

SOCIAL NETWORK ANALYSIS

When we wrote our C3N grant several years ago, one of the items we were particularly interested in was the role of networks in understanding how to spread changes in care delivery. One of the challenges that we can face when doing Quality Improvement (QI), is that a small number has to test and implement changes in the larger network to ultimately reach the goals, *at least in our case*, of improving outcomes for kids with IBD. The questions then are: How best to organize the networks of clinicians who deliver this care? And, how best to optimize information flow? Together, with the experts from the University of Chicago, we are using the science of social network analysis (SNA) to answer these questions.

The Study

Networks are the most important competitive advantage in business organizations—and now we are taking this science over to medical care. What have we learned?

- Time is a very stratifying variable in the network, and becomes particularly important to social integration and social involvement as people get lower in status
- In our pilot, complementarity between the nurse network and physician network was a significant factor in the patient care

The purpose of the SNA study is to collect information that will enable us to better understand how physicians and advanced practice clinicians who care for children with inflammatory bowel disease (IBD) interact with one another and obtain different types of information regarding clinical and professional practice.

The study involves:

- A social network survey, developed by the University of Chicago, that can be used to identify key information brokers and see how much the informal communication structures within the clinical division matters for the team's QI efforts
- High response rate, with team leads making it as easy as possible to complete the 15-20 minute survey
- Data from the survey will be analyzed by the University of Chicago, with consultation and full reports provided to the team

CONTACT

Project Staff

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Project Lead

Gavin Hougham, PhD
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Timeline

Pilot Phase: August 2012 - Present

Seven ImproveCareNow care centers (sites) will enroll in the study, providing team social network survey results to the University of Chicago. After data cleaning, sites will go through pre-processing, data analysis, network analysis and then a report will be prepared. Each site will conclude with at least one consultation, led by Ron Burt, PhD.

Confidentiality

- Data is not collected locally at an ImproveCareNow care center, but goes directly to the University of Chicago
- The data presented is anonymous—meaning there is no way to tell who is who on the network map:
 - The anonymity of the direction is preserved
 - There is no way of telling who one person (node) listed, or who listed that person (node)

Requirements to Participate

- The clinical teams must be part of the ImproveCareNow Network
- High response rate for each team
- Standard computers—PC or Mac—for taking the survey (no tablets)