

Projet Terikunda Jékulu Using Network Analysis to Address Unmet Need in Mali

Engaging Social Networks in Family Planning Programming: Lessons from Research and Interventions

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I. EXECUTIVE SUMMARY

Ethnographic research and situational analysis, conducted in Mali as part of the *Terikunda Jékulu* project, indicates that any attempt at addressing unmet need for family planning in Mali is likely to encounter significant resistance. Religious opposition to contraception and the premium placed on high fertility are entrenched social norms in the rural communities of the country. Broaching topics that could be perceived as birth limiting are strictly taboo. Furthermore, challenging gender dynamics that may reduce the power that men have over their families' procreation and lineage may be perceived as threatening. This report examines family planning (FP) literature and interventions to understand how social network ideas are used to overcome many of these barriers. Particular attention is given to the individuals and groups who play key roles in decisions regarding fertility and FP. The approaches examined focus on demand creation as both a practical and socially transformative means to addressing unmet need. The conclusion lists specific recommendations learned from various social network approaches and the implications for the *Terikunda Jékulu* project.

The persistence of unmet need for FP in Mali has prompted countless interventions designed to increase supply and access to contraceptive technologies. Despite decades of implementing these interventions, unmet need for FP remains high. Current research suggests that the focus on "supply side" issues has not addressed unmet need or facilitated FP uptake for the women and men of Mali who continue to report unmet need. Most interventions have targeted women without taking into account the ecological context in which these women live. Even when supply issues are not the primary concern, social, cultural, economic, and gender constraints act as barriers that inhibit both women and men from meeting their FP needs. These constraints can also give rise to misinformation that improperly informs FP decision making and impedes the success of awareness raising and education interventions. The problem of quantifying these barriers limits our ability to understand their importance and interaction.

Multiple studies indicate that the attributes of women's social networks, such as number of linkages in the network and the criteria for the selection of discussion partners, exert more influence on fertility and other health decisions than previously thought, even suggesting that social networks have more substantial and significant sway over health decisions than individual attributes like economic status or education attainment. Kinship, credit partners, and other peer constructed social networks (SN) have demonstrated clusters of low fertility, suggesting that these links exert a powerful influence on FP decision making. The influence of gender norms and women's relative lack of power vis-à-vis men have shown a strong correlation to the dominance of FP discussion partners who are spouses and older relatives. Some women in Mali, unable to negotiate FP with their partners, engage in clandestine FP because of differing opinions with spouses, and their relative lack of power in comparison to their husbands. These women are likely to confide only in other clandestine users.

Women also fear the social consequences of menstruation cessation and disruption that can result from using some FP methods. Such changes in menstruation can lead to accusations of infidelity or infertility. Because traditional gender norms place such high value on women's fidelity and fertility, these social consequences have a strong influence over women's FP attitudes. Discussions of FP took on gendered themes in the sex-separate networks. Women

come to the spousal discussion table armed with the knowledge of experiences they learned directly or indirectly from other women, whereas men's attitudes often reflect the approval or disapproval of family planning by their peers.

While social network-based interventions are an innovative development in the field of FP, programs have long used social network principles to diffuse innovation and promote FP uptake. Valente's 2010 monograph *Social Networks and Health* describes six approaches to implementing network-based interventions. While these programs did not approach social networking with the terminology or analytical approach found in the literature, the review reveals that most programs with demand generation components can still be classified into Valente's six categories of social network interventions.

These approaches are:

1. Formal opinion leaders

Social influence is perhaps the most commonly engaged construct from social network theory, and is frequently used in interventions that work through opinion leaders. Working through the links of any social network, social influence builds as individuals independently or collectively begin to exert power over the decisions of others in the network. This power can be based on religion, culture, kinship, wealth, or any number of attributes. By working through formal opinion leaders from various aspects of society, some programs have been able to utilize the existing networks of influence to promote the use of FP.

2. Snowball effect

Commonly used as a sampling technique, a snowball or respondent-driven approach to interventions tasks participants with recruiting new individuals to participate in a given program. Social network theory understands that these individuals will tend recruit from their own social networks, which typically share some common attributes with the recruiter. This strategy is often used to reach hidden populations like sex workers and drug users, but the idea that individuals are well suited to engage those people with whom they share attributes is a common principle in FP/RH programming. In interventions, recruiters often take the role of a peer educator who is typically responsible for conducting trainings, distributing information, promoting FP knowledge, and sometimes distributing commodities. These educators find their audiences through their own social networks where they tend to connect with people of their own age. Peers are often youth, although their principle function can be performed by anyone.

3. Leaders of groups

Some individuals assume leadership positions based on the nature of the role they occupy. These leaders tend to include those who head formally organized networks like organizations, governments, and religious institutions. Many leaders, however, do not occupy these positions. Existing social networks and the groups therein all have individuals who occupy leadership roles without formal titles or office. These leaders can exert influence over the other members of their group explicitly through established hierarchies and experience, or implicitly as the result of being highly respected for a certain skill set, or having the ability to communicate exceptionally well

with others. These types of leaders can exist in groups of farm laborers, groups of women collecting water, groups of individuals of certain standing within the community, *grains*, or any group of people who form a unit together based on some shared attribute.

4. Strategically targeted groups

In every social network there are groups of people uniquely placed who have linkages and influence, and are defined by common attributes they share. The interventions discussed thus far have either leveraged social influence through key opinion leaders, such as religious figures, or attempted to maximize social learning by allowing people to learn from peers, or those who are members or resemble members of their individual social networks. Engaging both constructs of social network theory is more difficult. It means identifying a messenger for the intervention that has both power to exert influence on others, and is a trusted member of the community member's more intimate discussion groups. The combination is ideal because it allows people to adopt behavior change through a learning process that is participatory and promotes sustained change, rather than influence only which promotes change through social power. While removal of that power may lead to relapse, and the abandonment of the desired behavior change, the power an opinion leader exerts does create the space for learning by adding legitimacy and authority to new ideas. This is particularly salient to FP, where new ideas are often seen as oppositional to traditional norms and the traditional leaders who steward such norms.

5. Bridges and connectors

Some individuals are well poised to diffuse information through networks simply based on how the network is constructed around them. These individuals tend to form bridges between different networks and act as intermediaries between other individuals or networks. Targeting these network bridges may help disseminate ideas to multiple disparate groups, or move an idea that has diffused within one group through the bridge and onto another group. While social network analysis reveals the links between individuals and which ones constitute bridges, some individuals are bridges based on attributes of their position in the network.

6. Rewiring linkages and ties

Much has been accomplished in Mali through the rewiring and creation of new networks to affect policy change. The ultimate goal of this process, however, is to affect change at the local level, a necessary though sometimes lofty goal in a low resource setting such as Mali. Social mobilization is the reverse process of policy reform, a bottom up approach, as opposed to top down. Social mobilization approaches engage communities in participatory problem solving to develop new ideas and new solutions that the community can act upon. This process brings new individuals and networks together that may not have interacted previously. Like policy change, social mobilization involves actors from every segment of society. From politician and bureaucrat, to the local NGO volunteer and her fellow citizens, the goal of social mobilization is to create networks of cooperation that can affect change.

Examining these approaches in practice yields key lessons for future FP programming seeking to utilize the power of social networks to achieve desired outcomes. The following

recommendations include lessons learned from past interventions, as well as suggestions on how to apply these lessons to the *Terikunda Jékulu* project in Mali.

I. Engaging formal opinion leaders

What works:

- Generating approval for FP among religious leaders can encourage FP users to talk more freely about their decisions and methods.
- Religious leaders can dispel FP myths.
- High-ranking religious officials can clarify, both for their congregations and for other clerics, that religious teachings do not oppose FP.
- Networks of religious leaders can work together to clarify that religious teachings do not oppose FP.

What doesn't work:

- Many local religious leaders do not have much education, or an in-depth understanding of the Qur'an. Consequently, they may insist that FP is forbidden by Islamic teachings.
- Engaging religious leaders without understanding their spheres of influence may be unsuccessful because communities may align themselves more closely with religious leaders of different ranks. This is especially true in Islam where multiple hierarchies exist.
- Working with traditional leaders that occupy positions of cultural significance, but no longer hold power or control few resources has proved unsuccessful in previous interventions.

Implications for *Terikunda Jékulu*:

- Religious leaders occupy key positions with considerable social influence. The social influence an opinion leader exerts does create the space for social learning by adding legitimacy and authority to new or taboo ideas like modern contraception.
- These leaders should be sensitized to the idea that "birth spacing" leads to healthy and prosperous families—an idea in accordance with the Muslim faith.
- It is important that religious leaders reach consensus on issues related to "birth spacing", and speak with one voice. Otherwise, their congregations may be confused and become skeptical due to competing messages on FP.

II. The Snowball Effect through Peer Education

What works:

- Peer educators can be used as effective models of positive deviant behavior.
- Using peer education promotes interpersonal communication. People tend to trust and confide in their peers, facilitating discussion of taboo subjects like FP.
- People tend to confide in their peers over other groups. Evidence from research and interventions indicates men are likely to talk about FP with other men, youth prefer to talk with other youth regarding RH issues, and women will tend to engage in FP discussions with other women that they feel share their views.

- Peer educators can serve as behavior models. They may exhibit positive deviant behavior pre-dating the intervention, or they may have adopted the desired behavior change through training or contact with another peer educator. In either circumstance, the peer educator approach provides opportunities for observation, testing, and social learning in a safe environment.
- Peer educators reach informal discussion networks, but are more effective when the networks in question are supported and reinforced with other activities that promote participation and interpersonal communication, as well as consistent messaging through mass media.
- Peer educators are effective when they are motivated, enthusiastic, and have the correct perceptions of the training objectives.

What doesn't work:

- Interventions have not been as successful when follow-up training, clearly defined curricula, and operational support were not provided to peer educators.
- Unstructured peer education models have been too loosely defined to achieve results.
- Programs in which the peer educators have not been incentivized in some way have been less successful. Incentives are not necessarily monetary in nature, but can be materials that bring recognition to the individual and the program and elevate status in the community, such as merit certificates, tote bags, or articles of clothing. They can also include other factors such as personal dedication, heightened esteem in the peer group, and supplementary education.
- The time requirements placed on peer educators cannot be so much that it discourages them from continuing in their roles.

Implications for Terikunda Jékulu:

- Peer educators should be carefully chosen to ensure that they are committed to reducing unmet need for FP. They should also be selected based on their interpersonal communication skills or their individual capacity to improve these skills.
- The peer education approach should extend beyond youth and incorporate adult men and women of reproductive age, and perhaps even other individuals not of reproductive age, such as mothers-in-law.
- Early identified positive deviants in Mali are likely to be clandestine users. Engaging covert positive deviants may expose them to backlash or harm. Covert users should be approached with caution and care if the program is seeking to recruit these positive deviants into any peer educator role.
- Peer educators must receive follow-up trainings and support from program staff in Mali, where the vast rural nature of the region is likely to isolate peer educators in their respective remote areas, and perhaps discourage them from continuing in their roles.
- Interpersonal communication of the peer educator approach will work best if combined with multiple community approaches -- Discussion groups, community awareness campaigns, radio programs, organized community interaction programs, and performance events working together to dispel FP myths and misinformation and de-stigmatize the use of FP.

III. Leaders of Established Groups

What works:

- Identifying individual leaders of non-formal groups is an effective way to diffuse information through informal networks. These natural leaders operate in more intimate and socially supportive environments that can facilitate the discussion of difficult subjects like FP. It has also been observed that these leaders often have more frequent contact and opportunities for interpersonal communication with their group members; this may be because these groups are often smaller than larger formal groups.
- Leaders are more successful when they are trained in interpersonal communication with an emphasis on being frank and factual.
- The approach is more successful when it is participatory:
 - Group members should identify their leader and this can be confirmed through SNA.
 - Sessions they conduct with group members produce better results when they are participatory and interactive. This is because although the leaders may exert influence over group members and add legitimacy to the discussion, group members must also participate in order for social learning to occur. Participation through social learning will promote sustained change, whereas change stemming from the power an opinion leader exerts may not sustain itself in the absence of that leader.

What doesn't work:

- Group leaders who have been engaged to educate their respective groups on FP should not oversee groups of more than 10-15 members.
- Leaders should not be morphed into community health workers. Their strength lies in the informal and intimate dialogues they foster with group members. Removing leaders from that environment for extensive training, or overburdening them with clients undermines their core strengths as leaders of informal groups.

Implications for Terikunda Jékulu:

- Working through the leaders of informal groups is a potent tool for disseminating information through discussion networks. The success of this approach depends on how the leaders are identified and to what degree they are incorporated into the project.
- Results of SNA may indicate certain natural leaders within informal networks. These individuals should be approached with careful consideration. The selection of individuals to participate in formal leadership roles within a project could have negative consequences. Other group members could interpret the leader's elevation to a formal position as unwarranted, threatening, or offensive. For this reason, it is best for groups to select their own leaders through a participatory process to increase buy-in and incorporate the feedback of all group members.

IV. Strategically Targeted Groups



What works:

- Successful male engagement relies on treating men as partners of women, clients or beneficiaries of FP, and agents of change.
- Men are typically more receptive to messaging emphasizing the financial benefits of FP.
- Men can be reached by embedding FP messages and activities in interventions typically perceived to be in the domain of men—projects that may, in practice, exclude women. This approach also provides an atmosphere where men can begin to understand the benefits of FP by comparing it to ideas men are familiar with, such as protecting natural resources for future use is akin to protecting your wife's health now to support your entire family's future health.
 - This approach also opens the door for women to be incorporated into men's projects. Cooperation between the sexes in this realm may transfer to cooperative decision making regarding FP.
- Supporting positive images of masculinity, such as the caring father and loving partner, that can help transform gender norms and make it easier for men to support family planning. This may also include promoting images and perspectives on masculinity that are more gender equitable and non-violent.
- Programs with male engagement can be gender transformative by having men reflect on gender norms and their negative consequences. This helps men understand the importance of sharing decision making with their spouse.
- Cognitive dissonance activities like having men examine pictures of GBV, authoritarian husbands, or negative outcomes of high fertility is effective in prompting men to understand the negative effects of gender norms, including their dominance over FP decision making.
- Using men to counsel other men through a peer or mentoring approach is one of the most effective means of reaching men. Male motivators or peer educators ideally should be current contraceptive users.
- Motivators or peer educators should be selected that can reach men in the evenings, in places where they gather and at their places of work.

What doesn't work:

- Exposure to mass communications did lead to incremental improvements in men's knowledge of and attitudes towards FP, but a considerable gap remains between high knowledge and low practice.
- Single message campaigns targeting men may reinforce gender stereotypes and gender power disparities by assuming that men will retain the majority of the decision making power.
- Emphasizing the financial benefits of FP helps to reach men and can be persuasive, but continues to frame FP in the male context and under male authority.

Implications for *Terikunda Jékulu*:

- Gender transformative programs hold the most potential for affecting sustainable changes in gender norms that will promote shared decision making and cooperation on the use of FP between partners. However, this approach may not be scalable in Mali because it is time intensive (some programs include 70 modules for participants), involves highly trained facilitators, one-on-one counseling sessions, and is expensive.
- Research in Mali and West Africa indicates that men discuss FP with friends and tend to be influenced on the issue most by this group. A male motivator or male peer educator approach may be most effective for reaching Malians and closing the gap between knowledge and practice.

TRADITIONAL BIRTH ATTENDANTS

What works:

- Working with TBAs affords an intervention the benefits of a trusted figure who exerts both social influence and promotes social learning in interpersonal communication and discussion networks.
- TBAs are able to reach women in purdah, and are typically trusted by husbands and mothers-in-law.
- Training TBAs to disseminate FP information, methods, and technologies will make them an effective arm of an intervention.

What doesn't work:

• While TBAs are not necessarily professional health workers, they may be more effective than CHEWS who are not necessarily influential figures in the social networks of poor rural women.

Implications for Terikunda Jékulu:

- TBAs should be selected on the basis of careful criteria that will enhance their effectiveness as well as program outcomes. These criteria should include being pro-FP (which can be determined through a simple survey), as well as being of reproductive age so that they may more easily reach women on a peer level. It is unlikely that all potential TBA volunteers can be FP users; however, all TBAs should be trained on all modern and natural methods and should not be opposed to sharing any method with a potential FP user to ensure informed choice.
- TBAs may need to be incentivized. This incentive could be increasing their training, providing health kits, transport stipends, identification cards, or uniforms when desired.
- Training TBAs to conduct eligible couple mapping that introduces data collection on referrals and FP uptake may reveal clusters of couples who have adopted FP. This would also serve as a useful monitoring tool to see which TBAs are having better outcomes. This information could then be used to identify less effective TBAs and provide them more training, such as interpersonal communication skills, and assistance in the course of their activities. This may not be possible, however, if TBAs are illiterate.

COUPLES

What works:

- There is a positive correlation between spousal communication and use of a modern contraceptive. Targeting spouses in a way that prompts a reevaluation of gender disparities is likely to lead to more open communication and joint decision making.
- Pairing male motivators with TBAs has proved useful in reaching couples by giving both the husband and wife a same-sex confidant to ask questions of with fewer reservations.

What doesn't work:

- Programs that target a single sex, male or female, have a poor track record of fostering couples communication.
- Programs that work with couples have the potential to expose current clandestine users. These women could be endangered should their husbands become aware of their covert use of FP. All staff and facilitators should follow clear protocols to ensure any private information of a wife will not be revealed to her husband.

Implications for Terikunda Jékulu:

• Considering gender power disparities in Mali, couple's engagement is not an ideal point of entry for an FP intervention. Activities between couples should be reserved until men become sensitized to the idea of FP and the need for joint decision making. Women's communication skills should also be addressed to help build needed confidence in discussing difficult subjects like FP with their husbands.



What works:

- Griots are potential allies in spreading pro-FP messages. They have been used in interventions to spread messaging through their traditional mediums specific to Malian culture.
- There may be considerable untapped potential with this group, as they are respected individuals with a distinct place in Malian society that allows them to voice their opinion on certain taboo issues where most remain reticent.

What doesn't work:

• There has been no systematic evaluation of the incorporation of griots into interventions. While they have been engaged as "gatekeepers" (those with influence over cultural institutions), their effectiveness remains unclear.

Implications for Terikunda Jékulu:

• The influence griots have over individual attitudes and behavior has yet to be understood. SNA may not reveal the influence of griots, who are revered figures, but whose role in society is often peripheral and relegated to key functions performed in rituals and ceremonies. In these capacities, griots may not be frequent discussant partners with many individuals and couples of reproductive age.

MARGINALIZED GROUPS

What works:

• Positive deviants and early adopters are important individuals to target for diffusing FP ideas and information through marginalized groups, which are less likely to have linkages with the social networks of dominant groups.

What doesn't work:

• Marginalized groups are ill-suited to diffuse information through broad networks because they lack ties to those outside of their group.

Implications for Terikunda Jékulu:

• Malian society includes many marginalized groups, including slave populations. Program objectives to reduce unmet need will need to be reconciled with calls for social inclusion. Addressing unmet need in marginalized groups may have a limited impact on overall unmet need from a social networks perspective, and may encounter resistance from local dominant groups. Still, social inclusion is a core objective and development goal of USAID, and should be considered.

V. Bridges and Connectors – Finding Potential Links Between Individuals and Networks

What works:

- Positive deviants will not always be leaders. Often, they will be average group members who have found a way to practice FP or meet their unmet need that the majority of the group has not. These people can be used to link and connect other individuals. Positive deviant inquiry (PDI) can be used to identify the environments that enable to them to adopt behaviours outside the norm of their community.
- Mothers-in-law are powerful figures that have been engaged in the past because they hold sway over both their sons and their daughters-in-law.
- Community-based distribution networks can link contraceptive clients and potential clients to clinics.

What doesn't work:

- Some findings suggest that a communication divide exists between young mothers and their mothers-in-law. This divide is especially strong on issues such as FP, where most young mothers perceive that their mothers-in-law are against FP.
- Programs that do not address the underlying perceptions that young mothers have regarding their mothers-in-law's beliefs on FP are less likely to be successful.

Implications for *Terikunda Jékulu*:

- Possible PDs should be identified through focus groups, rather than asking others to identify people, to protect privacy.
- Findings from PDI may not be generalizable in the Malian setting where significant differences exist between communities and their resources across the vast rural nation.

- Ethnographic research in selected Malian villages has found that mothers-in-law tended to approve of FP, and that they may be more willing to sensitize their sons to the benefits of FP than their daughters-in-law believe they are.
- Exchange meetings between community-based distributors and clinic staff can help facilitate dialogue, promote cross learning and build stronger linkages across the referral network. This could be important in rural Mali where clinical services are so spread out. Strengthening relationships between CBDs and clinic staff trickles down to individual clients who may not have easy access to facilities. Clients will benefit from recognizing their CBD's increased confidence in clinic staff, which in turn promotes clinic referral.

VI. Rewiring Networks: Creating Linkages through Social Mobilization

What works:

- Working with high level religious leaders and government officials has helped in developing pro-FP/RH policies at the national level. This effect, however, has not trickled down into Malian villages. Therefore, it is necessary to work through a social mobilization approach that engages communities in participatory problem solving to develop new ideas and new solutions that the community can act upon. The process of mobilizing human resources as agents and facilitators of sustained behavior change can rewire networks to diffuse positive FP messages.
- Social mobilization benefits from complimentary processes, like training community members as safe motherhood volunteers (SMVs) and safe motherhood advocates (SMAs), thus filling a programmatic need and engaging the community as participants.
- Recruiting advocates from within the community who feel passionately about the benefits of FP will help ideas diffuse more rapidly.
- Social clubs, like mothers and fathers clubs, are the ideal setting for social learning to take place amongst peers.
- Contraceptives should be socially marketed and distributed by individuals that potential users feel comfortable approaching.
- Community members should been included in the development of multiple modes of communication including individual outreach, community dialogues, posters and pamphlets, rallies, television and radio.
- The community should be part of a participatory process to design an intervention to address identified challenges in meeting unmet need.
- Community dialogues should be held between positive deviants and influential leaders to sensitize leaders and develop strategies for reaching the community with messaging.

What doesn't work:

- While demand creation is a key factor of social mobilization, the inability to meet the demand for contraceptives that a program creates can undermine program objectives and tarnish a program's reputation.
- Social marketers should not be representative of only one age group or class of people. They should represent different facets of the entire community in order to reach the most beneficiaries possible.

Implications for Terikunda Jékulu:

- For clandestine users, social marketers may need to be in anonymous settings, i.e. where clients can come to purchase something other than FP as a cover for actual FP purchases.
- More information is need on appropriate ways to engage informal discussion groups like the *grains de thé*. If catalyzed, these existing groups could be a powerful network for diffusion of ideas, as well as vehicles for social mobilization that would benefit from the groups cultural legitimacy.

Themes to Keep in Mind

Regardless of the approach chosen or actors engaged to participate in the intervention, several key principals will help *Terikunda Jékulu* maximize the power of social networks to address unmet need.

- Formal and informal networks both hold significant potential and can work in tandem with each other to promote attitude and behavior change.
- Engage existing networks, but don't be afraid to create new ones that can serve a defined purpose.
- Identify points of entry into existing networks at various levels, including working with religious leaders of various levels, as well as female figures such as TBAs and other traditional healers.
- Utilize social influence through opinion leaders, but promote activities that foster social learning.
- Connect opinion leaders and positive deviants to each other form "champion" coalitions amass social influence by organizing key actors to catalyze change at the local and national levels.
- Constructive male engagement is critical to success. While all not male engagement approaches seek to transform gender norms, challenging men to re-evaluate the consequences of their dominant role in the FP decision making process is an essential first step in creating the space for women to assume a more active role in their own fertility decisions.
- Participation is a key feature across all successful programs, helping to create buy-in and ownership amongst the community. This is particularly important in FP programs where there may be significant opposition to the ideas, attitudes, or methods the program is seeking to promote.

II. INTRODUCTION

Ethnographic research and situational analysis, conducted in Mali as part of the *Terikunda Jékulu* project, indicates that any attempt at addressing unmet need for family planning in Mali is likely to encounter significant resistance. Religious opposition to contraception and the premium placed on high fertility are entrenched social norms in the rural communities of the country. Broaching topics that could be perceived as birth limiting are strictly taboo. Furthermore, challenging gender dynamics that may reduce the power that men have over their families' procreation and lineage may be perceived as threatening. This report examines family planning (FP) literature and interventions to understand how social network ideas are used to overcome many of these barriers. Particular attention is given to the individuals and groups who play key roles in decisions regarding fertility and FP. The approaches examined focus on demand creation as both a practical and socially transformative means to addressing unmet need. The conclusion lists specific recommendations learned from various social network approaches and the implications for the *Terikunda Jékulu* project.

III. LESSONS FROM RESEARCH ON SOCIAL NETWORKS AND FAMILY PLANNING

The persistence of unmet need for family planning (FP) in Mali has prompted countless interventions designed to increase supply and access to contraceptive technologies. Despite decades of implementing these interventions, unmet need for FP remains high. Current research suggests that the focus on "supply side" issues has not addressed unmet need or facilitated FP uptake for the women and men of Mali who continue to report unmet need. Most interventions have targeted women without taking into account the ecological context in which these women live. Even when supply issues are not the primary concern, social, cultural, economic, and gender constraints act as barriers that inhibit both women and men from meeting their FP needs. These constraints can also give rise to misinformation that improperly informs FP decision making and impedes the success of awareness raising and education interventions. The problem of quantifying these barriers limits our ability to understand their importance and interaction. (Campbell, et al 2006).

Additionally, women's health decisions are influenced by external impediments as well as external actors such as spouses, family members, friends, and community and religious leaders. These players make up a web of linked influences that constitute a woman's social network, which plays an important role in determining the FP choices a woman can and will make.

Multiple studies indicate that the attributes of women's social networks, such as number of linkages in the network and the criteria for the selection of discussion partners, exert more influence on fertility and other health decisions than previously thought, even suggesting that social networks have more substantial and significant sway over health decisions than individual attributes like economic status or education attainment (Koehler, Behrman, and Watkins, 2007). However, the attributes of potential discussion partners, like language, ethnicity, and age, play an important role in women's selection of discussion partners. Ultimately, however, women are simply using these attributes to locate other women who

they perceive are similar to themselves, and therefore likely to share their own existing FP attitudes and behaviors (Valente and Boulay 2005).

Research from Mali is confirming many of these ideas. Kinship, credit partners, and other peer constructed social networks (SN) have demonstrated clusters of low fertility, suggesting that these links exert a powerful influence on FP decision making (Madhavan, 2003). Social network influences also affect women's other reproductive and maternal health decisions. For example, women are more likely to seek pre-natal care if their neighbors are receiving high or medium levels of prenatal care. (Guttmacher, 2007). Women in rural Mali were more likely to seek maternal health services if they lived in close proximity to someone with secondary or higher education, suggesting proximity networks have strong influence over health decisions. (Gage, 2001).

Some studies have been able to capture how influence shapes health outcomes differently among respective ethnic groups. Where cognitive networks, or those networks providing advice and information, were found to increase the chances of child survival in the Fulbe ethnic group, such networks were not as important to women of the Bamanan ethnic group. The presence of other network members living in the home had the strongest correlation with child survival in the Bamanan group (Adams, Madhavan, and Simon 2002).

More studies, however, have identified factors leading to increased fertility. The influence of gender norms and women's relative lack of power vis-à-vis men have shown a strong correlation to the dominance of FP discussion partners who are spouses and older relatives (Madhavan, 2003). Some women in Mali, unable to negotiate FP with their partners, engage in clandestine FP because of differing opinions with spouses, and their relative lack of power in comparison to their husbands. These women are likely to confide only in other clandestine users (Castle 2003). Co-wives, or co-resident wives may collaborate and support each other in FP use, but they may also be in competition with each other to produce more children for the family's husband (Madhavan, 2001). While such competition occurs between women, it is a product of the power that men have over women that can compel women to seek more children in this circumstance.

Women also fear the social consequences of menstruation cessation and disruption that can result from using some FP methods. Such changes in menstruation can lead to accusations of infidelity or infertility. Because traditional gender norms place such high value on women's fidelity and fertility, these social consequences have a strong influence over women's FP attitudes (Castle, 2003).

Clear gender differences in the exchange of FP information and in FP decision making underscore the need for constructive male engagement in interventions seeking to address unmet need. Evidence from across Sub-Saharan Africa (SSA) shows that gender influences in social networks have a considerable impact on FP decision making. For example, despite the emphasis on spousal communication in some FP interventions, spousal discussion of FP doesn't necessarily translate into an increase in partners' knowledge, suggesting that spouses learn from other discussion partners more than they do from each other (Derose, 2004). Men's and women's discussion networks in Mozambique were found to have very little overlap. Discussions of FP took on gendered themes in the sex-separate networks. Women come to the spousal discussion table armed with the knowledge of experiences they learned directly or indirectly from other women, whereas men's attitudes often reflect the approval or disapproval of family planning by their peers (Agadjanian 2001).

Research in predominantly Muslim northern Nigeria has shown that couples have distinctly different, gendered reasons for desiring more children. Women see it as key to their ability to please their husbands by providing him an abundant family and no need to take additional wives, whereas husbands see fertility as something that convinces current wives to accept new wives whose help is needed in caring for the growing family (Izugbara, 2010).

Perhaps highlighting the strongest power differential between men and women to come out of the research, studies from both Ghana and Kenya found that men's social networks have more of an influence over FP behavior and outcomes than women's social networks (Avogo, 2008 and Behrman et al, 2002). This underscores the reality that whatever strides are made through using women's networks to promote FP, men's approval is still required in most circumstances for FP to be implemented.

Some FP research has explored how informal discussion networks can be engaged to promote behavior change. In the 1970s, scholars led by H.J. Clark examined the role of mothers' groups, as well as rumor, in the diffusion of FP innovations to wider audiences. Diffusion within these groups, however, was not measured (Valente and Watkins, et al 1997).

More recently, research has shown how women's informal associations in Cameroon tend to demonstrate distinct patterns, or clusters of users of certain FP methods (Valente and Watkins, et al 1997). These associations were organized based on ethnicity, language, and function, and operated as rotating credit groups, capital raising committees, or information exchanges. Despite their primary functions, the groups functioned as networks through which women discuss and share information on family planning.

IV. LESSONS FROM INTERVENTIONS ON SOCIAL NETWORKS AND FAMILY PLANNING

While social network-based interventions are an innovative development in the field of FP, programs have long used social network principles to diffuse innovation and promote FP uptake. Valente's 2010 monograph *Social Networks and Health* describes six approaches to implementing network-based interventions. Informed by Valente's categories, this review will examine interventions that are based on these approaches or utilize key principles from them. In order to better understand these approaches in the context of FP in Mali, a few of the approach titles have been modified to better reflect the core principles being applied in the programs presented here. These approaches are:

- 1. Formal opinion leaders
- 2. Snowball effect
- 3. Strategically targeted groups
- 4. Leaders of groups
- 5. Rewiring linkages and ties
- 6. Bridges and connectors

FORMAL OPINION LEADERS

Though few FP interventions have worked primarily through solely private discussion networks, many programs are utilizing components of social network theory to foster behavior change. Social influence is perhaps the most commonly engaged construct and is frequently used in the engagement of formal opinion leaders. Working through the links of any social network, social influence builds as individuals independently or collectively begin to exert power over the decisions of others in the network (Montgomery, 2001). This power can be based on religion, culture, kinship, wealth, or any number of attributes. "As individuals consider innovative choices, they may find that various groups, institutions, or local elites are positioned either to facilitate or to constrain the adoption of those choices," often to accord with social norms (Montgomery, 2001). Many interventions have adapted the somewhat coercive nature of social influence for positive goals. By working through formal opinion leaders from various aspects of society, some programs have been able to utilize the existing networks of influence to promote the use of FP.

POLICY PROJECT (PP) & HEALTH POLICY INITIATIVE (USAID | HPI) MALI

Featured as a USAID success story, Futures Group and CEDPA's work with Futures Group in MALI as part of PP (2000-2006), and continuing under USAID | HPI (2006-2010), engaged religious leaders in a new and innovative way. The result was a broad coalition of religious leaders who could dispel FP/RH and HIV myths and promote the adoption of positive health behavior.

Religion is a powerful force within communities. Religious leaders have the power and influence to assure Muslims that FP is not in contradiction with the Qur'an, as many believe. Winning allies for FP in the religious community requires finding the acceptable messages that religious leaders can readily support. In this circumstance, use of the phrase "birth

spacing" became key. It allowed the leaders to promote maternal and family health through birth spacing, while not forcing them to condemn high fertility outright.

The coalition of religious leaders also constituted a network through which individuals of their level could learn, share, and collectively advocate for things like the promotion of modern contraceptives , the primary activity supported by CEDPA, and care and support activities for people living with HIV, addressed by Futures Group. The structure of the intervention utilized the existing hierarchy of Mali's RIPOD (Islamic Network for Population and Development). Trainings began with Imam's in Bamako and other urban centers and progressed through the provincial areas to local madrasas.

TAHSEEN

Implemented by PATH in 2005, the Tahseen Project engaged religious leaders in Upper Egypt to spread messages about the importance of healthy birth spacing. Use of contraceptives in the vast program area increased by 30%.

Many of the respondents may have been clandestine users. However, an awareness of the approval of religious leaders may have encouraged some FP users to talk more freely about their decisions and methods. The support of FP by religious leaders also influenced couples to communicate more openly on the subject where it may have previously been considered taboo.

KYAUTATAWA IYALI

CEDPA's ongoing program in northern Nigeria aims to improve family welfare by using demand creation and service provision to address complex reproductive health challenges. CEDPA has worked to create an enabling environment by working with local partners to increase FP uptake, maximize access, and sustain FP use. As the project progressed, so did the understanding of what strategies would work within the context of the culture and environment.

One facet of fostering an enabling environment has been the inclusion of religious leaders. In collaboration with the ENHANSE Project, CEDPA supported the training of Imams at the Institute of Islamic Studies at Ahmadu Bello University. In an effort to reverse the high rates of maternal and infant mortality in northern Nigeria, the training sensitized religious leaders to take action to promote safe motherhood, birth spacing and education of girls. In addition, these leaders were urged to support advocacy for reproductive health and family planning within their communities and jurisdictions.

The Chief Imam clarified Islam's position on using modern contraception, affirming the critical message that birth spacing is desirable for the well-being of mother and child, and that it is different from birth limitation. Getting buy-in from the Chief Imam on this point helped to positively influence the network of Islamic leaders in northern Nigeria who were not necessarily influenced by each other. This demonstrates the importance of engaging opinion leaders at every level. Even high ranking religious leaders are susceptible to social influence; however, the key to making that influence affect change is finding the right entry point. This is particularly difficult in Islam as religious hierarchies are not as clearly defined as in other

religions. Certain Imams may only hold sway over specific constituencies, and high ranking Imams may be in ideological opposition to each other on certain issues. This underscores the importance of bringing together networks of religious leaders to in order to build consensus, which in turn will be more influential over their followers than mixed or competing messages from different leaders.

WORKING THROUGH OTHER OPINION LEADERS

Formal opinion leaders are not solely religious figures, and they needn't always be men. In July 2000, CEDPA, in collaboration with the YWCA, decided to sensitize Queen Mothers and "magajias" from the Brong Ahafo region of Ghana to HIV. Capitalizing on their roles as traditional leaders, these women sought to involve other women in their communities in the prevention of the disease. Queen Mothers held meetings in accordance with traditions that were familiar to their communities. They were afforded meeting spaces and audiences with women of the community based on local custom. Not all Queen Mothers had the same amount of influence. Sometimes, influence derived from traditional hierarchies is not sufficient. In some communities, the position of Queen Mother had lost much of its former power and was now only tacitly acknowledged as a traditional role. Indeed, many lacked resources to implement lessons learned from HIV trainings. This draws an important distinction between a de facto and a de jure leader, and highlights the point that an opinion leader's influence is based on more than the position they hold. The esteem the community has for the leader, and the power they perceive the leader to have, are more determinate of influence than a title.

THE SNOWBALL EFFECT THROUGH PEER EDUCATION IN FP PROGRAMMING

Commonly used as a sampling technique, a snowball or respondent-driven approach to interventions tasks participants with recruiting new individuals to participate in a given program. Social network theory understands that these individuals will tend recruit from their own social networks, which typically share some common attributes with the recruiter. This strategy is often used to reach hidden populations like sex workers and drug users, but the idea that individuals are well suited to engage those people with whom they share attributes is a common principle in FP/RH programming. In interventions, recruiters often take the role of a peer educator who is typically responsible for conducting trainings, distributing information, promoting FP knowledge, and sometimes distributing commodities. These educators find their audiences through their own social networks where they tend to connect with people of their own age. Peers are often youth, although their principle function can be performed by anyone.

While opinion leaders in positions of authority present an opportunity for interventions to utilize influence in social networks, peer education programs engage youth by identifying change agents within their own social networks. Using peers as educators who demonstrate the desired behavior change has some advantages over strategies that engage opinion leaders. Research has shown that imitating the carrier of a behavior leads to higher rates of behavior change than result simply when the behavior is presented as an idea (Haggith, et al, 2003). In other words, imitating a model behavior is easier than following instructions. One explanation for this may lie in the social network constructs of social influence, defined earlier, and social learning. Whereas social influence relies on power dynamics within a social network to

promote change in individuals, social learning occurs during interpersonal communication where an individual, presented with a new idea, can weigh the costs and benefits of assimilating that idea (Montgomery, et al 2001). A peer offering new information and modeling a new idea presents an opportunity for observation, testing, and learning that may not otherwise arise when a high-ranking opinion leader is exerting his or her social influence to promote a new innovation. Similarities between peers also confer a more intimate level of trust and openness to interpersonal communication.

Peer-based FP and RH interventions are especially relevant for youth. Inexperience with FP and RH in the youth population presents limited opportunities for social learning, leaving youth to cope with the results of their experimentation. Across sub-Saharan Africa, youth engage in high risk behaviors like unprotected sex based on insufficient knowledge and distorted judgments, resulting too often in unintended pregnancy and the transmissions of STIs (Gage, 1998). Youth are capable of adopting healthy behaviors early in life and avoiding these negative outcomes. Peer education gives youth the opportunity to learn to make positive health decisions alongside someone of a similar age and with similar experiences to their own. In a peer based intervention, these similarities foster trust between facilitator and participant, while the experience itself strengthens the links between participants sharing in the social learning process.

REPRODUCTIVE HEALTH FOR YOUTH IN MALI (RHYM):

Building on CEDPA's worldwide experience in developing life skills and supporting advocacy for young people's reproductive health, the RHYM (2000-2003) program in Mali provided technical assistance and support for ten local NGOs engaged in sexual health education and basic service provision to train young people to inform each other about sexual health matters (including HIV prevention), to provide selected methods of contraception and to refer those with suspected STIs for treatment.

Peer educators (PEs) worked to dispel misconceptions such as the idea that pills and injectables can threaten long-term fertility. The program found that young people tended to confide their reproductive and sexual health problems to a best friend or confidante over parents, making the PE model a more natural mode of communication. This view was reiterated by the parents who, in general, expressed a desire to leave young people to inform each other and did not want to take on such a role, as they found it embarrassing and shameful.

The project also worked with traditional, religious, and community leaders to help dispel their erroneous beliefs regarding the side-effects of contraception or about modes of HIV transmission. This strategy engaged the social influence these opinion leaders had, not only over youth, but also their parents, and acted as reinforcement on the more social learning oriented activities of the PEs.

The project found a real role for traditional leaders, and occasionally griots, to work with parents to persuade them of the importance not only of open and frank discussions with their children, but also of encouraging indirect methods of communication. Because parents are reluctant to intervene in these matters, introducing the new ideas was done through community members for whom they have a high regard. This opened the door for peer

educators to work with parents directly to establish a dialogue in the household, but making sure that the parents, rather than the children, initiated and sustained it. A combination of large group public discussions, radio broadcasts, special events in the communities and other activities by peer educators and NGO staff reached 1,733,332 youth on reproductive health issues through the RHYM project. 1,533,332 of these occurred during the year 2000.

CEDPA and its NGO partners promoted the use of contraception through IEC activities, peer educators who educated and counseled youth and who sold contraceptives, through the establishment of Youth Orientation Centers and clinics that offered youth friendly RH information, referrals and services, and community outreach activities. The inclusion of PEs in the IEC (information, education, and communication) strategy development from research to the development of messages provided capacity building for the youth but more important, resulted in compelling messages that appealed to the sensibilities of young people, rather than what adults believe would influence young people.

ENABLE – GHANA

Globally implemented by CEDPA from 1998-2003, the ENABLE Project provided FP/RH support that enriched the surrounding environment to increase utilization and sustain services. ENABLE was based on a social-ecological model with individual, family, community and regional/national levels.

In Ghana, the program tested two PE models for reaching youth-related FP/RH objectives. The Structured Peer Network Model involved a three-stage process: Recruitment and training of peer educators; Peer educators recruited peer promoters and provided them with the same training they received; and after training, peer promoters recruited people from their communities (peer contacts) and discussed the same issues that they learned.

While seeking to engage existing social networks of youth, the structured model sought to reinforce informal discussion networks with techniques designed to foster constructive dialogues like youth group formation, and increased regularity of group interaction, use of discussion guides, and planned activities. Each peer educator formed a group of ten to 20 other youth whose role was to act as peer promoters. The peer educators and peer promoters met at regular intervals (i.e., two to three hours one day a week) to systematically examine a series of RH/FP topics through discussions, role-plays, drama, games, or debates. In the next stage, ten to 20 peer promoters formed youth groups of five to ten members called peer contacts, who were youth who had not had contact with the first group, i.e. they constituted an entirely new group. These groups also set aside a day a week when they met to systematically discuss the issues learned from the peer promoters who, in turn, served as facilitators to their groups.

The Unstructured Peer Network Model also involved a three-stage process where NGOs trained young people to be peer educators on SRH issues; and, as peer educators, young trainees informally discussed SRH issues with their friends. The Unstructured Model involves no traceable links or feedback loops. In addition, group formation is uncommon, as activities are conducted informally. The advantages of this program were its relative flexibility and the utilization of more informal, pre-existing discussion networks, which were thought to be optimal for cultural and context appropriate social learning. Educators and promoters were

free to use their own recruitment and education strategies. The facilitators largely controlled meeting times and the duration of discussions. They could choose either to contact individuals or work in groups.

Despite these advantages and contrary to expectations, the Unstructured Model was not a success. It was too loosely defined to achieve results. Although the peer education program covered many settlements, the data clearly demonstrated that very few people actually benefited from program activities. As many as 201 peer educators were trained to recruit and train others. However, the field survey indicated that some peer promoters had not carried out the program due to a possible lack of motivation, enthusiasm or had the wrong perceptions of the training's real objectives.

In addition, since there were no incentives, few communities and groups were contacted by members of the peer education program. As the cost of inter-base movement was not paid for, peer educators felt reluctant to move, which limited the scope of people who could be contacted. For the majority of peer educators, the bottom line was the lack of financial resources to motivate and retain the potential recruits who were contacted.

While logistical and cost considerations contributed to the failure of the unstructured model, personal views being incompatible with the FP/RH information being promoted was cited as a major constraint and factor contributing to the lack of motivation on the part of both the PEs and their recruited promoters. This underscores the idea that diffusion through SNs occurs most effectively when individuals are presented with other network members who model the behavior. In the unstructured approach, the NGOs did not provide behavior models who were part of the PEs' social networks, and the PEs' lack of adoption of the desired behaviors resulted in few behavior models available to the promoters and their discussion partners.

PEs and participants in the unstructured model also complained that the time commitment was too much, especially for women. Same sex PEs and peer promoters were necessary to reach young women, yet the women in these roles felt they had little support to carry out the program, especially considering the burden of work women must already contend with as a result of their gender specific duties and responsibilities.

The Structured Model respondents showed higher levels of HIV/AIDS transmission knowledge than those in the Unstructured Model. In the Structured Model, respondents' HIV transmission knowledge was generally high irrespective of their education. Even among the male and female respondents without formal education, there were very high scores for knowledge of transmission through sexual intercourse, sharing of needle/blade and from mother to child.

The approach is local, participatory, and promotes program ownership. Additionally, the model is low tech and provides a replicable model for other organizations interested in utilizing the process. Depending on the incentives required to induce PEs' constructive participation, peer education programs may or may not be particularly cost effective. Some scenarios may present the opportunity to utilize enthusiastic volunteers as PEs, while other programs may necessitate that PEs be compensated monetarily or otherwise.

The success of the structured model highlights that using a PE model to reach more informal discussion networks can be effective when the networks in question are supported and reinforced. The unstructured approach did not diffuse FP/RH information well; this may have been because the PEs and peer promoters themselves were not positive deviants. While there are multiple factors that went unanalyzed which may have contributed to the success or failure of either model, a key lesson learned was that simply dropping information into a network, even with a carefully selected messenger, will not produce results. Such a technique may be more suited to a strategy seeking to utilize social influence, where the power an opinion leader exerts may compel or persuade individuals to adopt the new behavior or idea. A PE model, however, is oriented towards social learning, where the presence of behavior models and bidirectional communication is necessary to foster behavior change or idea adoption.

FAMILY FUTURES PROJECT

CEDPA's FFP, implemented in the Central Terai region of Nepal from 2007-2009, also engaged PEs to lead discussions with their peers, ages 15-24, on FP/RH and HIV/AIDS topics, and engage these peers in household and community mobilization activities. It also utilized an older cadre of Family Future Supporters (FFS) that distributed contraceptives door-to-door to reach the most marginalized populations. Linking education with access to FP services was critical to increasing contraceptive use.

Overall, the project was successful in achieving its objectives and in several cases surpassed expected results in family planning knowledge, attitude and behaviors. The contraceptive prevalence rate increased by 13.6 percent across districts. Knowledge of modern FP methods significantly increased; women with knowledge of three or more FP methods increased from 94.0 to 98.0 percent over the project period; 100 percent of both Dalits and Upper caste groups knew three or more methods by endline.

A strong association emerged between spousal communication and use of a modern contraceptive method. A significantly higher proportion of women who had discussed FP with husbands were using a modern method at endline (64.2% at endline vs. 59.1% at baseline). By the end of the project, 94.0 percent of contraceptive users had discussed family planning with their husbands. During focus group discussions and in household surveys, men and women both reported joint decision-making around the topic of family planning. At endline, 62.2 percent of MWRA's (married women of reproductive age) indicated that the type of FP method used was made jointly between husband and wife, compared to 38.2 percent at baseline. Men also stated that their choice to use condoms was based on discussions with their wives, mainly around health risks for non-use and financial instability, indicating that these are important motivators for men.

The PEs worked to overcome social barriers to family planning and raise social awareness about FP/RH. 3,244 youth directly received FP/RH education and training, 844 more than the 2,400 estimated at project start-up. Similar to ENABLE in Ghana, FFP used a structured approach to peer network engagement. Using CEDPA's *Choose a Future!* manual, PEs led 27 discussion sessions related to puberty, sexual and reproductive health, family planning and goal setting. Discussion groups were composed of sets of three PEs and nine peers. Together

these groups conducted community awareness campaigns, organized community interaction programs, and performed other outreach activities (e.g. street dramas).

PEs and their FFS counterparts also interacted directly with targeted populations and made 4,945 household visits. Using CEDPA provided materials, (i.e. brochures, flip charts, FP calendars, informed choice posters) 12,599 women and 3,972 men were informed about modern FP/RH and related topics. Special efforts were made to reach marginalized groups such as scheduled castes. Such groups have little social network overlap with other more dominant groups. Diffusing information through these groups is accelerated by identifying and recruiting the early adopters within these communities as PEs or in other program roles. Additionally, the FFS tasked with commodity distribution and referring clients for service, themselves graduates of the *Choose a Future!* Program, were slightly older and able to reach those of reproductive years beyond the younger ages of the PEs. This was key as communication on FP/RH issues across generations is taboo.

While Nepal is very different from the countries of West Africa, negative attitudes toward FP are similar in both regions. Misconceptions and inaccurate information derived from traditions and cultural norms tend to inform health decisions, especially those related to FP. Building on work from ENABLE and similar projects, CEDPA trained PEs and utilized them to engage their own networks in these respective communities. Communication resources, like the *Choose a Future!* manual, served as a reference and guide that helped the PEs conduct structured discussions with concrete goals. As all PEs were trained with the same materials, they were well-prepared to address their peers' questions and concerns that arose from the material. This helped to eliminate confusion and uncertainty that could negatively impact an individual's FP/RH decision making.

PROGRAMME INTÉGRÉ DE SANTÉ POUR LE BIEN ÊTRE FAMILIAL – MALI

ASDAP's Programme intégré de santé pour le bien être familial in Koutiala, Mali, used peer education to increase voluntary contraceptive use in women of childbearing age by 10%. ASDAP trained PEs who were adolescents, women, and men. Male engagement, via the male PEs, was cited as one key factor that enhanced the success of the program. Diffusing information about FP through female PEs into women's networks was obviously important to meeting the programs objectives; however, sensitizing men and reducing their opposition to FP was very important, as it is often men's negative attitudes regarding FP that prevail over women's wishes, a result of gender norms that relegate women's needs and wishes subordinate to those of men. Yet research, particularly work in Ghana, has confirmed that men have keen interest in family planning, and while they may be initially hesitant to broach the subject with their wives or outsiders, they are readily willing to discuss FP matters with friends and other male members of their discussion networks (Avogo, et al, 2000).

LEADERS OF ESTABLISHED GROUPS

Some individuals assume leadership positions based on the nature of the role they occupy. These leaders tend to include those who head formally organized networks like organizations, governments, and religious institutions. Many leaders, however, do not occupy these positions. Existing social networks and the groups therein all have individuals who occupy leadership roles without formal titles or office. These leaders can exert influence over the other members of their group explicitly through established hierarchies and experience, or implicitly as the result of being highly respected for a certain skill set, or having the ability to communicate exceptionally well with others. These types of leaders can exist in groups of farm laborers, groups of women collecting water, groups of individuals of certain standing within the community, *grains*, or any group of people who form a unit together based on some shared attribute. While it may not be evident who the leaders of established groups are through simple observations, social network analysis (SNA) can identify leaders of established groups by having individuals identify which members of their groups influence them. The most frequently identified individuals are the groups' leaders, *de facto* or *de jure*, and the individuals most well poised to diffuse ideas and information through the group.

CARE GROUPS

Developed by World Relief and Food for the Hungry in Mozambique in the mid-1990s, Care Groups are a unique approach to engaging mothers' groups by strategically utilizing those who emerge as natural leaders within their groups to promote and educate other mothers on the importance of a variety of maternal and child health matters. Officially dubbed the Care Group (CG) volunteer, these mothers are selected based on their leadership qualities as *block leaders*—identified women of influence within the neighborhood—or through consensus decision reached by their peers. CG volunteers are also tasked with being early adopters of the behaviors they are seeking to promote. This gives their fellow mother group members role models from which to imitate behaviors, and promotes an atmosphere of social learning as seen with other peer educator approaches.

After training, similar to that of a community health worker, each volunteer is charged with serving only 10-15 mothers from their social group, and meeting with these women twice a month. This is much smaller than the workload of the typical community health worker, and intended to foster a more intimate and supportive social environment for behavior change. Communities in Mozambique, Malawi, Rwanda, and Cambodia have all benefitted from the successful implementation of this model, which has led to notable reductions in child mortality and malnutrition. Many organizations, however, have adopted the Care Group model and changed the parameters of CG volunteer selection along with their roles and responsibilities. This has led to poorer outcomes. The designers of the model explain this poorer performance by citing how these organizations overburdened CG volunteers with too many clients, which led to burnout among the volunteers and did not foster the intimate socially supportive atmosphere the model seeks to attain.

STRATEGICALLY TARGETED GROUPS: EMPOWERING THOSE UNIQUELY PLACED IN THE NETWORK TO SUPPORT CHANGE

In every social network there are groups of people uniquely placed who have linkages and influence, and are defined by common attributes they share. The interventions discussed thus far have either leveraged social influence through key opinion leaders, such as religious figures, or attempted to maximize social learning by allowing people to learn from peers, or those who are members or resemble members of their individual social networks. Engaging both constructs of social network theory is more difficult. It means identifying a messenger for

the intervention that has both power to exert influence on others, and is a trusted member of the community member's more intimate discussion groups. The combination is ideal because it allows people to adopt behavior change through a learning process that is participatory and promotes sustained change, rather than influence only which promotes change through social power. While removal of that power may lead to relapse, and the abandonment of the desired behavior change, the power an opinion leader exerts does create the space for learning by adding legitimacy and authority to new ideas. This is particularly salient to FP, where new ideas are often seen as oppositional to traditional norms and the traditional leaders who steward such norms.

TRADITIONAL BIRTH ATTENDANTS

The following intervention examines CEDPA's experience in Northern Nigeria work with traditional birth attendants (TBAs) and community health extension workers (CHEWS) to promote, educate, and encourage uptake of FP, as well as important RH services. TBAs occupy a unique position in many cultures and have uncommon access to women. For many women, contact with a TBA may be the only form of health care they ever receive. While the methods of TBAs are often ineffectual and possibly harmful, their established role in communities as figures thought to promote health presents opportunities to engage their networks and reach many women. The lessons learned from the project speak to the importance of working through key, trusted figures who exert both social influence and promote social learning in interpersonal communication and discussion networks.

KYAUTATAWA IYALI - NIGERIA

As previously mentioned, Kyautatawa Iyali, CEDPA's ongoing program in northern Nigeria, aims to improve family welfare by increasing demand and maximizing service provision to address complex RH challenges. A vital component of the program's success has been the social mobilization activities which have raised community awareness and implemented community-based distribution (CBD) plans. With Kyautatawa Iyali, CEDPA sought to move away from the volunteer model of community-based distribution because the high turnover and low quality services that typically resulted. The solution was to employ full-time, paid community health extension workers (CHEWs), who had at least a secondary education, and to build their capacity in family planning and reproductive health to ensure quality services and retention of staff. These community-based distributors were very successful in the more progressive urban areas of project implementation, but were initially hampered and even threatened in the more conservative Muslim areas. As a result, later phases included the recruitment of traditional birth attendants (TBAs). TBAs were able to reach women in purdah (cultural practice of concealing women from men resulting in social isolation) and were trusted within the community, giving them greater access to women. Where possible, CHEWs either supervised the TBAs, or, in some cases, were paired with them in teams that would allow more highly trained CHEWs access to the most marginalized women, while building the skills of TBAs at the same time.

An operations research study conducted during the third phase of the project set out to determine the cost effectiveness of the three models of service delivery: CHEWs alone, TBAs alone, and CHEWS and TBAs working as a team. The results demonstrated that CHEWs alone provided better quality services than the other service delivery models and were more cost-effective than TBAs working alone. The paired model did not make any observable

contributions to the quality of services delivered by paired TBAs. The results informed the fourth phase of the project, in which CEDPA went back to using CHEWs and TBAs separately. However, adjustments were made to selection criteria for TBAs in order to improve TBA only service outcomes, increased their training, provided health kits and doubled their transport stipends to increase motivation. Other successful motivational tools used with CBDs are identification cards and project hijabs, which also increase recognition of the project and respect from community leaders, as well as build esteem among the CBDs themselves.

The lessons learned from the utilization of CHEWS and TBAs are largely linked to the various properties of the social networks at work these communities. While CHEWS are more skilled and educated than TBAs, these differences also set CHEWS apart from the general population they're tasked with reaching. Despite having standing in the eyes of development workers and non-poor urban clients, CHEWS are not necessarily influential figures in the social networks of poor rural women. CHEWS are working professionals, promoting FP and RH services which may be perceived as immoral and un-Islamic. These perceived violations of cultural and gender norms make it considerably more difficult for CHEWS to gain audiences in conservative communities. As a consequence, the ideas and information may not readily diffuse through local women's social networks. Embracing TBAs as CBDs was a difficult decision given their history of poor outcomes; however, their ability to reach women while observing traditional norms has proved a key advantage. In addition to requiring TBAs to be pro-FP (which was determined through a simple questionnaire addressing certain salient points), TBAs were also required to be of reproductive age. This further enhances their effectiveness by making them more similar to PEs promoting new FP ideas in their established networks, and in some cases, serving as models of those ideas. This harnesses the potential for social learning that can result from using PEs to reach community members, as well as maximizing their role as opinion leaders occupying traditional roles that hold considerable influence over women's FP/RH attitudes, decision making, and health seeking behaviors.

CBDs also utilized the ELCO mapping technique to identify, recruit and retain family planning clients, thereby making it easier to provide FP/RH information and services to eligible couples and individuals of reproductive age. The system proved to be a very successful tool, and should be considered a starting point for potential mapping of FP discussion networks. Including questions on with whom individuals discuss FP could reveal clusters of particular method users. This would have to be executed with immense care in a setting like Mali where many FP users are clandestine, and may not be willing to discuss FP openly in front of their spouses or other household members.

Early on, the project linked community-based distributors (CHEWs and TBAs) to public and private clinics. The goal was that the community-based distributors would refer women for initial consultations for pills and to access clinical family planning methods and other reproductive health services. Over time, that referral network has grown to include 42 clinics within the project catchment areas. Integrating the referral process into the mapping system may have revealed additional clusters of individuals who were actually seeking FP/RH services over the long term. This could have provided additional insights into which networks of women were assimilating new ideas and adopting positive FP behaviors, and which networks were lagging behind. This information could then be used to identify less-effective

CHEWs and TBAs and provide them more training, such as interpersonal communication skills, and assistance in the course of their activities.

In the most recent phase of the project, regular clinic exchange meetings between communitybased distributors and clinic staff helped to facilitate dialogue, promote cross learning and build stronger linkages across the referral network. Strengthening relationships between CBDs and clinic staff trickles down to individual clients who benefit from recognizing their CBD's increased confidence in clinic staff, which in turn promotes clinic referral.

As multiple studies have demonstrated, men have a keen interest in family planning and discuss it regularly in their own networks. While men's attitudes and ideas may initially present obstacles, their willingness to engage with the topic is certainly an asset that should be put to constructive use. Within the highly traditional culture of this project, men hold the key to an enabling environment. Targeting men with information about family planning and reproductive health was integral to providing for the health and welfare of their wives and families. Male motivators held community talks with other men in the evenings and at their workplaces and at other places men gathered to share information on family planning and reproductive health to dispel myths and misconceptions. Later on, male motivators were paired with TBAs to gain acceptance and increase support for the project.

TBAs are common throughout communities across West Africa. While their methods and ideas pose distinct challenges at times to interventions, they are uniquely positioned to reach women on a personal and culturally acceptable level, as in purdah, for instance. Finding TBAs who are pro-FP may not always be an option for FP interventions in this region; however, the lesson is clear. Community health extension workers lack social influence, which makes their task in reaching spaces of social learning significantly more difficult. Working with leaders or men to support the work of community health workers may be another avenue to explore that would help solve this problem. Also, the pairing of TBAs with CHEWS, when possible, would help confer legitimacy to the health workers and has the potential to bridge biomedical and traditional healing practices.

MEN: MALE ENGAGEMENT IN FAMILY PLANNING

Approaching men as just another group may seem daunting given the breadth of the classification; however, from a social networks perspective, the common attributes men share make their effective participation in any FP-related intervention a prerequisite for success. In most of SSA, as in Mali, men are the decision makers of the family. This includes decisions about spacing or limiting births, and the use of FP methods to do so. Consequently, decades of FP interventions targeted towards women have had little impact on fertility because men, not women, often decide whether or not to use FP. While the male population is certainly composed of any array of overlapping male and mixed sex networks, men's shared attribute as a powerful factor in a couple's FP decisions is why men in the aggregate should be strategically targeted to support FP.

The earliest efforts to constructively engage men in FP utilized mass media campaigns that used pro-FP messages often focusing on the financial benefits of FP to which men proved more receptive. Programs implemented by the Johns Hopkins School of Public Health in Zimbabwe (1993-1994) and Guinea (2002) used mass media campaigns that focused on radio

messages to improve men's attitudes towards FP and encouraging them to adopt FP through joint decision making with their spouses (Kim, et al 1994; Blake and Babalola, 2002). These programs learned that more exposure to mass communications did lead to incremental improvements; however, many of these messages only reached urban areas and most men were only exposed to a small number of communications over the course of the intervention.

Other interventions have sought to engage men by using other men to counsel men on FP and promote uptake. In Swaziland, a program aptly named "Man Talk" used male motivators to engage men in traditionally male dominated spheres like bars and pool halls (Toure, 1996). Studies from Bangladesh and Ethiopia have demonstrated that counseling men on the importance of FP and the methods available to them promoted uptake of modern methods and for longer durations of time (Amatya, et al, 1994; Terfe and Larson 1993). Aforementioned research indicates that men do, indeed, consider the advice of their male peers in matters of FP. However, many of these programs demonstrate a considerable gap between knowledge and practice. Men's knowledge is increasing, but the rate at which they are adopting FP is not keeping pace (Toure, 1996).

While the constructive engagement of men is key, single message campaigns targeting men may reinforce gender stereotypes and gender power disparities. These interventions supply men with knowledge, but not the motivation to engage their spouses as equal partners in FP decision making and use, thereby challenging gender norms and moving toward transformative FP programming. Because gender power disparities are not addressed, men retain their authority to control the use of FP at any time. The relational nature of gender means that interventions affecting both men and women, like family planning, must consider the effects that addressing only one sex will have on the other. Challenging gender norms means putting men in a position where they may perceive that they stand to lose authority over their family and feel as if their masculinity is challenged. However, it is possible for programs to support positive images of masculinity, such as caring father and loving partner, that can help transform gender norms and make it easier for men to support family planning. More programs are starting to do this by engaging men as partners of women, clients or beneficiaries of FP, and agents of change. While all are not solely focused on FP outcomes, the lessons learned for male engagement are salient when considering strategies to target men in any program where men's and women's participation is affected by their gender roles and responsibilities.

PROGRAM H AND PROGRAM M IN BRAZIL

Instituto Promundo's Program H in Latin America seeks to sensitize young men's awareness about gender roles and inequities, rights, and health. This well-renowned program has been noted for its impact on the attitudes of young men. Noting that girls often expressed displeasure with progressive changes in their gender roles, Program M was developed to help young women see how reinforcing traditional gender stereotypes can actually lead to poor health outcomes for women. The program itself is highly interactive with more than 70 individual activity modules and intensive focus group discussions designed to facilitate selfreflexivity, or the process of recognizing forces of socialization and considering how to alter one's place in the social structure. This process helps participants consider the consequences of gender norms, and the implications of their own idea on masculinity and femininity. Using the Gender-Equitable Men Scale, positive changes were observed in the majority of participants' attitudes regarding gender, and lasted for longer than one year. Significant declines in self-reported symptoms of sexually transmitted diseases were reported, along with increased condom usage and a decline in sexual harassment.

Program H and Program M are based on adaptable curricula which have been implemented outside Latin America, with notable success in India. The NGO-led program, however, is time intensive, requiring a significant commitment from participants. Individuals in other settings may not have the ability to sacrifice the time needed to participate. Despite demonstrating an ability to change gender norms and power dynamics, the program has not been scalable due to its intensive nature. Program partners are seeking to have the program instituted into public schools in Brazil and India with the hope of institutionalizing the curricula in the public education system.

ONE MAN CAN CAMPAIGN

This program, by the Sonke Gender Justice Network in South Africa, works with men to promote gender equality, prevent gender-based violence, and reduce the spread of HIV/AIDS by supporting men and boys to take action to end domestic and sexual violence and to promote healthy, equitable relationships. The program empowers men by emphasizing that each has their own role to play in promoting justice and equity for all through workshops, the arts, mass media, and advocacy. The program garnered media attention when Sonke successfully sued a leading African National Congress politician for his use of hateful and harassing rhetoric towards women. The victory gave Sonke a true-life example to present to program participants regarding how biased ideas rooted in gender norms have a real and negative impact on society. While the program has not collected baseline information, evaluation has revealed that men who participated reported higher use of contraception, VCT, and awareness of GBV in their communities than is typically found in the area.

INNER SPACES OUTER FACES INITIATIVE (ISOFI)

Developed by the International Center for Research on Women (ICRW) and CARE International, ISOFI has sought to address inequities of power in gender and sexuality in reproductive health programs. ISOFI's innovative approach had program staff first reflect on their understanding of gender and sexuality and how these issues relate to reproductive health. The staff then engaged the community members in the same task. Focus group discussions were held where the community was prompted to answer questions regarding gender disparities in nutrition. The community was then tasked with designing interventions to address the identified concern. This participatory process resulted in groups where couple and parents could respectively meet, community media events, support groups and household counseling, all with the expressed goal of addressing the gender issues raised by the community in the focus group discussions.

GENDER TRANSFORMATIVE APPROACH IN FP INTERVENTIONS

A 2007 review of male inclusion in reproductive health programs suggests that those programs that seek to change men's attitudes and behaviors around FP are more successful when they approach the issue from a gendered perspective (WHO). Gender sensitive programs recognize certain gender disparities and have worked through appropriate

channels to achieve positive outcomes, without necessarily changing gender norms or dynamics. These programs, like one involving men in postpartum family planning in Turan, Turkey (2002), increased conversation between couples somewhat, and contraceptive use in general, but also addressed the consequences of gender power dynamic in FP decision making. Gender transformative initiatives have been more successful by engaging both men and women to examine their roles and responsibilities in caring and planning for their families. Such programs have had better success at promoting couples' communication by encouraging self-reflexivity on gender issues. In general, such programs have found a correlation between increased use of modern contraception and a decline in negative or gender biased attitudes.

Gender transformative programs can be expensive and difficult to scale-up. It is important to remember that when applied to an FP program, a gender transformative approach will incur the typical cost of the FP approach including commodities, trainings, mass media expenses, as well as the costs of an intensive transformative approach. The most effective group education sessions in the transformative approach use highly trained facilitators, which tends to be costly. Also, formative research on gender norms and baseline information is needed in order to develop the appropriate questions and approaches that help communities start to think about gender norms, and such research incurs additional expense. Many transformative approaches also include individual counseling sessions in order to help individuals reflect on their own attitudes and behavior and how they may reflect the biased gender norms. Individual counseling sessions tend to be feasible only in middle-income countries, with greater resources in the social service and health systems.

MALAWI MALE MOTIVATOR

Save the Children's recent Malawi Male Motivator program is a classic example of using male peers to educate other men on the importance of FP. In the case of this study, Save the Children was finding that despite the extensive family planning efforts in the Mangochi area of Malawi, they were not reaching young married women. Since this population of women was so challenging to access, they decided to focus on their husbands. As a result, an intervention was created that utilized peer information networks and emphasized the economic benefits of family planning for the husbands of these young women, an idea going back to the formative research and studies done on men and FP. Motivators were current contraceptive users, while participants were selected on the following criteria: married, not currently using modern contraception with their primary partner and had not within the last three months, unsterilized, and without a partner who is currently breastfeeding a child less than six months of age or who is currently pregnant.

Each participant was visited five times over the course of eight months. Topics covered included: the benefits of birth spacing; the economic realities of having large families; how to discuss family planning with spouses; the benefits of contraceptive decision making; the benefits and challenges related to the integration of the information they received and the skills they developed through this intervention. The program did address gender norms, however, not as rigorously as the transformative approach. Gender norms were discussed in relation to family planning, with particular attention to the community perceptions of men who use family planning. The educator then disclosed his own experiences of using family planning in an effort to dispel assumptions about men who use FP.

This program utilized the peer educator approach, known for promoting a social learning atmosphere, while managing to incorporate activities that challenged gender norms and encouraged men to think beyond the idea that having a large family is an important sign of virility and masculinity. This, along with the message emphasizing the importance of couple's communication, approaches gender transformation. However, the emphasis on financial benefits of FP demonstrates how the program was content to keep FP framed in the male context over which men have control. While the program cites a 79% increase in contraceptive prevalence, similar gains were made in the control group which may or may not be attributed to the diffusion of FP ideas between the experimental and control arms of the intervention.

PLANNING TOGETHER

Implemented in rural El Salvador by Project Concern International (PCI) with technical assistance from the Institute for Reproductive Health (IRH) and Futures Group, Planning Together took a novel approach to engaging men in an FP intervention. Instead of bringing men to participate in a FP project, the intervention embedded FP promoting activities in another intervention involving a male dominated water committee. This was done with the intention to engage men in a more comfortable realm where they might be more receptive to FP messages, and to utilize their existing networks for diffusion and support of FP innovations, particularly the Standard Days Method pioneered by IRH (Lundgren et al, 2005). While other interventions focused on the financial benefits men see in FP, Planning Together used the water committee setting to highlight the similarity between the protection of natural resources and the safeguarding of the family's health through the use of FP. Men were also more receptive to the Standard Days Method because it is a natural method. The intervention was intended to facilitate communication and shared decision making between couples. A key component of this process was bringing women into the water committees where they previously did not participate. This challenged the established gender norms and helped to broach discussion on other gender norms that may be having negative consequences. The intervention further addressed gender norms by showing participants drawings of men exerting control over women and prompting the participants to understand what is happening in the picture, as well as how this reflects on gender roles and power disparities. The project found that flexible staff were needed who were able to meet men outside of normal working hours, and that this often required giving the volunteers carrying out activities some kind of monetary incentive. Volunteers also required follow-up training to ensure they were delivering accurate information, specifically regarding the Standard Days Model.

This approach is costly, primarily due to the expenses related to training volunteers and outreach workers. However, moving FP squarely into the realm of a male dominated project was a successful means for improving attitudes towards FP and increasing the use of various FP methods. The orientation of the program, combined with some of the activities prompting reflection on the consequences of gender norms, were important steps towards transforming gender roles in relation to FP. Reframing FP in terms of natural resources and health, helped men move beyond the financial benefits of FP, and start to understand the issue in way more similar to how it is relevant to women. Embedding the intervention in a male dominated

project also helped the ideas diffuse more rapidly through men's networks than they would have by reaching out to men through the traditional health system.

THE RISKS OF MALE ENGAGEMENT

In Mali, contraceptive use remains a relatively rare phenomenon, and clandestine family planning users face discovery and reprisal by husbands and others in the community. Clandestine users hide their pills, or keep contraceptives outside the house. Educating men about family planning could lead to women clandestine users being discovered. A woman who is discovered using FP against her husband's will may find herself divorced, shunned, or physically abused as a result of the transgression Ideally, male sensitization to FP issues should make it easier for their spouses to reveal any clandestine FP use. However, interventions must be mindful that any activities that may expose women, may jeopardize their safety, and ultimately raise unmet need.

GRIOTS

Griots occupy a unique cultural position in Mali and much of West Africa as cultural historians. For centuries, griots have used oral methods like songs, poems, and elaborate storytelling styles to detail history, values, and morality. In Mali, these figures may also function as town criers and officiate at ceremonies such as weddings. Despite an awareness of their unique and esteemed position in society, there is little evidence to suggest that griots have been systematically engaged to promote family planning or, indeed, any other reproductive health objective. This is of particular interest in Mali where figures of influence often occupy religious positions with the tendency to oppose FP; griots are not explicitly religious figures and not bound to any particular doctrine that may be used to undermine the goal of meeting unmet FP need.

CEDPA's RHYM project did speak with griots and engaged several as gatekeepers to help mobilize parents to support the safer sexual behaviour of their offspring; however, too few participated to effectively evaluate their role as a group. Africare's Dioro Child Survival Project in the Segou Region of Mali from 1992 to 1995 effectively used griots to disseminate simple promotional messages encouraging attendance at vaccination clinics. Johns Hopkins University was using griots to support FP messages in Mali in the 1980s, although no evaluation of that program was found for inclusion in this report. In 2000, the World Bank funded the American NGO Dialiya Kunda, a network of traditional African musicians and storytellers, to promote HIV/AIDS awareness in several African nations, including Mali,

The ONE Campaign has used the idea of griots to help recruit anti-Malaria advocates, which include popular West African musicians of griot descent, as well as Western volunteers, to be "griots" fighting to end Malaria deaths. While these may not be griots in the traditional sense, this approach does underscore the cultural significance of griots and their untapped potential.

POSITIVE DEVIANTS

Positive deviants (PD) exhibit uncommon behaviors or practices that enable them to find better solutions to problems than their neighbors with whom they share the same, or lesser, resource base. In the context of an intervention, PD refers to those individuals who

demonstrate a desired behavior or idea that is outside the norm or accepted practices of their community. PDs may not be uniquely placed within a network; however, they are, by virtue of their adoption of the desired behavior a key link between individuals in their networks. Targeting a PD to promote the adoption of the desired behavior among those s/he is linked to can foster the creation of clusters of PDs within broader social networks.

POSITIVE DEVIANCE INQUIRY

Positive Deviance Inquiry (PDI), often referred to as the Hearth Nutrition Program commonly used by such organizations as the Peace Corps, is a home-based and neighborhood-based program that seeks to identify those behaviors practiced by the mothers or caretakers of well-nourished children from poor families and to transfer such positive practices to others in the community with malnourished children. Typically, program staff and trained community volunteers identify those families who are resource poor and lack advantages that might facilitate their PD behaviors. This process could be replicated to assess fertility and related factors in a community to understand PDs and identify the environments that enable to them to adopt behaviors outside the norm of their community. In the case of FP, this would mean identifying families using contraception, what method they use, and making other observations about the environment and circumstances in which they live including family structure, sources of income, education, attitudes towards FP in their social networks, etc. This evaluation will theoretically reveal what behaviors or circumstances can be promoted with a given community to support PD, or the adoption of FP.

PDI is intended to be a community driven process in which community members identify the PDs' behaviors and learn how to replicate them. Save the Children has used the approach in the context of an FP intervention. The organization decided that due to the sensitive nature of family planning, possible PDs should be identified through the focus groups rather than ask others to identify people, as is standard in the PDI approach. Save the Children was able to identify strategies to promote FP that were accessible to all; this standard would exclude clandestine use. Making FP decisions jointly with bidirectional communication was the notable difference among the PDs. Male PDs were cited as understanding that excessive pregnancies can be dangerous for both mother and child. Because these findings appeared among community members with no special resource endowments, they can be operationalized into an intervention with confidence that all couples in the community are capable of adopting this behavior.

BRIDGES AND POTENTIAL BRIDGES: IDENTIFYING KEY PLAYERS TO BRING NETWORKS TOGETHER

Some individuals are well poised to diffuse information through networks simply based on how the network is constructed around them. These individuals tend to form bridges between different networks and act as intermediaries between other individuals or networks. Targeting these network bridges may help disseminate ideas to multiple disparate groups, or move an idea that has diffused within one group through the bridge and onto another group. While social network analysis reveals the links between individuals and which ones constitute bridges, some individuals are bridges based on attributes of their position in the network.

MOTHERS-IN-LAW: A POTENTIAL BRIDGE?

One group that is often considered a bridge between husbands and wives are mothers-in-law. Whereas a woman may not include her husband as a discussion partner in matters related to FP, her mother-in-law is an important discussion partner on a range of family issues. Mothersin-law occupy a place of authority in the patriarchal households of Mali, and young mothers are likely to be *advised* by their mothers-in-law on a host of issues related to domestic and family care. In matters of FP, most young mothers perceive that their mothers-in-law will not be supportive and will want them to have more children to preserve the family lineage (Castle, 1999). An FHI study in Bamako found that sisters-in-law were seen as supportive discussion partners, while mothers-in-law were not consulted because women assume they will object to any FP method that limits the number of births. Logic may suggest that, as women, young mothers and their mothers-in-law are natural discussion partners, however, mothers-in-law, are an authority over young mothers and perceived to be in opposition to FP; consequently, women tend to not discuss FP matters with their mothers-in-law. More research is required to understand if opposition to FP is as universal among mothers-in-law as many suspect. It may be that mothers-in-laws' general opposition to FP is overstated. Ethnographic research collected in two Malian villages for the Terikunda Jékulu project found that mothers-in-law in one village tended to approve of FP, and that they may be more willing to sensitize their sons to the benefits of FP than typically thought. African mothers hold great swav over their sons!

REWIRING NETWORKS: CREATING LINKAGES THROUGH SOCIAL MOBILIZATION AND PARTICIPATORY COMMUNITY PROBLEM SOLVING

Building networks and creating new linkages between individuals at the policy level helps to create top down change that effectively incorporates the concerns and priorities of stakeholders who may or may not themselves be policy makers. This entails linking civil society and advocates with policy makers to foster bidirectional communication. The creation of such structures and linkages constitutes the creation of formal networks that, while different from existing informal and non-institutional networks, still has considerable capacity to exert influence and catalyze change. As linkages form within these advocacy and policy level networks, so too does the networks' ability to function as a coalition, working cooperatively to develop policies that have a tangible impact on FP availability, affordability, uptake, and support. Much has been accomplished in Mali through the rewiring and creation of new networks to affect policy change. The ultimate goal of this process, however, is to affect change at the local level, a necessary though sometimes lofty goal in a low resource setting such as Mali.

Social mobilization is the reverse process of policy reform, a bottom up approach, as opposed to top down. Social mobilization approaches engage communities in participatory problem solving to develop new ideas and new solutions that the community can act upon. This process brings new individuals and networks together that may not have interacted previously. Like policy change, social mobilization involves actors from every segment of society. From politician and bureaucrat, to the local NGO volunteer and her fellow citizens, the goal of social mobilization is to create networks of cooperation that can affect change.

Change may begin in the formal network of a local committee or civil society organization, or by engaging a rich array of informal network structures linked to a local economy, kinship ties, community relationships, or friendships. The groundswell of support created for FP/RH at the local level can develop momentum that can force change at the regional and, ultimately, the national level. Innovations are the catalyst for such change. Innovations that galvanize social mobilization can take many forms, such as the introduction of new information or trainings. Ultimately, a social mobilization approach seeks to reorder existing groups of community members into networks of change agents who think independently and act collectively to improve the community.

SAFE MOTHERHOOD INITIATIVES (SMI)

SMI working in Ghana from 2002-2003 employed a participatory strategy to involve different sectors of the community and promote safe motherhood in rural communities, with the ultimate goal of reducing maternal mortality rates. The SMI addressed barriers to safe motherhood through a framework of the "three delays": delay in recognizing danger signs; delay in reaching care; and delay in receiving care.

A main component of the participatory process was training community members as safe motherhood volunteers (SMVs) and safe motherhood advocates (SMAs). SMVs worked as family planning educators, distributed contraceptives and provided information to help women and families recognize danger signs. Five percent women surveyed at baseline attended a pre-natal clinic within the first trimester of pregnancy before the SMVs and SMAs intervened, and 86 percent did so at the time of the endline studies. The program was given the Global Health Award for Safe Motherhood based on this resounding success.

The program succeeded because communities which were sensitized to the issues of excess maternal mortality and morbidity by safe motherhood advocates reduced barriers to accessing appropriate care. This was accomplished through the mobilization of human resources as agents and facilitators of sustained behavior change and community action, thus rewiring the network. The two categories of safe motherhood agents were mobilized to play different but complementary roles in the participatory process in a manner that helped test the hypothesis of the initiative.

Volunteers working as community-based family planning educators and distributors of nonclinical contraceptives were selected and trained to take on the expanded role of safe motherhood counseling. More specifically, SMVs provided accurate, science-based information to women and families to enable them to recognize danger signs and make prompt and informed decisions to seek help from appropriate service delivery points. In effect, the work of SMVs was aimed at reducing the first delay.

Advocates were community development workers who felt passionately about preventable maternal and newborn deaths and worked with the community to decrease these deaths and associated illnesses. More specifically, the role of SMAs was to work towards the removal of barriers that prevent pregnant women from reaching appropriate care promptly, the second delay.

The role of the advocates was essential in paving the way for women to take advantage of the services offered by the safe motherhood volunteers. While volunteers provided the crucial supply of services, advocates worked within the community to sensitize people to the issues and promote the services offered by the volunteers. Deliveries with TBAs at home were still the dominant delivery method in these areas. Creating the demand for delivery within facilities started with the safe motherhood advocates. Though advocates were chosen based on passion for safe motherhood, their sphere of influence and the individual's standing in the community as an opinion leader may have enhanced the advocate's effectiveness as they engaged people in their respective communities and discussion networks. By doing so, the SMAs built new linkages between themselves and the groups they were engaging. The resulting rewired networks helped the advocates' ideas diffuse through the community more readily, and traditional opposition to things like facility delivery gradually waned.

Another safe motherhood project from Nigeria built on the social mobilization strategy employed in Ghana through the creation of mothers' and fathers' clubs to maintain pressure on decision makers to support safe motherhood. Many local decision makers made public statements of support for safe motherhood, including the Emir of Gwoza and the District Head of Minjibir, who agreed to take on the role of Chair of the Fathers' Club in Minjibir. Linking high profile opinion leaders to these burgeoning clubs rewired the networks so that they were more influential as a group. The effect of social influence exerted by opinion leaders helps to overcome social norms and attitudes that constitute barriers to the promotion of women's health. This influence, though, opens the door for the social learning that happens among peers in the mother's and father's clubs.

BANGLADESH REHABILITATION ASSISTANCE COMMITTEE'S (BRAC) ADOLESCENT REPRODUCTIVE HEALTH EDUCATION (ARHE) PROGRAM IN THE RURAL AREAS OF BANGLADESH

The ARHE program was under the umbrella of BRAC's health program in the 1990s, and was active in sexual education and reproductive health among adolescents in rural Bangladesh. The program was based on a classroom curriculum for adolescent boys and girls 12 years and older, covering adolescence, reproduction and menstruation, marriage and pregnancy, STDs/AIDS, family planning and birth control, smoking/substance abuse, and gender issues. Over 15,000 thousand students were taught annually with the program.

While the classroom program was considered a success, an assessment study conducted earlier by Pathfinder and RSDP, also found that ARHE classes were working towards influencing community norms positively. Newly knowledgeable students began to diffuse ideas through peer and familial networks. Opposition to the program from culturally conservative forces gradually fell silent.

Breaking the silence on taboo issues like menstruation and STDs within the classroom had consequences for the entire community. While no structural transformations have taken place, general knowledge and willingness to broach such topics has increased. This demonstrates that diffusion of FP/RH ideas can move through a community from the bottom up. Educating youth, still in the formative stages of development, not only equips them with life skills, but also can open the door in a community to address such issues where it may have been impermissible before.

KANGARE – MALI

Association of Support in the Development of Activities of Population's (ASDAP) 2010 program in the Sélingué district of Mali sought to strengthen the capacity of women to participate in FP programs. This was accomplished through social mobilization activities that engaged informal women's groups. Women's groups were trained to socially market contraceptives and develop media messages for radio communications. The program also emphasized the importance of interpersonal communication by teaching women to counsel each other and improve their ability to hold trainings and discussion on FP, as well as a varying range of important health issues.

PROGRAMME DES ADOLESCENTS (PRADO) PLUS - MALI

Another important lesson coming out of ASDAP's ongoing PRADO Plus program in Mali deals with the importance of social marketing components in social mobilization. ASDAP's social marketing strategy, similar to that of other organizations, seeks to provide contraceptive commodities at below market prices to specific populations in need. Social marketers target populations in need through outreach and advertising specifically crafted to reach that demographic. With PRADO Plus, ASDAP was using peer-based HIV education to encourage youth to utilize voluntary counseling and testing (VCT). Contraceptives were then marketed to the youth in the target areas. Unfortunately, stock outs of the commodities were frequent and project staff noticed a decline in demand and discontinuation of methods. While demand creation is a key factor of social mobilization, the inability to meet the demand for contraceptives that a program creates can undermine program objectives and tarnish a program's reputation.

SOCIAL MOBILIZATION THROUGH MASS COMMUNICATION

Not all social mobilization occurs through interpersonal communication. Utilizing communication channels that have influence, promote learning, and have potential for reaching informal networks can be very effective. Key to their success is the meaningful participation of stakeholders—from opinion leaders to potential clients—in the development of IEC and behavior change communication messaging. Indeed, research has found that media campaigns utilizing traditional healers as the messengers are positively associated with improved attitudes towards family planning (Kincaid, 2000).

Kyautatawa Iyali used various forms of mass media to reach communities and help create demand for FP/RH. Individual outreach, community dialogues, posters and pamphlets, rallies, television and radio were all employed to carry messages about the benefits of family planning and the promotion of the health and welfare of families. Perhaps most importantly, the project engaged community stakeholders to participate in workshops on the development of mass media messages. The workshop promoted the sharing of ideas between participants whose discussion networks may not otherwise overlap. The result was not only a tailored IEC message, but also an opportunity for participants to relay the messages of their fellow participants to members of their own discussion groups.

ENSURING SOCIAL MOBILIZATION STRATEGIES WORK

What many of these programs' social mobilization strategies have in common is that they engage both the informal existing networks based on kinship, friendship, religion, and informal associations, while simultaneously working with the community to establish formal networks that create linkages to unite the community in its commitment to the common goal. Multiple studies have confirmed the lessons from these projects, most notably that supply side activities—be they commodity or service oriented—are most effective when catalyzing individuals who serve as key entry points into the existing networks (Kane et al, 1998; Debpuur et al, 2002). These individuals may wield considerable social influence, like religious and traditional leaders, or the interpersonal communication they conduct with their peers may foster bi-directional dialogues and social learning, as is the case with youth, men's, and women's groups. Often, though, key change agents will be capable of fostering both, either independently or working with counterparts. These include TBAs, volunteers, and advocates trained with the appropriate technical skills, yet still able to reach community members in social and culturally appropriate ways.

SOCIAL NETWORKS AND SOCIAL CHANGE

Societies have long controlled fertility through social norms. A study in rural Bangladesh found that individual decisions regarding contraceptive prevalence correlate positively to changes contraceptive prevalence in their religious group, but are not affected by changes in contraception prevalence in different religious groups even within the same village (Munshi and Myaux, 2005). The individual's religious network is, indeed, a powerful force affecting fertility outcomes; the social norms that exist within the network control and shape individual contraceptive choices. Some social norms like gender roles that discourage FP or promote fertility are often present across ethnic and religious groups. The limited way in which these groups interact, however, means that change in a norm in one group probably won't lead to change in norms in a different group. While the diffusion of FP ideas may cross groups through bridges and connectors or because of the influence of key leaders with sway over multiple groups, change in social norms is ultimately required to foster an enabling environment that allows for uptake.

Involvement of religious leaders is a recurring theme across those Malian projects seeking to transform social norms. The UNFPA and UNICEF Joint Programme to Abandon FGC in Mali and 16 other African countries recognizes that the support of key male religious leaders is instrumental in changing any social norm, from harmful traditional practices to the promotion of family planning. Religious leaders can highlight the benefits of "birth spacing" to men and impress the idea that men and women are the joint beneficiaries of FP and allies in social change.

Social change is complex process because it entails modifying social norms that have come to help define a group or given network of people. Tostan's approach to social change, particularly regarding norms related to female genital mutilation (FGM), has demonstrated that social change is key to attaining outcomes that break with traditional culture. Tostan's Village Empowerment Program (VEP) was implemented in six Malian villages. Often centered on the issue of FGM, the VEP model seeks to transform cultural practices and related social norms that perpetuate and promote gender inequity (Monkman et al, 2007). The VEP approach empowers women and recruits their allies to make public declarations against harmful traditions or norms, and engages the community in a participatory process to design an intervention to address these challenges.

The participatory process is not just key to giving villages a voice in determining their future; it is a key step in raising the critical consciousness at a collective level. This model allows the community to systematically examine what factors are contributing to the current negative situation and identifying how changing those factors will better the community. Promoting critical consciousness that leads to self-reflexivity is required at both the community and individual level. To promote this re-examination, programs should be phased by starting the activities that require the least amount of behavior change, while slowly graduating to activities that lead to long-term changes in behavior and power dynamics. Considering the gendered power disparities that have impeded attempts to address unmet need, individuals and communities in *Terikunda Jékulu* project areas should be challenged to consider the implications of biased gender norms in all activities. This could be as simple as asking a community gathering to consider why women may feel uncomfortable voicing their concerns in community fora, or more complex activities, such as those which employ cognitive dissonance to prompt men to consider the implications of biased gender norms. Tostan embedded these ideas in activities designed and implemented with the input and assistance of the communities with which they worked in Mali.

Tostan found that participants were likely to share new information stemming from intervention activities amongst group discussions like *grains de thé*, or traditional gatherings where friends socialize over tea (Monkman et al, 2007). While these groups seem powerful in disseminating information and ideas, the challenge for *Terikunda Jékulu* will be targeting the proper individuals and groups to ensure that ideas are diffused throughout the community. SNA may reveal who to target, but it won't necessarily dictate how to approach these targets. Influential community members and positive deviants are both examples of key players that will likely emerge from any SNA analysis examining the presence of FP methods and ideas in social networks. Different approaches, however, will be required for reaching these distinct groups of individuals and catalyzing them to reach out to their networks. Targeting a single group through a single approach may produce some desired outcomes, but transforming norms will require reaching a critical mass of community members and fostering their commitment to social change.

V. CONCLUSIONS

Social network principals and theoretical constructs were operationalized in all of the aforementioned programs. While these programs did not approach social networking with the terminology or analytical approach found in the literature, this review has revealed that most programs with demand generation components can still be classified into Valente's six categories of social network interventions. Examining these approaches in practice yields key lessons for future FP programming seeking to utilize the power of social networks to achieve desired outcomes. The following recommendations include key lessons learned from past interventions, as well as suggestions on how to apply these lessons to the *Terikunda Jékulu* project in Mali.

I. Engaging formal opinion leaders

What works:

- Generating approval for FP among religious leaders can encourage FP users to talk more freely about their decisions and methods.
- Religious leaders can dispel FP myths.
- High-ranking religious officials can clarify, both for their congregations and for other clerics, that religious teachings do not oppose FP.
- Networks of religious leaders can work together to clarify that religious teachings do not oppose FP.

What doesn't work:

- Many local religious leaders do not have much education, nor an in-depth understanding of the Qur'an. Consequently, they may insist that FP is forbidden by Islamic teachings.
- Engaging religious leaders without understanding their spheres of influence may be unsuccessful because communities may align themselves more closely with religious leaders of different ranks. This is especially true in Islam where multiple hierarchies exist.
- Working with traditional leaders that occupy positions of cultural significance, but no longer hold power or control few resources has proved unsuccessful in previous interventions.

Implications for *Terikunda Jékulu*:

- Religious leaders occupy key positions with considerable social influence. The social influence an opinion leader exerts does create the space for social learning by adding legitimacy and authority to new or taboo ideas like modern contraception.
- These leaders should be sensitized to the idea that "birth spacing" leads to healthy and prosperous families—an idea in accordance with the Muslim faith.
- It is important that religious leaders reach consensus on issues related to "birth spacing", and speak with one voice. Otherwise, their congregations may be confused and become skeptical due to competing messages on FP.

II. The Snowball Effect through Peer Education

What works:

- Peer educators can be used as effective models of positive deviant behavior.
- Using peer education promotes interpersonal communication. People tend to trust and confide in their peers, facilitating discussion of taboo subjects like FP.
- People tend to confide in their peers over other groups. Evidence from research and interventions indicates men are likely to talk about FP with other men, youth prefer to talk with other youth regarding RH issues, and women will tend to engage in FP discussions with other women that they feel share their views.
- Peer educators can serve as behavior models. They may exhibit positive deviant behavior pre-dating the intervention, or they may have adopted the desired behavior change through training or contact with another peer educator. In either circumstance, the peer educator approach provides opportunities for observation, testing, and social learning in a safe environment.
- Peer educators reach informal discussion networks, but are more effective when the networks in question are supported and reinforced with other activities that promote participation and interpersonal communication, as well as consistent messaging through mass media.
- Peer educators are effective when they are motivated, enthusiastic, and have the correct perceptions of the training objectives.

What doesn't work:

- Interventions have not been as successful when follow-up training, clearly defined curricula, and operational support were not provided to peer educators.
- Unstructured peer education models have been too loosely defined to achieve results.
- Programs in which the peer educators have not been incentivized in some way have been less successful. Incentives are not necessarily monetary in nature, but can be materials that bring recognition to the individual and the program and elevate status in the community, such as merit certificates, tote bags, or articles of clothing. They can also include other factors such as personal dedication, heightened esteem in the peer group, and supplementary education.
- The time requirements placed on peer educators cannot be so much that it discourages them from continuing in their roles.

Implications for Terikunda Jékulu:

- Peer educators should be carefully chosen to ensure that they are committed to reducing unmet need for FP. They should also be selected based on their interpersonal communication skills or their individual capacity to improve these skills.
- The peer education approach should extend beyond youth and incorporate adult men and women of reproductive age, and perhaps even other individuals not of reproductive age, such as mothers-in-law.
- Early identified positive deviants in Mali are likely to be clandestine users. Engaging covert positive deviants may expose them to backlash or harm. Covert users should be approached with caution and care if the program is seeking to recruit these positive deviants into any peer educator role.

- Peer educators must receive follow-up trainings and support from program staff in Mali, where the vast rural nature of the region is likely to isolate peer educators in their respective remote areas, and perhaps discourage them from continuing in their roles.
- Interpersonal communication of the peer educator approach will work best if combined with multiple community approaches -- Discussion groups, community awareness campaigns, radio programs, organized community interaction programs, and performance events working together to dispel FP myths and misinformation and de-stigmatize the use of FP.

III. Leaders of Established Groups

What works:

- Identifying individual leaders of non-formal groups is an effective way to diffuse information through informal networks. These natural leaders operate in more intimate and socially supportive environments that can facilitate the discussion of difficult subjects like FP. It has also been observed that these leaders often have more frequent contact and opportunities for interpersonal communication with their group members; this may be because these groups are often smaller than larger formal groups.
- Leaders are more successful when they are trained in interpersonal communication with an emphasis on being frank and factual.
- The approach is more successful when it is participatory:
 - $\circ~$ Group members should identify their leader and this can be confirmed through SNA.
 - Sessions they conduct with group members produce better results when they are participatory and interactive. This is because although the leaders may exert influence over group members and add legitimacy to the discussion, group members must also participate in order for social learning to occur. Participation through social learning will promote sustained change, whereas change stemming from the power an opinion leader exerts may not sustain itself in the absence of that leader.

What doesn't work:

- Group leaders who have been engaged to educate their respective groups on FP should not oversee groups of more than 10-15 members.
- Leaders should not be morphed into community health workers. Their strength lies in the informal and intimate dialogues they foster with group members. Removing leaders from that environment for extensive training, or overburdening them with clients undermines their core strengths as leaders of informal groups.

Implications for Terikunda Jékulu:

• Working through the leaders of informal groups is a potent tool for disseminating information through discussion networks. The success of this approach depends on

how the leaders are identified and to what degree they are incorporated into the project.

• Results of SNA may indicate certain natural leaders within informal networks. These individuals should be approached with careful consideration. The selection of individuals to participate in formal leadership roles within a project could have negative consequences. Other group members could interpret the leader's elevation to a formal position as unwarranted, threatening, or offensive. For this reason, it is best for groups to select their own leaders through a participatory process to increase buy-in and incorporate the feedback of all group members.

IV. Strategically Targeted Groups

MEN

- Successful male engagement relies on treating men as partners of women, clients or beneficiaries of FP, and agents of change.
- Men are typically more receptive to messaging emphasizing the financial benefits of FP.
- Men can be reached by embedding FP messages and activities in interventions typically perceived to be in the domain of men—projects that may, in practice, exclude women. This approach also provides an atmosphere where men can begin to understand the benefits of FP by comparing it to ideas men are familiar with, such as protecting natural resources for future use is akin to protecting your wife's health now to support your entire family's future health.
 - This approach also opens the door for women to be incorporated into men's projects. Cooperation between the sexes in this realm may transfer to cooperative decision making regarding FP.
- Supporting positive images of masculinity, such as the caring father and loving partner, that can help transform gender norms and make it easier for men to support family planning. This may also include promoting images and perspectives on masculinity that are more gender equitable and non-violent.
- Programs with male engagement can be gender transformative by having men reflect on gender norms and their negative consequences. This helps men understand the importance of sharing decision making with their spouse.
- Cognitive dissonance activities like having men examine pictures of GBV, authoritarian husbands, or negative outcomes of high fertility is effective in prompting men to understand the negative effects of gender norms, including their dominance over FP decision making.
- Using men to counsel other men through a peer or mentoring approach is one of the most effective means of reaching men. Male motivators or peer educators ideally should be current contraceptive users.
- Motivators or peer educators should be selected that can reach men in the evenings, in places where they gather and at their places of work.

- Exposure to mass communications did lead to incremental improvements in men's knowledge of and attitudes towards FP, but a considerable gap remains between high knowledge and low practice.
- Single message campaigns targeting men may reinforce gender stereotypes and gender power disparities by assuming that men will retain the majority of the decision making power.
- Emphasizing the financial benefits of FP helps to reach men and can be persuasive, but continues to frame FP in the male context and under male authority.

Implications for *Terikunda Jékulu*:

- Gender transformative programs hold the most potential for affecting sustainable changes in gender norms that will promote shared decision making and cooperation on the use of FP between partners. However, this approach may not be scalable in Mali because it is time intensive (some programs include 70 modules for participants), involves highly trained facilitators, one-on-one counseling sessions, and is expensive.
- Research in Mali and West Africa indicates that men discuss FP with friends and tend to be influenced on the issue most by this group. A male motivator or male peer educator approach may be most effective for reaching Malians and closing the gap between knowledge and practice.

TRADITIONAL BIRTH ATTENDANTS

What works:

- Working with TBAs affords an intervention the benefits of a trusted figure who exerts both social influence and promotes social learning in interpersonal communication and discussion networks.
- TBAs are able to reach women in purdah, and are typically trusted by husbands and mothers-in-law.
- Training TBAs to disseminate FP information, methods, and technologies will make them an effective arm of an intervention.

What doesn't work:

• While TBAs are not necessarily professional health workers, they may be more effective than CHEWS who are not necessarily influential figures in the social networks of poor rural women.

Implications for Terikunda Jékulu:

• TBAs should be selected on the basis of careful criteria that will enhance their effectiveness as well as program outcomes. These criteria should include being pro-FP (which can be determined through a simple survey), as well as being of reproductive age so that they may more easily reach women on a peer level. It is unlikely that all potential TBA volunteers can be FP users; however, all TBAs should be trained on all modern and natural methods and should not be opposed to sharing any method with a potential FP user to ensure informed choice.

- TBAs may need to be incentivized. This incentive could be increasing their training, providing health kits, transport stipends, identification cards, or uniforms when desired.
- Training TBAs to conduct eligible couple mapping that introduces data collection on referrals and FP uptake may reveal clusters of couples who have adopted FP. This would also serve as a useful monitoring tool to see which TBAs are having better outcomes. This information could then be used to identify less effective TBAs and provide them more training, such as interpersonal communication skills, and assistance in the course of their activities. This may not be possible, however, if TBAs are illiterate.



What works:

- There is a positive correlation between spousal communication and use of a modern contraceptive. Targeting spouses in a way that prompts a reevaluation of gender disparities is likely to lead to more open communication and joint decision making.
- Pairing male motivators with TBAs has proved useful in reaching couples by giving both the husband and wife a same-sex confidant to ask questions of with fewer reservations.

What doesn't work:

- Programs that target a single sex, male or female, have a poor track record of fostering couples communication.
- Programs that work with couples have the potential to expose current clandestine users. These women could be endangered should their husbands become aware of their covert use of FP. All staff and facilitators should follow clear protocols to ensure any private information of a wife will not be revealed to her husband.

Implications for Terikunda Jékulu:

• Considering gender power disparities in Mali, couple's engagement is not an ideal point of entry for an FP intervention. Activities between couples should be reserved until men become sensitized to the idea of FP and the need for joint decision making. Women's communication skills should also be addressed to help build needed confidence in discussing difficult subjects like FP with their husbands.



- Griots are potential allies in spreading pro-FP messages. They have been used in interventions to spread messaging through their traditional mediums specific to Malian culture.
- There may be considerable untapped potential with this group, as they are respected individuals with a distinct place in Malian society that allows them to voice their opinion on certain taboo issues where most remain reticent.

• There has been no systematic evaluation of the incorporation of griots into interventions. While they have been engaged as "gatekeepers" (those with influence over cultural institutions), their effectiveness remains unclear.

Implications for Terikunda Jékulu:

• The influence griots have over individual attitudes and behavior has yet to be understood. SNA may not reveal the influence of griots, who are revered figures, but whose role in society is often peripheral and relegated to key functions performed in rituals and ceremonies. In these capacities, griots may not be frequent discussant partners with many individuals and couples of reproductive age.

MARGINALIZED GROUPS

What works:

• Positive deviants and early adopters are important individuals to target for diffusing FP ideas and information through marginalized groups, which are less likely to have linkages with the social networks of dominant groups.

What doesn't work:

• Marginalized groups are ill-suited to diffuse information through broad networks because they lack ties to those outside of their group.

Implications for Terikunda Jékulu:

• Malian society includes many marginalized groups, including slave populations. Program objectives to reduce unmet need will need to be reconciled with calls for social inclusion. Addressing unmet need in marginalized groups may have a limited impact on overall unmet need from a social networks perspective, and may encounter resistance from local dominant groups. Still, social inclusion is a core objective and development goal of USAID, and should be considered.

V. Bridges and Connectors – Finding Potential Links Between Individuals and Networks

- Positive deviants will not always be leaders. Often, they will be average group members who have found a way to practice FP or meet their unmet need that the majority of the group has not. These people can be used to link and connect other individuals. Positive deviant inquiry (PDI) can be used to identify the environments that enable to them to adopt behaviours outside the norm of their community.
- Mothers-in-law are powerful figures that have been engaged in the past because they hold sway over both their sons and their daughters-in-law.
- Community-based distribution networks can link contraceptive clients and potential clients to clinics.

- Some findings suggest that a communication divide exists between young mothers and their mothers-in-law. This divide is especially strong on issues such as FP, where most young mothers perceive that their mothers-in-law are against FP.
- Programs that do not address the underlying perceptions that young mothers have regarding their mothers-in-law's beliefs on FP are less likely to be successful.

Implications for Terikunda Jékulu:

- Possible PDs should be identified through focus groups, rather than asking others to identify people, to protect privacy.
- Findings from PDI may not be generalizable in the Malian setting where significant differences exist between communities and their resources across the vast rural nation.
- Ethnographic research in selected Malian villages has found that mothers-in-law tended to approve of FP, and that they may be more willing to sensitize their sons to the benefits of FP than their daughters-in-law believe they are.
- Exchange meetings between community-based distributors and clinic staff can help facilitate dialogue, promote cross learning and build stronger linkages across the referral network. This could be important in rural Mali where clinical services are so spread out. Strengthening relationships between CBDs and clinic staff trickles down to individual clients who may not have easy access to facilities. Clients will benefit from recognizing their CBD's increased confidence in clinic staff, which in turn promotes clinic referral.

VI. Rewiring Networks: Creating Linkages through Social Mobilization

- Working with high level religious leaders and government officials has helped in developing pro-FP/RH policies at the national level. This effect, however, has not trickled down into Malian villages. Therefore, it is necessary to work through a social mobilization approach that engages communities in participatory problem solving to develop new ideas and new solutions that the community can act upon. The process of mobilizing human resources as agents and facilitators of sustained behavior change can rewire networks to diffuse positive FP messages.
- Social mobilization benefits from complimentary processes, like training community members as safe motherhood volunteers (SMVs) and safe motherhood advocates (SMAs), thus filling a programmatic need and engaging the community as participants.
- Recruiting advocates from within the community who feel passionately about the benefits of FP will help ideas diffuse more rapidly.
- Social clubs, like mothers and fathers clubs, are the ideal setting for social learning to take place amongst peers.
- Contraceptives should be socially marketed and distributed by individuals that potential users feel comfortable approaching.

- Community members should been included in the development of multiple modes of communication including individual outreach, community dialogues, posters and pamphlets, rallies, television and radio.
- The community should be part of a participatory process to design an intervention to address identified challenges in meeting unmet need.
- Community dialogues should be held between positive deviants and influential leaders to sensitize leaders and develop strategies for reaching the community with messaging.

- While demand creation is a key factor of social mobilization, the inability to meet the demand for contraceptives that a program creates can undermine program objectives and tarnish a program's reputation.
- Social marketers should not be representative of only one age group or class of people. They should represent different facets of the entire community in order to reach the most beneficiaries possible.

Implications for *Terikunda Jékulu*:

- For clandestine users, social marketers may need to be in anonymous settings, i.e. where clients can come to purchase something other than FP as a cover for actual FP purchases.
- More information is need on appropriate ways to engage informal discussion groups like the *grains de thé*. If catalyzed, these existing groups could be a powerful network for diffusion of ideas, as well as vehicles for social mobilization that would benefit from the groups cultural legitimacy.

Themes to Keep in Mind

Regardless of the approach chosen or actors engaged to participate in the intervention, several key principals will help *Terikunda Jékulu* maximize the power of social networks to address unmet need.

- Formal and informal networks both hold significant potential and can work in tandem with each other to promote attitude and behavior change.
- Engage existing networks, but don't be afraid to create new ones that can serve a defined purpose.
- Identify points of entry into existing networks at various levels, including working with religious leaders of various levels, as well as female figures such as TBAs and other traditional healers.
- Utilize social influence through opinion leaders, but promote activities that foster social learning.

- Connect opinion leaders and positive deviants to each other form "champion" coalitions amass social influence by organizing key actors to catalyze change at the local and national levels.
- Constructive male engagement is critical to success. While all not male engagement approaches seek to transform gender norms, challenging men to re-evaluate the consequences of their dominant role in the FP decision making process is an essential first step in creating the space for women to assume a more active role in their own fertility decisions.
- Participation is a key feature across all successful programs, helping to create buy-in and ownership amongst the community. This is particularly important in FP programs where there may be significant opposition to the ideas, attitudes, or methods the program is seeking to promote.