

Harmful Synergies between **Childhood Sexual Abuse & Adult Mental Health**

*Exploring the missing link in **gendered overdose disparities among Indonesian women who inject drugs***

Dr. Luissa Vahedi, Dr. Claudia Stoicescu

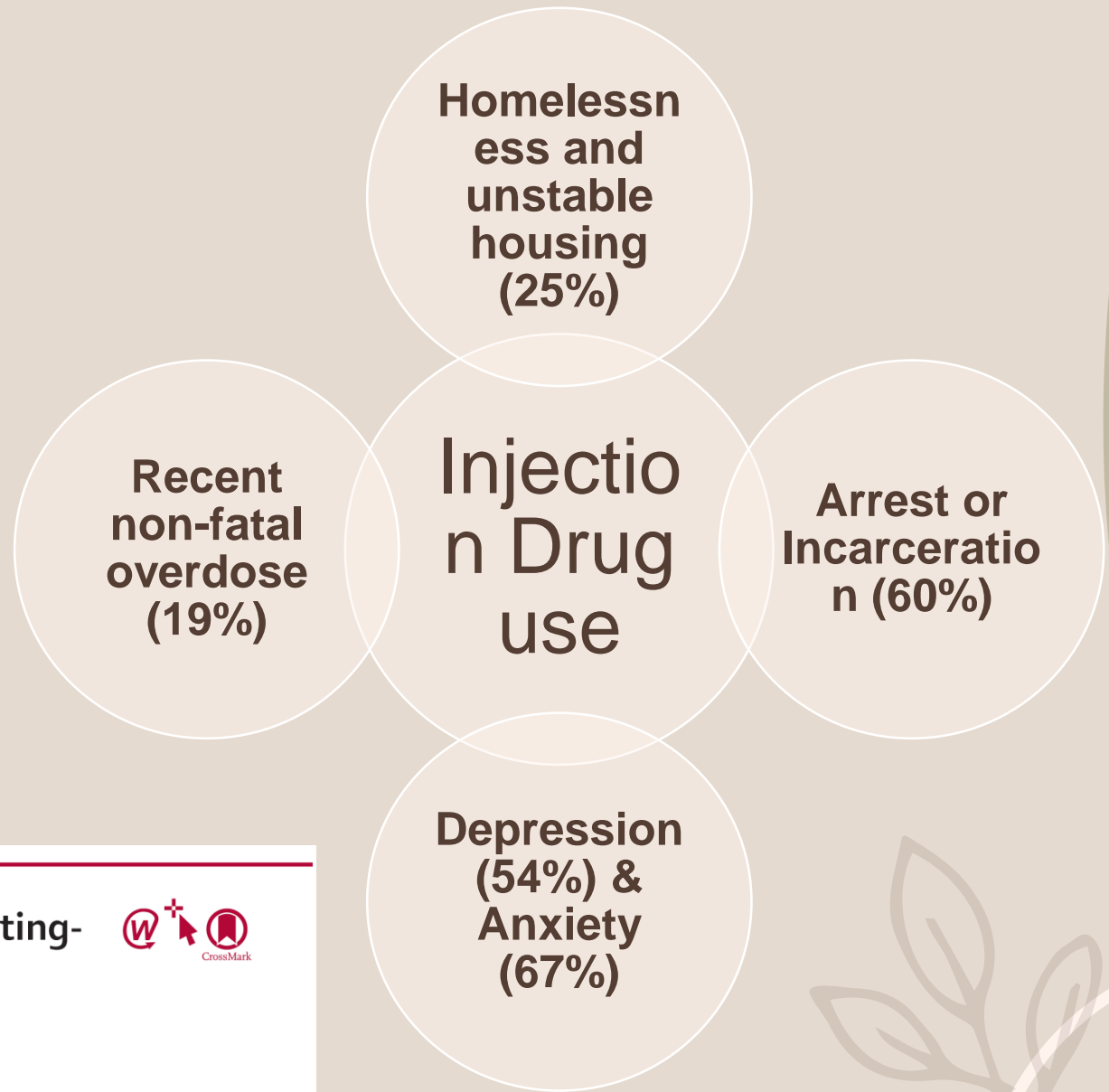


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Background

- Globally, **2.8 million women** aged 15-64 years use injection drugs
- Injection drug use is part of a **larger web of social adversity**



Epidemiology of injecting drug use, prevalence of injecting-related harm, and exposure to behavioural and environmental risks among people who inject drugs: a systematic review



Louisa Degenhardt, Paige Webb, Samantha Colledge-Frisby, Jeremy Ireland, Alice Wheeler, Sophie Ottaviano, Alex Willing, Abe Kairouz, Evan B Cunningham, Behzad Hajarizadeh, Janni Leung, Lucy T Tran, Olivia Price, Amy Peacock, Peter Vickerman, Michael Farrell, Gregory J Dore, Matthew Hickman*, Jason Grebely*

Thinking upstream

- A **life course** and **upstream** perspective on non-fatal overdoses:
 - **Adverse childhood experiences** intersecting with **adult mental health morbidity**

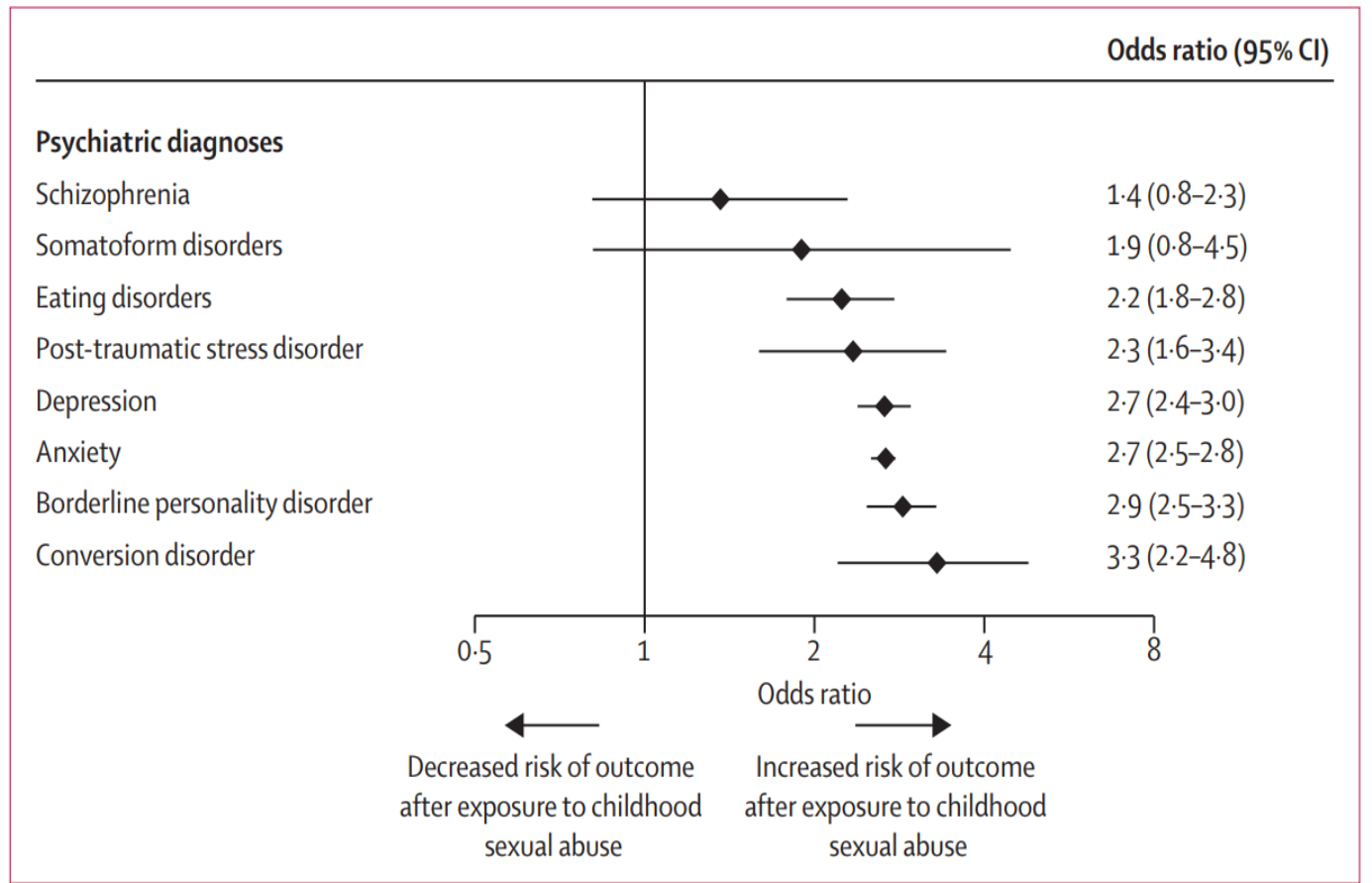


Figure 2: Risk estimates of long-term outcomes following childhood sexual abuse

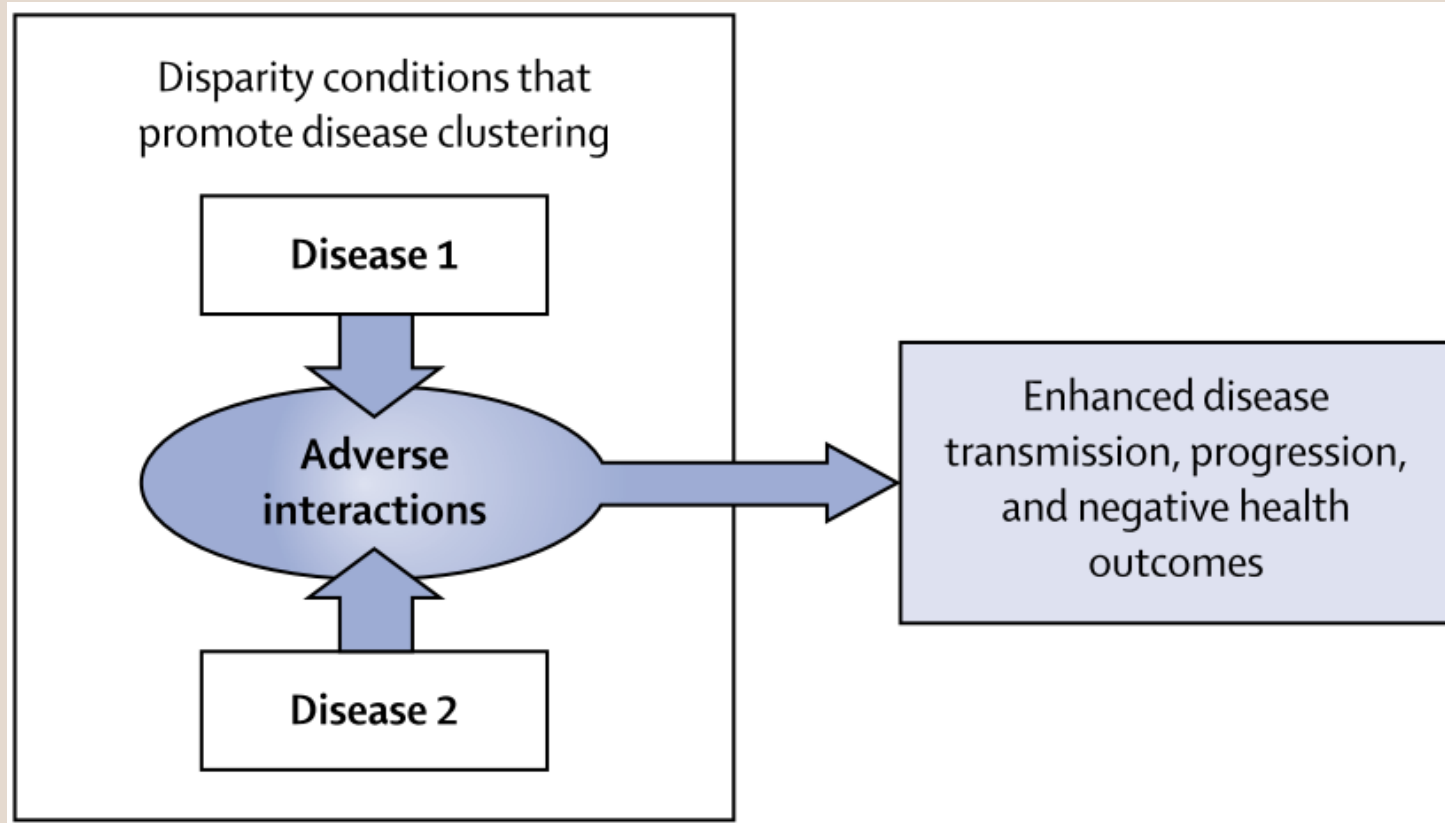


Long-term outcomes of childhood sexual abuse: an umbrella review



Helen P Hailes*, Rongqin Yu*, Andrea Danese, Seena Fazel

Harmful synergies & syndemics



1

Two or more health conditions, diseases, or epidemics **cluster** within a population.

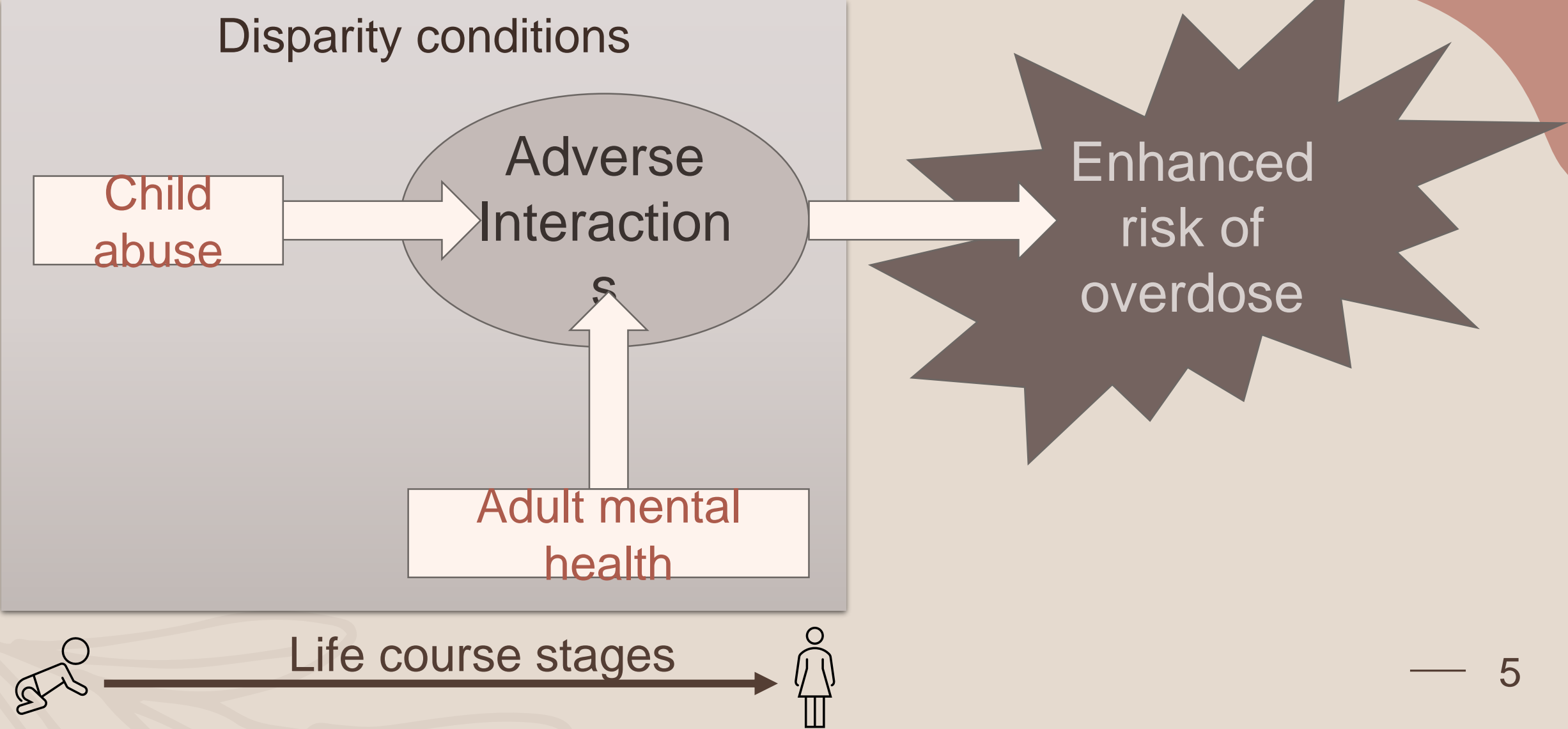
2

Biological, social, psychological, or behavioral **interactions** yield a magnified population health burden

3

Social and contextual factors promote disease clustering & interactions

Syndemics involving child abuse



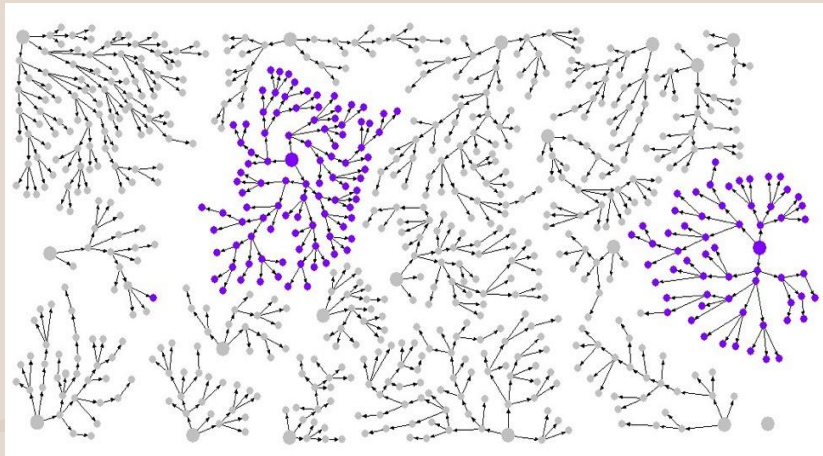
Research focus

Among **Indonesian women who use drugs**, which combinations of **child abuse** (physical, emotional, sexual) and **adult mental health disorders** (depression and PTSD) **interact synergistically** to increase the number of non-fatal overdoses experienced?

Data source: The Perempuan Bersuara Study

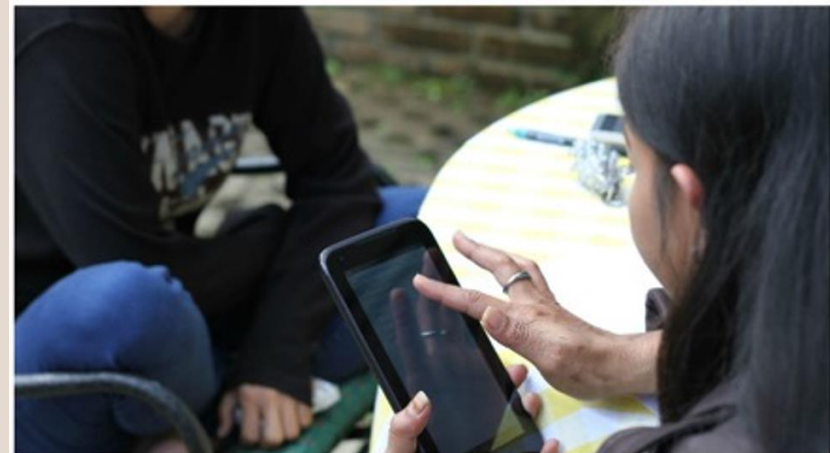
Study Design

- Cross sectional
- Data collected: Sept. 2014- June 2015, using the Open Data Kit
- N=731
- Respondent Driven Sampling



Participants:

- Women who Injected illicit/illegal drugs in past year
- 18 years old or older
- Resided in: Jabodetabek or Bandung



Variables

Child abuse (binary):

- Early Trauma Inventory Self Report-Short Form:
 - *Sexual* (5 items)
 - *Emotional* (5 items)
 - *Physical* (6 items)

Non-lethal overdose (count score):

- Self reported, based on WHO criteria for overdose:
 - Have you ever experienced overdose
 - If yes, how many times have you experienced overdose?

Mental health symptoms (binary):

Post-traumatic stress disorder

- The PTSD Checklist
- Dichotomized based on DSM-iV criteria

Depression

- Revised Center for Epidemiologic Studies Depression Scale
- 16 or above = presence of clinically significant depressive symptoms

Covariates held constant

Non-violence related childhood trauma (count score):

- The Early Trauma Inventory Self Report-Short Form
- 11 items about general trauma
 - Examples:
 - Natural disasters
 - Serious accidents
 - Illness/death of parent

Location (binary): Parents substance use

- Greater Jakarta
- Bandung

Modelling approach

$$\text{Mean overdose count} = \exp(\beta_0 + \textit{Child Abuse } x_1 + \textit{Mental Health } x_2 + \textit{Child Abuse} * \textit{Mental Health } x_3 + \textit{Other childhood trauma } x_4 + \textit{Location } x_5)$$

Fully saturated negative binomial regression

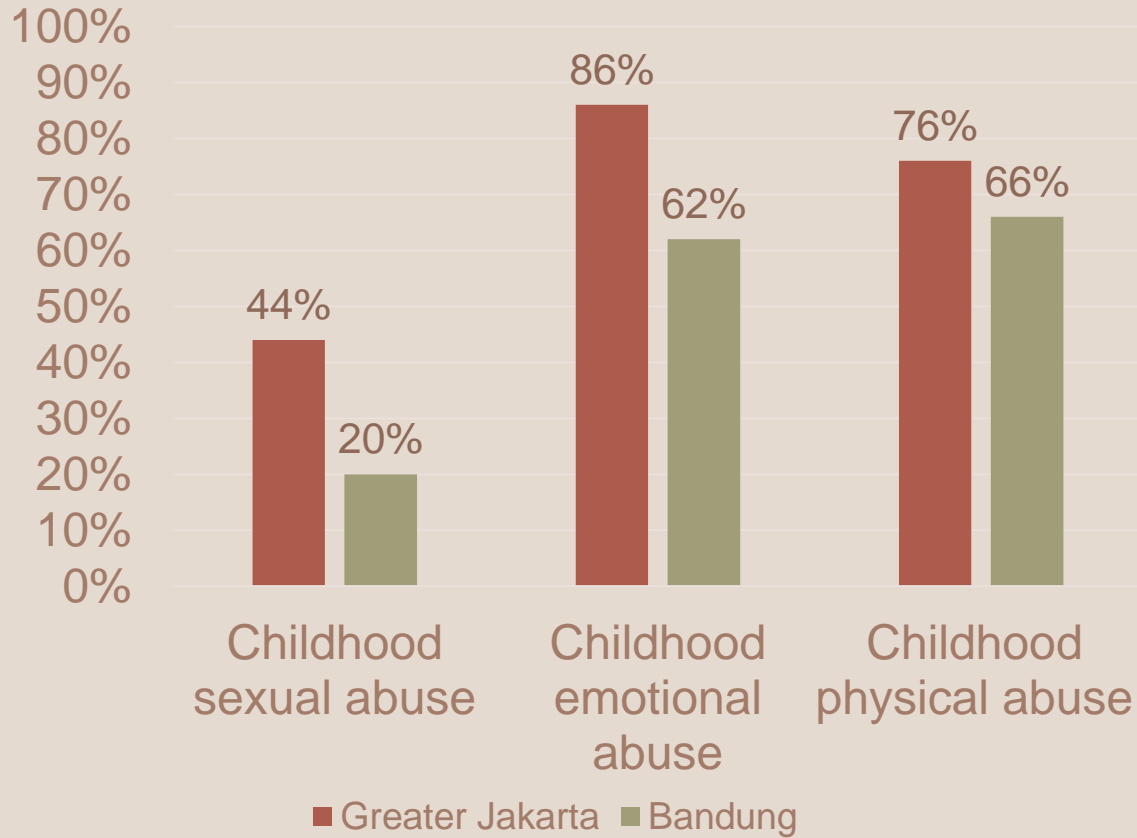
Use of model predicted mean values to aid interpretation

Combinations of synergies tested

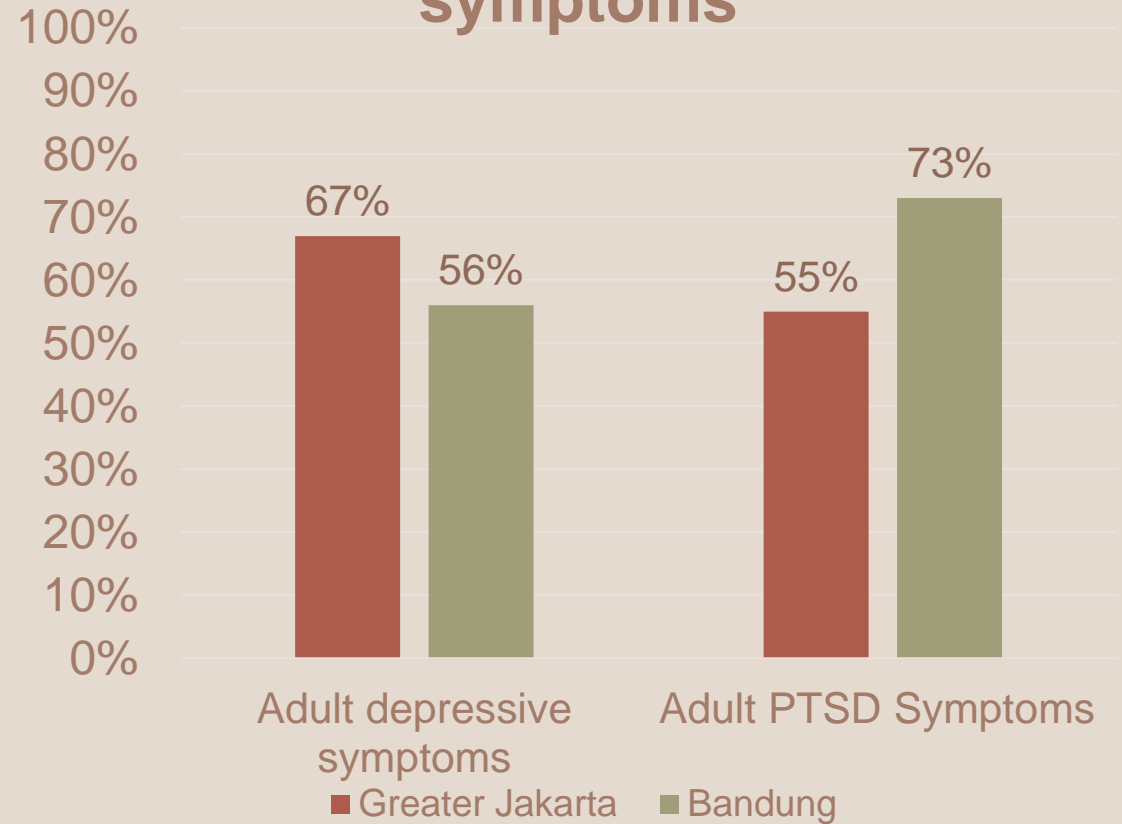
	Childhood sexual abuse	Childhood physical abuse	Childhood emotional abuse
Adult PTSD	Strongest synergy detected	No synergy	No synergy
Adult Depression	Weaker synergy detected	No synergy	No synergy

Exposure to syndemic conditions

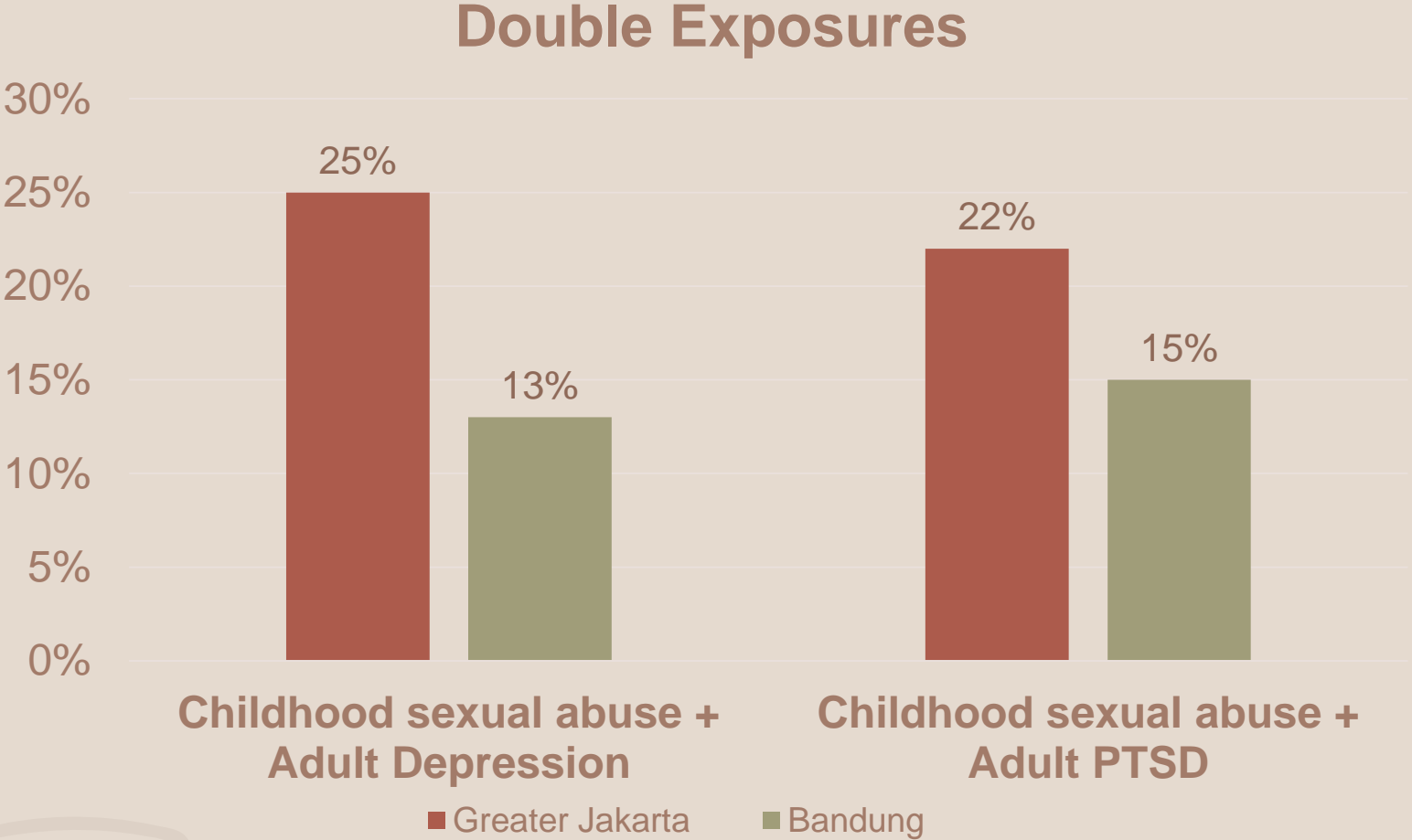
Childhood abuses



Adult mental health symptoms



Double exposure to syndemic conditions



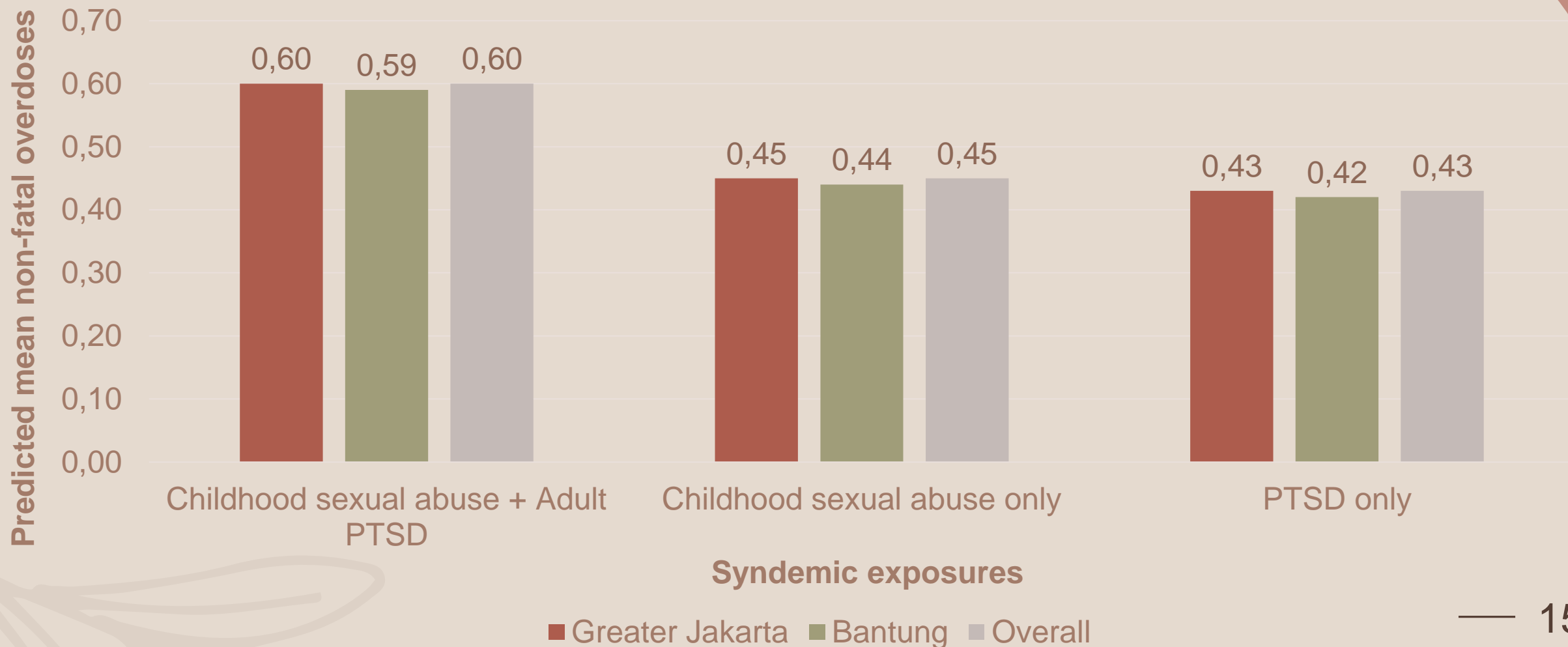
Fully saturated regression model

	IRR	Percent change in expected overdose counts	p-value
Childhood sexual abuse & adult PTSD	2.35	134.5%	0.003

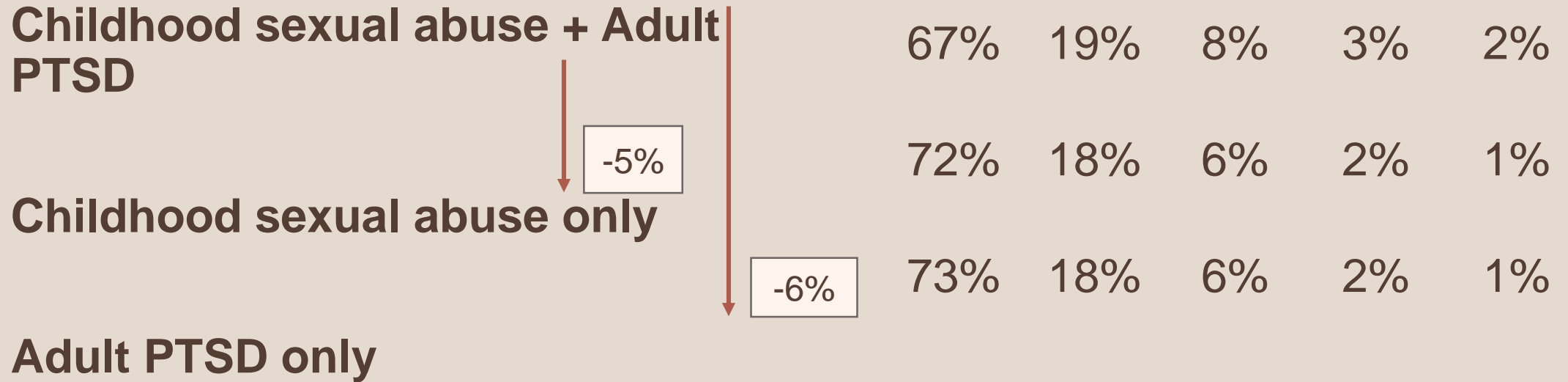
For Indonesian women **doubly exposed** to **childhood sexual abuse** and **adult PTSD**, the expected **number of overdoses** increased by **134.5%** (p=0.003), above and beyond the **single** effects of CSA and PTSD.

Predicted non-lethal overdose counts by syndemic exposures

Mean Number of Non-Fatal Overdoses by Syndemic Exposures



Probability of multiple non-lethal overdoses



For Indonesian women **doubly exposed to childhood sexual abuse and adult PTSD**, the probability of **not experiencing overdose** is:

- **5%** less than if exposed to **childhood sexual abuse only**
- **6%** less than if exposed to just adult **PTSD only**.

Implications

Research

- Our **analytical approach** can expand the evidence concerning how CSA interacts with other adult health adversities, leading to gendered health disparities.

Implications

Practice

- Integrate **trauma-informed mental health** in harm reduction & substance use programs for women who inject drugs.
 - Routine **screening** for PTSD & key symptoms of psychological distress as part of drug services

Implications

Policy

- Synergy between CSA and adult PTSD among women is not widely acknowledged as a **preventable** pathway leading to overdose disparities across the life course.



thank you

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