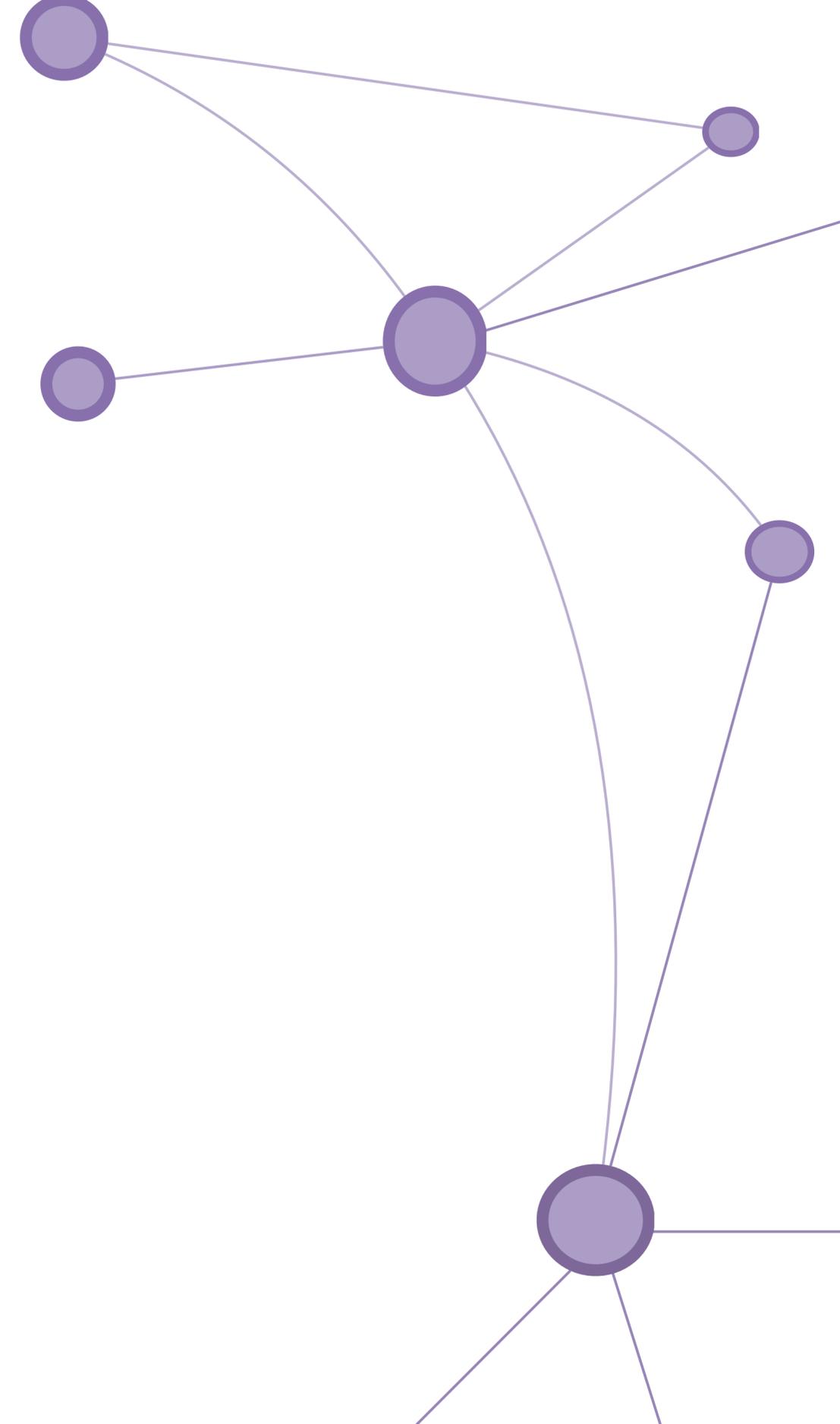


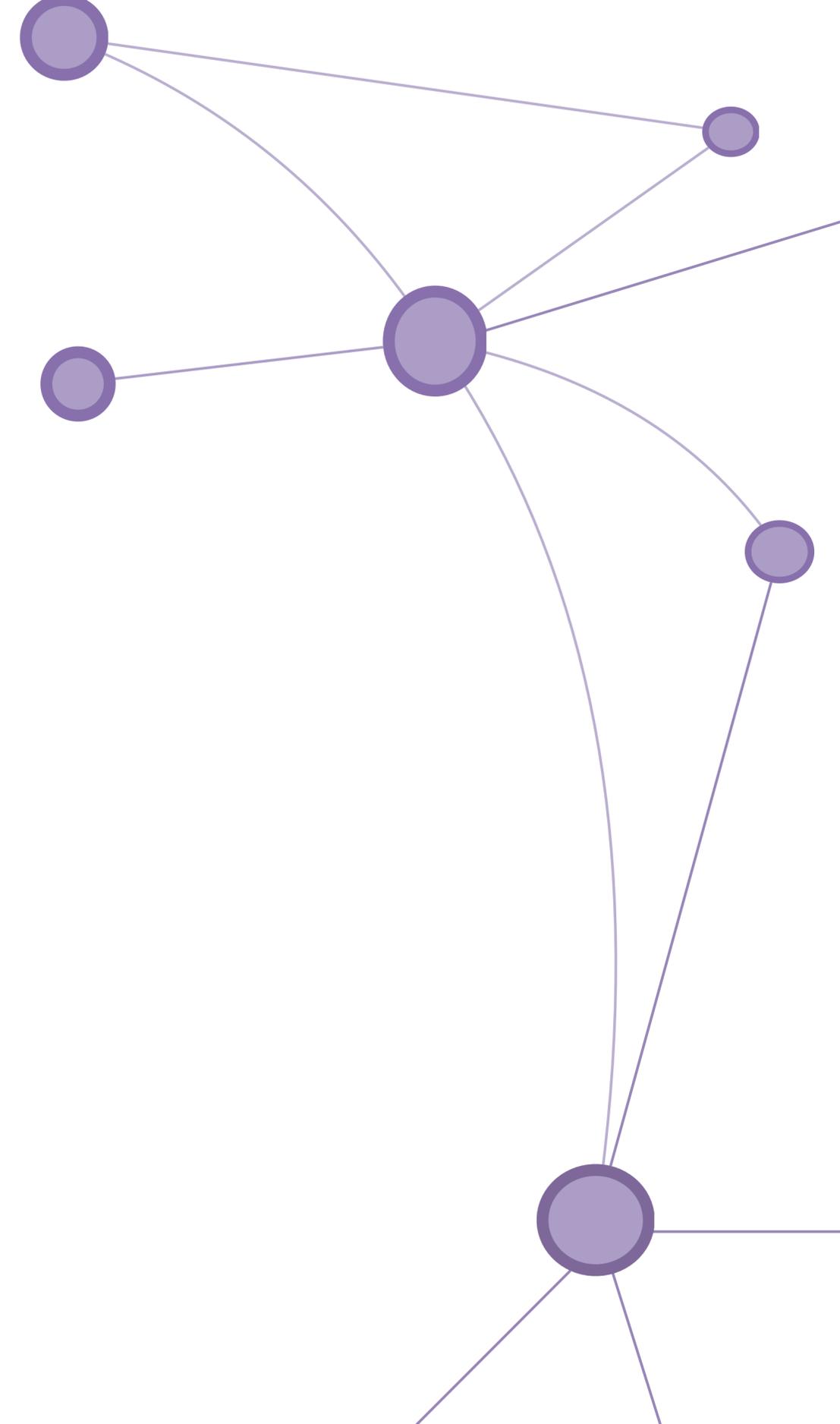
CONNECTED IN CRIME

using network science to reduce gun violence

Andrew V. Papachristos



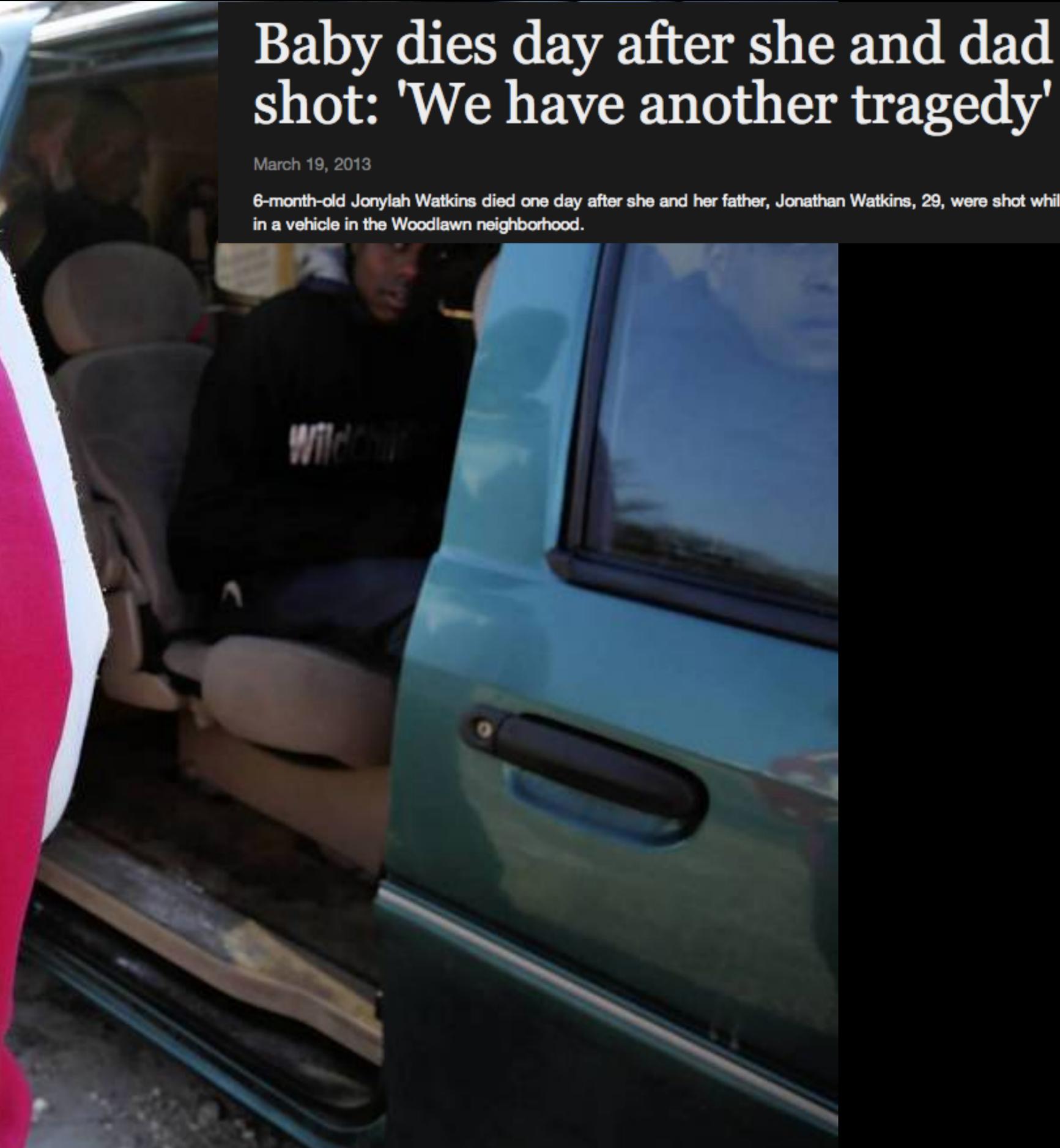
what is network science?



Baby dies day after she and dad shot: 'We have another tragedy'

March 19, 2013

6-month-old Jonylah Watkins died one day after she and her father, Jonathan Watkins, 29, were shot while in a vehicle in the Woodlawn neighborhood.





Associate



Shooting Victim



Co-Offending Tie



Family Tie





Associate



Shooting Victim

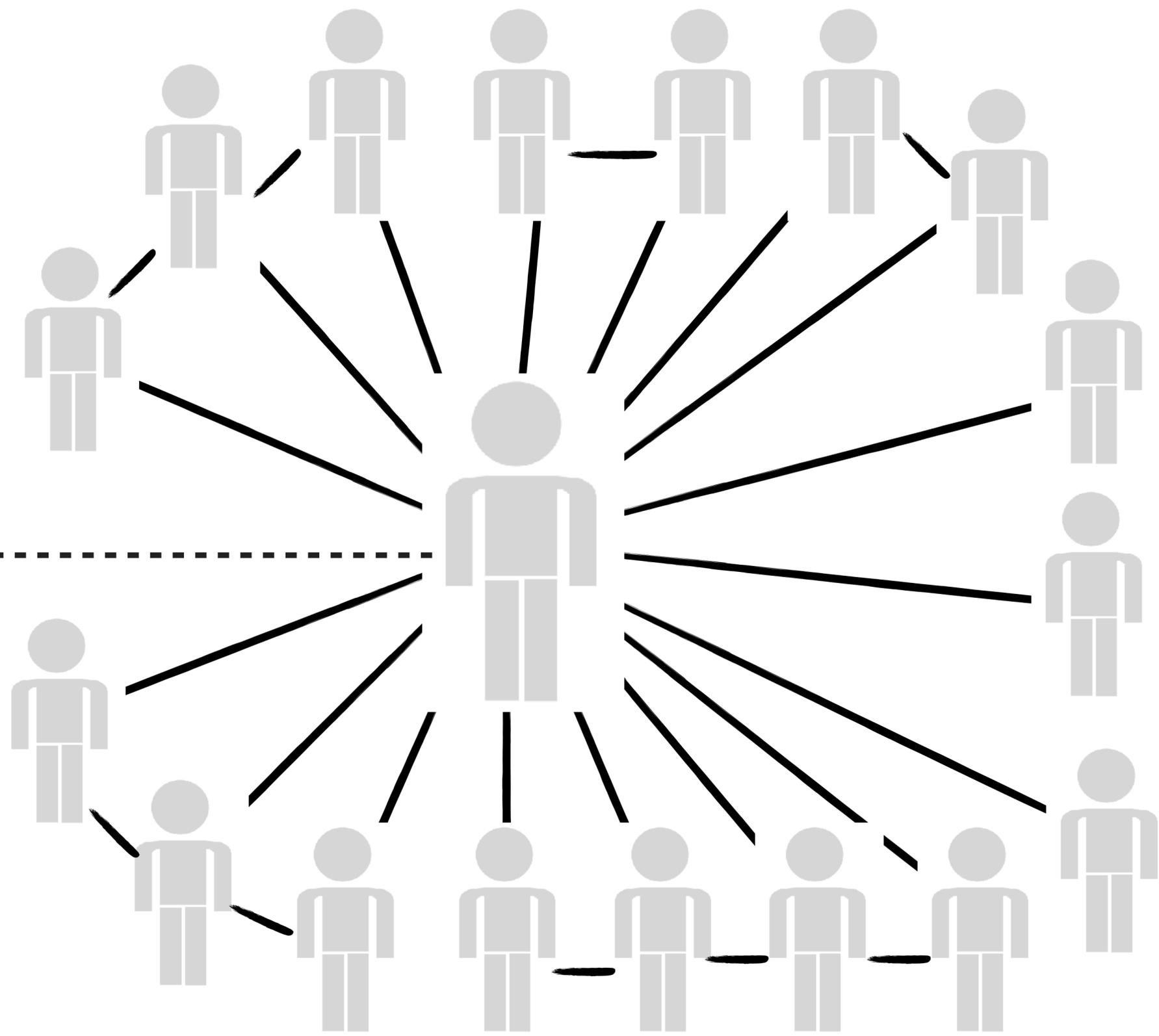


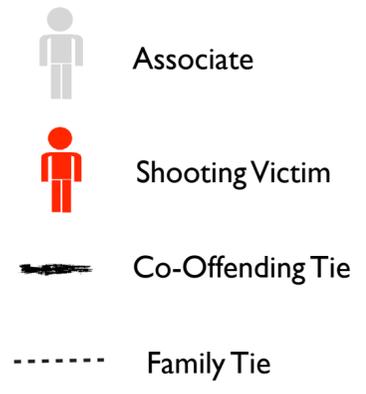
Co-Offending Tie



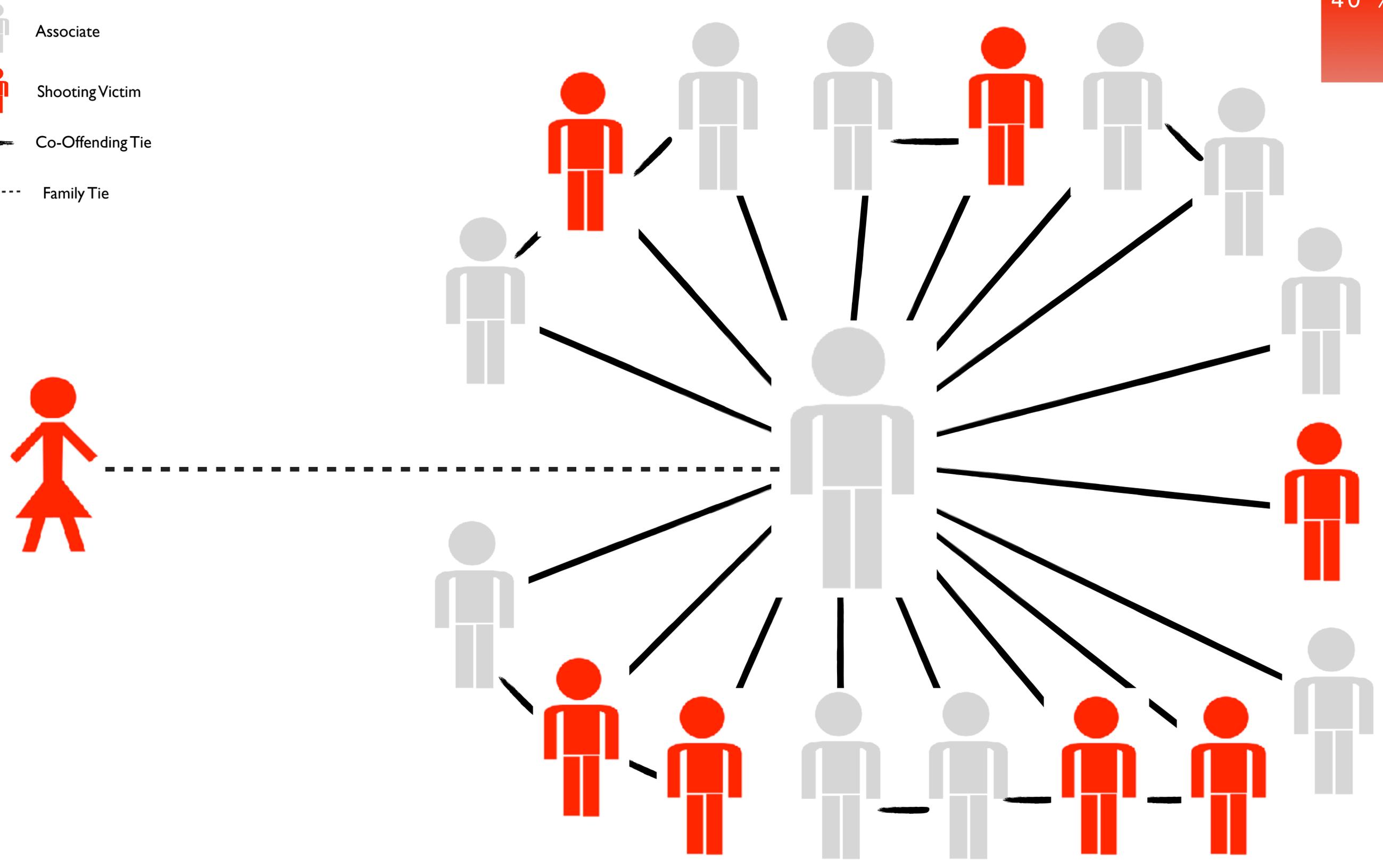
Family Tie

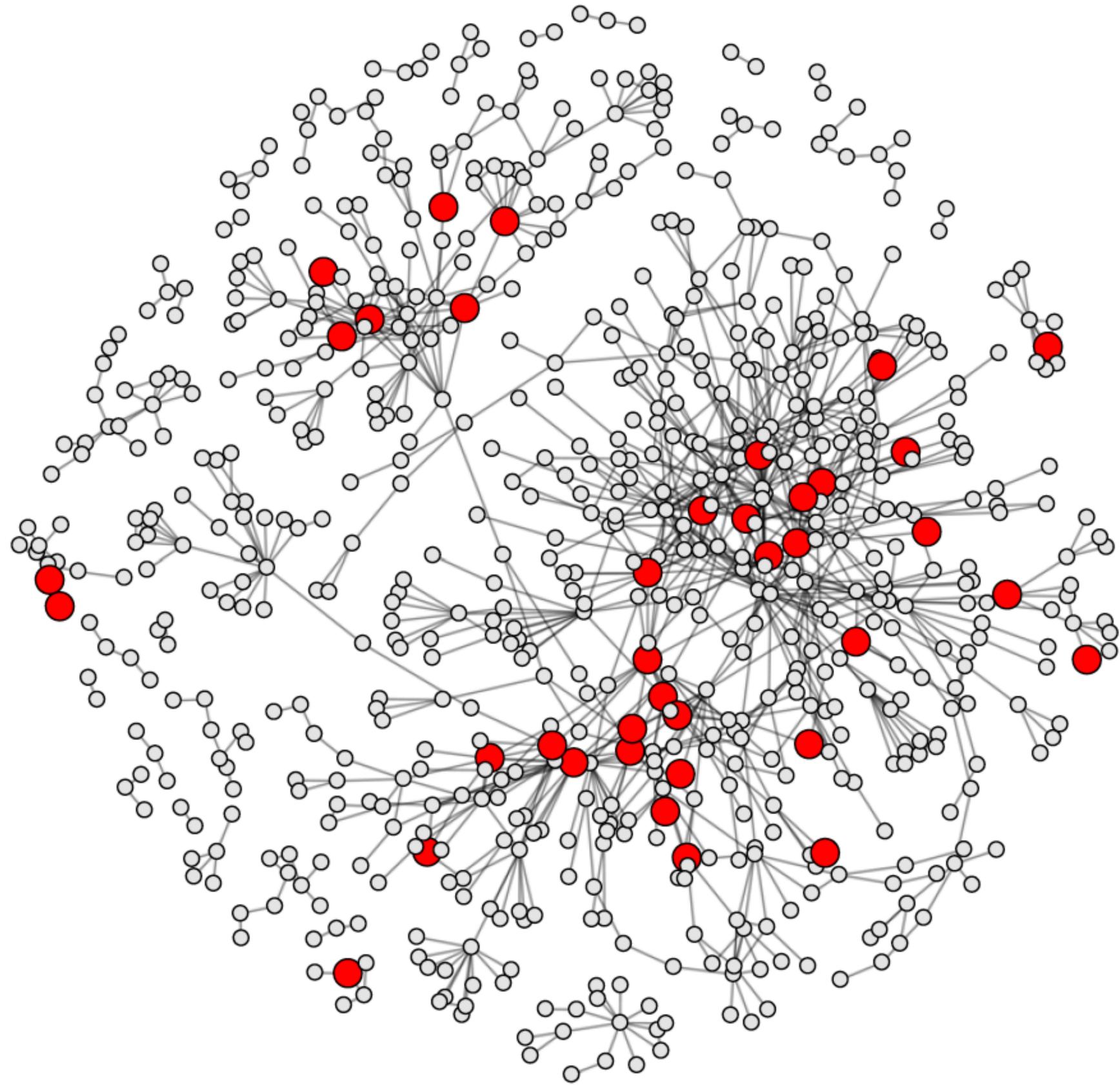






40 % OF ASSOCIATES
ARE
VICTIMS

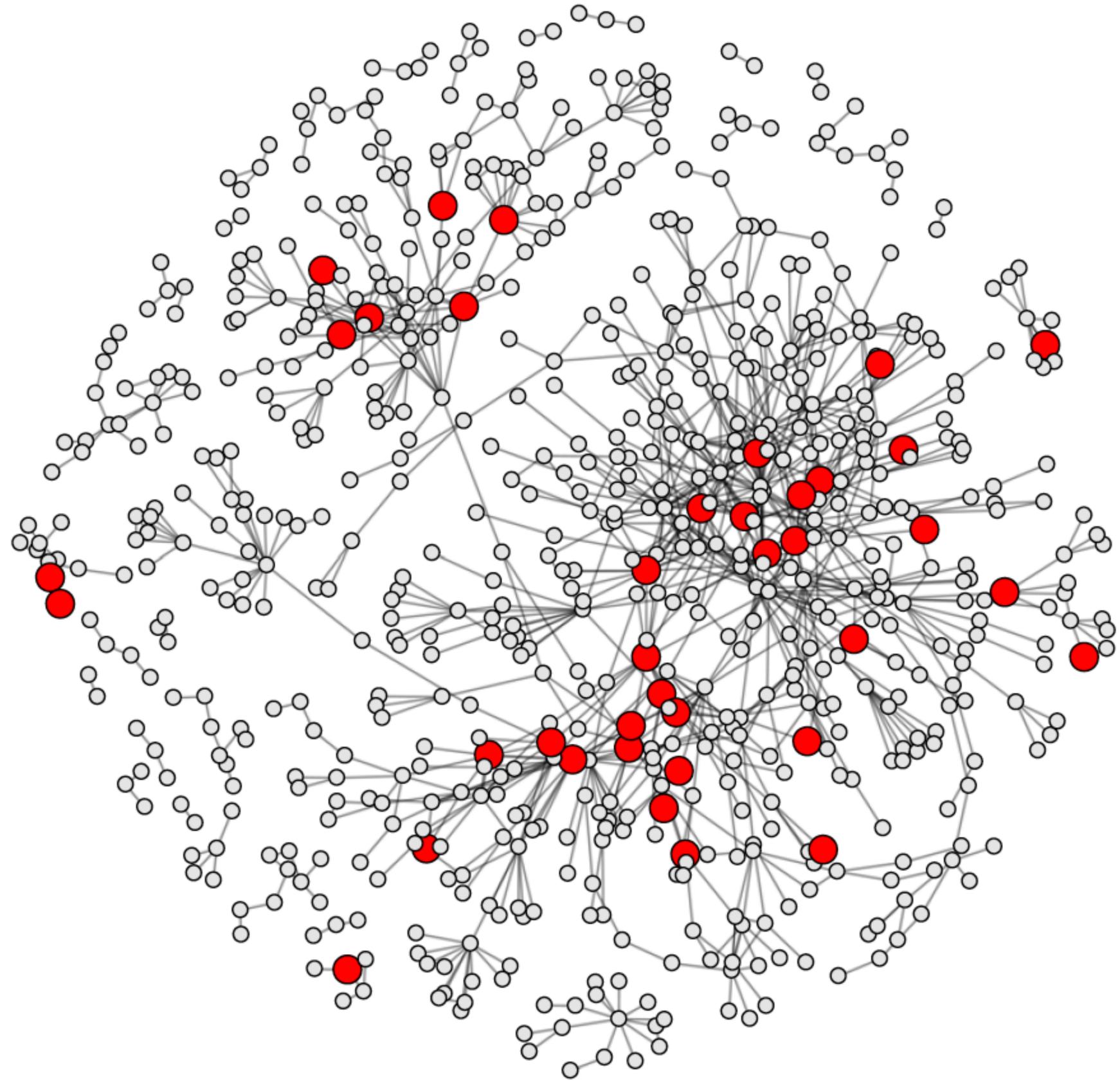




what has network science told us
about gun violence already?

—● gun violence concentrates socially

Boston

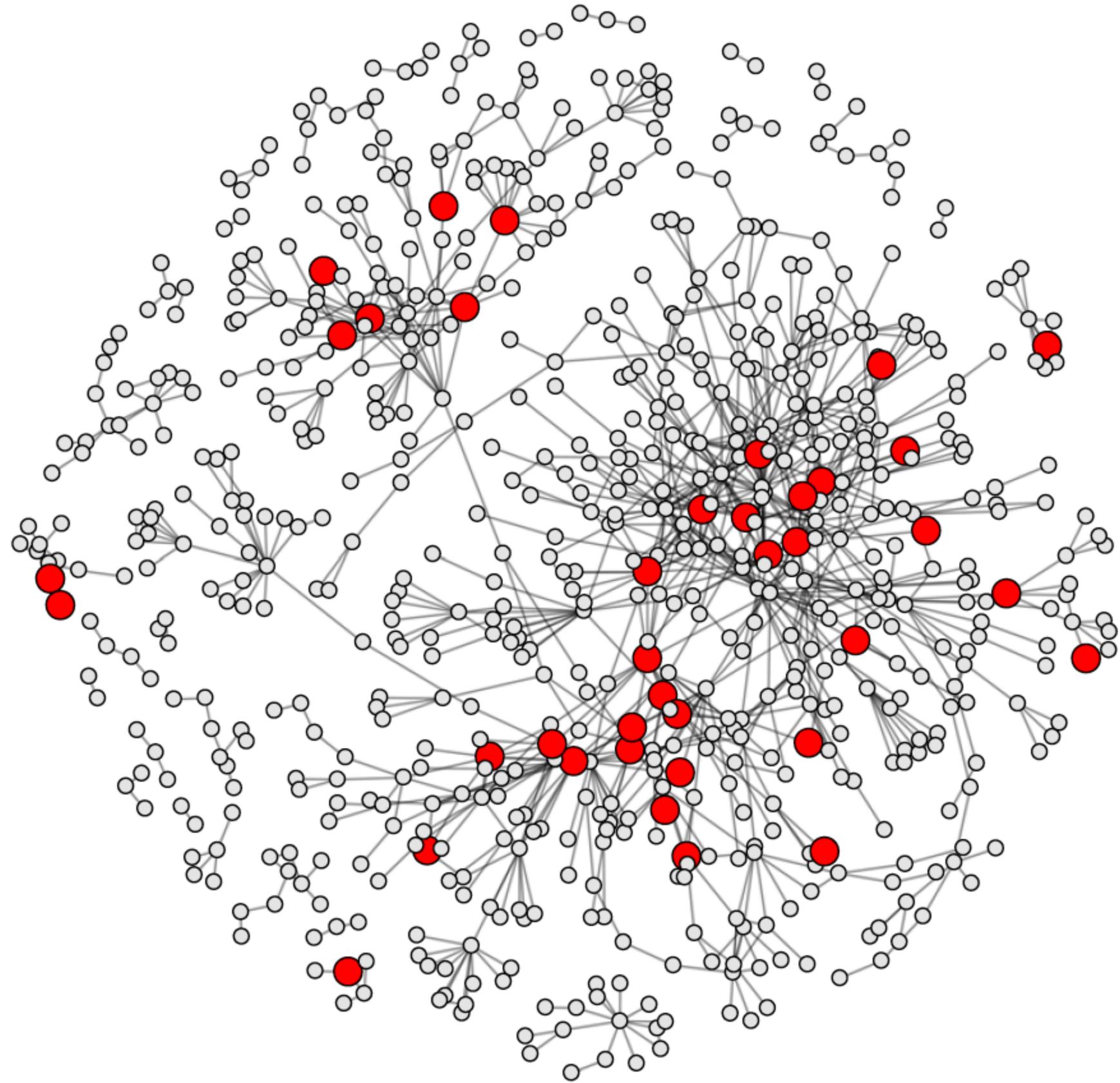


Boston

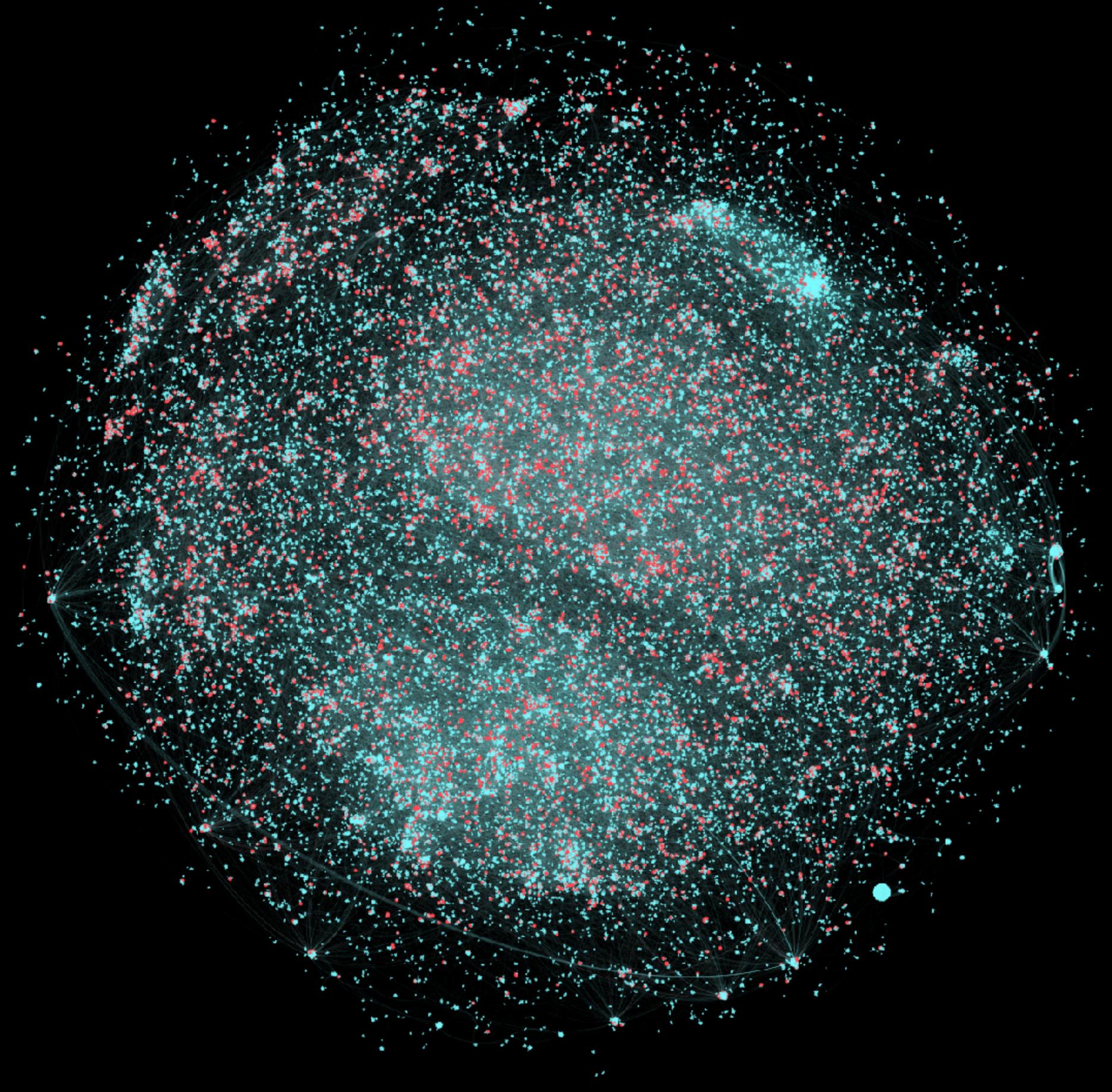
6% of population



85% of all gunshot injuries



Chicago, 2012 - 2016



Chicago, 2012 - 2016

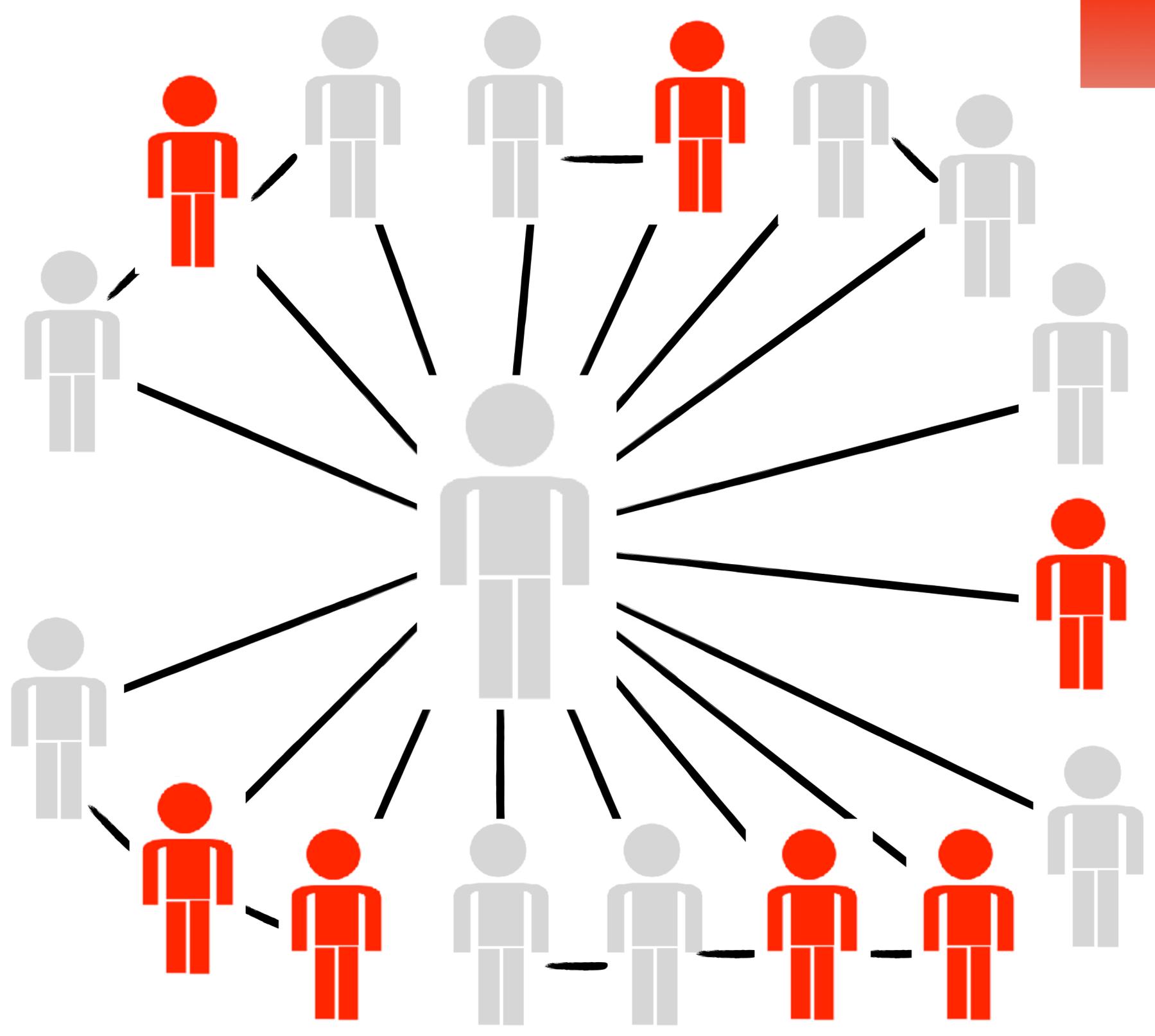
- 6 % of total population
- 40 % of arrested population
- 70 % of all shootings
- 89% in a single network



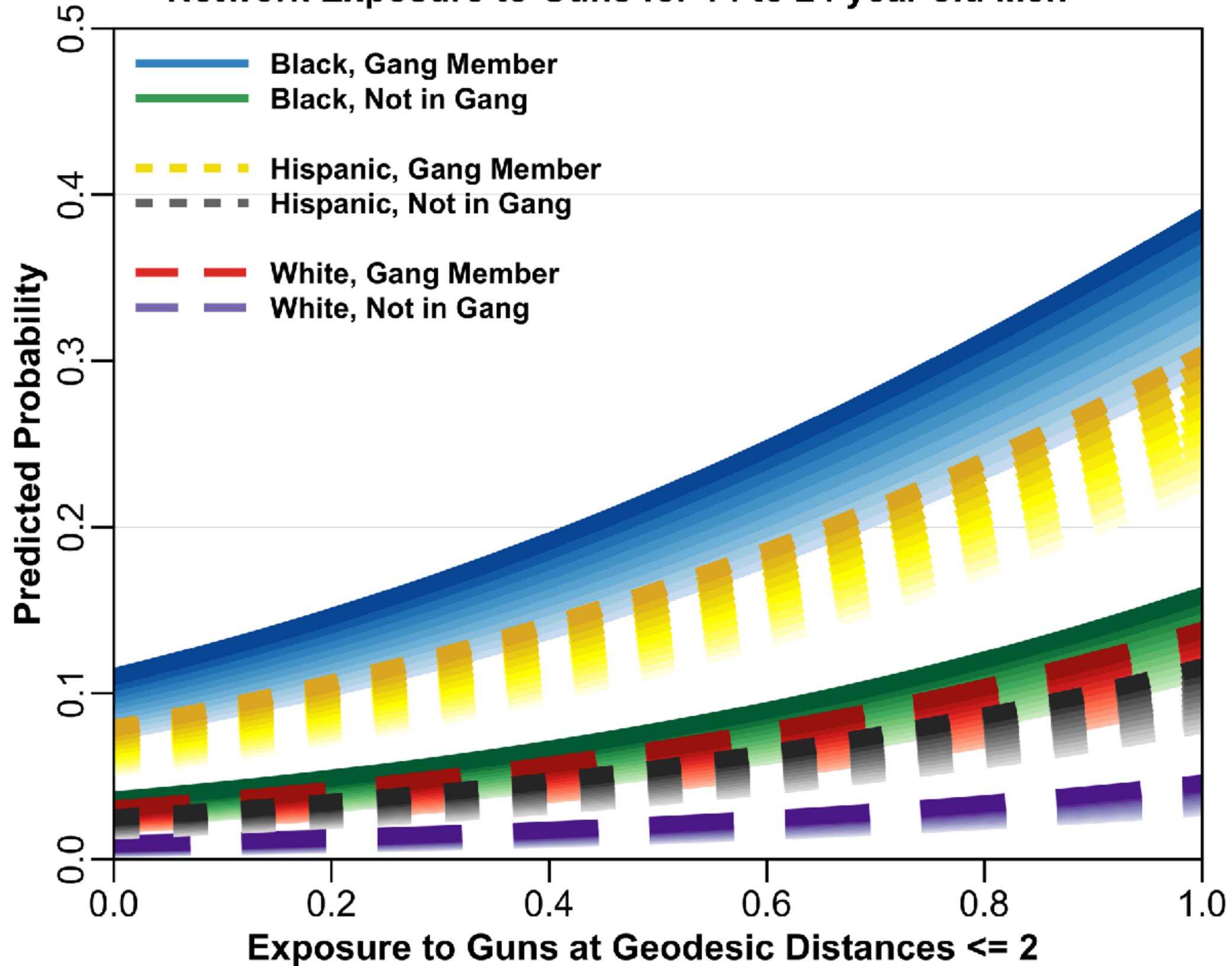
- gun violence concentrates socially
- gun violence is contagious

-  Associate
-  Shooting Victim
-  Co-Offending Tie
-  Family Tie

40 % OF ASSOCIATES
ARE
VICTIMS

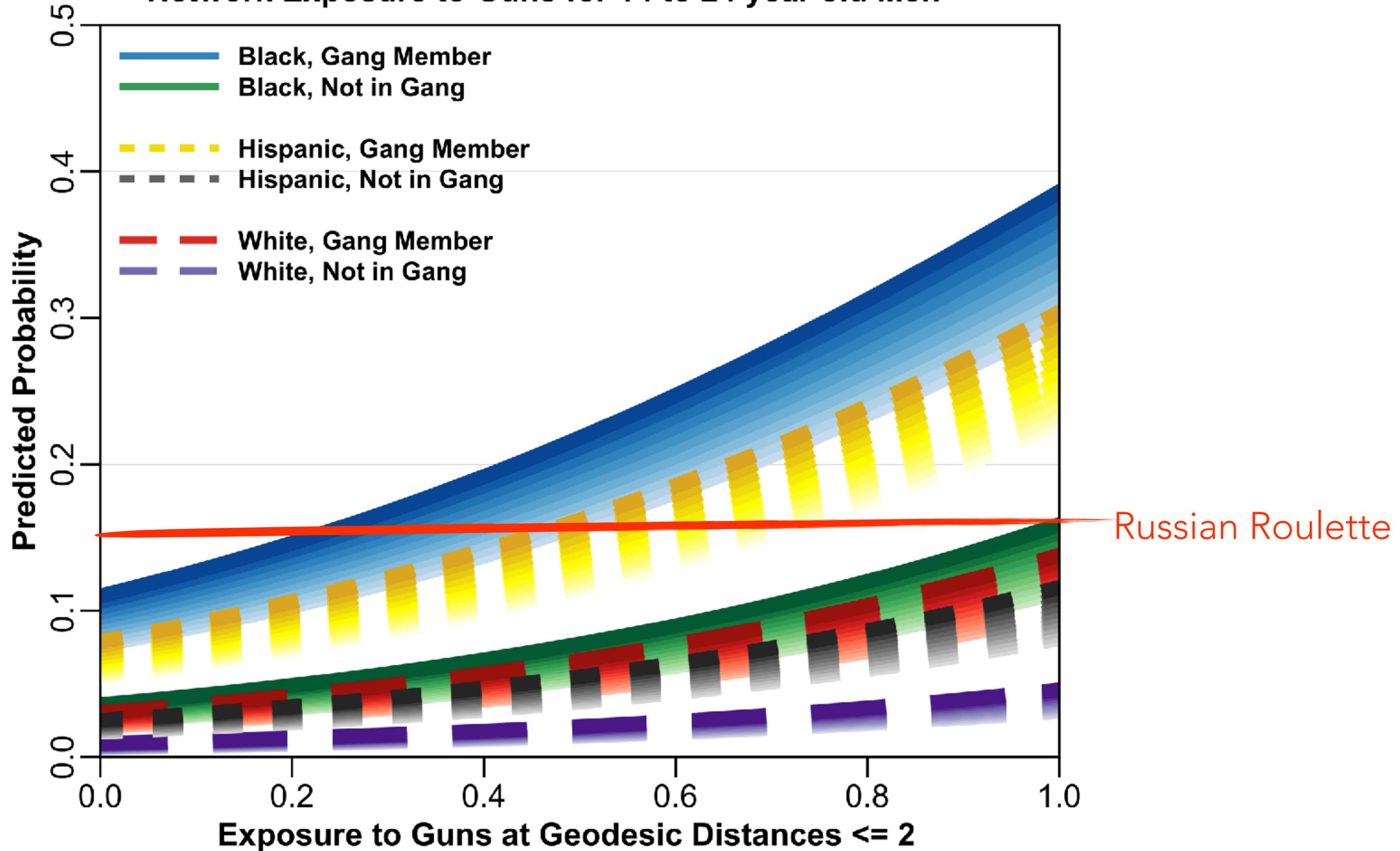


Predicted Probability of Gunshot Victimization by Network Exposure to Guns for 14 to 24 year old Men



Note: Predicted probabilities are estimated with remaining variables held constant at their mode.

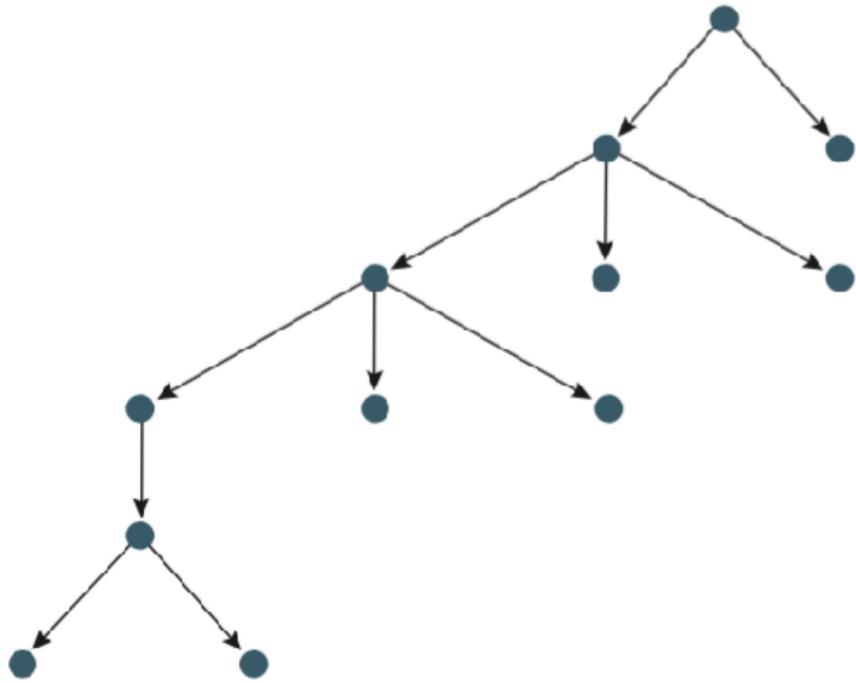
Predicted Probability of Gunshot Victimization by Network Exposure to Guns for 14 to 24 year old Men



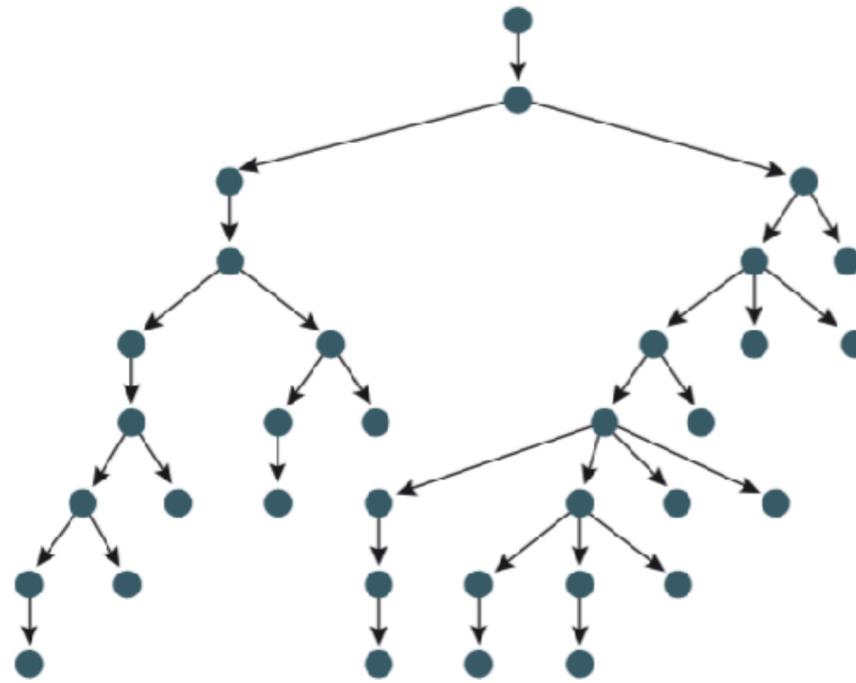
Note: Predicted probabilities are estimated with remaining variables held constant at their mode.

Figure 3. Three Cascades of Gunshot Violence Episodes Inferred From the Study Period

A 12 People shot between May 2009 and December 2012



B 34 People shot between February 2008 and August 2012



C 64 People shot between August 2008 and March 2014



SHOOTING CASCADES

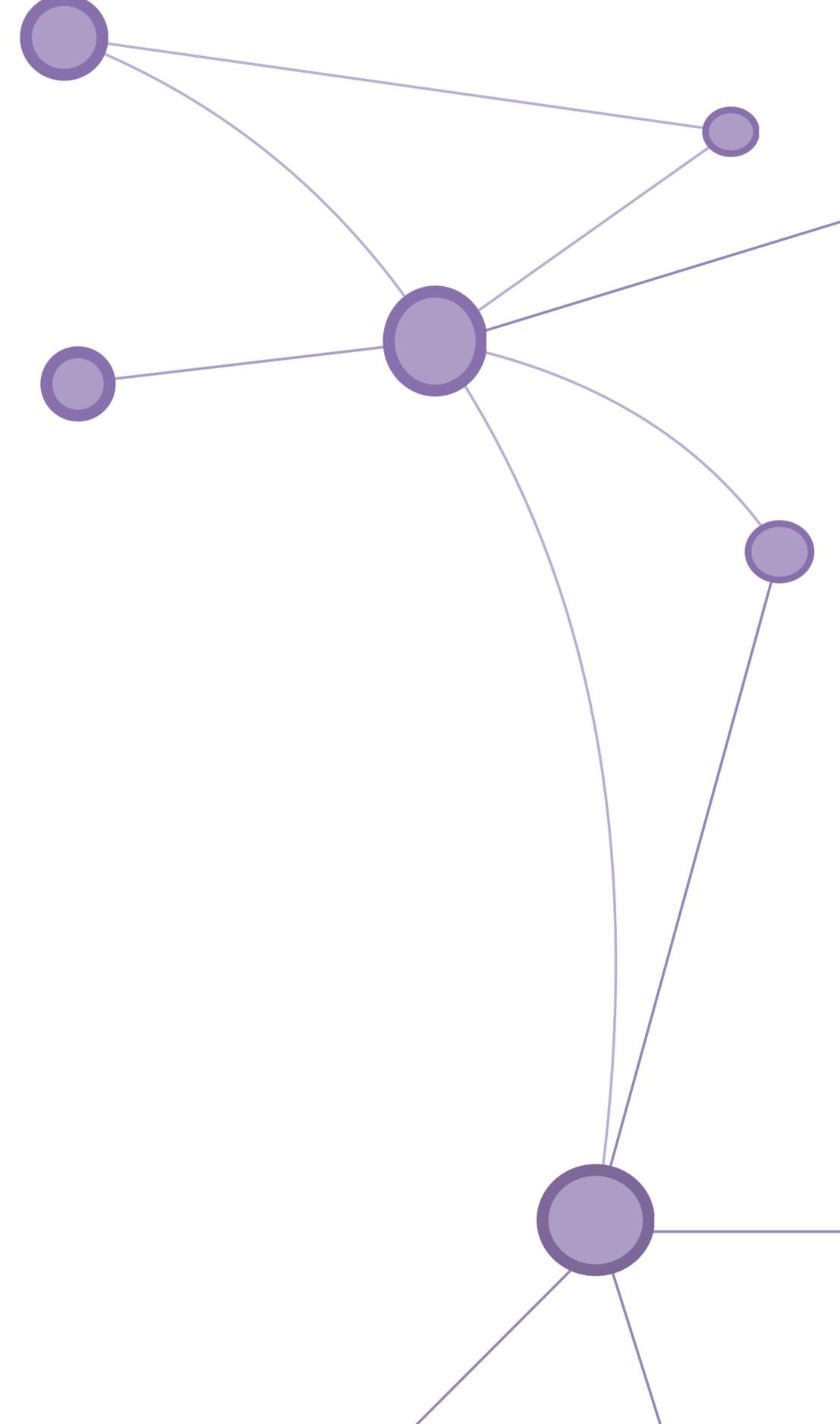
63%

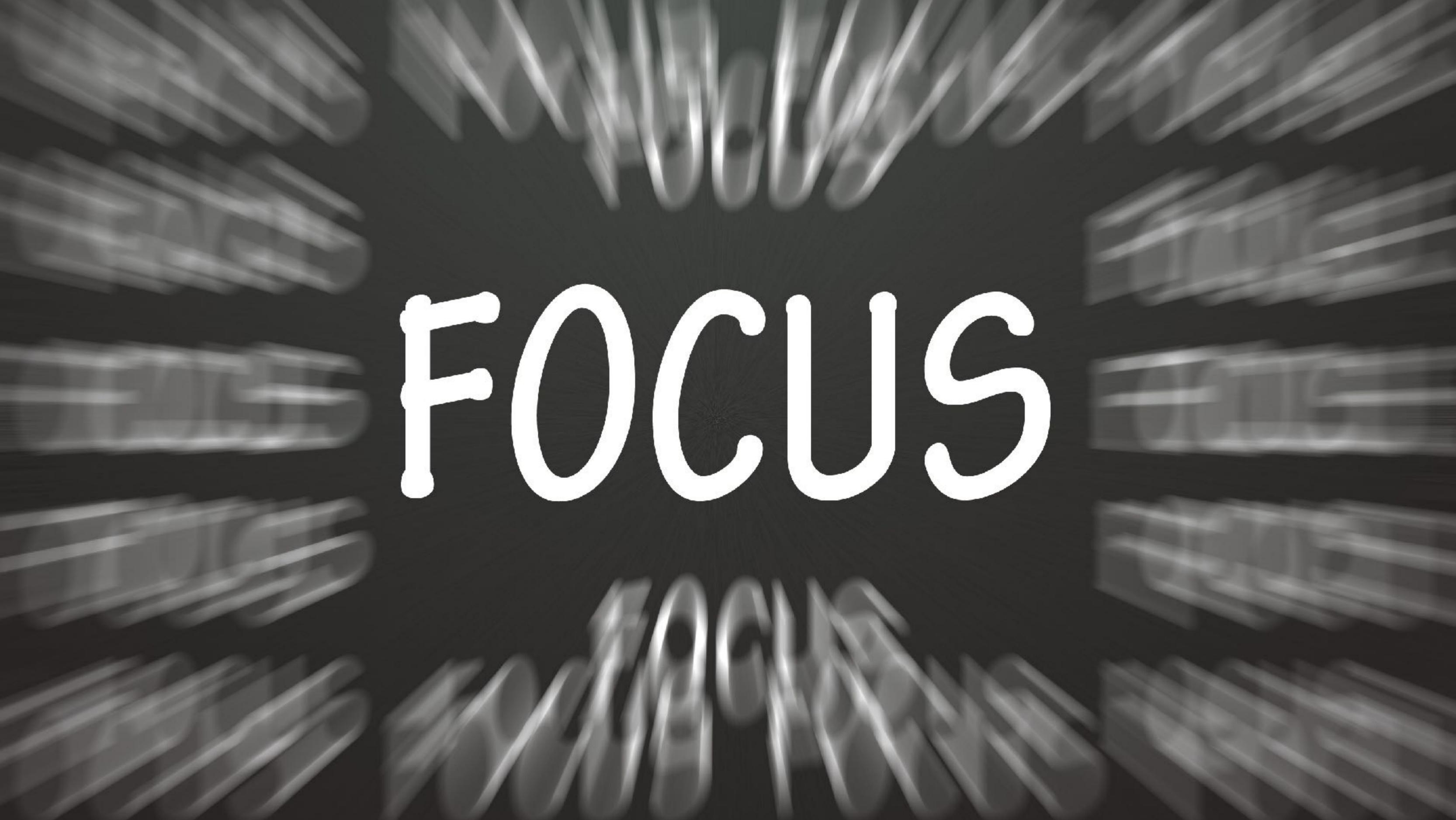
SHOOTING CASCADES

63%

83 days
between shootings

using network science
to solve problems



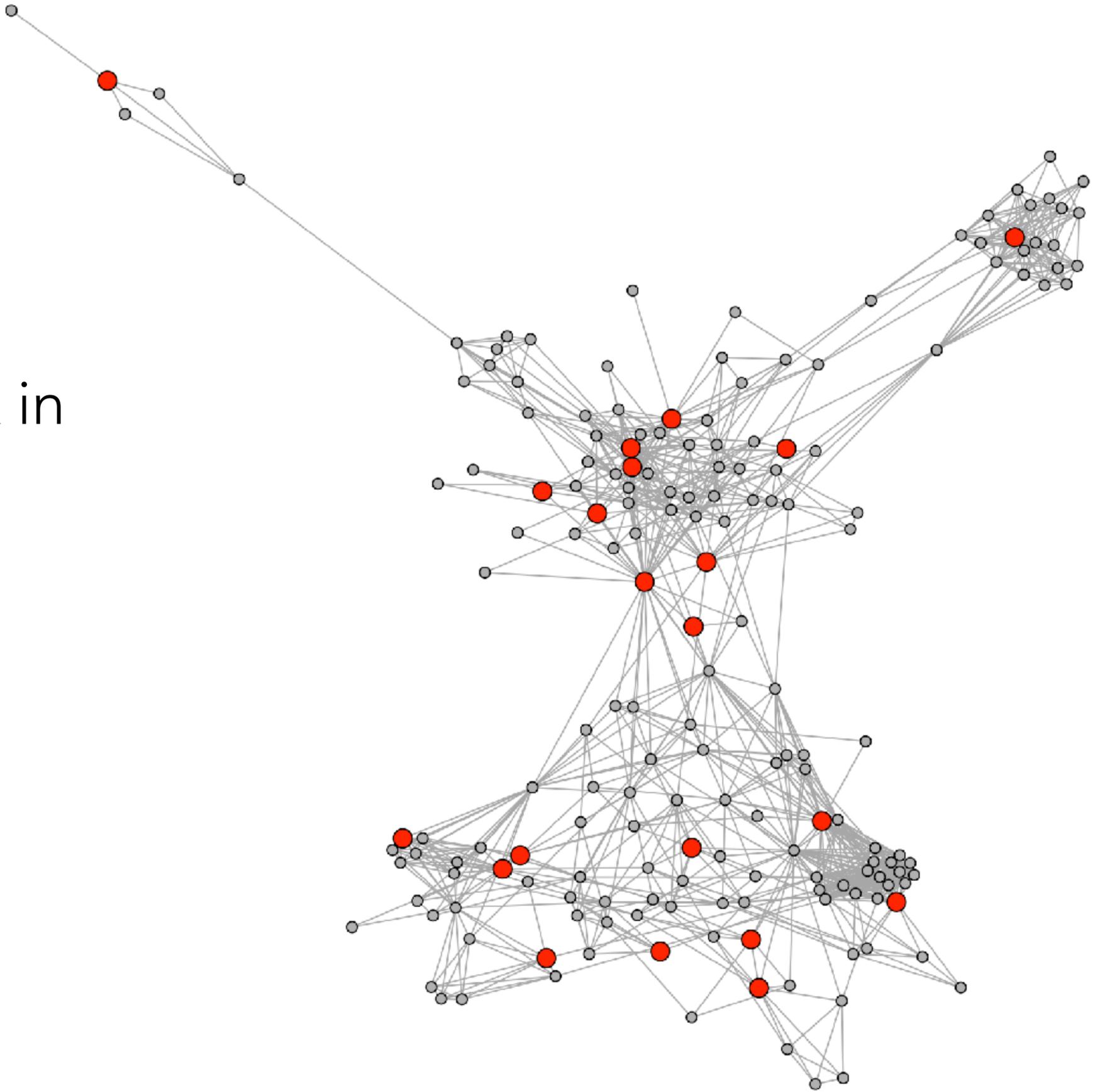


FOCUS

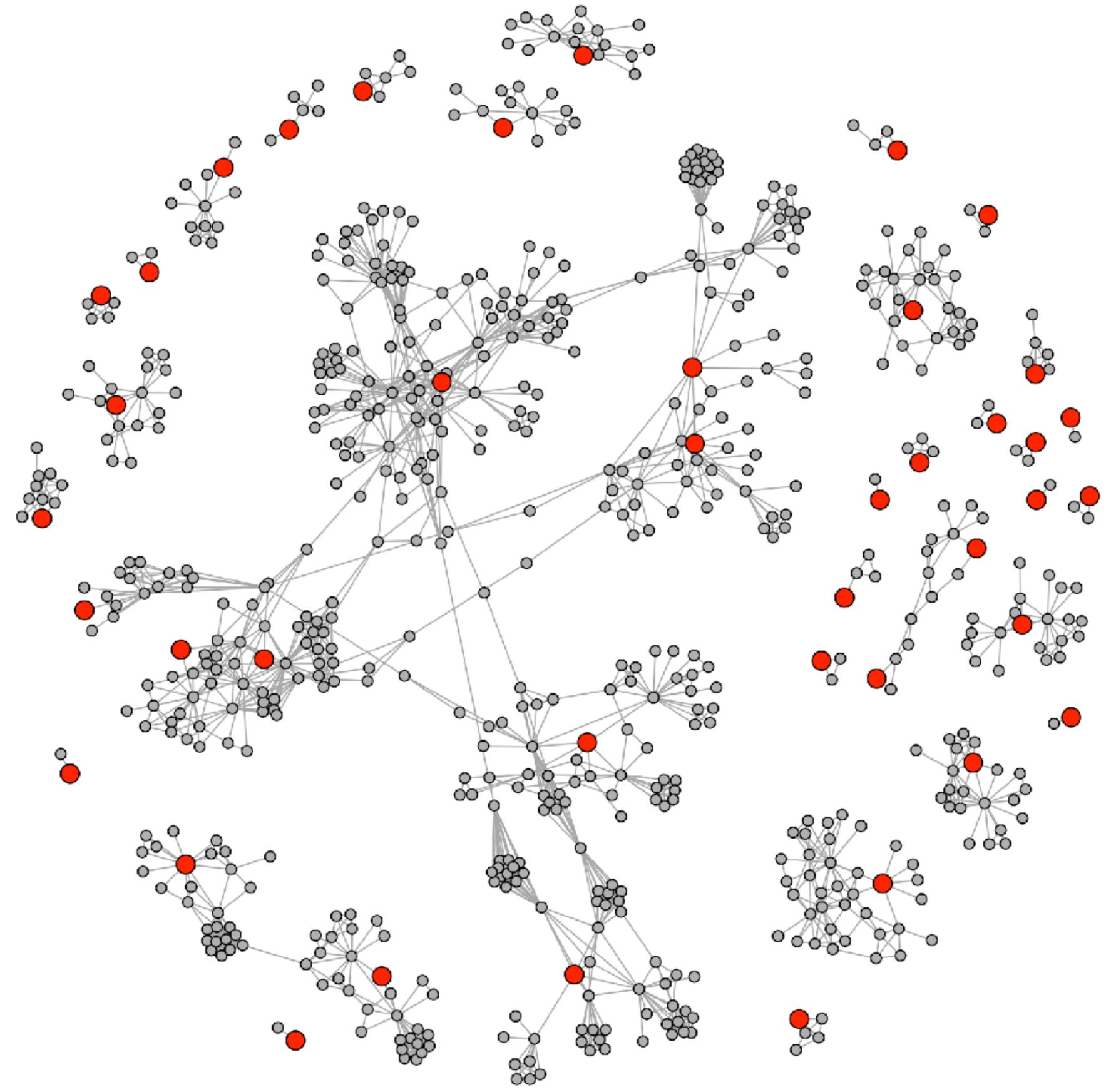
—● force multiplier

—● enhance and enrich existing efforts

Largest **Shooting Network** in
Back of the Yards
over
last three years



Chicago Public School
Shooting & Homicide Victims
2016-17



Thank You

@AVPapachristos

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