

Overview of Social Network Learning and Key Articles Developed By Marcie Rubardt

Background Information

Exploration for this cross-cutting learning theme has included:

1. Review of key articles
2. Participation in the presentations on social networks by Rebecka Lundgren from Institute of Reproductive Health at Georgetown University
3. Preliminary development of social network interventions to address unmet need for family planning in Mali

This document covers two sections:

1. My highlights from Rebecka's work which are informing my thinking on program design and intervention development
 - a. Community and social groups, rather than individuals and households, become the unit for analysis and intervention
 - b. Networks influence norms and behaviors through social learning, social influence and social support
 - c. Strategies for influence social norms and individual behavior through social networks
 - d. An example of an intervention strategy for Mali
2. Annotated review of several articles that have also informed my thinking

Rebecka's presentations, social network research findings from the Mali project, and the articles referred to in this document are all available on the Social Networks Wiki:

<http://familyplanning.care2share.wikispaces.net/socialnetworks>

Key Concepts for Program Design

There are several key concepts that provide a new framework in thinking about using social networks for behavior change and influencing social norms:

Community and social groups, rather than individuals and households, become the unit for analysis and intervention:

While the measurement tools (household surveys) may have driven the thinking rather than vice versa, it is clear that as we begin working more with social networks, both our interventions and our measurement tools need to increasingly focus more on the community and social group level, including the characteristics of groups, how they interact, and how they influence change or maintain social norms. Measurement needs to look at the functions of network relationships, changes in network relationships, and how these relationships influence both social norms and individual behaviors. The role of individuals within the networks, both in influencing individual behaviors, but also in influencing

the way networks influence and reach others (network influencers and connectors) is also important to consider.

Networks influence norms and behaviors through social learning, social influence and social support :

Social Learning: This implies the passage of information through social networks. This can be formal through peer education, but also occurs significantly in more informal ways. This might be through observations (men in Malawi), shared experiences (women in Kenya) and general dialogue (including gossip) around concerns such as family planning. More heterogeneous networks are likely to facilitate social learning (Mali, Madagascar)

Social Influence: This implies the influence of social networks on social norms. This is harder to measure, but includes the role of influencers and connectors in influencing the acceptability of norms such as contraceptive use and decreased fertility. More homogeneous networks and networks with significant membership by the conjugal family (Mali) may have a tendency to maintain existing social norms, and limit shifts in social norms, making it more difficult for individual members to adopt new behaviors.

Social Support: While other documentation and other CARE experience indicates that this can have a significant impact on social cohesion and individual agency, this impacting behavior change, this is a somewhat different mechanism for individual behavior change than learning and influence at the network level and has not been emphasized in this review.

Strategies for influence social norms and individual behavior through social networks:

Based on Thomas Valente's work¹ Rebecka and the team have outlined six strategies for social networks interventions:

1. Opinion Leaders – Using opinion leaders in the community to influence norms within networks and to reach people who may be otherwise unconnected (e.g. religious leaders). They may also be informal leaders who may have significant influence (e.g. the chief's advisors)
2. Strategically Targeted Groups – Identifying existing networks within a community which may be influential for a particular target group or behavior and/or which may reach a large number of people (e.g. savings groups)
3. Leaders of Established Groups – These may be formal or informal leaders, but whose leadership is focused within the particularly targeted network. Knowledge and norms within the network, as well as the role of network members in reaching others can be influenced by working with these.
4. Snowball Approach – Use of members within networks who may have been positively influenced, to reach others within the community who may be less well connected. (e.g. a woman in a savings group may discuss concerns such as fertility or family planning with her aunt or her mother in law if she is encouraged to do so)
5. Bridges and Connectors - The project may purposefully target bridgers or connectors within a community, work with them to develop dialogue and influence norms, and then encourage

¹ **Social Networks and Health: Models, Methods, and Applications;** [Thomas W. Valente](#) (Author); Oxford University Press 2010

them to use their community links to reach the wider community. (e.g. people who are part of the governance process due to their representation of the range of groups in the community, people such as sales people who purposefully cross social groupings)

6. Rewiring linkages and network ties – Where opportunities or gaps are identified, members or connectors may be purposefully introduced into existing networks or communication patterns (e.g. encourage the community health worker to link with existing social networks such as savings groups, PTSAs, etc.)

Example of an intervention plan for Mali

Who will influence?	Who will be influenced?	What activities?	SN approach(es)
Women in savings groups	Mothers-in-law Mothers in law reach other mothers in law Reach more daughters-in-law and sons	Dialogues as part of savings groups activities facilitated by animators DILs talk with MILs MILs talk with others	Strategically targeted groups Snowball
<i>Grin</i> (men's or mixed social group)members via social leader	Grin members Their wives Other male friends	Animators catalyze reflective dialogues with <i>grin</i> leaders Request to talk with others	Strategically targeted groups Informal leaders of groups Snowball
MOH supervisors and CHWs	Male social groups	CHWs visit <i>grins</i> and savings groups and give clinic tour	Reconfiguring networks
Religious leaders	Religious leader wives Other women	Work with religious leaders and wives to catalyze dialogue (possibly as couples) around health benefits of contraceptive use for spacing	Influential leaders

Article Review

Social Networks and Changes in Contraceptive Use Over Time:

Evidence from a Longitudinal Study in Rural Kenya (Nyanza Province)

Jere R. Behrman, Hans-Peter Kohler, Susan Cotts Watkins, W.R. Kenan Jr.

(I admit up front that I didn't follow all of the statistics)

While this article doesn't address the impact of interventions on social networks, it offers findings to guide planning of social network interventions. It also offers statistical models for causality and an example of combined qualitative and quantitative data to understand the influence of networks on FP behavior.

Relevant findings when thinking about intervening include:

- Men may be even more influenced by social networks than women in their FP use. This may be due to the longer duration of their networks because they do not move for marriage.
- It seems that the function of social learning, including information on network members' experience with FP, may have a stronger influence on FP behavior than the social influence factors.
- Funerals are a significant opportunity for contact and influence beyond what otherwise tend to be homogeneous social networks.

These findings highlight:

- The importance of assuring that good information is passed or that misunderstandings are addressed early
- That the role of social influence assumed as part of SAA may have less impact than people sharing information about their personal experience with FP.

Women's Networks and the Social World

Of Fertility Behavior

By Sangeetha Madhavan, Alayne Adams and Dominique Simon

Recognizing that networks influence behavior through social learning and social influence, this paper looks at characteristics of different networks and how they influence the role of the network in influencing fertility behavior. Characteristics that were considered include level of homogeneity/heterogeneity, participation by influential community members, and participation by a woman's household members (natal and conjugal family) within the networks.

Significant findings included:

- The influence of household factors were found to be non-substantial relative to those of the social network in the multi-variate analyses.
- Increased network membership by the conjugal family tended to discourage contraceptive use, while network membership by the natal family encouraged it.
- More heterogeneous groups were positive for contraceptive use, particularly for younger women.
- More heterogeneous groups are likely to influence contraceptive use through social learning, while more closed social support networks (particularly material and practical support) might be more likely to influence through social influence.

These findings highlight:

- The importance of heterogeneous groups for social learning
- The impact of extended family members who are also part of social networks on the potential influence of the social network

Women's social networks and child survival in Mali

Alayne M. Adamsa,* , Sangeetha Madhavanb, Dominique Simonc
A.M. Adams et al. / Social Science & Medicine 54 (2002) 165–178

Similar to the previous article, this article analyzes the relationship between social network factors and child mortality. However, it adds the overlay of ethnic variation in these network factors between the Fulbe and the Bamanan in Mali. Results indicate that strong (but generally smaller) networks among the fulbe can offset the otherwise higher mortality expected due to more marginalized economic status.

How Family Planning Ideas Are Spread Within Social Groups in Rural Malawi

Valerie A. Paz Soldan

This article looked at gender differences in the content and passage of FP information in social groups. It found that while the trigger for both men and women was often gossip, men tended to draw conclusions indirectly regarding family planning use based on observations such as number of children. Their discussion with each other also tended to focus on issues such as family size and economic implications. In contrast, women talk in much more detail with each other and know the specifics of each other's use. Men and women both preferred same-sex and same-age groups for such discussion. The conclusion is that for both men and women, social groups are significant platforms for information sharing, discussion, and consideration for FP use, but that the process and content are significantly different.

Using Network Analysis to Understand Community-Based Programs: A Case Study from Highland Madagascar

By Kirsten Stoebenau and Thomas W. Valente

This article uses a social network approach to as a way to explain the relative effectiveness of CBD agents in FP knowledge and use. As part of its methodology, it distinguishes between Advice Networks (networks people cite for advice and support – may be more equated with social influence?) and Family Planning Networks (Networks people cite for FP conversations – may be more equated with social learning?) It found that the CBDs were highly central in both networks, and that isolates had less information about FP than others. Indeed in this village, FP information seemed to be diffusing from CBDs outward and not reaching those not part of the network. An added value of this article is that, in addition to measuring the direct or indirect link with CBDs, it also looked at the content and accuracy of the FP knowledge – allowing assurance that the information people were sharing was correct. However, despite this assurance, it cited concerns about family planning use as significant.