One of the most important concepts in the social sciences is the notion that individuals are part of a larger set of related systems. Even the social ecological model emphasizes the importance of the social environment as a pertinent level to predicting determinants of health. One way to approach this set of social systems is through social network analysis (SNA). Social network analysis is the process of understanding structures through networks and graph theory through quantitative approaches.

The concept of social networks has been around since the time of Plato in Socrates, when they analyzed the influences of social classes on people. The year 1932 marks the first-time social network theory was used in an applied setting (Borgatti, 2009). Since the early 2000’s and the creation of social network sites such as Facebook and Twitter have provided a path for large quantities of social network data. However, modern utilization of SNA goes well beyond the of social networking sites. Recent literature has social network methods to analyze terrorist networks, tobacco smoking incidence and even social structures in obesity.

Since then there has been an increase in utilizing SNA as an applied method for research. Advances in Statistical programming have provided researchers the ability to run studies with a strong social network component. Advanced Bayesian modeling techniques such as Exponential Random Graphing Models (ERGM) and *S*imulation Investigation for Empirical Network Analysis (SIENA) models require intensive processing power and are now possible. .

Borgatti, S. P., Mehra, A., Brass, D. J., & Labianca, G. (2009). Network analysis in the social sciences. *science*, *323*(5916), 892-895.