

Reconsidering the
syndemics
perspective



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GVP -- IPV Syndemics

Contributions of Syndemics

Comorbidities

Diseases/health conditions occur simultaneously

Social determinants/ structural violence/ political ecology

Large-scale political, economic, and cultural factors are the fundamental drivers of concentrated health disadvantage

1. Disease interactions amplify disease burdens through synergism -- the disease burden resulting from health risks in combination exceeds the sum of the burden of the health risks when considered separately
2. How public health planners can effectively intervene to mitigate the burden



Comorbidity tends to focus on the nosological issues of boundaries and overlap of diagnoses, while syndemic research focuses on communities experiencing co-occurring epidemics that additively increase negative health consequences"

Mustanski et al, 2008: 40

Three Principles of Syndemics

- ▣ Disease clustering
- ▣ Disease interaction (bio-bio)
- ▣ Large-scale social forces (social, economic, political, historical)

Two or more epidemics co-occur in particular temporal or geographic context due to specific social conditions.

HIV and TB in homeless in NYC

Close living conditions
Poor ventilation
High stress environments
Poor nutrition
Mental health challenges
Substance use

Limited alternative income opportunities
High cost of housing
High rates of incarceration
High cost of health care
Limited access to substance abuse programs
Underfunded housing and child services programs



Homelessness

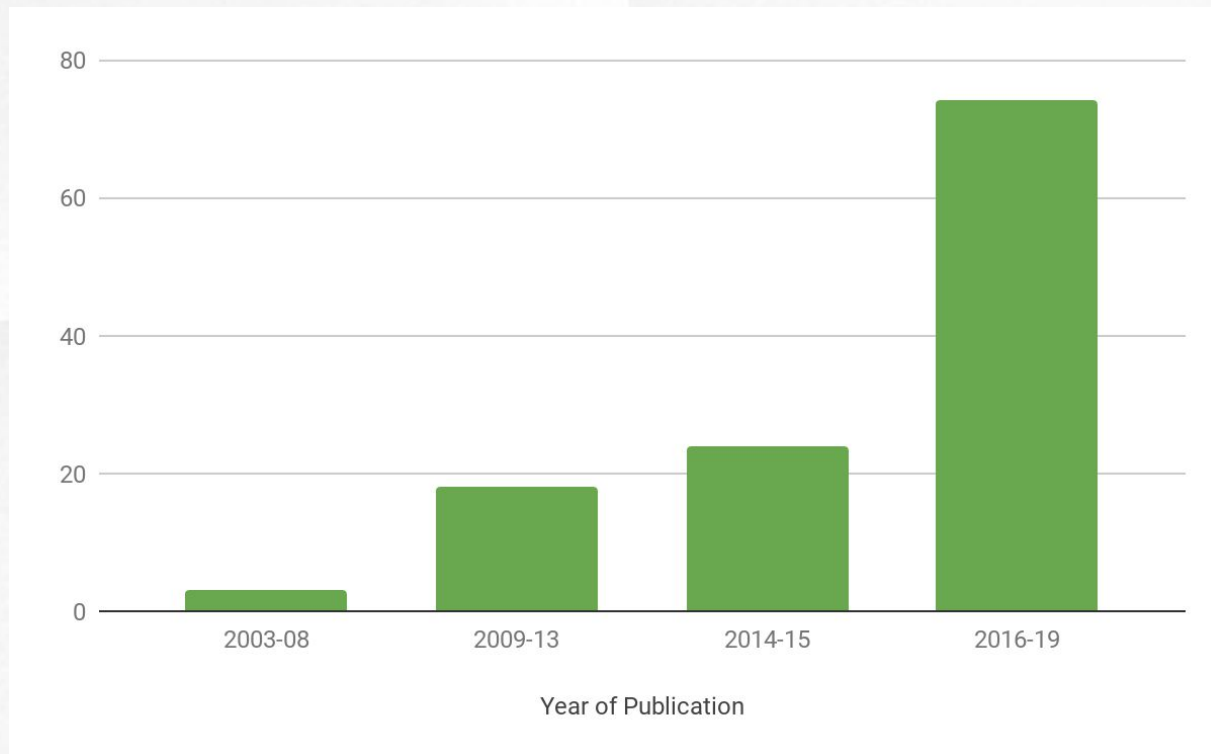
TB

HIV

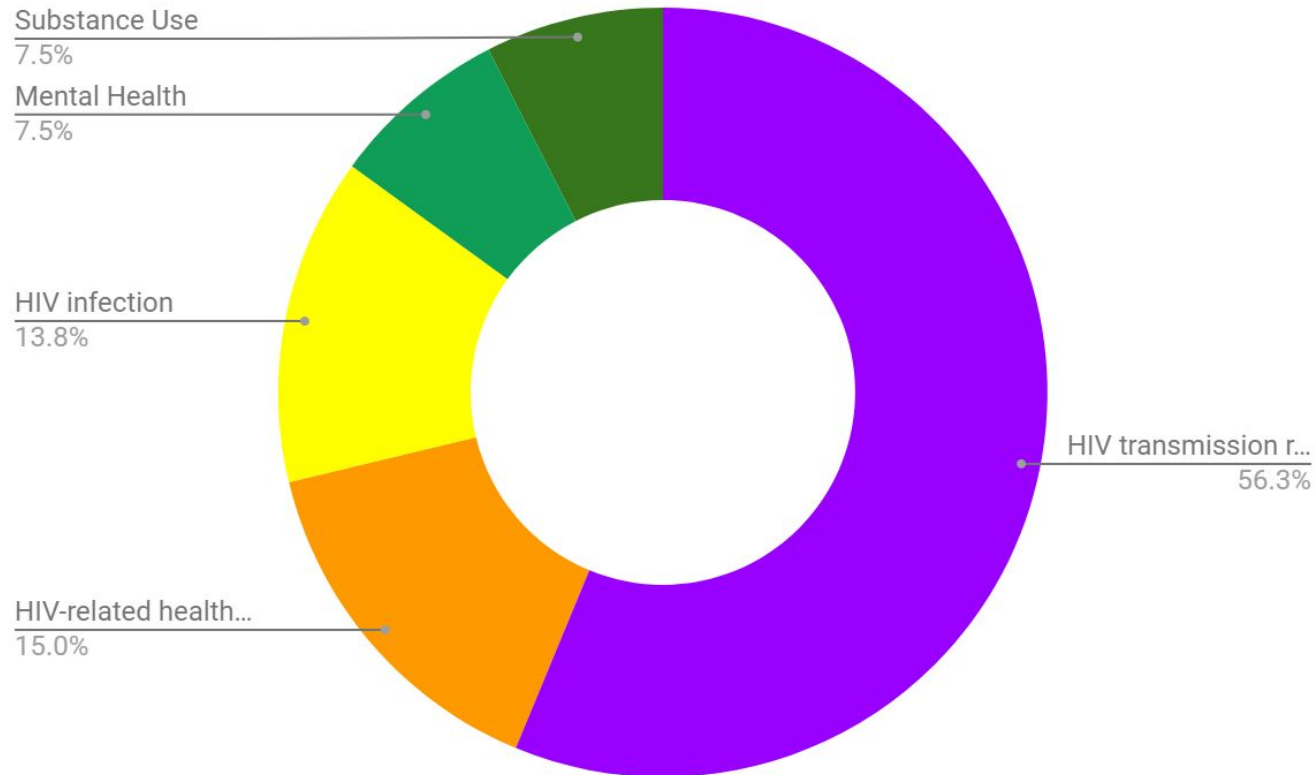
Dysregulation of host cytokines, chemokines, and chemokine receptors of the surface of leukocytes

Reduction of CD4 T cells

Trends in Syndemics Research

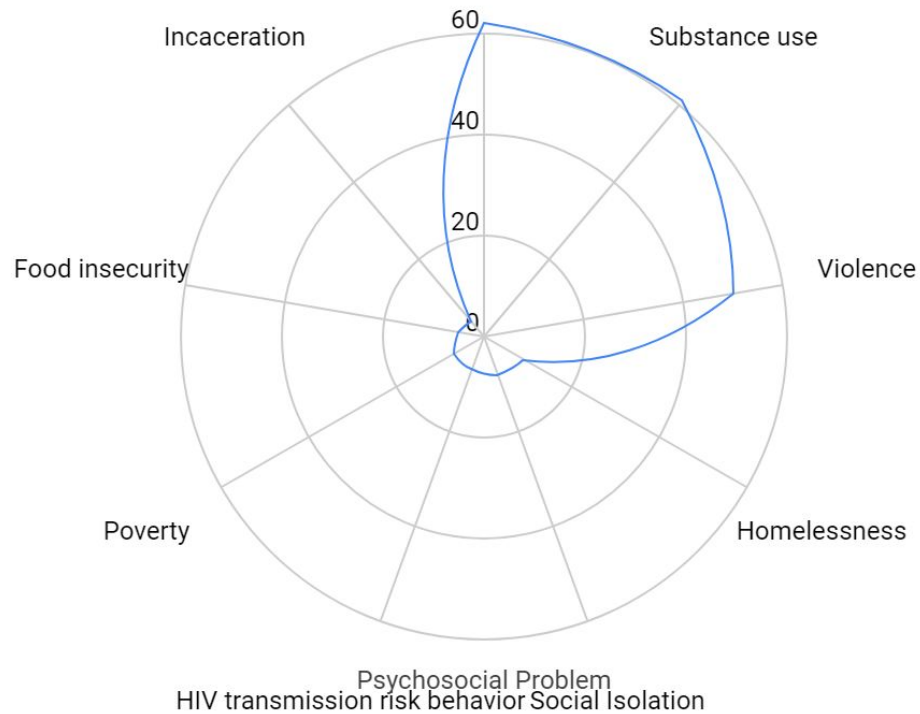


Trends in Syndemics Research



Tsai, A., Mendenhall, E., Trostle, J, Kawachi, I. 2017. Co-occurring epidemics, syndemics, and population health. *Lancet*; 389:978-82.

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Current limitations in the application of syndemics theory

Causal interactions under explored

Sum score of exposures used to understand the health effects of cumulative adversities

Bias towards multi-component interventions

If there is synergistic interactions of epidemics, a single-component intervention could be more cost-effective (Tsai, et al 2017)

Focus on individuals rather than populations

Field is focused on investigating how individual-level outcomes can be explained by individual-level covariates, ignoring the distal structural causes that hold greater potential for effective prevention strategies

Moving forward...

Syndemics theory has the potential to help policy makers and program implementers to improve the health of populations.

Ignoring interactions with ecological influences to focus exclusively on how individual-level risk factors interact to affect disease outcomes will have limited effect.

Similarly, ignoring the bio-bio causal pathways presents few opportunities for targeted, cost-effective efforts.