(Valente 2012)

Valente, Thomas W. 2012. “Network Interventions.” *Science* 336 (6090): 49–53. https://doi.org/10.1126/SCIENCE.1217330/SUPPL\_FILE/1217330\_CODE.ZIP.

Valente (2012) defines network interventions as using social network data to accelerate behavior change or improve organizational performance. He outlines four strategies for network interventions. Social networks influence the adoption of new behaviors. Those administrating the network intervention can use their understanding of the network to promote a desired behavior and learn about the community's needs to serve them better.

1. Identify individuals
   1. leaders, to promote behavior changes. Use degree, betweenness, eigevector to identify leaders. Leaders are more affected change agents. local leaders provide advice that is more sensitive to local conditions and culture. network interventions can identify whether early users are leaders and, thus, are well positioned to accelerate behavior spread or whether they are on the periphery and hence likely to be slowly imitated.
   2. Low adopters of change are those who are potentially excluded. They are low adopters of change. They are found on the periphery of the network. “In some cases, peripheral individuals may be important to identify, as they are often the source of new ideas and innovations because they have contacts with other communities and/ or are free from the social pressure to conform.”
2. Segmentation
   1. Identify groups of people to change at the same time. Behavior change can be a group decision, especially when the behavior is a community practice.
   2. A core-periphery structure in which core members are densely connected to one another and peripheral members are connected to the core but not to each other
   3. “Mobilizing networks that have a core-periphery structure may be accomplished by focusing resources on the core members or by ensuring that the core members have sufficient resources or diversity to achieve network goals.”
3. Induction
   1. peer-to-peer interaction to create cascades in information/behavioral diffusion.
   2. snowball methods
4. Alteration
   1. Three different tactics might be considered: (i) adding/deleting nodes, (ii) adding/ deleting links, or (iii) rewiring existing links.
   2. Networks can be modified so that they have increased redundancy of the paths that connect individuals or how individuals connect to resources.