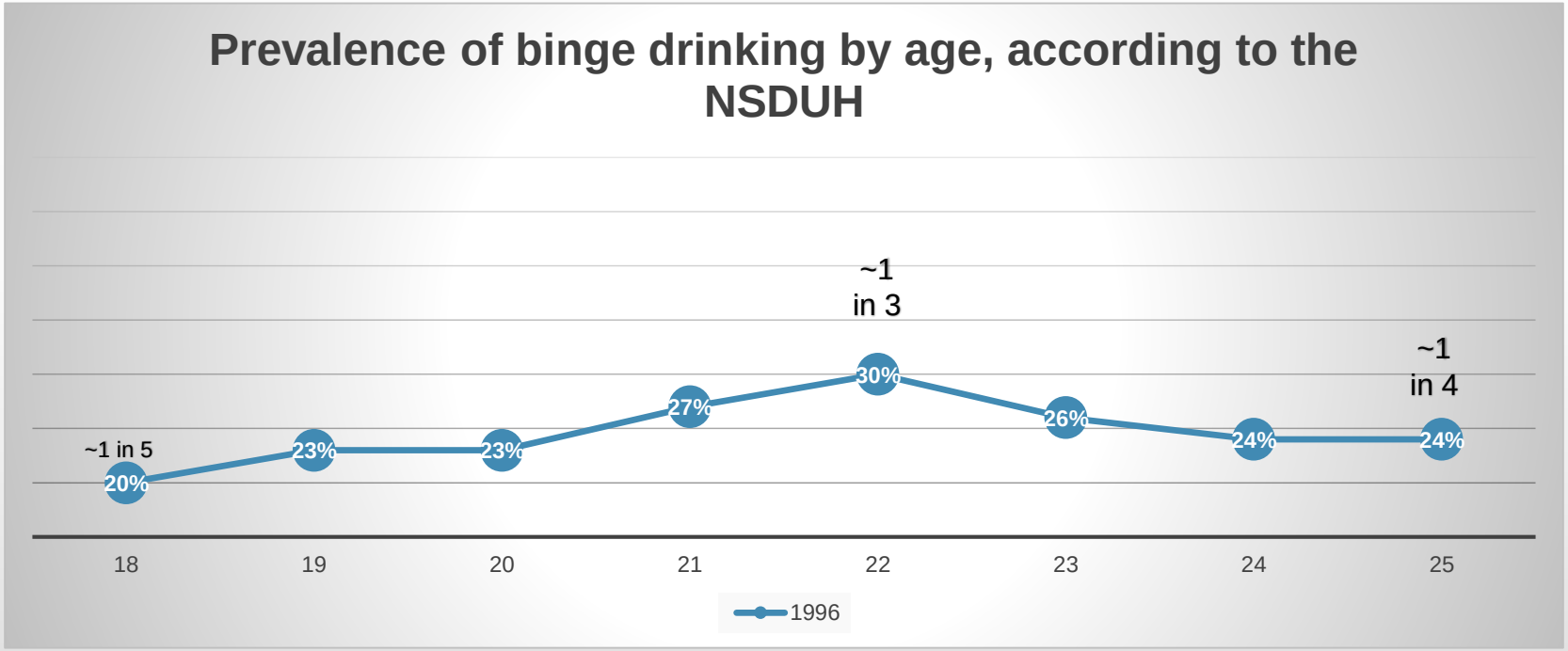
FULFILLING *the* PROMISE

1. Felitti V.J., Anda, R.F., Nordenberg, D., Williamson, D.F., Spitz, A.M., Edwards, V., et al. (1998). Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults. The Adverse Childhood Experiences (ACE) Study. American Journal of Preventive Medicine 14, 245–258.
2. Douglas, K.R., Chan, G., Gelernter, J., Arias, A.J., Anton, R.F., Weiss, R.D., et al. Adverse childhood events as risk factors for substance dependence: partial mediation by mood and anxiety disorders. Addict Behav. 2010;35: 7–13.
3. About Behavioral Risk Factor Surveillance System ACE Data. In: CDC [Internet]. 1 Apr 2016 [cited 3 Jan 2018]. Available: https://www.cdc.gov/violenceprevention/acestudy/ace_brfss.html
4. Strine TW, Dube SR, Edwards VJ, Prehn AW, Rasmussen S, Wagenfeld M, et al. Associations between adverse childhood experiences, psychological distress, and adult alcohol problems. Am J Health Behav. 2012;36: 408–423.
5. Anda RF, Butchart A, Felitti VJ, Brown DW. Building a framework for global surveillance of the public health implications of adverse childhood experiences. Am J Prev Med. 2010;39: 93–98.
6. US Department of Health & Human Services. National Survey of Children's Health 2011-2012 [Internet]. Available: http://childhealthdata.org/learn/NSCH/topics_questions/2011-12-nsch
7. US Department of Health & Human Services. National Survey of Children's Health 2016 [Internet]. Available: http://www.childhealthdata.org/learn/NSCH/topics_questions/2016-nschguide-to-topics-and-questions
8. About the CDC-Kaiser ACE Study. In: CDC [Internet]. 14 Jun 2016 [cited 3 Jan 2018]. Available: https://www.cdc.gov/violenceprevention/acestudy/about.html
9. Dube, S. R., Felitti, V. J., Dong, M., Chapman, D. P., Giles, W. H., & Anda, R. F. (2003). Childhood abuse, neglect, and household dysfunction and the risk of illicit drug use: the adverse childhood experiences study. Pediatrics, 111(3), 564–572.
10. Brown, D. W., Anda, R. F., Tiemeier, H., Felitti, V. J., Edwards, V. J., Croft, J. B., & Giles, W. H. (2009). Adverse childhood experiences and the risk of premature mortality. American Journal of Preventive Medicine, 37(5), 389–396.
11. Anda, R. F., Felitti, V. J., Bremner, J. D., Walker, J. D., Whitfield, C., Perry, B. D., … Giles, W. H. (2006). The enduring effects of abuse and related adverse experiences in childhood. European Archives of Psychiatry and Clinical Neuroscience, 256(3), 174–186.
12. Felitti, V. J., & Anda, R. F. (2010). The Relationship of Adverse Childhood Experiences to Adult Medical Disease, Psychiatric Disorders, and Sexual Behavior: Implications for Healthcare. In R. A. Lanius, E. Vermetten, & C. Pain (Eds.), The Hidden Epidemic: The Impact of Early Life Trauma on Health and Disease. Cambridge University Press.
13. Kerker, B. D., Storfer-Isser, A., Szilagyi, M., Stein, R. E. K., Garner, A. S., O'Connor, K. G., … Horwitz, S. M. (2016). Do Pediatricians Ask About Adverse Childhood Experiences in Pediatric Primary Care? Academic Pediatrics, 16(2), 154–160.
14. Dube SR, Anda RF, Felitti VJ, Chapman DP, Williamson DF, Giles WH. Childhood abuse, household dysfunction, and the risk of attempted suicide throughout the life span: findings from the Adverse Childhood Experiences Study. JAMA. 2001;286: 3089–3096.

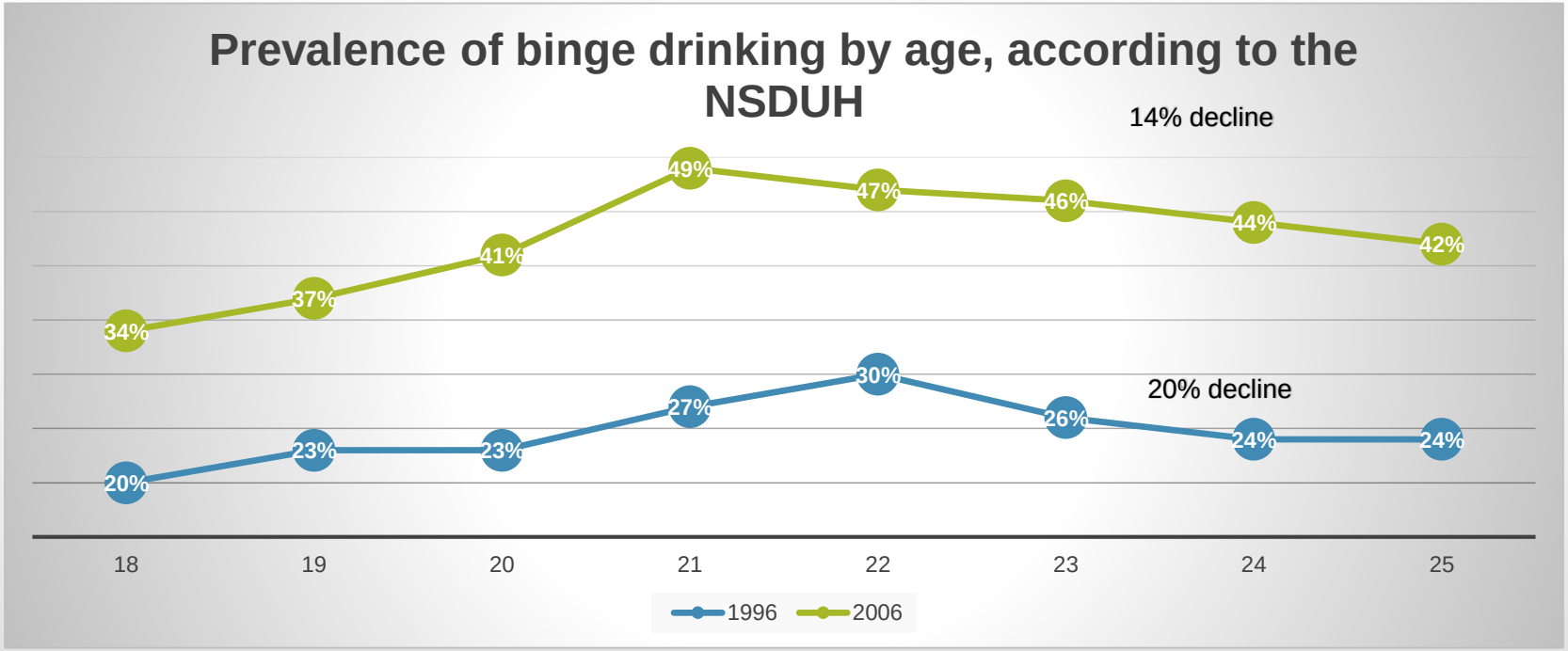
Binge Drinking among Young Adults: Two Distinct Phases

Tamara G.J. Leech, PhD
Associate Professor
Department of Public Health
Montclair State University

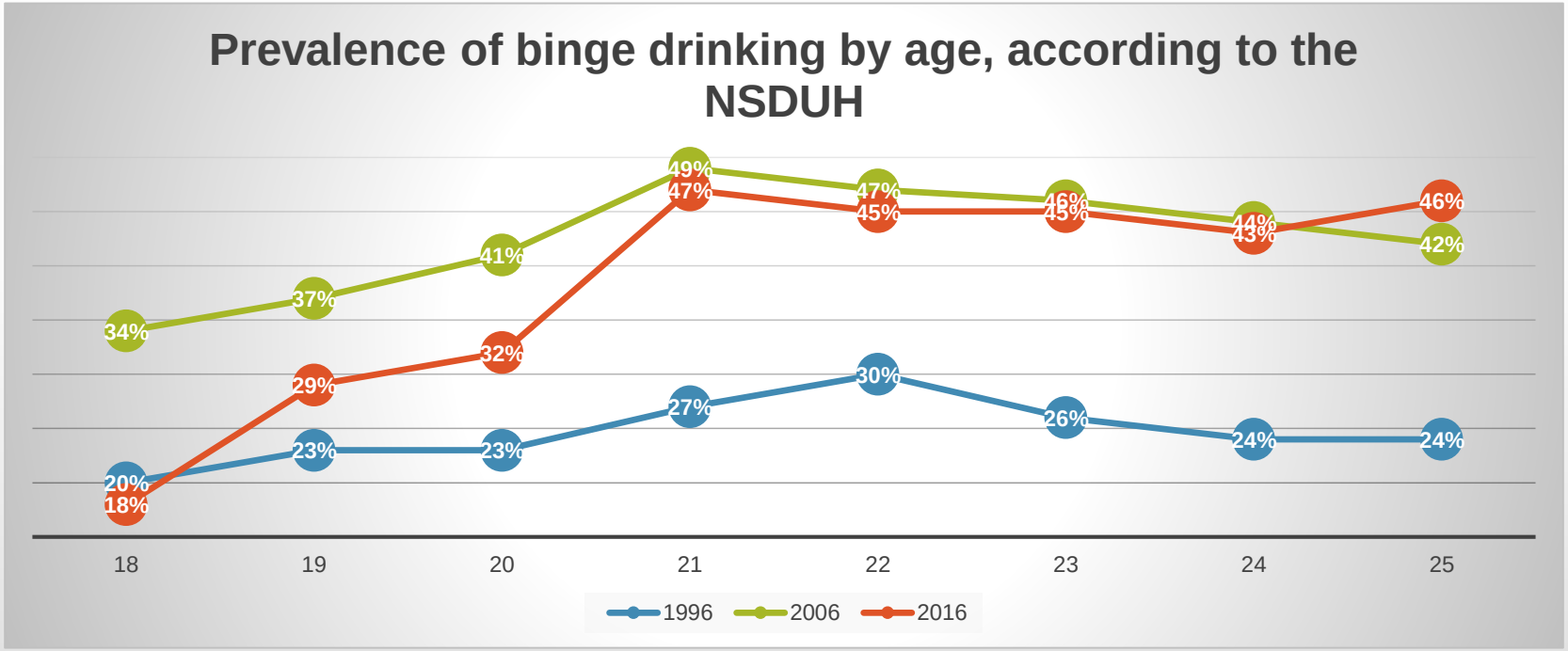
Aging out in 1996



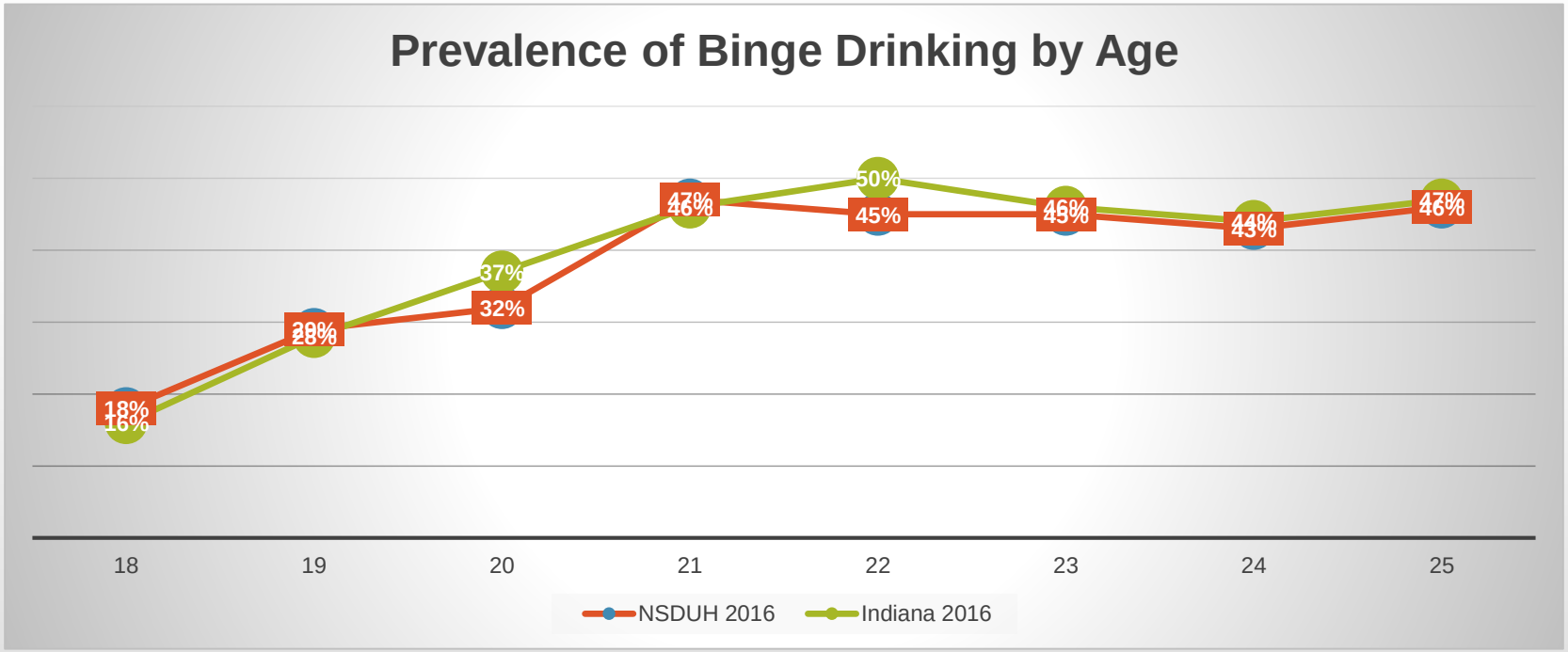
Overall increase by 2006, & less aging out



Decrease in early ages by 2016, no aging out



Our Data on Young Adults in Indiana Match the Broader National Trend



Extended Adolescence vs. Emerging Adulthood

Two distinct phases in “young adulthood”: Ages 18-21 vs. ages 22-25

Description of Partnership for Success (PFS) Survey

- Survey of young adults in 10 Indiana counties: Cass, Clark, Floyd, Knox, Lake, Madison, Marion, Porter, Scott, and Vanderburgh.
- Identified by Indiana's Division of Mental Health and Addiction (DMHA) in collaboration with the State Epidemiological Outcomes Workgroup as having high rates of underage drinking and/or prescription drug misuse.
- Funded through the U.S. Substance Abuse and Mental Health Services Administration's (PFS) grant.
- Stratified sampling relative to the proportion of young adults in each county. Young adults aged 18 to 25 with a current cell phone number were recruited via text messaging.
- Data collected November through December 2016. These analyses use information from 1,097 respondents.

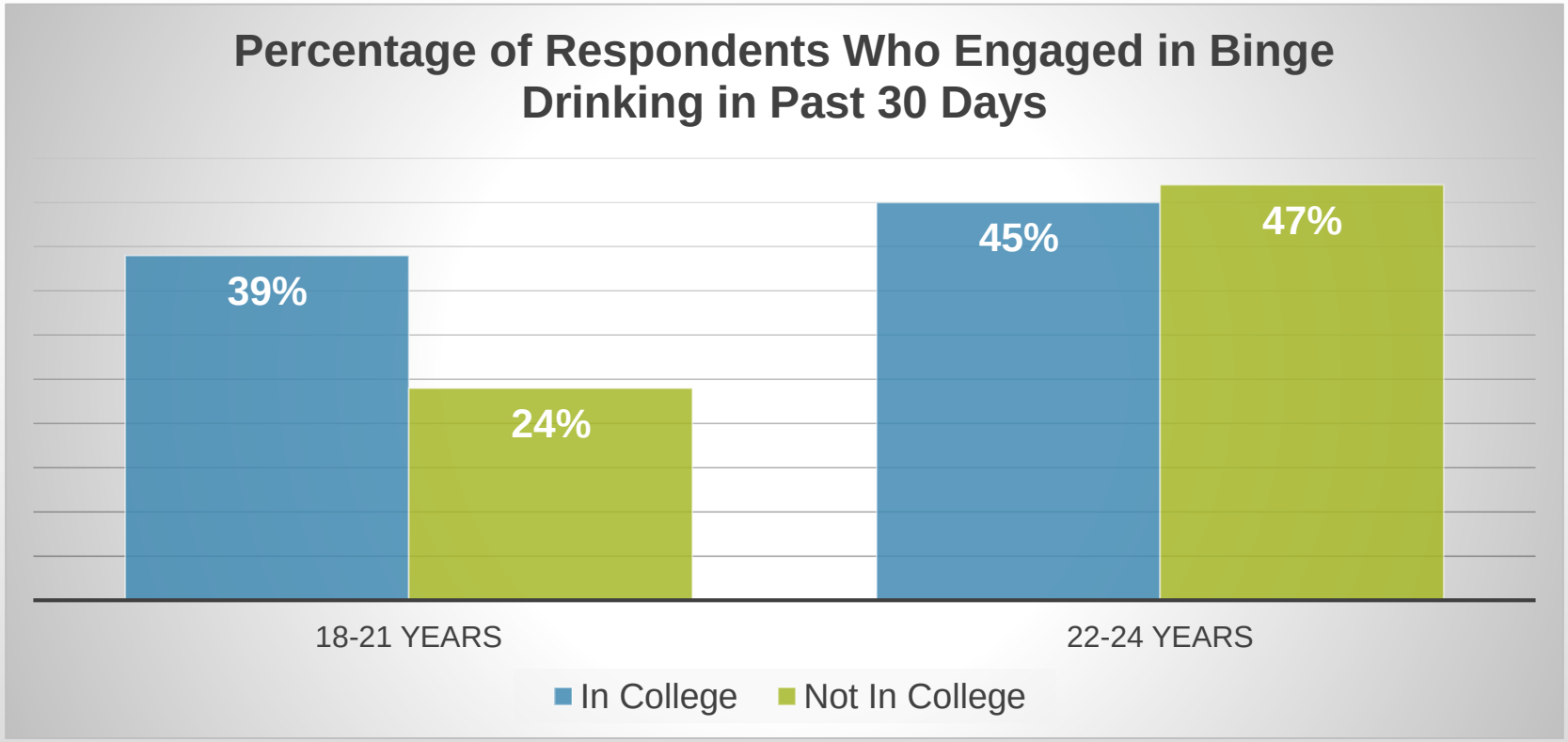
Our Respondents in 10 Indiana Counties

	Overall (n=1,097)	Extended Adolescents: 18-21yrs (n=410)	Emerging Adults: 22-25yrs (n=687)
Sex			
Male	31%	38%	37%
Female	63%	62%	63%
Race			
White	68%	64%	71%
Black	19%	23%	17%
Other	12%	13%	11%
Enrolled in College	45%	63%	34%
Binge drinking in past 30 days	42%	33%	46%

During Extended Adolescence...

College Enrollment and Financial Stress are related to Binge Drinking

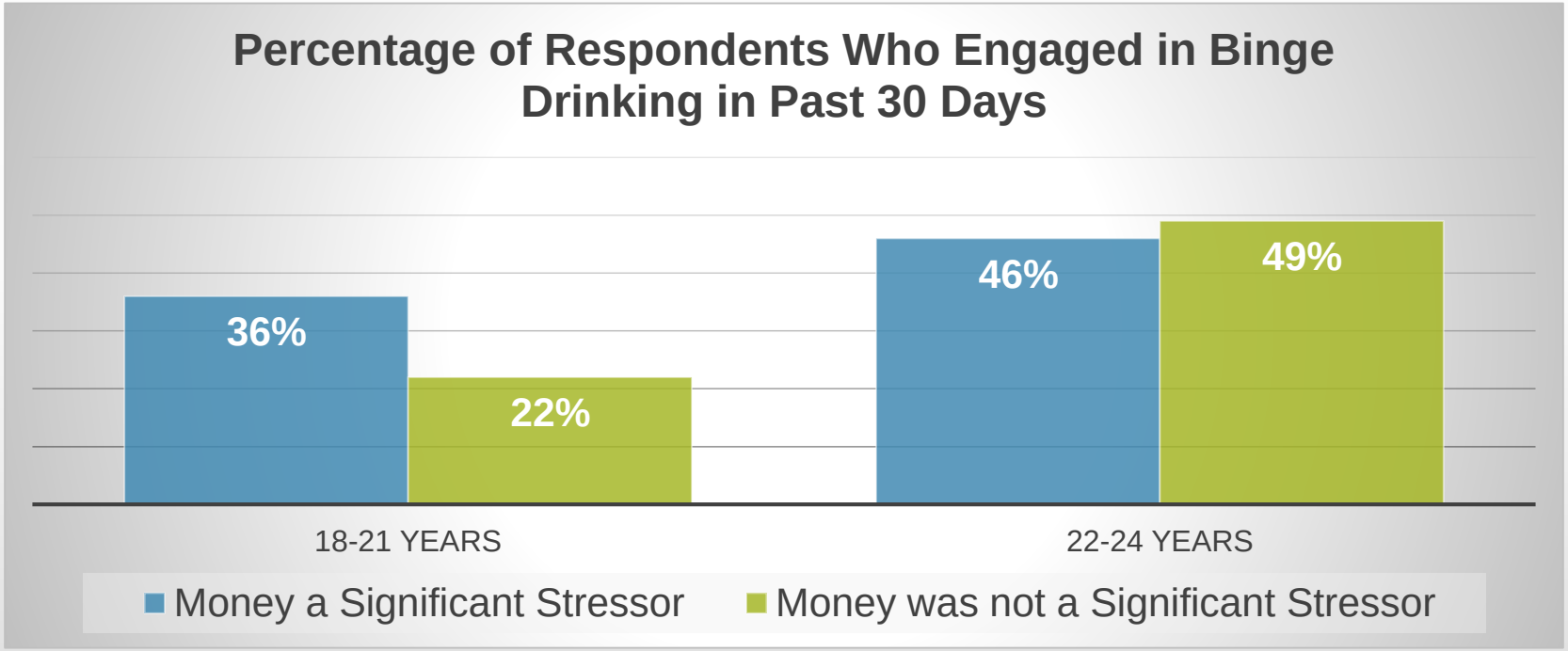
College Enrollment Matters among 18-21 year olds



	Emerging Adults (n=687)			Extended Adolescents (n=410)		
	Coef.	Std. Err.	P	Coef.	Std. Err.	P
Women	-0.37	0.16	0.02	0.01	0.01	0.97
Black	-0.41	0.21	0.06	-0.58	0.29	0.04
Other Race	-0.79	0.26	0.00	-0.40	0.34	0.24
College Graduate	-0.01	0.21	0.96	0.67	0.60	0.27
Some College	-0.27	0.21	0.21	0.32	0.25	0.02
Age	-0.10	0.07	0.17	0.35	0.11	0.00
Enrolled in College	-0.04	0.17	0.82	0.57	0.24	0.02
_cons	2.73	1.73	0.12	-8.07	2.26	0.00
R2		0.02			0.07	

Even after adjusting for other factors, younger adults attending college are 77% more likely to binge drink than other 18-21 year olds.

Financial Stress Seems to be a Trigger specific to Extended Adolescence

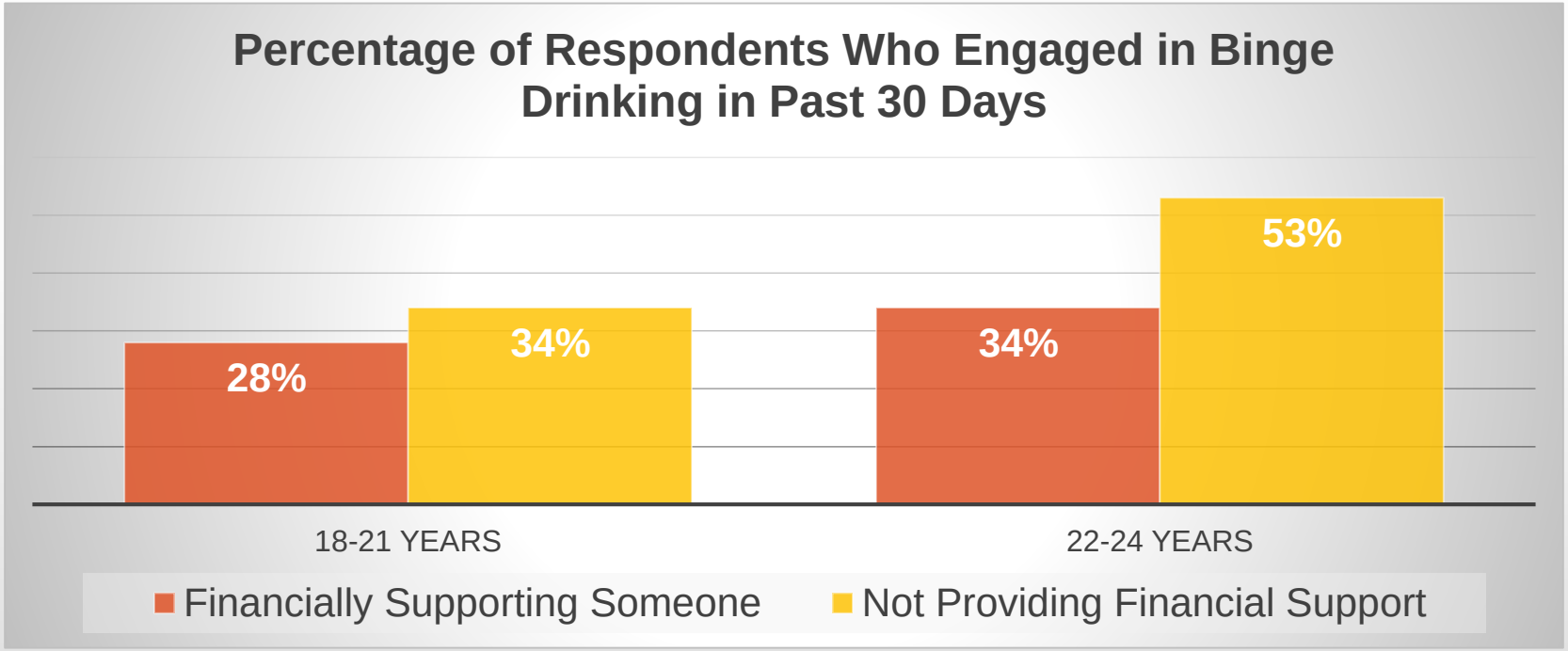


More than 4 out of 5 in both age groups reported that money is a significant source of stress.

During Emerging Adulthood...

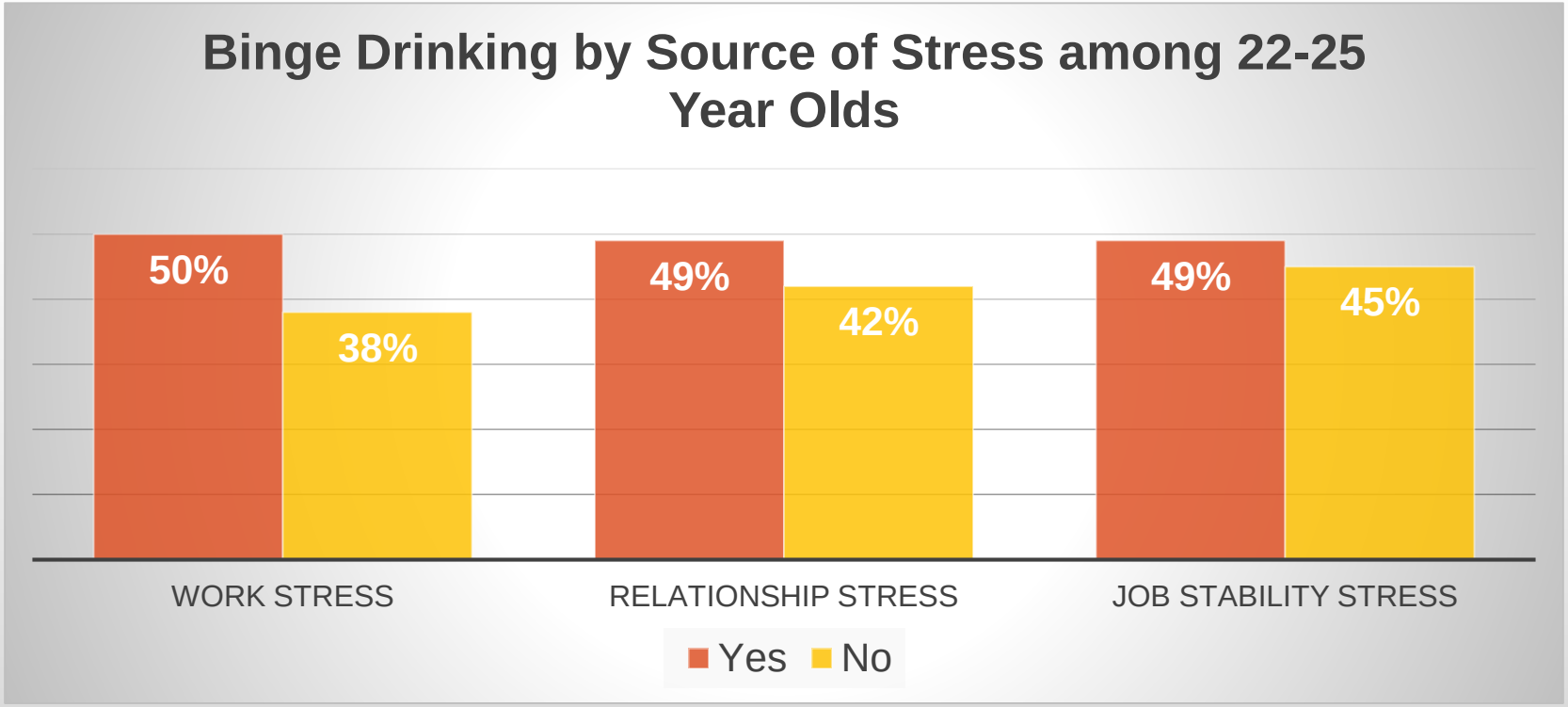
Financially supporting someone and stress from both work and relationships are related to binge drinking.

Emerging adults who financially support others are 51% less likely to binge drink



Being self-sufficient (never receiving financial support from parents) is NOT significantly correlated. (p=.94)

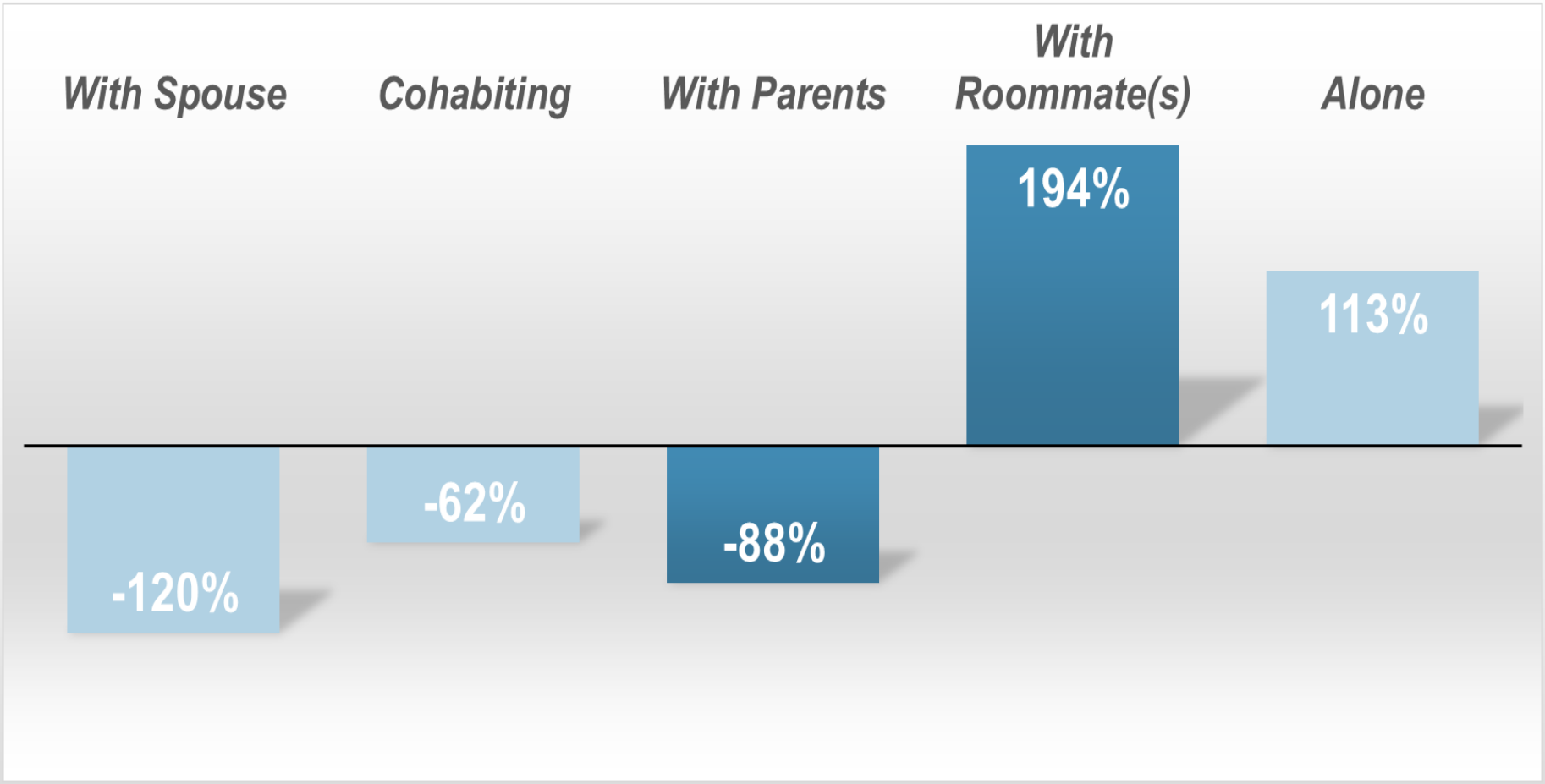
Work and Relationships Stress is Related to Binge Drinking (Job stability is marginal)



Living with Roommates Poses a Risk to Everyone

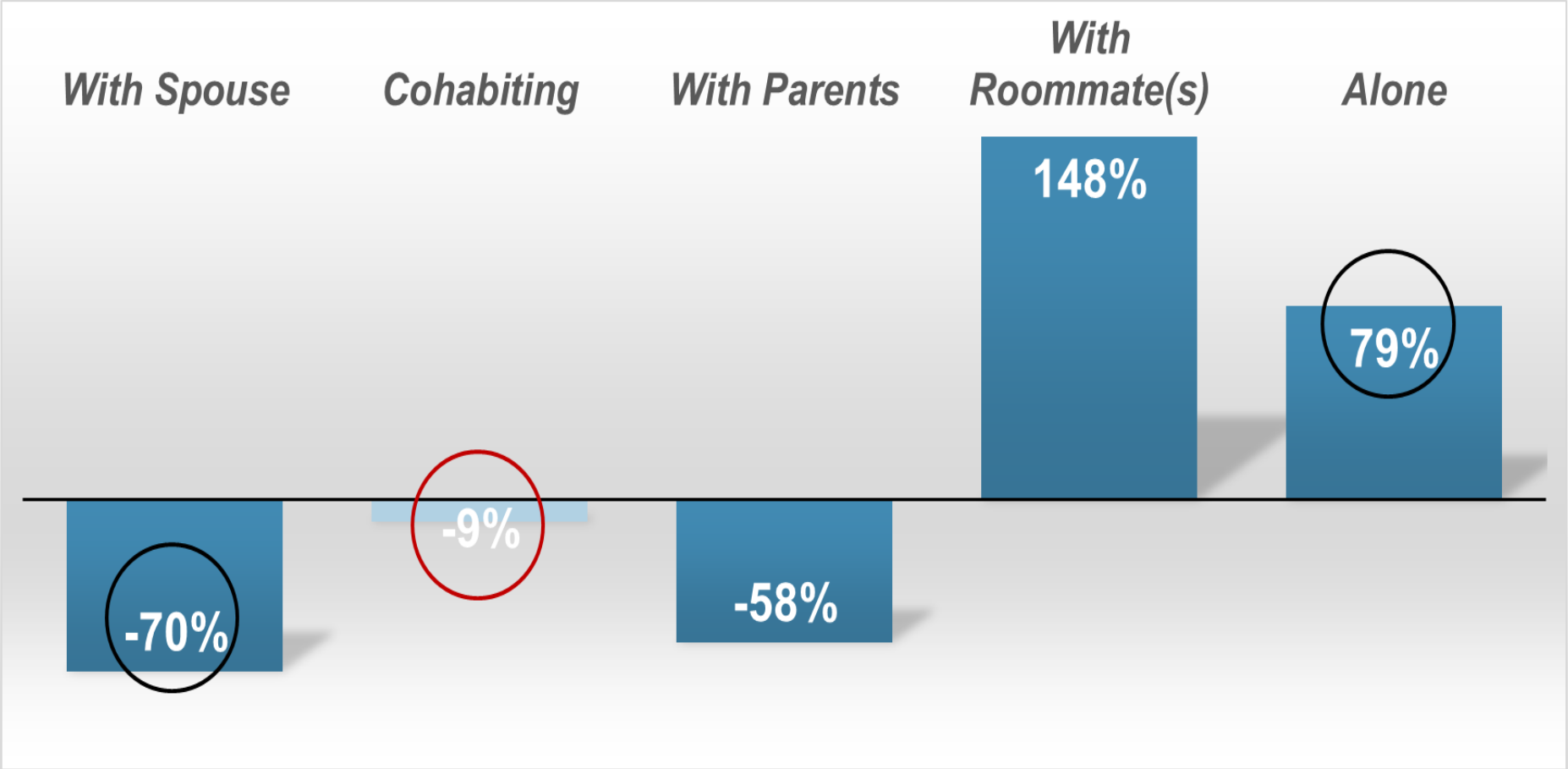
But the association between Binge Drinking and other living situations differs in important ways.

Likelihood of Binge Drinking among 18-21 year olds, by Living Situation



7% of Respondents	9% of Respondents	53% of Respondents	24% of Respondents	5% of Respondents

Likelihood of Binge Drinking among 22-25 year olds, by Living Situation



31% of Respondents	19% of Respondents	16% of Respondents	15% of Respondents	16% of Respondents

Implications

1. If there is one thing to focus on for all young adults, it is the roommate environment.
2. For the younger cohort (18-21 year olds), focusing on the campus environment and financial stress (perhaps from college fees?) may be appropriate.
3. For the older cohort (22-25), the typical transition into adulthood (marriage, the responsibility to financially support others) is still protective.
    - But it is less common at these ages than it used to be, and the cohabitation replacing it is not protective.
4. It may be more feasible and fruitful to focus on dealing with stress from relationships characteristic of this transition.

TIME FOR A BREAK!

Structured vs. Unstructured Data: Working towards a better estimate of opioid-related emergency department visits

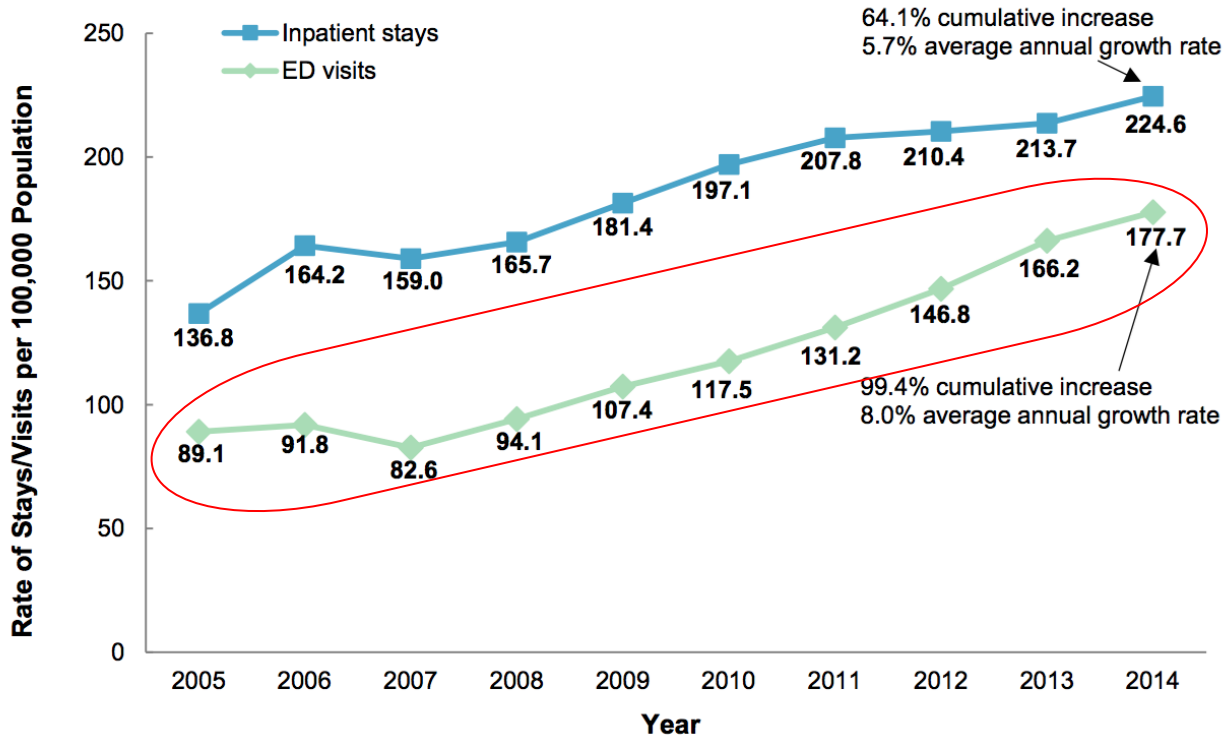
Casey Balio
Marion Greene, MPH
Joshua Vest, PhD, MPH
Kevin Wiley, Jr., MPH

Overview

- Background
- Research Question
- Methods
- Results
- Policy/Informatics Implications

- CDC: 15.7 per 10,000 ED visits suspected opioid-involved overdoses [1]
- Highest rates among large metropolitan areas (up to 40 per 10,000 ED visits) [1]
- Inpatient stays are more frequent, but ED are increasing more rapidly [2]
- **Indiana estimates just below the national average at 15.2 per 10,000 (national 17.8) [2]**

Figure 1. National rate of opioid-related inpatient stays and emergency department visits, 2005–2014



Current estimates rely on structured data which may underestimate the true prevalence.

- Previous research analyzed structured (ICD-9/10-CM) data for prevalence estimates which may underestimate the extent of the opioid crisis

- Researchers hypothesize that clinicians may not always code opioid misuse for the following reasons [2]
  - Stigma
  - Privacy
  - Not completely consistent over providers

Pairing unstructured data to achieve better prevalence estimates.

- Clinicians may include information about opioid-misuse in the unstructured, clinical note

- **Natural language processing (NLP)** applications may improve opioid-misuse prevalence estimates [3, 4]
  - Abstracts data from free-text clinical notes in the EHR
  - Used for risk prediction for future misuse
  - Often in primary care setting

Research Question

What is the prevalence of emergency department visits attributable to opioid misuse as identified via structured and unstructured EHR information?

Methods

1. Data:
   a. EHR data from 2 large, urban hospitals in Indianapolis from 2012-2017
   b. Patient demographic, encounter, diagnoses, and unstructured clinical notes
2. Sample: Adult, ED encounters
3. Measurement:
   a. Identify cases that were:
      i. Structured (ICD-positive)
      ii. Unstructured (NLP-positive)
      iii. Structured + Unstructured (NLP+ & ICD+)
4. Analysis:
   a. Structured opioid-misuse attributable ED visits trends (2012-2017)
   b. Unstructured opioid-misuse attributable ED visits trends (2012-2017)
   c. All trends for years 2012-2017

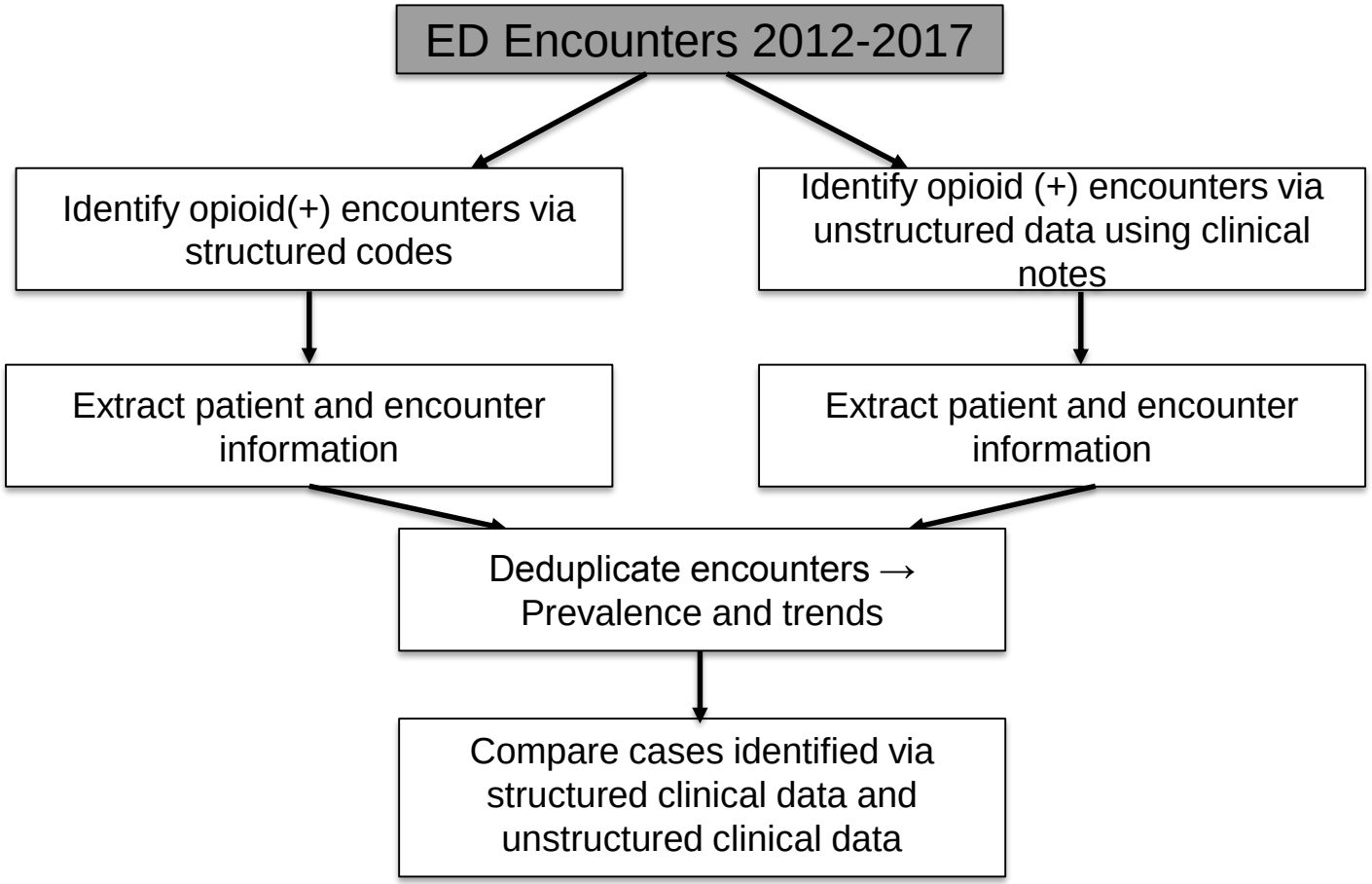
What are we looking for in the unstructured data?

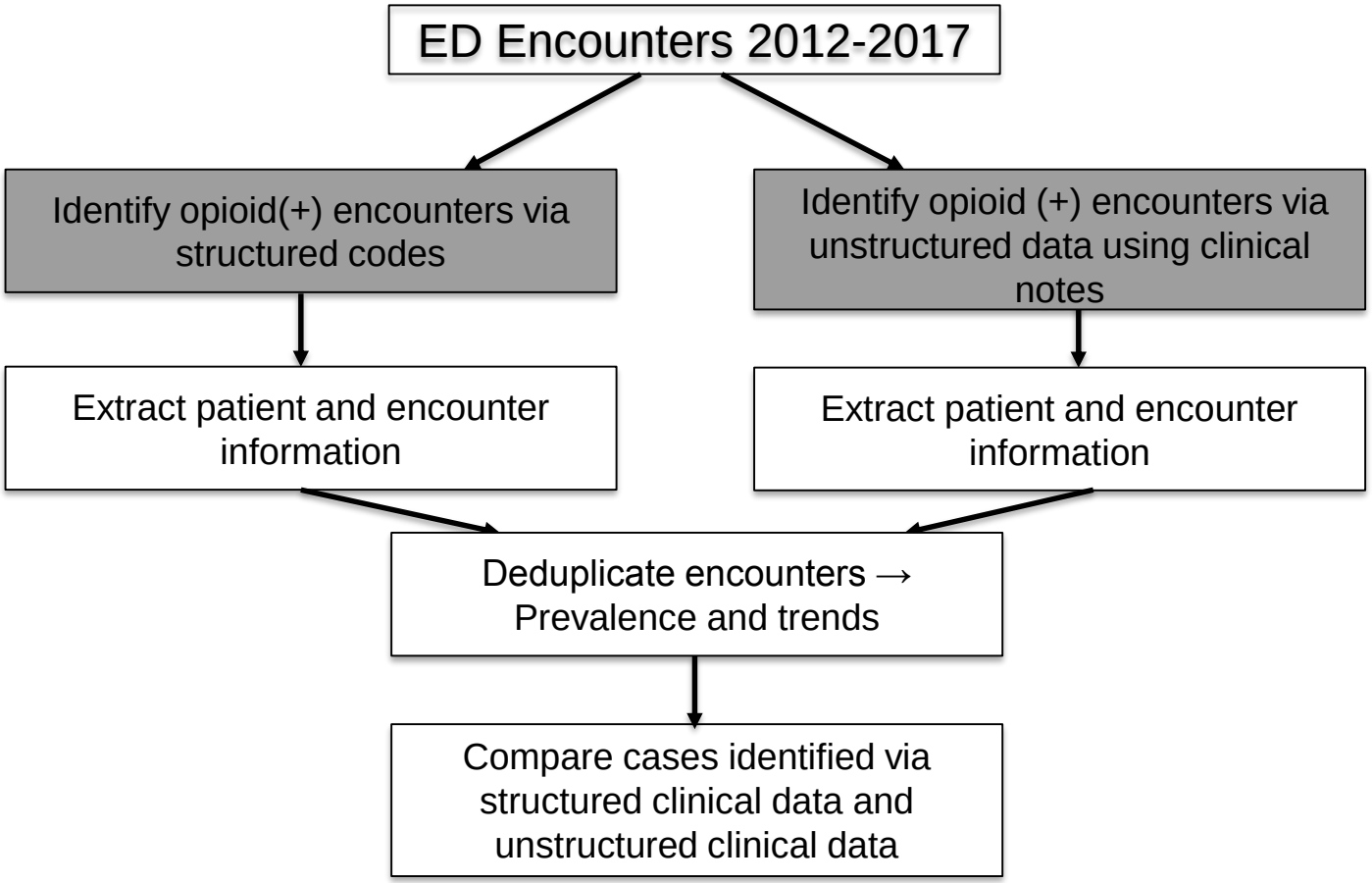
Term groups[3]:

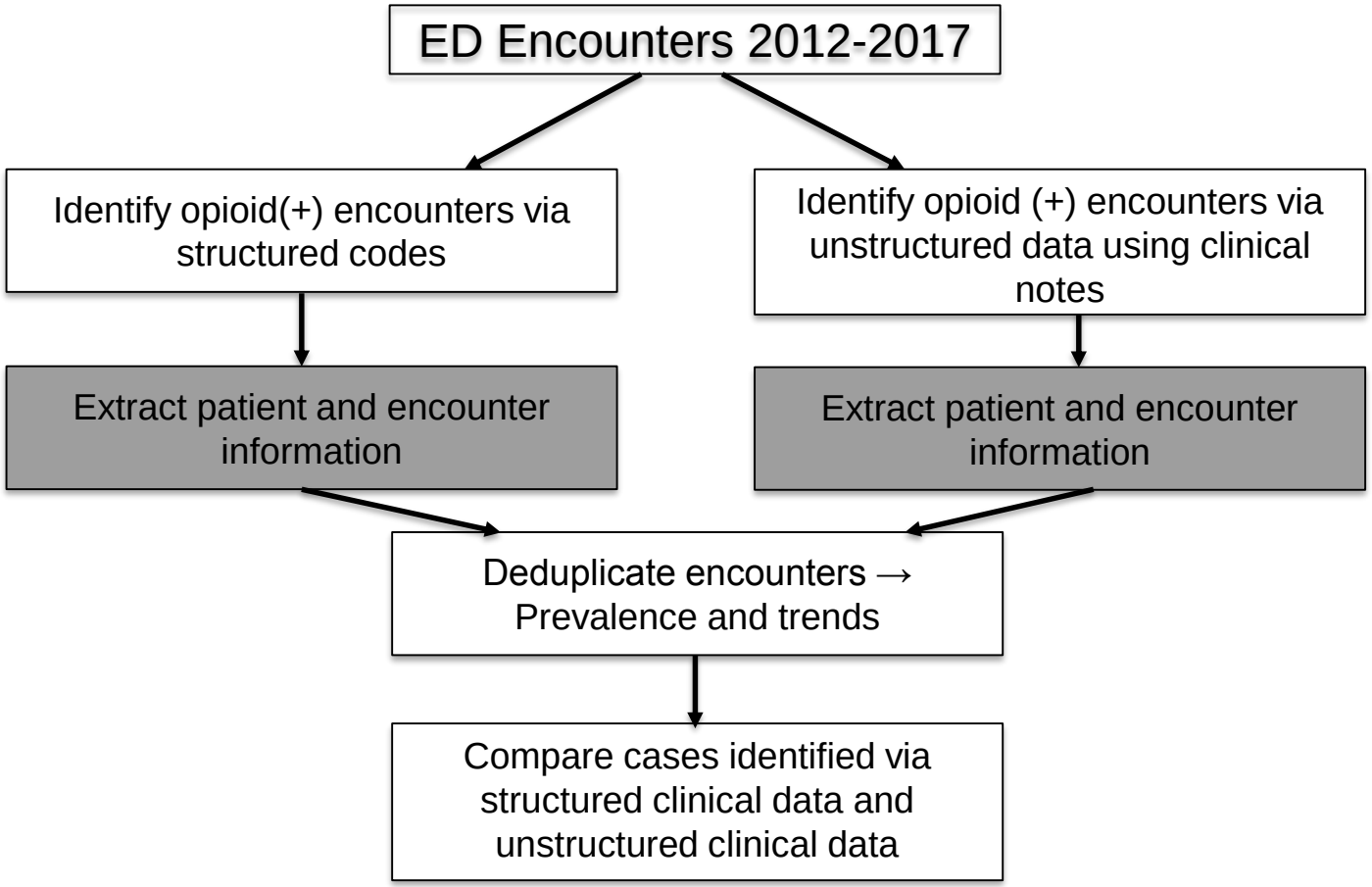
- Opioid (e.g., Hydrocodone)
- Antagonists (e.g., Naloxone)
- Problem Use Terms
- Response Terms
- Treatment Terms

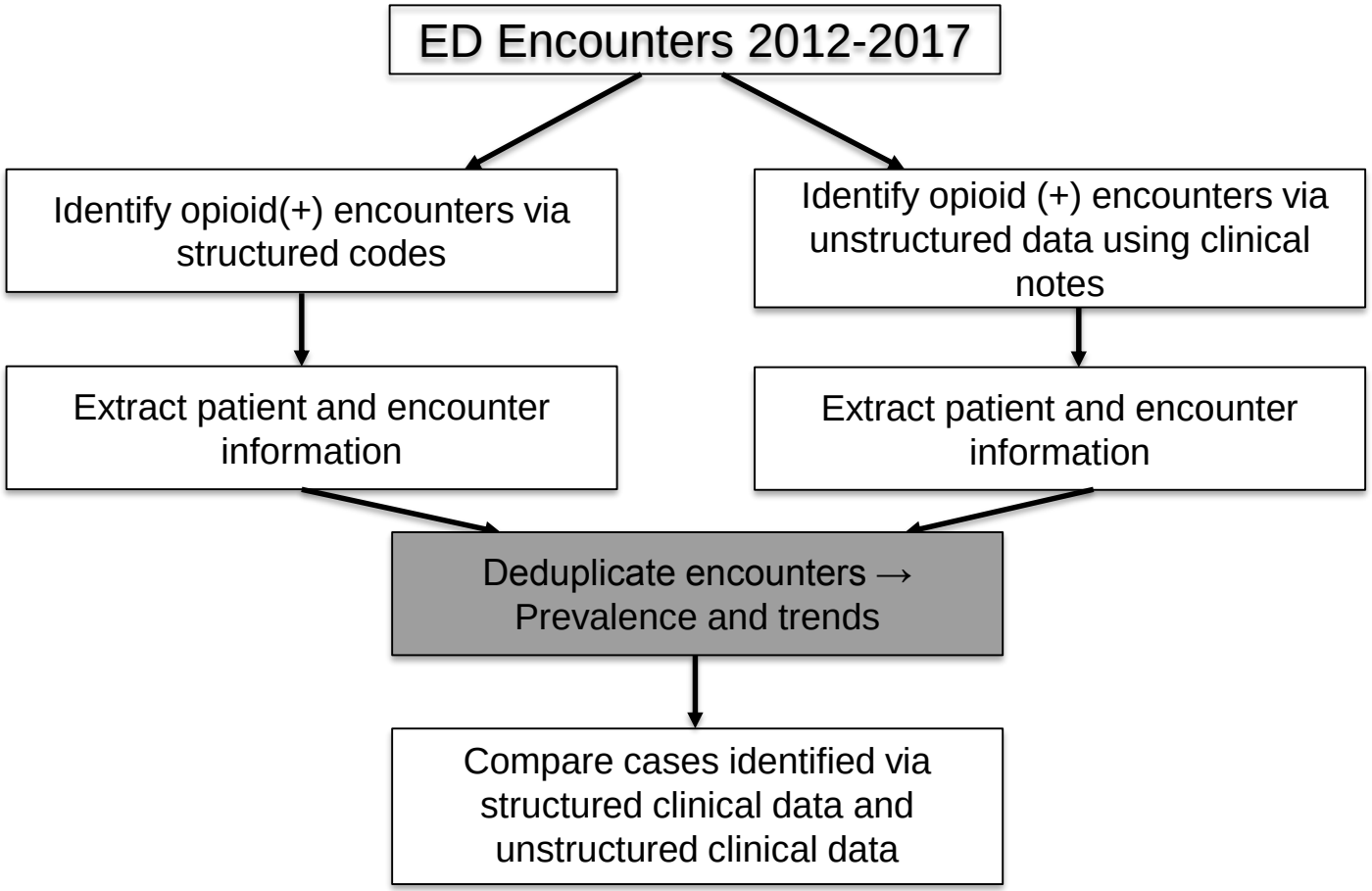
Grouped into rules:

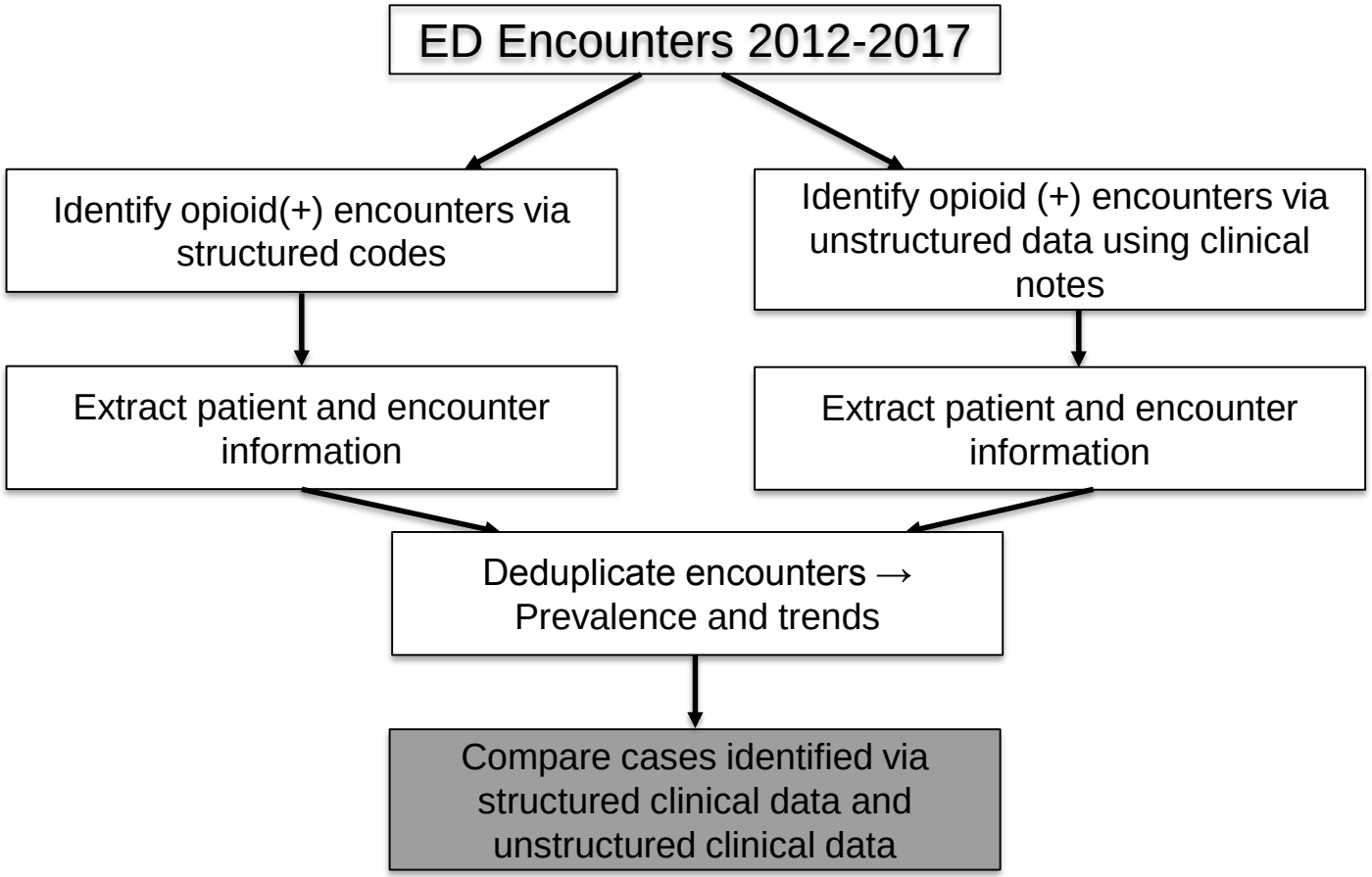
- Ex. [opioid term] + [problem use term]
  - Note could include “opioid dependent” or “over use of pain medications”


ED Encounters 2012-2017
Identify opioid(+) encounters via structured codes
Identify opioid (+) encounters via unstructured data using clinical notes
Extract patient and encounter information
Extract patient and encounter information
Deduplicate encounters → Prevalence and trends
Compare cases identified via structured clinical data and unstructured clinical data


ED Encounters 2012-2017
Identify opioid(+) encounters via structured codes
Identify opioid (+) encounters via unstructured data using clinical notes
Extract patient and encounter information
Extract patient and encounter information
Deduplicate encounters → Prevalence and trends
Compare cases identified via structured clinical data and unstructured clinical data


ED Encounters 2012-2017
Identify opioid(+) encounters via structured codes
Identify opioid (+) encounters via unstructured data using clinical notes
Extract patient and encounter information
Extract patient and encounter information
Deduplicate encounters → Prevalence and trends
Compare cases identified via structured clinical data and unstructured clinical data


ED Encounters 2012-2017
Identify opioid(+) encounters via structured codes
Identify opioid (+) encounters via unstructured data using clinical notes
Extract patient and encounter information
Extract patient and encounter information
Deduplicate encounters → Prevalence and trends
Compare cases identified via structured clinical data and unstructured clinical data


ED Encounters 2012-2017
Identify opioid(+) encounters via structured codes
Identify opioid (+) encounters via unstructured data using clinical notes
Extract patient and encounter information
Extract patient and encounter information
Deduplicate encounters → Prevalence and trends
Compare cases identified via structured clinical data and unstructured clinical data

Results

PRELIMINARY FINDINGS

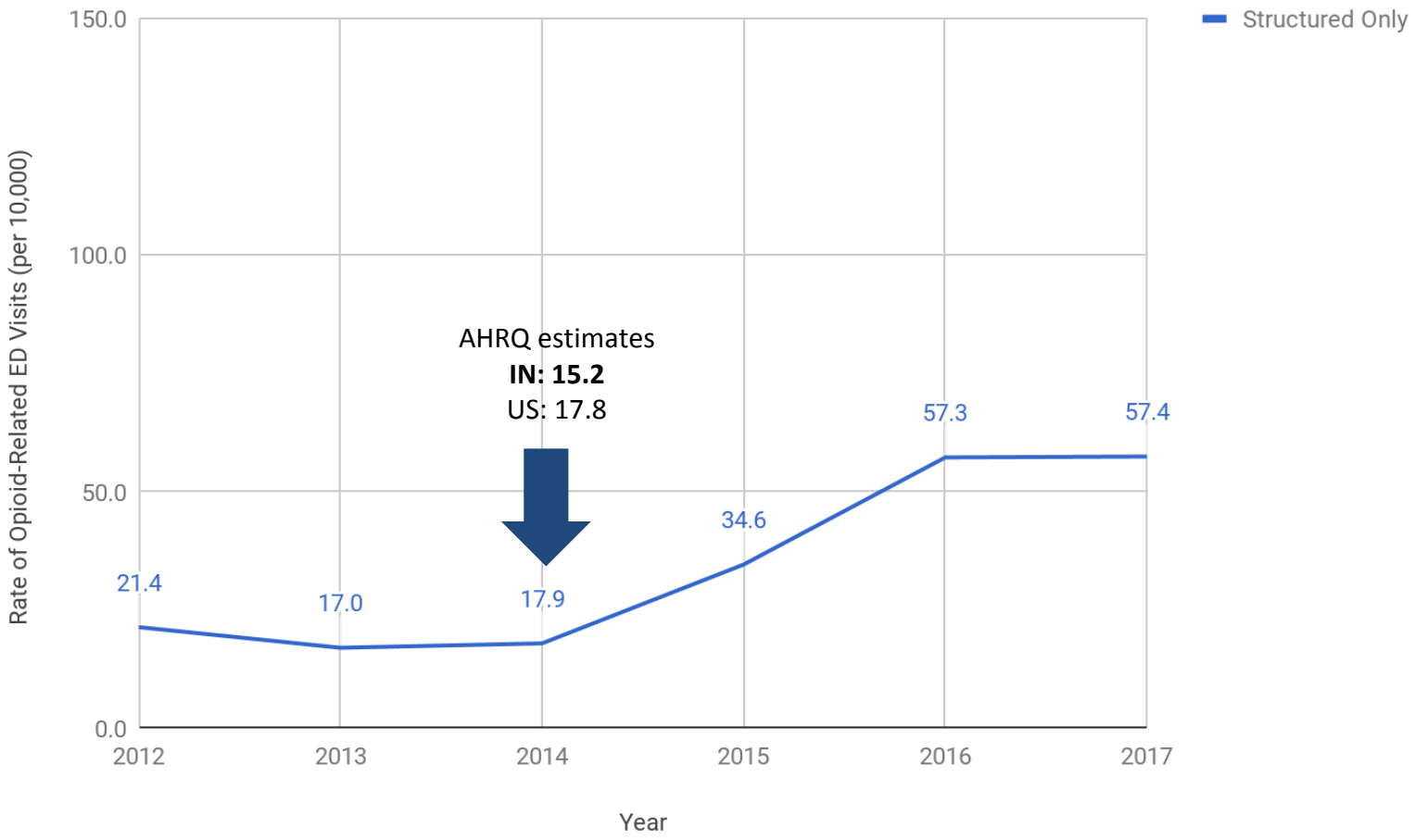
- 13,352 total opioid-positive encounters across 6,207 patients
- 38.9% of patients had multiple encounters
- Max 25 encounters
- Average age: 36.1
- [Heroin] + [Problem Use] & [Opioid] + [Problem Use] most common rule groups
- 91 encounters identified as naloxone-related from unstructured notes would not have been found without NLP

PRELIMINARY FINDINGS

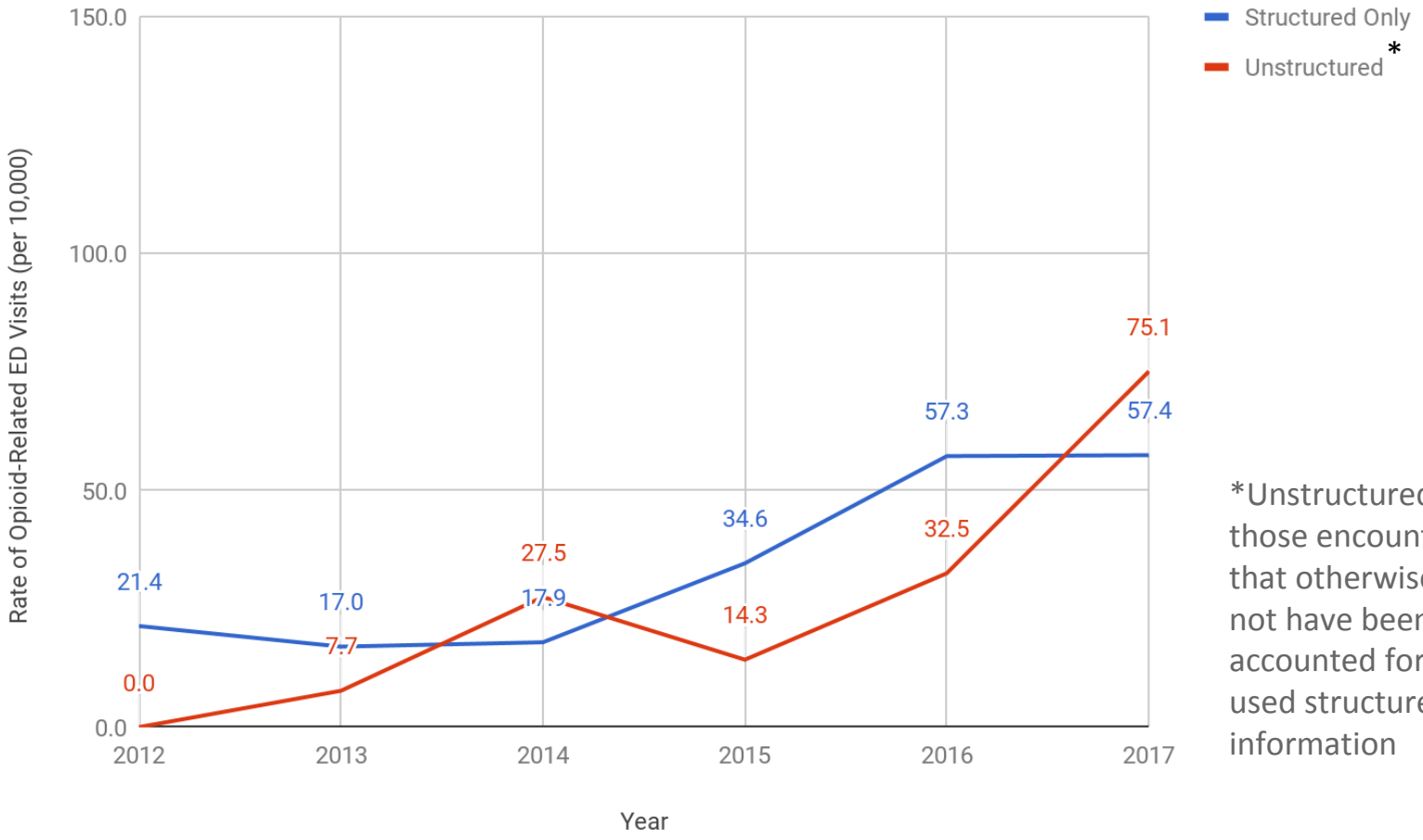
	Structured (%) ICD-only	Unstructured (%) NLP-Only	Total Sample (%)
Patient Characteristics			
Male	4,364 (58.3)	3,087 (52.7)	7,451 (55.8)
White	5,576 (85.6)	4,527 (87.5)	10,103 (86.5)
Black	768 (11.1)	527 (10.2)	1,295 (11.8)
Hispanic ethnicity	118 (1.7)	100 (1.8)	218 (1.8)
Encounter Characteristics			
Day encounter	3,729 (49.8)	3,209 (54.7)	6,938 (52.0)
Fall	2,095 (24.8)	1,997 (34.1)	3,855 (28.9)
Weekend	2,095 (28.0)	1,662 (28.3)	3,757 (28.1)
TOTAL	**7,490 (56.1)**	**5,862 (43.9)**	**13,352**

Note: Race % out of those with coded race, n=11,687 / 13,352

PRELIMINARY FINDINGS

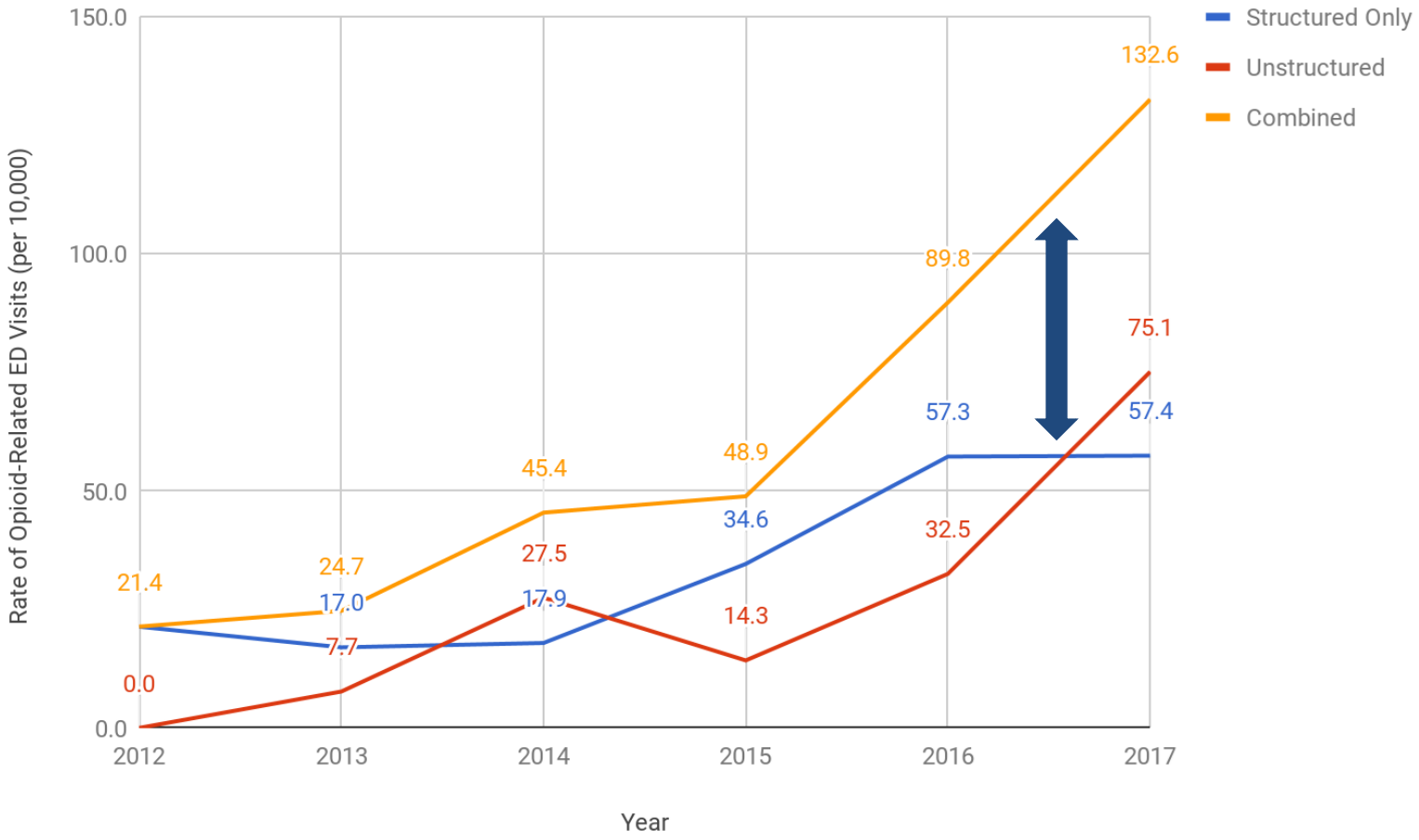


PRELIMINARY FINDINGS



*Unstructured = only those encounters that otherwise would not have been accounted for if only used structured information

PRELIMINARY FINDINGS

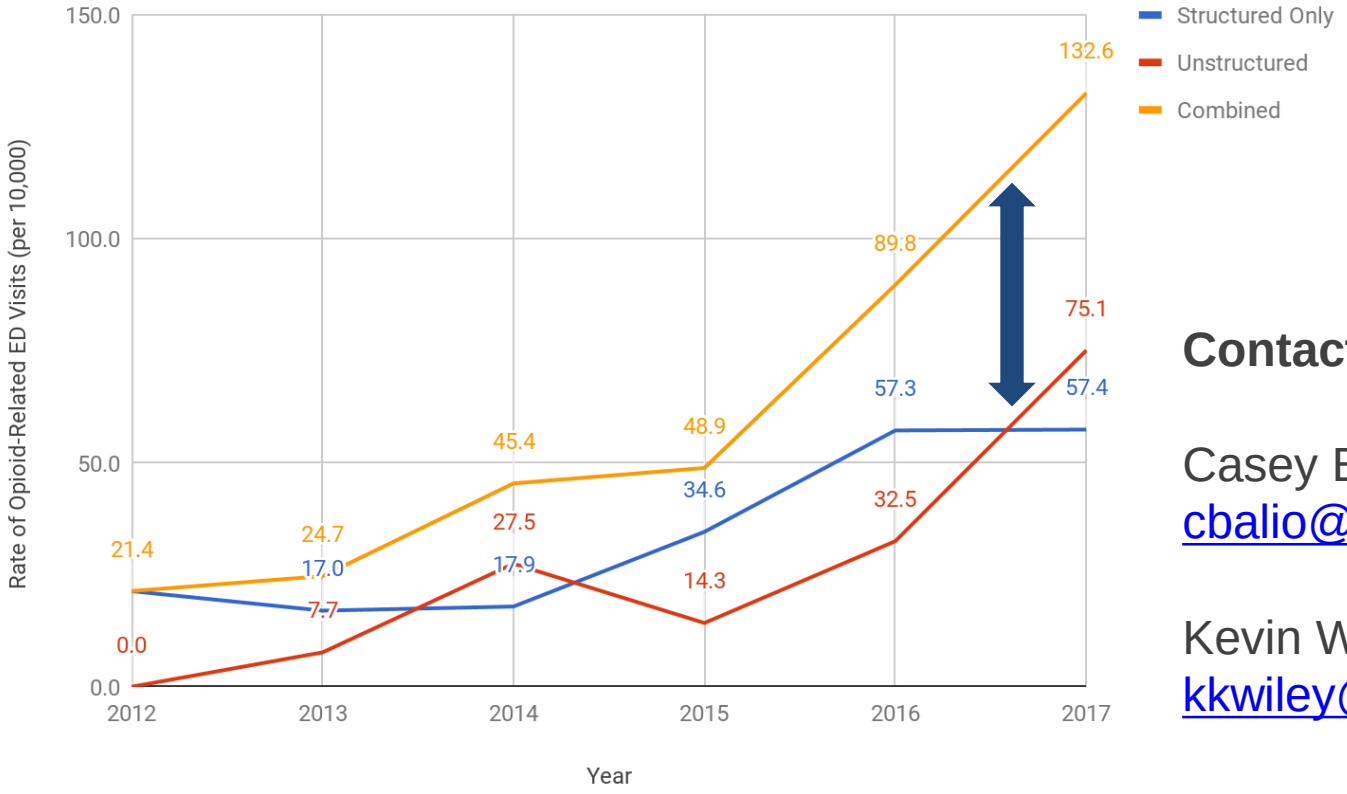


Potential Policy and Informatics Implications

- Most of our estimates until this point are probably underestimates
- Misuse seems generally to span patient characteristics, but less so encounter characteristics
- Replication across healthcare organizations with disparate reporting/record maintenance: community health, primary care centers
- Better understand clinician processes for documentation
- Improve clinician training regarding ICD-9/10 transition
- Self-report data may be more accurate than clinician entry

PRELIMINARY FINDINGS

Current estimates of opioid-related ED encounters are likely underestimates, and the magnitude appears to be growing.



Contact Information:

Casey Balio
cbalio@iu.edu

Kevin Wiley
kkwiley@iu.edu

References

1. Vivolo-Kantor, A. M., Seth, P., Gladden, R. M., Mattson, C. L., Baldwin, G. T., Kite-Powell, A., & Coletta, M. A. (2018). Vital Signs: Trends in Emergency Department Visits for Suspected Opioid Overdoses - United States, July 2016-September 2017. MMWR. Morbidity and Mortality Weekly Report, 67(9), 279–285.

1. Weiss, A. J., Elixhauser, A., Barrett, M. L., Steiner, C. A., Bailey, M. K., & O'Malley, L. (January, 26, 2017). Opioid-Related Inpatient Stays and Emergency Department Visits by State, 2009-2014 (No. 219). Agency for Healthcare Research and Quality. Retrieved from https://www.hcup-us.ahrq.gov/reports/statbriefs/sb219-Opioid-Hospital-Stays-ED-Visits-by-State.pdf

1. Carrell, D. S., Cronkite, D., Palmer, R. E., Saunders, K., Gross, D. E., Masters, E. T., … Von Korff, M. (2015). Using natural language processing to identify problem usage of prescription opioids. *International Journal of Medical Informatics*, *84*(12), 1057–1064.

1. Palmer, R. E., Carrell, D. S., Cronkite, D., Saunders, K., Gross, D. E., Masters, E., … Von Kroff, M. (2015). The prevalence of problem opioid use in patients receiving chronic opioid therapy: computer-assisted review of electronic health record clinical notes. *Pain*, *156*(7), 1208–1214.

Enhanced State Opioid Overdose Surveillance (ESOOS)

Raven Helmick, MPH, CPH

Prescription Drug Overdose Epidemiologist, Indiana State Department of Health, Division of Trauma and Injury Prevention

Indiana State Department of Health

Purpose of ESOOS

- Supports states with a high burden of drug overdoses to improve the timeliness of fatal and nonfatal opioid overdose surveillance.
- Efforts to control the epidemic are plagued with data limitations, and time lags in current surveillance systems limit the ability to respond quickly and appropriately.
- Accurate and timely data on overdose rates and risk factors are essential in responding to opioid overdoses at the local level, but data quality varies greatly across the regions and communities of the state.

Key Strategies

1. Increase the timeliness of aggregate emergency department opioid overdose reporting
2. Increase the timeliness of fatal opioid overdose and associated risk factor reporting
3. Disseminate surveillance findings to key stakeholders working to prevent or respond to opioid overdose
4. Develop an economically feasible and standardized toxicology panel for coroner testing of suspected drug intoxication deaths
5. Assist in educating coroners about using INSPECT data during investigations

Indiana State Department of Health

Implementing the Strategies

1. Increase the timeliness of aggregate emergency department opioid overdose reporting
   - Use the Electronic Surveillance System for the Early Notification of Community-based Epidemics (ESSENCE) Emergency Department (ED) visit data to track opioid-involved overdoses for 1) suspected drug overdoses; 2) suspected overdoses involving any opioid, including opioid pain relievers (OPRs); 3) suspected overdoses involving heroin or illicitly made fentanyl
   - Consistently collect feedback, share methodology, and validate and revise case definitions as needed
   - Analyze data for dissemination

Indiana State Department of Health

Implementing the Strategies

2. Increase the timeliness of fatal opioid overdose and associated risk factor reporting

- Collect death certificates from ISDH Vital Records and coroner reports from the 92 county coroners (82 so far) into the CDC Secure Access Management Service web-based system for data analysis to develop a comprehensive fatal opioid overdose surveillance system
- Collect and abstract data on all opioid-involved overdose deaths within eight months of the date of death
- Analyze comprehensive fatal opioid overdose and associated risk factor surveillance data for dissemination

Indiana State Department of Health

Implementing the Strategies

3. Disseminate surveillance findings to key stakeholders working to prevent or respond to opioid overdose

- Stakeholders and the public receive timely geographically specific trends in ED overdoses to assist in prevention planning and receive timely data on fatal opioid overdoses and risk factors to assist in targeted prevention planning.
- Morbidity reports will be released on a quarterly basis.
- Mortality reports will be released 3 times in the next 2 years.
- Released on Stats Explorer and Overdose Prevention website.

Implementing the Strategies

4. Develop an economically feasible and standardized toxicology panel for coroner testing of suspected drug intoxication deaths

- Established a web-based database for coroners to upload toxicology results.
- Expanded the current capabilities of toxicology panel.
- Expedited surveillance in response to mortality trends in toxicology across Indiana jurisdictions.
- Include full funding of enhanced toxicology screening for all 92 Indiana counties by July 1, 2018. This expansion comes via a state legislative mandate and will come in three distinct roll-out periods (blocks).
- Considering a monthly report for this data.

Implementing the Strategies

5. Assist in educating Indiana coroners about using INSPECT data during investigations

- Success in reducing Rx opiates with funding for INSPECT, which allows prescribers, dispensers, and law enforcement to access prescribing history. Additional changes allow county coroners conducting drug investigations to access the INSPECT program.
- The Indiana Professional Licensing Agency (IPLA) has identified the need to educate coroners and provide investigation tools to address fatal drug-related data quality issues stemming from coroner investigations.
- IPLA will educate through the Continuing Education (CE) Program on PDMPs on the availability and use of INSPECT during overdose investigations.

ISDH Data Visualizations

- Stats Explorer
  - https://gis.in.gov/apps/isdh/meta/stats_layers.htm
- Trauma and Injury Prevention Overdose Prevention Website
  - https://secure.in.gov/isdh/27393.htm

Indiana State Department of Health

Contact Information

Raven Helmick, MPH, CPH

Prescription Drug Overdose Epidemiologist

rhelmick@isdh.IN.gov

Kayley Dotson, MPH

Overdose Surveillance Systems Epidemiologist

kdotson@isdh.in.gov

Mandy Billman, MPH

Overdose Surveillance Educator Epidemiologist

abillman@isdh.in.gov

Jeremy Funk, MPH

Injury Prevention Epidemiologist

jfunk1@isdh.in.gov

Indiana State Department of Health

STATE-LEVEL EVALUATION FINDINGS SFY17

DMHA GRANTEES

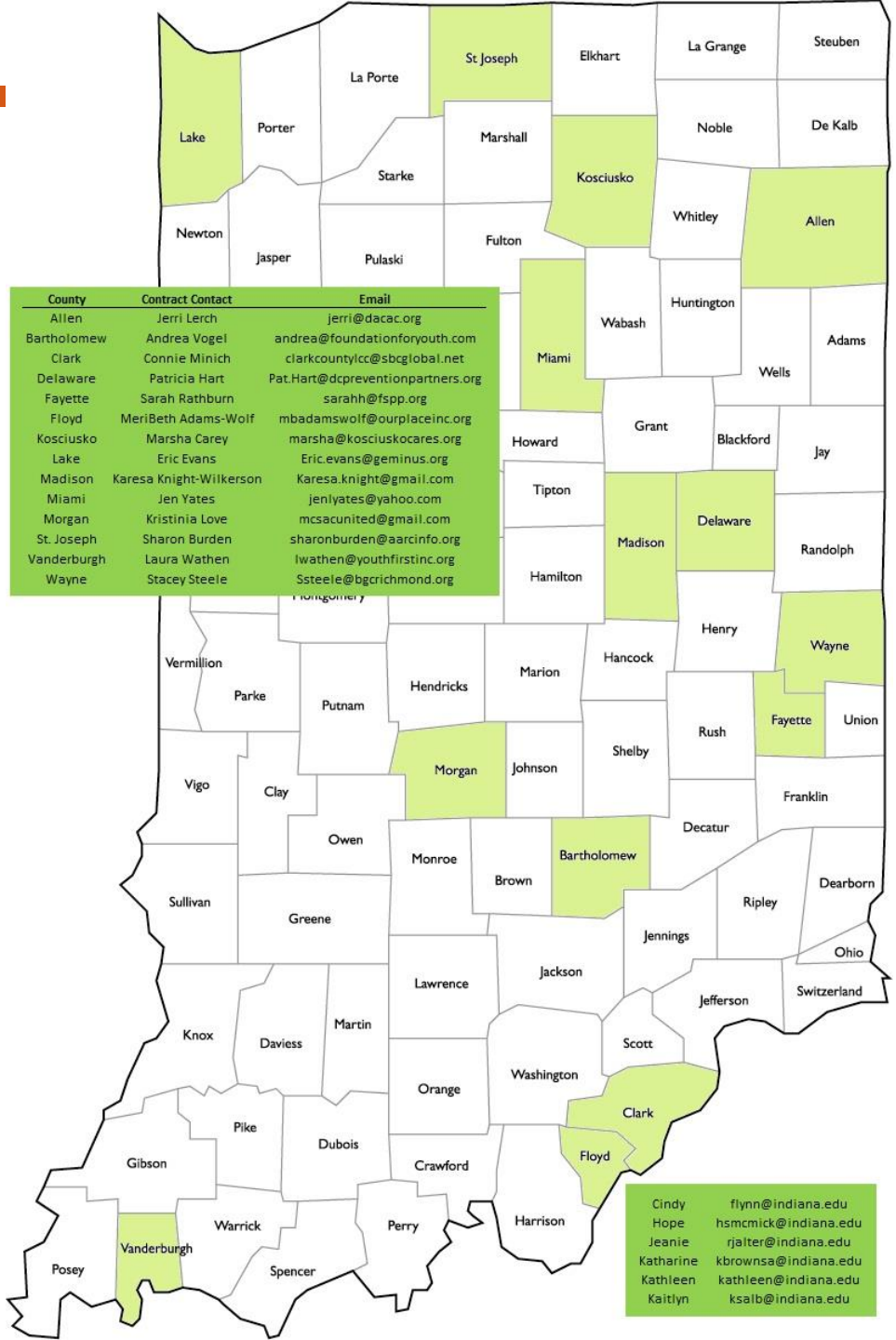
Hope McMickle, BA
Program Evaluator, Indiana Prevention Resource Center

INDIANA UNIVERSITY
INDIANA PREVENTION RESOURCE CENTER
Department of Applied Health Science
Bloomington

OVERVIEW

- Technical & Evaluation Assistance provided to:
  - 14 SAPT BG grantees
- Used tiered evaluation approach to evaluate at the program level, community level, and state level
  - Full report available at www.drugs.indiana.edu/spf

DMHA GRANTEES



County	Contract Contact	Email
Allen	Jerri Lerch	jerri@dacac.org
Bartholomew	Andrea Vogel	andrea@foundationforyouth.com
Clark	Connie Minich	clarkcountylcc@sbcglobal.net
Delaware	Patricia Hart	Pat.Hart@dcpreventionpartners.org
Fayette	Sarah Rathburn	sarahh@fspp.org
Floyd	MeriBeth Adams-Wolf	mbadamswolf@ourplaceinc.org
Kosciusko	Marsha Carey	marsha@kosciuskocares.org
Lake	Eric Evans	Eric.evans@geminus.org
Madison	Karesa Knight-Wilkerson	Karesa.knight@gmail.com
Miami	Jen Yates	jenlyates@yahoo.com
Morgan	Kristinia Love	mcsacunited@gmail.com
St. Joseph	Sharon Burden	sharonburden@aarcinfo.org
Vanderburgh	Laura Wathen	lwathen@youthfirstinc.org
Wayne	Stacey Steele	Ssteele@bgcrichmond.org

Cindy	flynn@indiana.edu
Hope	hsmcmick@indiana.edu
Jeanie	rjalter@indiana.edu
Katharine	kbrownsa@indiana.edu
Kathleen	kathleen@indiana.edu
Kaitlyn	ksalb@indiana.edu

RISK AND PROTECTIVE FACTORS

Peer/Individual

Early Initiation of Drug Use (R)

Interaction with Antisocial Peers (R)

Favorable attitudes toward Antisocial behavior (R)

Perceived Risk of Drug Use (R)

Rewards for Antisocial Involvement (R)

Interaction with Prosocial Peers (P)

Family:

Family Conflict (R)

Family Management (R)

Parental Attitudes Favor Drug Use/Antisocial Behavior (R)

Family Opportunities for Prosocial Involvement (P)

School:

Lack of Commitment to School (R)

Academic Failure (R)

Opportunities for Prosocial Involvement (P)

Rewards for Prosocial Involvement (P)

Community:

Availability of Drugs (R)

Community Laws/Norms Favorable Toward Drug Use (R)

Rewards for Prosocial Involvement (P)

STRATEGIES

Al's Pals

Footprints for Life

Guiding Good Choices

Project Alert

Positive Action

Strengthening Families Program

LifeSkills Training

Parents Who Host Lose The Most

Talk, They Hear You

Positive Culture Framework

Social Host Ordinance

Over 543,000 served!

STATEWIDE CHANGES IN RISK & PROTECTIVE FACTORS

COMPARISONS BETWEEN FUNDED COMMUNITIES ACROSS TIME

Source: Indiana Youth Survey (INYS)

Gassman, R., Jun, M., Samuel, S., Agley, J. D., & Lee, J. (2017). *Indiana Youth Survey – 2017*. Bloomington, IN: Indiana Prevention Resource Center.

RISK FACTORS

Risk Factor (Percentage at High Risk)	2016 CPF Funded Communities n=28,592	2017 CPF Funded Communities n=23,140
Perceived Availability of Drugs (percentages)		
8th Grade	20.6	20.4
10th Grade	27.6	26.6
12th Grade	37.4	35.2
Peer/Individual Interaction with Antisocial Peers (percentages)		
8th Grade	29.9	32.9
10th Grade	30.0	33.5
12th Grade	33.2	33.1

Data from the Annual Indiana Youth Survey (INYS)
(Gassman, et al., 2016; Gassman, et al., 2017)

DECREASED RISK

Risk Factor (Percentage at High Risk)	2016 CPF Funded Communities n=28,592	2017 CPF Funded Communities n=23,140
Poor Family Management (percentages)		
8th Grade	23.6	23.6
10th Grade	21.3	22.3
12th Grade	26.4	24.6
Laws and Norms Favorable to Drug Use (percentages)		
8th Grade	29.9	29.6
10th Grade	40.0	40.0
12th Grade	38.2	37.0

Data from the Annual Indiana Youth Survey (INYS)
(Gassman, et al., 2016; Gassman, et al., 2017)

YOUTH USE

INDIANA'S SEOW HAS IDENTIFIED PRIORITY SUBSTANCES:

- Alcohol
- Marijuana
- Tobacco
- Prescription Drugs (used without a prescription)

COMPARED RATES (2016—2017)
IN DMHA FUNDED COMMUNITIES

Source: Indiana Youth Survey (INYS)

Gassman, R., Jun, M., Samuel, S., Agley, J. D., & Lee, J. (2017). *Indiana Youth Survey – 2017.* Bloomington, IN: Indiana Prevention Resource Center.

USE RATE COMPARISONS 2016-2017

Priority Substance	2016 CPF Funded Communities n=28,592	2017 CPF Funded Communities n=23,140
30-Day Alcohol Use (percentages)		
8th Grade	13.8	13.4*
10th Grade	24.0	24.4**
12th Grade	34.6	33.7*
Overall	22.5	22.9**
30-Day Cigarette Use (percentages)		
8th Grade	5.3	4.5*
10th Grade	8.5	7.2*
12th Grade	14.5	11.8*
Overall	8.7	7.5*

* indicates $p<0.05$ one-tailed significance in the expected direction
**indicates $p<0.05$ two tailed significance

Data from the Annual Indiana Youth Survey (INYS)
(Gassman, et al., 2016; Gassman, et al., 2017)

USE RATE COMPARISONS 2016-2017

Priority Substance	2016 CPF Funded Communities n=28,592	2017 CPF Funded Communities n=23,140
30-Day Marijuana Use (percentages)		
8th Grade	7.4	8.4**
10th Grade	14.8	17.5
12th Grade	21.8	23.2**
Overall	13.6	15.7**
30-Day Rx Use (percentages)		
8th Grade	2.6	2.9
10th Grade	4.5	4.0*
12th Grade	6.5	5.4*
Overall	4.2	4.0*

* indicates p<0.05 one-tailed significance in the expected direction
**indicates p<0.05 two tailed significance

Data from the Annual Indiana Youth Survey (INYS)
(Gassman, et al., 2016; Gassman, et al., 2017)

STATE WIDE YOUTH RATE OF USE

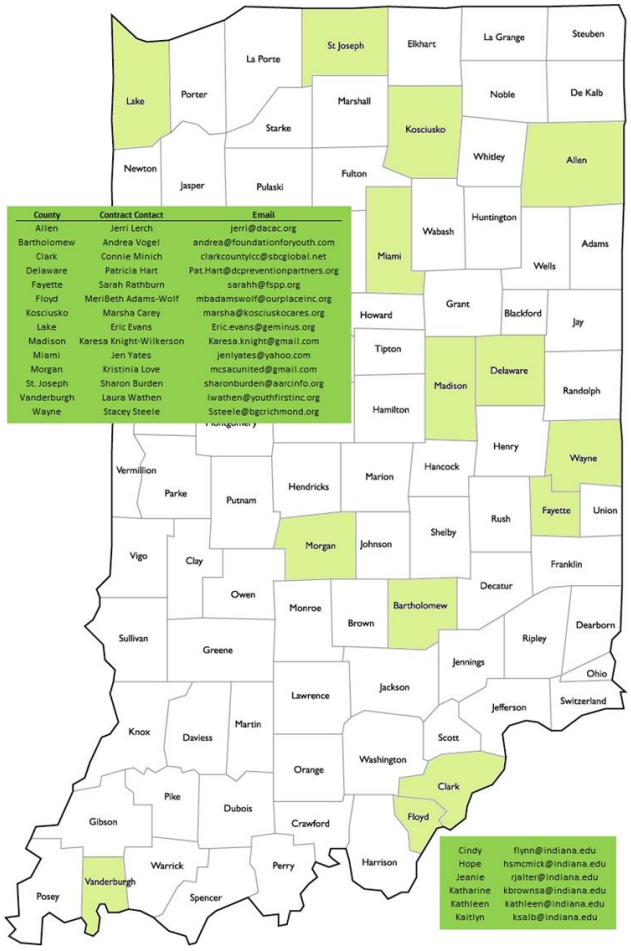
STATE WIDE, FUNDED, AND UNFUNDED COMMUNITIES

Source: Indiana Youth Survey (INYS)

Gassman, R., Jun, M., Samuel, S., Agley, J. D., & Lee, J. (2017). *Indiana Youth Survey – 2017*. Bloomington, IN: Indiana Prevention Resource Center.

STATEWIDE YOUTH RATES OF USE

- Statewide Rates
- Rates in Unfunded Communities
- Rates in Funded Communities



2017 USE RATES

Priority Substance	2017 Statewide n=54,651	2017 Non-Funded Communities n=31,511	2017 CPF Funded Communities n=23,410
30-Day Alcohol Use (percentages)			
8th Grade	13.0	12.8	13.4
10th Grade	22.4	20.9	24.4*
12th Grade	32.2	30.8	33.7*
Overall	20.9	19.5	22.9*
30-Day Cigarette Use (percentages)			
8th Grade	4.8	5.0	4.5
10th Grade	8.0	8.5	7.2*
12th Grade	12.8	13.6	11.8*
Overall	7.8	8.1	7.5*

* indicates $p<0.05$

Data from the Annual Indiana Youth Survey (INYS)
(Gassman, et al., 2017)

2017 USE RATES

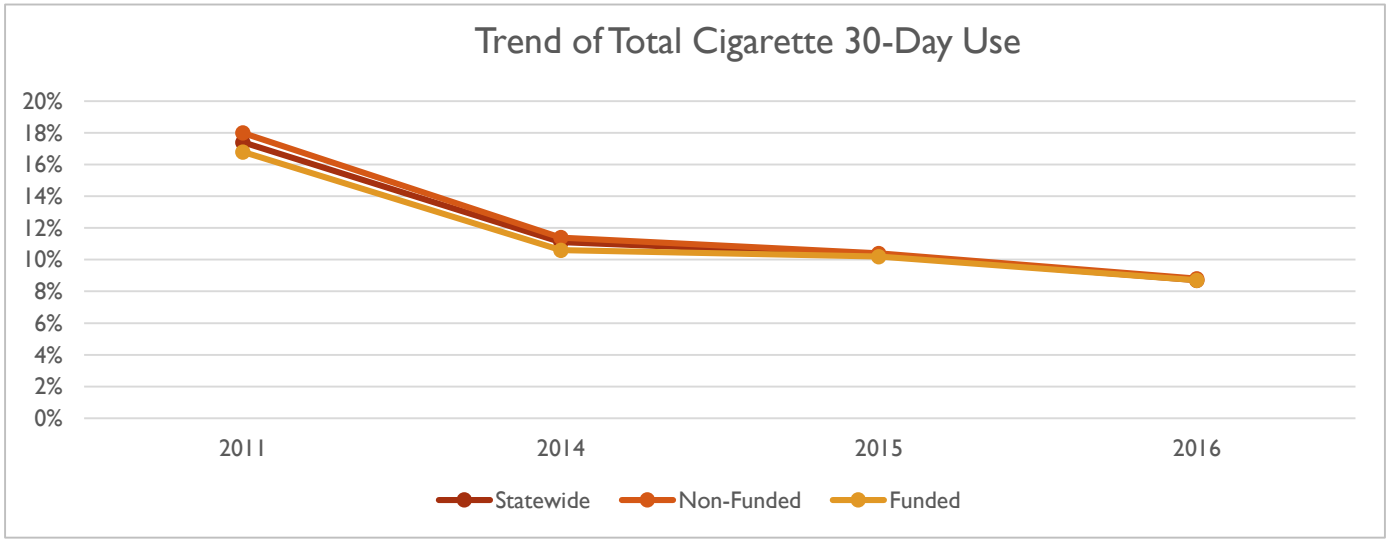
Priority Substance	2017 Statewide n=54,651	2017 Non-Funded Communities n=31,511	2017 CPF Funded Communities n=23,140
30-Day Marijuana Use (percentages)			
8th Grade	6.4	5.2	8.4*
10th Grade	14.1	11.5	17.5*
12th Grade	19.5	16.2	23.2*
Overall	12.3	9.8	15.7*
30-Day Rx Use (percentages)			
8th Grade	2.5	2.2	2.9*
10th Grade	3.5	3.0	4.0*
12th Grade	4.6	4.0	5.4*
Overall	3.3	2.9	4.0*

* indicates $p<0.05$

Data from the Annual Indiana Youth Survey (INYS)
(Gassman, et al., 2017)

30 DAY USE

Comparisons between funded and unfunded communities across time



Coming Next Year!

QUESTIONS & COMMENTS

Division of Mental Health and Addiction (DMHA)

Julie Gries, MS
Assistant Deputy Director
Substance Abuse Prevention
and Mental Health Promotion
Division of Mental Health and Addiction

DMHA

"To ensure that Indiana citizens have access to quality mental health and addiction services that promote individual, family and community resiliency and recovery."

Substance Use Prevention Programmatic Updates

Bureau of Addiction Prevention and Mental Health Promotion

Mission: To reduce substance use and abuse and promote behavioral health across the lifespan of Indiana citizens by maintaining a coordinated, effective, and accountable system of prevention and behavioral health promotion services.

Bureau of Addiction Prevention and Mental Health Promotion

Vision: Sustainable environments that nurture, assist, and empower all Indiana citizens to access and experience optimum physical, emotional, and mental health.

Bureau of Addiction Prevention and Mental Health Promotion

Prevention utilizes elements of the public health model for planning and service delivery and consists of inclusive practices, policies and programs which provide individuals, families, and communities with necessary support to minimize the misuse of alcohol, tobacco and other drugs and maximize overall well-being.

Funding Sources for Prevention at DMHA

Substance Abuse Block Grant
SFY18

- 14 county level communities (Allen, Bartholomew, Clark, Delaware, Fayette, Floyd, Kosciusko, Lake, Madison, Miami, Morgan, St. Joseph, Vanderburgh, Wayne)
- Project LEAD
- Indiana prevention resource center
- State epidemiological outcomes workgroup
- Indiana NOFAS
- Collegiate needs assessment
- Baby and me tobacco free
- Indiana coalition to reduce underage drinking
- Intuitive Synergies

Partnerships for Success

- 10 counties (Cass, Clark, Floyd, Knox, Lake, Madison, Marion, Porter, Scott, Vanderburgh)
- Data collection
- Evaluation and capacity building for 10 counties

Synar

- Retailer Violation Program
- 14.6% rate reported in Annual Synar Report for 2018

State Targeted Response

- Anti stigma campaign during SFY18
- Naloxone/Narcan support

Strategic Planning Process

Data Collection Key Informant Interviews, Listening Sessions and Prevention Congress

Common Themes from Key Informant Interviews

- Duplication of effort
- Funding availability
- Largely political
- Not allowing needed time to make change
- Too many hoops to jump through
- Understaffed/ Not enough professional staff and volunteer support

Common themes from Listening Sessions

- A stronger focus on long-term effective solutions that would create a decrease in adverse childhood experiences.
- Communities become more connected with each other and their shared outcomes, ensuring that youth and families were reaching their full potential.

Common themes from Listening Sessions

- Substance abuse prevention efforts that lead individuals/citizens/Indiana youth to develop greater self-worth and the ability to employ coping skills.
- State and community leaders must be a part of an overall strategic plan
- Limited funding remains an issue
- Need to focus on communication modalities and community/social norms

Common themes from Listening Sessions

- Need to strengthen the present training and technical assistance capacity to reach beyond the current providers and develop multiple platforms for the process of technical assistance and training regarding environmental strategies
- Request to: “Work with us, inform us of the issues, what the state is thinking and get the local input.”

Common Themes from Listening Sessions

- A road map to build stakeholder support for prevention
- A plan to engage stakeholders for prevention efforts for the next five years.
- Proposed solutions to the communication issues that focus on the environment and community norms.

Common Themes from the Prevention Congress

- A road map to build stakeholder support for prevention
- A plan to engage stakeholders for prevention efforts for the next five years.
- Proposed solutions to the communication issues that focus on the environment and community norms.

Data collection efforts

- Strategic Prevention Framework

- Regional Support

A call to action and application

Substance Use in Indiana: Panel Discussion

Facilitator: Joshua Vest, PhD, MPH

Panelists: Joan Duwve, MD, MPH
Dennis Watson, PhD
Ben Gonzales

Thank you for your attendance.

Please complete the evaluation form.