Epidemiological patterns of interpersonal violence over time conform to infectious disease epidemic model.

Three epidemics since 1960's, each closely tied to a drug epidemic and increasingly driven by gun violence.

- Cascades – one epidemic or three?
- Increase and decline in violence around 1991 peak almost exclusively in gun share of deaths and injuries.
Gun and Non-Gun Homicides, 1968-2000, New York City
Gun and Non-Gun Violence, 1985-2000, New York City

The graph shows the counts of different types of violence over the years from 1985 to 2000 in New York City. The categories include:

- Homicides (multiplied by 5)
- Gun Homicides (multiplied by 5)
- Gun Assaults
- Total Assaults
- Total Violence
- Total Gun Violence

The counts are depicted on a logarithmic scale, indicating a significant decrease in violence over the years.
Figure 1
NYC Census Tracts Gun Homicide Rates and Gun Seizures
1996 - 2000
Factors Animating Epidemics

- Network interactions
  - Network density, homogeneity, tight information markets
  - Egos interactions
- Cultural software
  - Memetics within social networks: spread of beliefs and ideas
- Developmental Functions
  - Behavioral scripts, social identities
  - Social amplification of conflict between groups and individuals
- Failure of risk regulation
The Social Structure of Gang Homicide in Chicago, 1994

Movements of Networks and Events over Time
Network conflicts as “pumping stations” of contagion processes
Hot spots for incubation of conflict: e.g., public housing
Spatial diffusion of exogenous and potentially co-morbid factors (e.g., illegal markets)
Legal cynicism, delegitimation of law
  “Don’t Snitch”, profiling, stop-and-frisk
Churning effects of police and prisons on social norms
Specifying a Contagious-ID Model

- Susceptibility and resistance – social exclusion and isolation ↔ social ties and collective action – social and economic structure of violence
- Exposure – network density promotes contact and conflict, constrained ecologically
- Host – fear, norms
  - Contagion of fear ↔ Contagion of behavior
- Agent – lethality, instrumentality
- Co-morbidity – legal cynicism, rejection of legal norms
- Ending the epidemic?
  - Attrition – mortality, incapacitation, out-migration
  - Legitimation, normative permeability – legal institutions
  - Choices