

# Syndemic Thinking

# What makes a syndemic?

- **CLUSTERS:**

- Two or more diseases **cluster** within a population

- **INTERACTIONS:**

- Biological, psychological, or social **interactions** exist between these clustering diseases

- **DRIVERS:**

- Structural and social factors **precipitate** this clustering of diseases

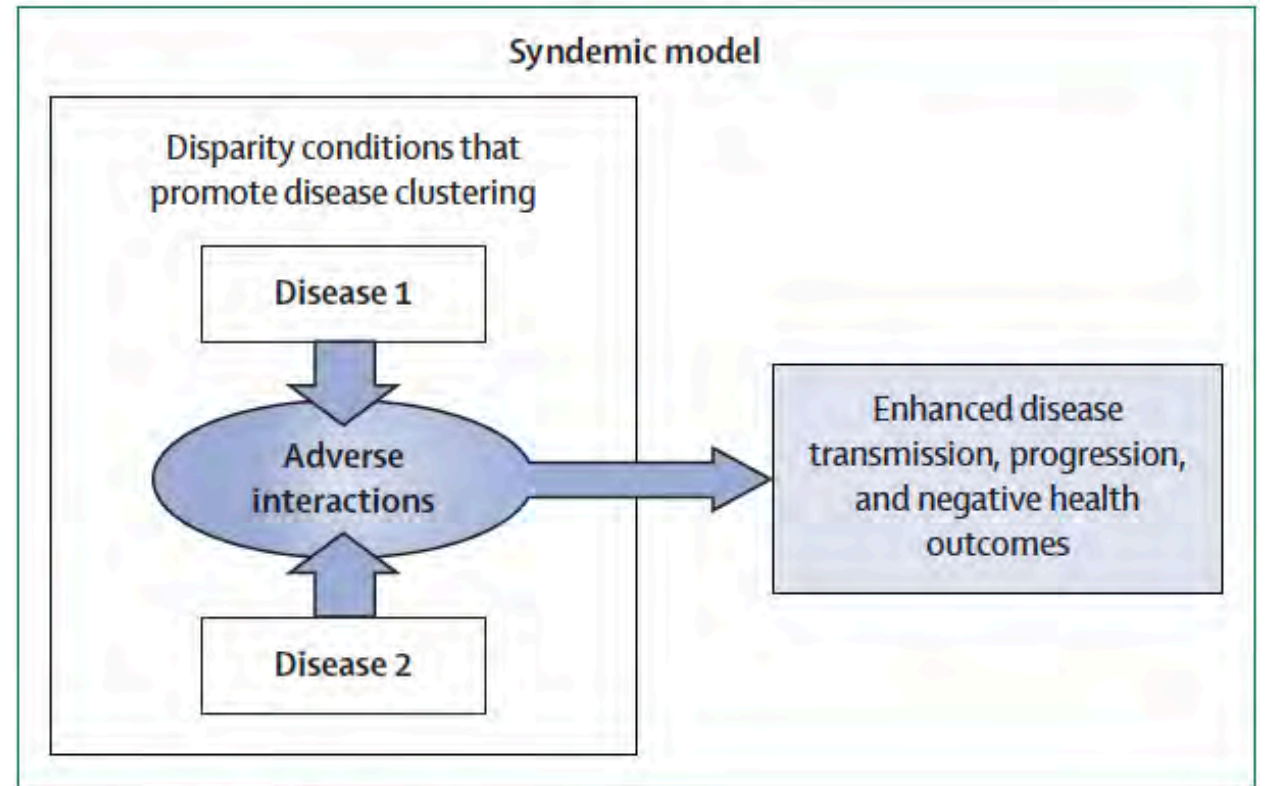


Figure: Model of a syndemic

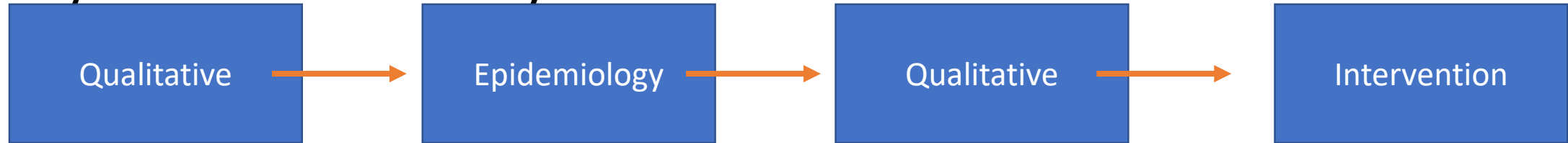
# SYNDEMICS...

- Are local
- Not global
- Change from place to place
- Change through time

# Research Priorities: Syndemic Interactions

- Syndemic pathways that produce co-occurrence with HIV
- Biological, social, structural, behavioral, psychological (*examples*)
  - Aging with ART produces co-occurrence with T2DM
  - Internalized stigma leading to depression and non-engagement in clinical care
  - IPV impeding care-seeking for multiple conditions, including HIV
  - International donors prioritizing HIV while ignoring primary health care
- PATHWAYS, MODERATORS, MEDIATORS
- Interactions that produce adverse outcomes of HIV and/or the co-occurring conditions

# Syndemic Analytical Methods



- Ethnographic study of local social, psychological, and medical problems
- Building tools for local contexts from ethnographic/qualitative data
- Bring in key stakeholders for every step of the research
- Launching epidemiological study of syndemic clusters
- Developing quantitative methodologies to understand and interpret the interactions and pathways between syndemic drivers, clusters, and outcomes
- Testing complexity of syndemic clusters via ethnographic or qualitative methods
- Refinement of hypotheses to test interventions