Community Mobilization and the Reproductive Health Needs of Married Adolescents in South Asia

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This paper examines evidence from intervention research in India and Nepal on the effectiveness of community mobilization in improving reproductive health awareness and use of services for young, married women, and in changing the social norms around youth reproductive health. We discuss the extent to which community mobilization is effective in societies where not only may service options be limited, but the social environment is an equally important barrier for young married women to access reproductive health knowledge and services. We compare community mobilization approaches to approaches that do not specifically target critical aspects of the social context of young people's lives. Further, we analyze what specific attributes of the community mobilization approaches followed contributed to their effectiveness in accomplishing study goals.

Background and Rationale

Worldwide, there are more than 51 million adolescent girls aged 15–19 who are married and bearing the burden of domestic responsibility and the risks associated with early sexual activity, including pregnancy. South Asia is one of the regions in the world with the highest rates of early marriage, and approximately 30 percent or more girls aged 15–19 are already married (Mathur et al. 2003). By age 20-24, 79-83 % of young women are married (International Institute for Population Sciences (IIPS) and ORC Macro 2000; Ministry of Health (Nepal) et al. 2002).

One of the biggest pressures on a young married woman is to prove her fertility by getting pregnant as soon as possible after marriage. Thus, early marriage is often accompanied by adolescent childbearing. In Nepal, for example, 52% of young women begin childbearing by age 20 (Ministry of Health (Nepal), New ERA et al. 2002), while in India, the median age at first birth among rural women aged 20-49 is 19.1 years (International Institute for Population Sciences (IIPS) and ORC Macro 2000). Research shows that the risks of maternal mortality and morbidities is likely to be greater among adolescent girls and young women by virtue of their age and primiparous status, compared to women in their twenties (Bhatia 1993; Kurz 1997). Data from the developing world suggests that, compared with women in their twenties, adolescents ages 15-19 are two times more likely to die during childbirth, and those ages 14 years and younger are five times more likely (UNICEF 2000).

At the same time, early marriage usually means that young girls enter marriage without adequate information about critical sexual and reproductive heath issues such as sexual intercourse, contraception, sexually transmitted diseases, pregnancy, and childbirth (Mensch et al. 1998; Singh and Samara 1998). The negative consequences of lack of information and knowledge are further compounded by lack of access to safe motherhood, contraceptive and disease prevention services. In fact, the provision of reproductive health services for young married women and couples is rarely a priority in most governmental or nongovernmental (NGO) programs. Typical reproductive health programs tend to focus on married women, without an explicit focus on the special needs and constraints of *young* married women, while youth reproductive health programs tend

to focus on unmarried youth, and thus rarely discuss issues of concern to married youth such as maternity (Mensch, Bruce, et al 1998).

In many parts of the developing world, including India and Nepal, providing reproductive and maternal health information and services to youth is further complicated by the fact that social norms and restrictions around girls' and women's mobility, access to information, and resources in the marital home severely limit young married women's ability to access reproductive health services (Jejeebhoy 1998; Mathur, Greene et al. 2003). Moreover, key life and health decisions for young married women are frequently made by family members and dictated by community norms (YouthNet 2004). Typically, husbands and mothers-in-law make the final decision about whether, when and what reproductive health care married girls can seek (Barua and Kurz. 2001; Chowdhury 2003). Thus, not just young women, but their husbands and parents-in-law as well, need to recognize the need for care, decide to seek care, and provide resources for care during pregnancy and delivery (YouthNet 2004).

The nature of these societal pressures and constraints makes a strong case for youth reproductive health programs to work not just with youth themselves, or to improve service provision alone, but to involve parents, partners and the broader community to address the social and gendered norms that create fundamental barriers to care for young married women. Despite an increasing recognition of the importance of such an approach, few youth reproductive health interventions aimed at involving family, key decision-makers, and community members have been well-evaluated (Lloyd 2004; YouthNet 2004). Similarly, few intervention efforts have systematically documented *how* to mobilize communities and families around adolescent and youth reproductive health.

Engaging the Community

The idea of 'participation', of engaging key stakeholders and other community members in program design and implementation, is not new. In fact, it has a long history in various fields of development, and in community-based activism. Participatory approaches for community development aim to involve target communities in the running of projects, increase involvement of marginalized groups in community life, and engage civil society in local decision-making and wider political processes. Participatory approaches involve the use of a variety of tools that enable people to express and analyze the realities of their lives and conditions, to plan themselves what action to take, and to monitor and evaluate the results. Advocates of participatory approaches argue that these methodologies allow for interactive problem solving and critical engagement of local expertise. While the questions of how to define and evaluate community participation continue to be debated, most agree that community empowerment and ownership are key aspects of participatory programs and approaches (Chambers and Blackburn 1996; Bell and Brambilla 2001).

The use of community development and participatory approaches in public health gained momentum when, in 1978, the Alma Ata conference organized by the World Health Organization emphasized the use of community participation to provide primary health

care for all (Zackus and Lysack 1998). This approach emphasized the empowerment of a community to obtain self-reliance and control over the factors that affect their health (Hossain et al. 2004). The approach allowed for a broad focus that could include attention to a range of issues relevant for community health, ranging from water or sanitation issues, training community-based health workers or volunteers, to education and credit. Such efforts were largely taken on by non-governmental development organizations to fill gaps in government-funded health systems. Participatory community health programs have a long history in south Asia, the most prominent examples of which include longstanding such programs in Jamkhed and Gadchiroli in India (Hossain, Bhuiya et al. 2004).

The fundamental principles of community participation that make it especially appealing for primary health care are that effective community engagement and mobilization can:

- Foster a better understanding of the ideas, needs, and concerns of people
- Foster skills and capacities of community members to assess their own needs
- Design better programs that enable community members to meet their health objectives and advocate on their own behalf
- Create transparency and local accountability
- Foster community empowerment and ownership
- Increase skills of a community to create or maintain structures to implement solutions, assess their impact, and modify programs as necessary.

In the mid-1990s the realization that participatory models based on such principles could help facilitate discussions on sensitive and taboo issues such as gender and sex made them increasingly popular in reproductive health, especially HIV and AIDS programs (Cornwall and Welbourne 2000). Four models of community-based health care have been particularly popular in this regard (Hossain, Bhuiya et al. 2004).

The first, most commonly used model is training local health volunteers. A few recent studies in Africa have shown such a community engagement and mobilization approach to be successful. A project in Cameroon, for example, selected and trained two prominent and influential members of each target community as "relais" or middlemen. The "relais" then trained mobilizers from participating areas to provide relevant information and mobilize others to adopt the positive attitudes and practices promoted by the project. Results suggest that the intervention had significant influence with noticeable positive effects on knowledge and practices of family planning, knowledge and attitudes about HIV and AIDS and STIs, and use of health services (Babalola et al. 2001). A similar initiative in Tanzania trained local health volunteers, involved village leaders, and encouraged women's participation to develop transport systems for obstetric emergencies and build support for village health workers. The project was able to increase community participation in maternal health, increase support for village health workers, and improve women's access to transport systems for obstetric emergencies (Ahluwalia IB et al. 2003). The project in Tanzania also involved a second type of community-based health care model – the development of community financing for local health programs.

A third model is the health education model, which aims to raise awareness on a single issue in a community with the engagement of that community. A perinatal health project in Turkey using a community health education strategy found that knowledge and skills increased in the community study group, the community's participation in decision making increased over the life of the project, and some indicators suggested that activities would be sustainable beyond the project life cycle. They also found that due to community participation and mobilization, pregnant women were able to increase their support networks and advocate for better health and education services (Turan et al. 2003). Similar, but slightly less successful, efforts have been conducted among immigrant communities in the developed world (Bhagat et al. 2002).

The final model is that of a comprehensive or integrated community-based approach. It includes training of local volunteers, rural development activities, health activities, and use of local resources. However, evaluated models of such comprehensive approaches are rarely implemented and we were not able to find any evaluated models in peer review journals.

In spite of their popularity in reproductive health, it is not clear how these group-oriented approaches can be adapted to address the pressures and issues around sexual and reproductive issues specifically for youth. Yet, the central characteristics of a community participation approach to health care, whichever specific model is followed, may be particularly relevant for addressing the reproductive health concerns of young married women. A community-based approach would theoretically give such young women the power and mechanisms to have a positive impact on their own health needs (Zackus and Lysack 1998). Further, this community-based approach would promote a view of youth reproductive health from a contextual perspective, rather than an individual 'risk' perspective, which is essential to break down the social and normative barriers that constrain young women's reproductive health. In other words, such an approach should be able to address the need to influence and involve key decision-makers in a young woman's life, such as partners, parents, in-laws and other key members of the community, in a positive way

While these models offer much promise, to date no programs have evaluated the effectiveness of these models or the community mobilization approach in meeting the needs of young married women. This paper aims to contribute to the literature about community mobilization[1] in development by presenting results from evaluations of two community mobilization approaches in South Asia that specifically address reproductive health concerns of married young women.

Description of the case studies

This paper is based on community-based studies in India and Nepal that aimed to systematically test the effectiveness of community and social mobilization in meeting the reproductive health needs of married adolescents and youth. While the studies addressed

[1] We use the terms "community mobilization" and "community participation" interchangeably in this paper.

a range of reproductive health issues, the main outcome of interest for this paper is maternal care, specifically knowledge and use of prenatal, delivery and postnatal care among young married women. At a conceptual level, this focus is justified by the fact that the predominant reproductive health experience of a newly-wed young woman in South Asia is maternity. She is expected to prove her fertility as soon as possible after marriage. Thus, contraception plays no role in the time between marriage and first birth. Most young married women get pregnant within the first year of marriage, and their first exposure to health services is in the context of pregnancy. At a practical level, these are the data that are most clearly comparable between the two studies, and the most complete, thus enabling more detailed analysis than other outcomes (such as contraceptive use).

We focus on Nepal and India as examples of south Asian settings that have high proportions of married adolescents and a high rate of early childbearing, serious service and social barriers to improved reproductive and maternal health among married adolescent and young women, as well as a history of community-based development efforts in health and other issues. We examine examples of interventions emphasizing community mobilization for youth maternal health in each of these settings to see if this approach has the potential to be successful in diverse contexts (Nepal and Maharashtra are similar in that the social environment constrains young girls, but they are also different in a number of important ways, particularly in levels of economic development), and to see if different models of community mobilization have the potential to be successful in bringing about positive change. We identify key elements of community mobilization that are relevant for implementing and evaluating youth reproductive health programs, as well as challenges, key pitfalls and lessons learned.

The case study in India draws from the health education model, while the study in Nepal most closely reflects the integrated model described above. While the two case studies follow different models of community-based health care, there are several similarities in the underlying processes used in the two studies.

In both the India and Nepal case studies, youth participation and engagement was a key strategy for community mobilization, and both studies engaged young people in needs assessment, program design, implementation, and assessment. At the same time, both studies recognized that, as youths' lives are integrally connected to and affected by adults, change in adult attitudes and behavior is necessary for improving reproductive health outcomes, especially for newly married girls. Thus, they also involved key adults and stakeholders. Finally, both used local structures to implement project activities.

The two studies followed what one could term a 'health plus' approach. While the studies addressed issues that directly affect health-seeking behavior such as knowledge and access to services, they went beyond the specific risk factors associated with reproductive health behaviors and outcomes to address a range of social and economic antecedents, such as schooling, age at marriage, connectivity to parents, partner involvement, and health system characteristics. Even more fundamentally, reproductive health outcomes were conceptualized to exist within a context of young people's ideals

and aspirations and the broader social institutions and norms that define, shape and constrain life outcomes and choices for young women and men.

Study sites & design

India

The data from India are part of an adolescent reproductive health intervention research study being conducted from 1996 to 2005 in two blocks of Ahmednagar district[2] in Maharashtra state, in western India. Maharashtra is one of the more economically developed states in India (Table 1). It has much higher levels of female and male literacy than the country as a whole; however, the sex ratio is worse, and fertility and childbearing are similar to the national figures. Ahmednagar, located 120 kilometers to the northeast of Pune city, is the second largest district in Maharashtra. The district is predominantly agricultural with sugarcane plantations and related factories and is prone to severe droughts.

Table 1: Socio-demographic Characteristics – India, Maharashtra, and Nepal

Characteristic	**India**	**Maharashtra**	**Nepal**
Households with electricity	60.1	82.1	24.6
Urban	26.2	41.3	14.2
Sex ratio (females/1000 males)	960	947	90
Female illiteracy	48.6	38.6	64.7
Male illiteracy	25.5	17.3	30.4
Median age at marriage for women 20-49 years old (years)	16.7	16.7	16.6
Median age at first birth for women 20-49 years old (years)	19.6	19.2	19.9
Total fertility rate (children per woman)	2.9	2.5	4.1
Maternal mortality ratio (per 100,000 live births)	540	n/a	905[1]

Note: all figures are percentages unless otherwise noted

Source: IIPS and ORC Macro. 2000. *National Family Health Survey (NFHS-2), 1998-99: India.* Mumbai: IIPS.
IIPS and ORC Macro. 2001. *National Family Health Survey (NFHS-2), India, 1998-99: Maharashtra*. Mumbai: IIPS.
Ministry of Health (Nepal), New ERA, and ORC Macro. 2002. *Nepal Demographic and Health Survey 2001. Calverton, Maryland USA.*
[1] UNFPA. 2003. State of the World's Population 2003.

The two study blocks, Parner and Ahmednagar, are primarily rural, with populations of over 200,000 in each block. Almost all villages in both blocks have electricity and at least one protected source of water supply. Temporary out-migrations of young men to nearby cities like Pune and Bombay in search of jobs is common during the frequent droughts. Both blocks have a variety of government and private health services with relatively good quality services for basic maternal and child health. In the government

[2] Districts are the principal administrative sub-divisions within states in India. Each district is further sub-divided into blocks.

health sector, Parner has one rural hospital, seven primary health centres (PHC), and 38 subcentres.[3] Ahmednagar has one district hospital, six PHCs and 36 subcenters. Ahmednagar block is also the headquarters for Ahmednagar district.

This study is being conducted by an Indian NGO, the Foundation for Research in Health Systems (FRHS), in collaboration with the Maharashtra state Directorate of Health Services and the International Center for Research on Women (ICRW). The study aims to test the relative effectiveness and costs of two different strategies in improving reproductive health knowledge, use of services, and outcomes for young married women between the ages of 16 and 22 years at entry into the study.

The first strategy is a community mobilization one. The study area has a long history of indigenous community organizations created for social, religious or economic (savings) purposes. The community mobilization strategy tapped into existing organizations as the base from which to provide health education on a variety of reproductive health issues to young women, their husbands and mothers-in-law, and the community as a whole. The aim is to use these already-acceptable forums to discuss sensitive issues of youth reproductive health. Specifically, this strategy aims to increase awareness about the need for reproductive health for married youth, and to energize young married women, and the decision-makers for young women's health in the community, to discuss these issues and demand appropriate health services. In this approach, there are no efforts made to change the quality or accessibility of existing services for youth; rather this approach focuses on giving young people and key decision-makers in the community the information they need so that they can access services and demand more of service providers themselves.

The second approach is a more traditional approach, where the focus is on improving the quality and accessibility of health services. The emphasis is on government health services, and on training local-level government health functionaries to provide better quality reproductive and maternal health services for married youth. There are no community awareness activities and no other efforts to generate demand for youth reproductive health *per se* among young women or key decision-makers.

The study is designed as a quasi-experimental 2x2 design spread across four PHC areas. One PHC area has only the community mobilization activities, one only the service improvement approach, one combines the two approaches to simultaneously address community concerns and quality of care, and the fourth has no intervention activities. The study will end in late 2005. This paper focuses on two of these four PHC areas: the area with only the community mobilization activities (henceforth referred to as the "study" arm or site) and the area with only the traditional service improvement activities (henceforth referred to as the "control" arm or site)[4].

[3] In the Indian health system, specific villages and populations are allocated to specific Primary Health Centers (PHC) which then serve as the key government health post for that population. Each PHC area serves a population of about 20,000-30,000. Each PHC area then covers 3-5 "sub-centers" which provide rudimentary services through a village-level female health worker trained as an auxiliary nurse-midwife (ANM).

[4] Note that for the FRHS study as a whole, the service improvement site is not a control site – it is one of three intervention sites and there is a fourth, control site with no activities. However, for the focus of this

Nepal

The Nepal data are from a youth reproductive health intervention research study conducted from 1998 to 2003. As shown in Table 1, age at marriage and first birth are similar in Nepal and Maharashtra, but Nepal is more rural, less-developed and has worse health and literacy outcomes. The Nepal study was designed as a quasi-experimental case-control study across four sites. Community mobilization with participatory methods was used in the study sites and a more traditional approach to reproductive health was used in the control sites. The study tested the effectiveness of community mobilization and participatory approaches in improving services and outcomes for youth reproductive health, focusing on youth aged 14-21. Among other outcomes, the study tested the relative effectiveness of participatory versus traditional methods for improving reproductive health knowledge and service use for young married women, and for improving knowledge among their male counterparts. The Nepal study was a collaborative effort between EngenderHealth, the International Center for Research on Women (ICRW), and two Nepali NGOs, namely, New ERA Ltd. and the BP Memorial Health Foundation.

This study was conducted in a project and control site each in an urban area at the outskirts of Kathmandu and in the rural district of Nawalparasi. For comparability with the India study, in this paper we only present information from the rural study and control sites. [5] The two rural sites are located in the *Terai* or low lands area, in the villages of Parsauni and Kawasoti near the Nepali-Indian border. With approximately 200 households each, the two communities lie about 80 kilometers apart and were selected on the basis of having a secondary school, a range of health service providers, access to a main road and electricity, and the presence of at least one working NGO. As such, they represent a relatively more developed Nepali village.

The study site used community mobilization and participatory methodologies and techniques during the research, needs assessment, intervention design, implementation, and monitoring and evaluation phases. Once the needs assessment was completed, project staff initiated a collaborative planning process with youth and adult community members to identify, discuss, and prioritize interventions that would best address the needs identified. Resulting interventions linked direct youth reproductive health programs with other programs that were deemed to influence the environment youth lived in, such as adult education programs, activities to address social norms, and economic livelihoods interventions. A total of eight such linked interventions, developed and prioritized by community members themselves, were implemented in the study sites. The study also fostered key community structures like an adolescent coordination team and parents advisory committee prior to the onset of the project to assist with the coordination

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paper, which compares the community mobilization approach to a traditional service improvement approach and examines only those two of the four sites, the FRHS service improvement site is referred to as a control site, *as compared to the community mobilization site*.

[5] For more information about the study activities and findings in the urban area, please see the full project report on this study: Mathur, S, M Mehta, et al. 2004. *Youth Reproductive Health in Nepal: Is Participation the Answer?* Washington, DC: International Center for Research on Women (ICRW) and EngenderHealth.

between the study team and the community, encourage community participation, engagement and feedback for the duration of the project, and ensure community ownership over the project.

In contrast, the control site used a more traditional reproductive health approach. A standard set of youth reproductive health interventions was implemented based on current knowledge and standard practice in the reproductive health field. Interventions addressed only the most immediate risk factors for youth reproductive health such as STDs or unwanted pregnancies, by focusing on adolescent-friendly services, peer education and counseling, and teacher training that were not linked to broader social constraints. Unlike the study area, control site interventions were largely implemented by collaborating agencies conducting the study.

Data and methods

Both studies use a combination of qualitative and quantitative information from two points in time.

Qualitative data

In India, pre-intervention qualitative data come from in-depth interviews carried out between 1996 and 1999 with young married women, their husbands and marital families, and health providers. The aim of these interviews was to understand better the social, cultural and health-seeking context for married adolescent and young women. In all, we conducted 216 in-depth interviews among married adolescent girls (74), their husbands (37), mothers-in-law (53), PHC medical officers (7), auxiliary nurse-midwives from government health centers (25) and private doctors (20). Respondents were part of a convenience sample: those who were responsive, available, and willing to be interviewed.

In 2003, at the midpoint of the intervention, in-depth interviews were carried out with 80 mothers-in-law of young women, to gauge their attitudes towards reproductive health for their young daughters-in-law. Interviews were also carried out with 70 young, married women, to get information on specific reproductive health issues that arose during the intervention, such as reasons for not going for repeat antenatal care visits, not participating in health education sessions in the community mobilization study arm, perceptions of infertility, etc. In addition, detailed process documentation provides some qualitative data from health care providers.

In Nepal, qualitative data come from focus group discussions, in-depth interviews, and key informant interviews. Additional information was gathered using other participatory methods such as community mapping, lifelines, body mapping, reproductive health problem trees, and reproductive health service matrices. These exercises were carried out with representative samples of married and unmarried male and female youth, male and female adult community members, and service providers. At baseline nine qualitative or participatory activities were conducted with 4-5 groups each, while at the endline 5 qualitative or participatory activities were conducted with 20 groups.

Quantitative data

The India study pre-intervention quantitative data come from a census conducted in 2001, just prior to the start of intervention activities, of all (a total of 1,866) married women 16-22 years old, in 22 sub-center villages across the four PHC areas. In 2003, a midpoint census was conducted in these same villages. The total number of young married women 16-22 covered by this census was 2,580. The corresponding totals for the two PHC areas considered in this paper are 468 in the study site and 475 in the control site at baseline, and 433 in the study site and 556 in the control site at midpoint. While all target women were asked about knowledge of maternal care, samples for service use are smaller, since questions about use of maternity services were asked only of women who had ever been pregnant (use of antenatal care) or women who had had at least one live birth (delivery and postnatal care). Unfortunately, it was not possible to map the same women across the two censuses, and thus in this analysis these data are treated as two cross-sectional databases.

The Nepali quantitative data are from baseline and endline surveys conducted in 1999 and 2003, respectively, with young people aged 14-21. In the rural sites, a 100 percent census of households was taken at baseline and endline. It is important to note that the study design did not allow tracking of specific individuals, but rather the cohort within each community, so the data are analyzed as two cross-sectional datasets. In the rural sites, 373 adolescents were interviewed at baseline and 359 at endline, including 84 (40%) married young women at baseline and 81 (45%) married young women at endline.

Sample Characteristics

India

Sample characteristics are similar across study arms in India and thus are presented here for the study area as a whole. A majority of the households are Hindu (92%), and more than a quarter (29%) belong to the socially disadvantaged scheduled castes and tribes. Eighty-six percent of young married couples live in joint or extended families that comprise, in addition to the couple, the husband's parents and other family members. The average family size is 6 members per household. About 28 percent are from poor households (owning none or one of the assets asked about in the survey), 40 percent from medium-wealth families, and the remainder from households that own four or more of the assets included in the survey.

At baseline, on average, women had 7 years of education. The average age at first marriage was 23 for the men and 16 for the women, indicating that, while men married past adolescence, women tended to marry early in this population. Childbearing was early, with 86 percent of young married women reporting at least one pregnancy by the age of 22 years, almost a third with two or more surviving children at the time of the survey, and only slightly less than one-third with no surviving children.

Nepal

Sample characteristics in the rural Nepal sites are similar to those of the India site. Almost all (94%) the respondents are Hindu. Most (75%) of the households are from low, socially-disadvantaged castes, with the largest groups being Tharu, Chettri, and Brahmin. About 27 percent of respondents are from poor households (ranking in the bottom one-third using an asset index), and about 33 percent from medium-wealth households. At baseline, 42 percent of girls aged 14-21 had not attended any formal schooling, but 36 percent had passed grade 6 or higher. Thirty-nine percent of rural girls were married with a mean age at marriage of 16.5 years, while their spouse's mean age at marriage was 20.1 years. Childbearing is early, with 17 years as a mean age at first pregnancy.

Findings

We present below findings from the India and Nepal case studies that illustrate the benefits and challenges of community mobilization approaches to improve maternal health outcomes among young married women, as compared to traditional reproductive health programmatic approaches. We start by illustrating the impact of community mobilization on key maternal health variables, namely, knowledge and use of antenatal, delivery and postnatal care. Second, we discuss how and through what mechanisms the community mobilization efforts were able to achieve positive results, and explore indications of systemic change in family and community support around reproductive health concerns of young married women.

What did community mobilization do for young married women's maternal health?

Overall we find that in the 12-18 month intervention time for both the India and Nepal projects, the community mobilization efforts as compared to the traditional reproductive health program approaches were only marginally more effective in changing women's knowledge and awareness of maternal care issues, but were more effective in increasing awareness about where maternal care services could be found, and changing practices around use of services. In particular, the community mobilization approach was more successful in addressing issues that were hard to change because of strong community norms and traditional beliefs, such as knowledge of postnatal care.

Knowledge of maternal care

Antenatal care and delivery

In both countries and in study and control sites, the community mobilization approach was no more effective than traditional approaches in increasing basic awareness of antenatal care. This could at least be partly due to the fact that even at baseline the majority of young women in all sites had some basic knowledge of antenatal care (Tables 2 and 3).

Table 2: Changes in Knowledge of Maternal Care, Married Women, India

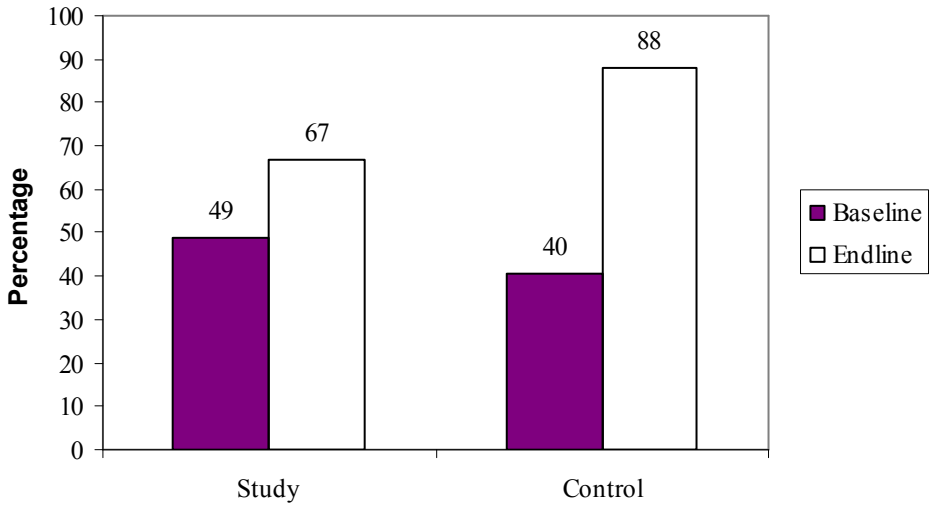
	Study Site (%)		Control site (%)	
	Baseline	Midpoint	Baseline	Midpoint
Aware of need for routine antenatal check-ups	78.4	82.4	82.7	84.7
Aware of high risks during pregnancy	73.1	79.2	84.0	81.7
Aware of precautions to take during delivery	43.4	61.2	57.3	76.3
Aware of high risks during delivery	51.3	66.7	65.7	76.1
Aware of need for routine postnatal check-ups	36.3	60.7	46.1	42.6
Aware of high risks during postnatal period	42.7	65.6	59.6	71.2
Aware of need to treat postnatal problems	40.6	78.1	57.3	82.4
Aware that routine ANC is available in govt. centers	68.6	78.5	77.7	79.0
Aware that routine PNC is available in govt. centers	29.3	51.5	39.4	34.2
Aware that pregnancy problems can be treated at govt. centers	60.3	74.6	71.6	76.4
Aware that delivery problems can be treated at govt. centers	41.9	67.2	56.8	68.7
Aware that postnatal problems can be treated at govt. centers	33.1	60.0	50.3	63.7
N (married women < 22 yrs)	*468*	*433*	*475*	*556*

Table 3: Changes in Knowledge of Maternal Care, Men and Married Women, Nepal

	Study Site (%)		Control site (%)	
	Baseline	Endline	Baseline	Endline
Aware of problems during pregnancy	78.4	83.3	80.9	92.2
Aware of serious problems during childbirth	48.7	66.7	40.4	88.2
N (young married women 14-21yrs)	*37*	*30*	*47*	*51*
Aware of problems during pregnancy	50.6	74.7	63.1	57.0
Aware of serious problems during childbirth	29.6	59.5	31.0	37.0
N (young men 14-21yrs)	*81*	*79*	*84*	*100*

Despite overall high awareness about pregnancy, young married women in Nepal and India were much less aware of serious problems faced by women during delivery, such as excessive bleeding; premature, obstructed or prolonged labor; retaining the placenta for a long time; or death (Tables 2 and 3). In the case of Nepal, our data suggests that a traditional approach such as followed in the control site was more effective in increasing this knowledge, which more than doubled in the control site, as compared to an 18 percentage point increase in the study site (Figure 1). The data from India shows that the study site was somewhat more successful than the control site in increasing the awareness of precautions to be taken during delivery, and of the existence of high risks during delivery (Table 2).

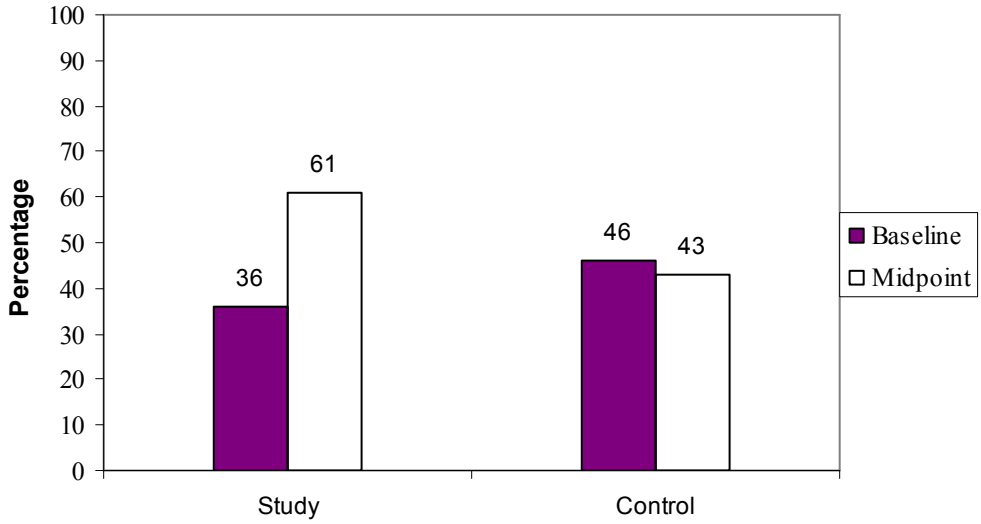
Figure 1: Knowledge of Problems during Childbirth, Married Women, Nepal



Postnatal care

The situation was different for postnatal care, where the community mobilization approach was notably more successful than the control area. Data show that awareness was low at baseline in the study arm in India and strong traditional beliefs about care in the postnatal period discouraged knowledge about, and use of, formal postnatal care. Comparing across the control and study sites, we see that working with communities and young women's attitudes addressed this situation more effectively than a traditional approach of improving services without changing community beliefs. At baseline, only about one-third of young women were aware that postnatal check-ups are necessary. By the midpoint, the study site showed a dramatic change with the percent of young women aware of the need for postnatal check-ups increasing from 36% to 61%, compared to almost no change in the control site (Figure 2). Similarly, the percent of young women aware that risks can exist in the postnatal period, and who agreed that postnatal problems should be treated, increased dramatically in the study site compared to the control site (Table 2). In particular, table 2 shows that the proportion agreeing that postnatal problems should be treated almost doubled between baseline and midpoint in the study site (41% to 78%) compared to a forty percent increase in the control site.

Figure 2: Awareness of Need for Postnatal Check-ups, Married Women, India



Availability of services

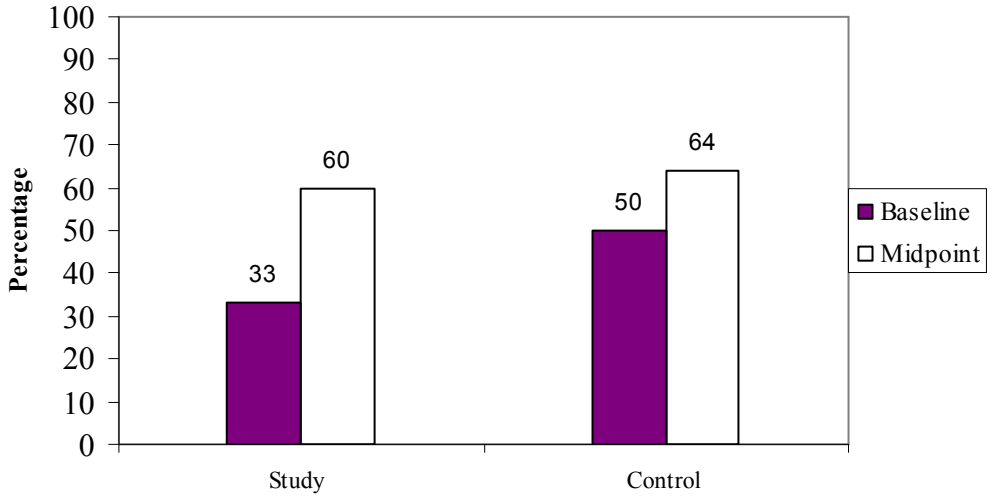
The India data also show that a community mobilization approach was more effective than the control site in increasing awareness of where maternity care services could be found, and in allaying some apprehensions about care in government facilities. In the district in Maharashtra where this study is being conducted, government health centers provide relatively good quality services for basic maternal care in all phases of pregnancy. However, qualitative research undertaken before the intervention started showed a deep mistrust, as well as a fundamental lack of awareness, of what is available in government health centers. For instance, when mothers-in-law were asked, before the intervention began, about where they would take daughters-in-law for care, several echoed this respondent's views:

"*The closest centre is the government PHC. We don't go there. It is below our dignity and status to go there. Some people who do not have means to go to private doctor go there. We go to private doctor*". (Mother-in-law, India, 1996-98).

The community mobilization approach in the study site was able to increase participants' awareness that antenatal and postnatal care facilities for routine care and treatment of problems exist at government health centers, compared with practically no change in the control site (Table 2). In particular, young women's awareness that postnatal problems could be treated in a government center almost doubled in the study site compared to a more modest increase in the control site (Figure 3).[6]

[6] Some of these large changes in the India case study, particularly for postnatal care, may be partly due to the fact that the baseline awareness for PNC in the study site was lower than in the control site, and thus there was more room to increase awareness compared to the control site. Nonetheless, it is notable that community mobilization activities were able to increase this low baseline level to almost catch up to the

Figure 3: Knowledge of Treatment for Postnatal Problems at Government Centers, Married Women, India



Use of maternal care services

In both countries, young married women were able to access antenatal and delivery services more effectively in the community mobilization arm compared to the control arm.

Antenatal service use

Findings from Nepal show that women in the community mobilization arm of the study were more likely to receive any routine antenatal care than their counterparts in the control site: the proportion of young women in the study site seeking prenatal care for a first pregnancy increased from less than one-half to about two-thirds between baseline and endline. In contrast, the control site showed a slight decline (Figure 4). Further, these women are sought antenatal care from trained medical professionals and health workers. This increase in service use in a rural community with scarce medical services can be attributed to two main components of the community mobilization effort in Nepal: the specific messages and information around pregnancy and care disseminated to adults and young married couples, and training and orienting existing health care providers and volunteers to the benefits of prenatal care.

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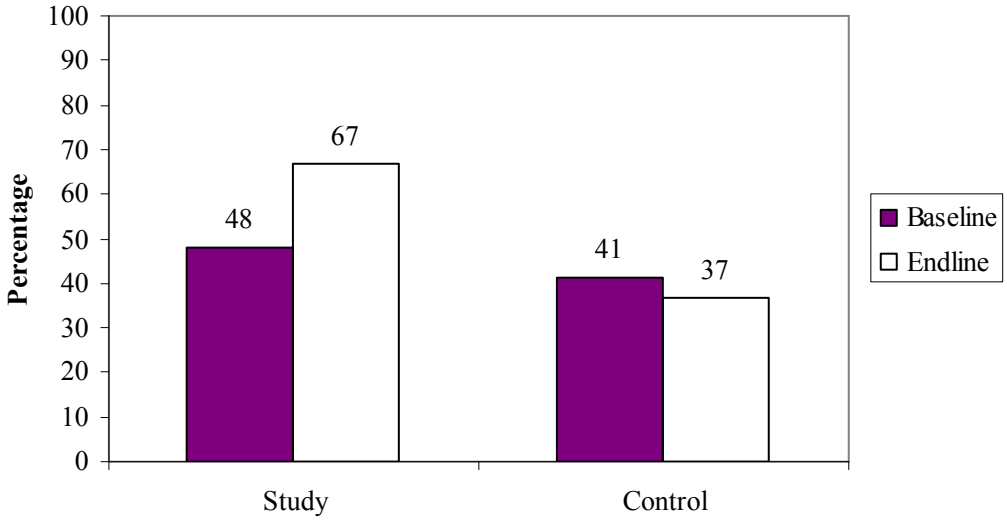
levels at the midpoint in the control site, or surpass them. This suggests that these participatory activities had some impact, though the data do not permit us to disentangle how much of the change is due strictly to these activities versus the fact that the study site started at a lower level to begin with.

Figure 4: Use of Prenatal Services, Married Women, Nepal



In the India case study, the major difference across arms and between time points appeared in *where* families chose to have young daughters-in-law undergo routine antenatal check-ups. At the control site, baseline use of government antenatal care services was higher than private services[7], and that remained the case at midpoint. In the study site, however, at baseline the use of government versus private services was roughly equivalent, with 51% of pregnant women who had sought any antenatal care going to government health centers. By the midpoint, perhaps reflecting the change in attitude noted earlier, 70% of pregnant young women report using government facilities for routine antenatal care (Figure 5 and Table 4).

[7] Private medical providers include trained gynecologists, doctors trained in both modern and traditional (Ayurveda) medicine, and the private practices of government health providers.

Figure 5: Use of Private and Government Services for Routine PNC, Married Women, India

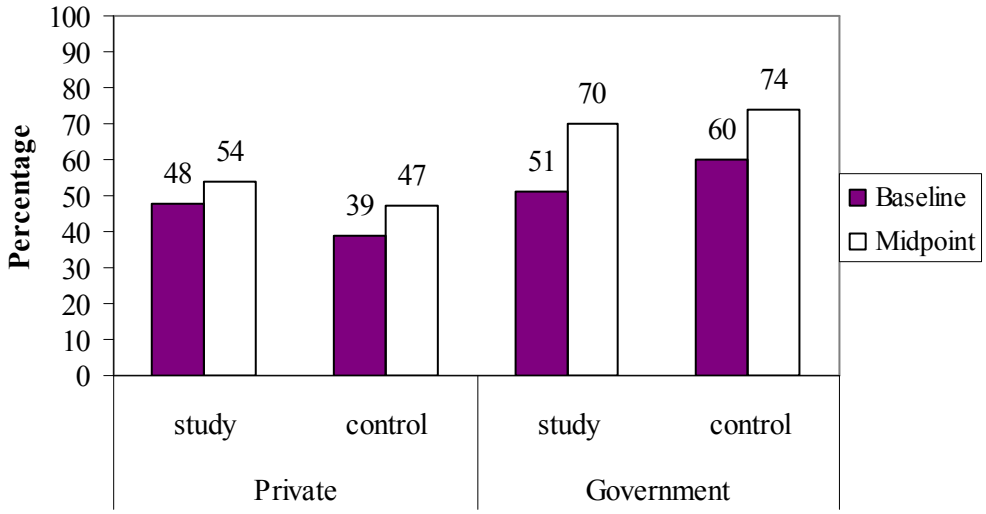


Table 4: Changes in Use of Maternal Care Services, Married Women, India

	Study Site (%)		Control site (%)	
	Baseline	Midpoint	Baseline	Midpoint
Had any antenatal checkups	96.1	91.9	92.7	92.5
Had ANC at private provider	47.9	54.4	39.4	46.8
Had ANC at government provider	51.0	70.4	59.8	73.9
Treated problems during pregnancy	77.6	84.6	71.6	76.4
Pregnancy problems treated by private provider	74.4	88.6	78.1	88.1
Pregnancy problems treated by govt. provider	30.4	13.6	23.3	14.3
N (reported at least one pregnancy)	*363*	*272*	*413*	*319*
Safe delivery (trained professional or medical facility)	87	84	82	76
Had any postnatal check-ups	27.9	10.8	23.0	11.8
N (reported at least one live birth)	*315*	*204*	*348*	*263*

However, this shift does not extend to the choice of care provider for *problems* during pregnancy. Indeed, it appears that, even at the midpoint, in cases where there were problems during pregnancy, the vast majority (over 88 percent) of those who sought care for any reported problems continued to use private providers rather than government providers (Table 4). This may be a cause for concern. Given that private providers are likely to be expensive, and that families are usually reluctant to spend money on a young bride unless the problem is severe (Barua and Kurz. 2001; Barua et al. 2004), problems during pregnancy are likely to remain untreated unless considered critical by a husband, mother-in-law or other decision-makers in the household.

Use of facilities for delivery

The community mobilization approach in Nepal also influenced delivery care. At baseline, young women had clearly expressed the challenges they face in terms of delivery care and facilities available in and around their own village.

These types of problems and complications (pregnancy and delivery) would have been minimum if we have had access to enough health care services and treatment facilities in our own village. But alas! Such types of services are not available in our health center. So we always have to take the patients to Kali-Gandaki hospital. This option, too, is not free from problems. As there are no means of transport, we have to cart the patients to the hospital. While carting the patients to hospital, there is the possibility of patient succumbing to death on the way. Hence, a woman here has to take the risk of losing her own life while giving birth to a baby. (Female youth, Nepal, 2000)

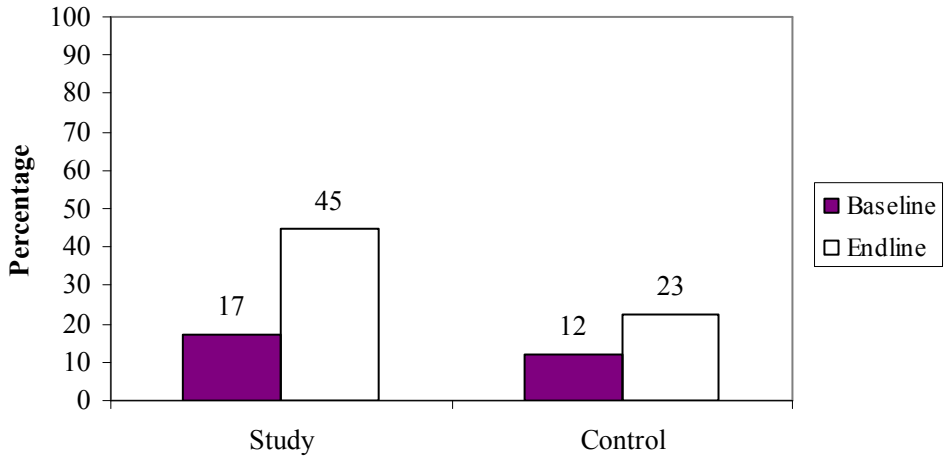
The data from Nepal show that, by the endline, deliveries in a medical facility, and deliveries attended by a health professional (defined as a doctor, nurse, or auxiliary nurse midwife), improved more in the study site than in the control site (Table 5). At endline, while fewer than one-quarter of the deliveries at the control site took place at a medical facility, almost one-half of the deliveries at the study site did (Figure 6). This change in location of deliveries was not only evident in the quantitative data, but also noticed and expressed by traditional birth attendants in the study site.

Initially I used to conduct 9-10 deliveries per month but now I conduct only 1-3 deliveries. That is because most of them go to hospital for delivery. (Traditional birth attendant, Nepal, 2003)

Table 5: Changes in Use of Maternal Care Services, Married Women, Nepal

	Study Site (%)		Control site (%)	
	Baseline	Endline	Baseline	Endline
Use of prenatal care services	47.8	66.7	41.2	36.6
Delivery in a medical facility	17.4	45.0	11.8	22.5
Delivery by a health professional	26.1	50.0	17.7	25.0
Use of postnatal care services	27.3	20.0	6.1	0.0
N (reported at least one pregnancy)	*29*	*21*	*38*	*41*

Figure 6: Delivery in a Formal Setting, Married Women, Nepal



Postnatal care

In both the India and Nepal case studies, between the two surveys, use of formal postnatal care decreased in study and control sites (Tables 4 and 5). Process monitoring data from Nepal indicate that some of this decline might be due to the fact that the community mobilization effort trained local service providers, including traditional healers and family and child health volunteers, on pregnancy, delivery, and post-partum care. Similarly, the study in India focused health education for postnatal care on removing misconceptions about appropriate postnatal care in the home, and promoting beneficial traditional practices, given their existing predominance in the community. Thus, in both studies, young women may have been more likely to use free or traditional services within the community, rather than go outside to consult the trained service providers for postnatal care. Unfortunately neither study's surveys was able to capture this nuance in use of postnatal care services.

The qualitative data also show that low use of postnatal care can be attributed to the strict social norms that govern women's mobility during the post-partum period. In the India case study, for instance, mothers-in-law, in particular, were reluctant to allow daughters-in-law to seek any postnatal check-ups, following an age-old tradition of not allowing a new mother to leave the home for an extended period of time after she delivers a baby, even if there are problems in the immediate postnatal period. Instead, traditional remedies – some positive, some potentially harmful – are used. As one mother-in-law said when asked prior to the intervention about postnatal problems:

"Pain in abdomen and 10-11 days bleeding after delivery is very usual. Some women, who deliver at home, bleed up to 5 weeks also. These women are given fresh, wet turmeric orally. This reduces the bleeding. They are also given juice of Neem leaves which increases lactation." (Mother-in-law, India, 1996-98).

While in the short period of the intervention community mobilization efforts may have been able to change attitudes around postnatal care, it was clearly not enough time to change practices associated with postnatal care.

Why did community mobilization achieve positive results?

While the community mobilization approach was not uniformly better than a more traditional approach, the data suggest that it did achieve better results in some critical aspects of maternal care generally considered beyond the reach of short-term intervention programs. We find positive results especially in some of the more intransigent aspects of maternal care such as the attitudes towards formal postnatal care.

Qualitative and process documentation data suggest that where the community mobilization approach was more successful than the traditional approach, it was because in addition to increasing young women's knowledge of maternal issues and the need for care during pregnancy and childbirth, this approach tackled social and attitudinal constraints to maternal care for young married women. Specifically, community-based activities enabled young women to gain confidence and tools to better articulate their own reproductive health needs, positively influenced attitudes of key gate-keepers such as husbands and in-laws about the need for young pregnant women to seek care, and changed provider attitudes and approachability for youth. In other words, the community mobilization approaches followed in these two studies were able to create an enabling environment for good reproductive health by encouraging and working towards a new mindset in communities, one with a deeper, more sophisticated understanding of youth reproductive health and its implications.[8] These processes are described below.

Better articulation of own reproductive health needs among young married women

In the India site, pre-intervention qualitative data showed that a culture of silence surrounds reproductive health needs of young or adolescent married women such that young women are discouraged from expressing these needs or seeking care even when their health is at risk. A frustrated health care provider summed up the situation:

"One hurdle was how to reach women who were pregnant for the first time. In the husband's household the problem was compounded by the fact that hardly any physical or mental space was allowed for this woman. She was shielded the most from the ANC educator as cultural sanction stressed that she be most deferential to the mother-in-law. On a few occasions when mother-in-law would move away for some reason the daughter-in-law would immediately open up and in brief moment state the real problem...."
(Government female health worker, India, 1994)

Young women themselves were also well aware of this, as one young pregnant woman noted:

[8] Here only data from the study sites are presented, since this goal was not part of the program design for the control sites and comparable data were not collected.

"Sister (government health worker) comes home to give health advice but I am not allowed to talk to her." (Young woman, India, 1996-98).

The community mobilization arm, by arranging community meetings where these issues were discussed in a public forum, addressed some of these constraints. Young women and couples were encouraged to attend sessions, ask questions, voice opinions. Process documentation shows that younger women increasingly participated in the meetings with the encouragement of older women. While at initial sessions, only about 25% of session participants were younger women, by the time of the midpoint survey these proportions had increased to 40-50%.

Young women have also become more vocal. For instance, they voiced the way they believe health information should be relayed to them, with the result that the project team changed their methods from more interactive (which is what was believed to be preferred) to more didactic (which is what the younger women asked for). They are more likely to voice their reproductive and maternal care needs to mothers-in-law and other elders in the family, and these elders are, in turn, more likely to get such care for the younger women. As one young woman reported at midpoint:

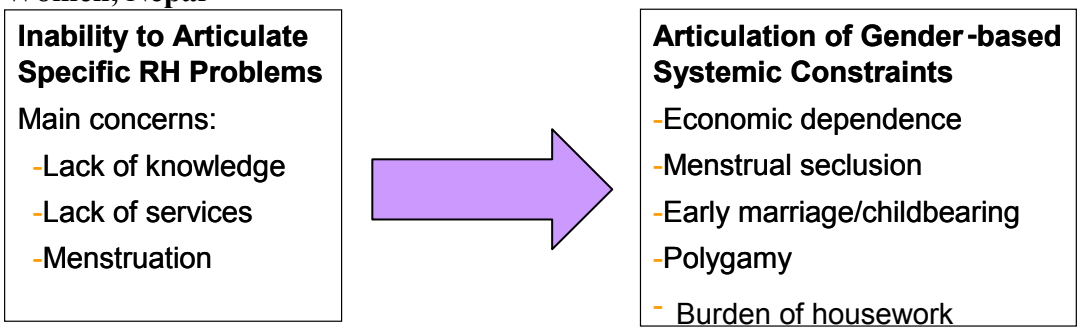
"When I had nausea and loss of appetite, I told her (mother-in-law). She told me that I was pregnant. She has brought up 6 children. She accompanied me for check ups". (Young woman, India, 2003).

Similarly, young women are more confident in approaching health workers and asking questions about the care available for them. The health staff corroborated the slow but sure changes in the community. To quote one primary health center Medical Officer: "*People have started asking a lot of questions now. Earlier they did not".* (Government medical officer, India, 2003).

The Nepal case study shows how the community mobilization approach took such articulation one step further, by enabling Nepali young women in the study site to articulate specific reproductive health concerns in systemic terms, and to link specific reproductive health concerns to resulting health, social and economic consequences.

Figure 7 depicts the nature of this shift in young women's articulation. The box to the left shows how women at the rural study site expressed their reproductive health concerns at baseline, in terms of lack of information and services, using broad and generic terminology. Menstruation was the only specific concern mentioned. The qualitative data indicate that at baseline, rural women had given little thought to, and had little comprehension of, what young women's reproductive health concerns were or how their lives were impacted by those concerns.

Figure 7. Abstract Versus Specific Articulation of Reproductive Health Concerns, Women, Nepal



The box to the right synthesizes endline data, and shows that rural young women's understanding had changed such that they were able to identify the manner in which gender-based norms influenced their sexual and reproductive behavior. Thus, women emphasized issues such as girls having to engage in sexual activity for money or security, lack of mobility and options because of seclusion during menstruation or after pregnancy, early marriage and childbearing, the constant threat of husbands taking on a second wife, and difficulties in meeting housework-related obligations when suffering from reproductive problems.

Changed attitudes and increased support of partners and elders

Pre-intervention qualitative data from both case studies show that husbands and mothers-in-law are key players in the decisions on whether to seek care. However, husbands were found to be largely ignorant of women's illnesses and believed that their own involvement in pregnancy-related care was unnecessary. As one husband noted,

"*....I do not know the details of her delivery because I was not there and I did not ask about such things. These are women's affairs.*" (Husband of young woman, India, 1996-98).

Mothers-in-law, though more knowledgeable, viewed childbearing as a normal physiological phenomenon with negligible associated risks. As one mother-in-law retorted,

"We did not have this care, we did heavy work during pregnancy and never had any problems. My daughter-in-law is pregnant but has not been to a doctor. She has no problem then why should she go?" (Mother-in-law, India, 1996-98).

The older women were also more likely to endorse traditional care while discouraging use of formal medical care even if needed. As one mother-in-law said:

"*...Now-a-days these girls go to the doctor, take medicines and make a lot of fuss about pregnancy...I am not convinced about all this care and medicines. These girls take all these medicines but cannot do their routine work. The slightest exertion makes them start*

having tremors and weakness. The earlier tradition of doing hard work during pregnancy was much better". (Mother-in-law, India, 1996-98).

Interestingly, in Nepal, baseline surveys with adult men and women revealed that adults are supportive of young women and girls' access to family planning and reproductive health services before and after marriage (Mathur, Malhotra et al. 2001). As shown in Table 6, adult men were strongly supportive of unmarried young women's access to such services (85.0%), whereas adult women were somewhat more tentative (only 38.2% approved). After marriage however, support for young women's access was nearly universal among adult men and women (97.5% and 100 % respectively). In spite of these progressive attitudes of adults, however, social and normative constraints continued to limit young women's actual experiences around maternal and reproductive health care, before or after marriage.

Table 6: Support for Youth Access to Reproductive and Family Planning Services, Men and Women, Nepal Study Site

	Men	Women
Appropriate (ideal) age at marriage for girls (mean)	19.3	19.5
Support for love marriage	12.6	15.4
Support for family planning services for girls before marriage	85.0	38.2
Support for family planning services for girls after marriage	97.5	100
Support for practice of family planning before first child	34.5	36.3
Appropriate (ideal) gap between marriage and first birth (mean number of years)	2.2	1.9
N	*87*	*91*

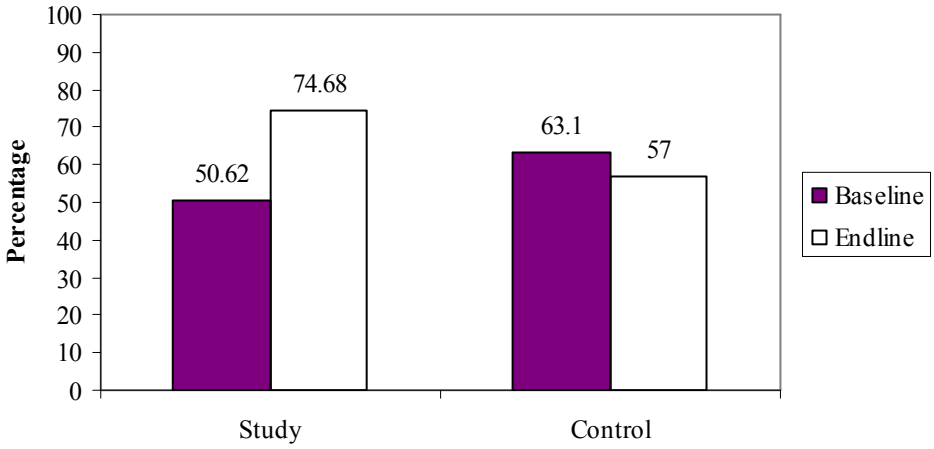
The community mobilization arm of both studies was able to incorporate such information in the study design and implement activities that targeted husbands and mothers-in-law of the young married women, and aimed to dispel myths, raise decision-makers' awareness of young women's particular reproductive needs, and increase their willingness to seek care for young women when needed.

In India, separate interactive education sessions were held with husbands of young women and other male youth in the community. Monitoring data collected from husbands during the intervention suggests that attitudinal change is under way. Whereas maternal care had earlier been dismissed by husbands as *"women's affairs"*, a majority of husbands now voiced a sense of responsibility to accompany their wives to clinics for maternal care and pay for such care as needed. This attitudinal change has not yet been reflected in behavioural change, however, and men's actual participation during routine antenatal or postnatal care, or at delivery, continues to be limited (Barua, Pande et al. 2004). This may be, at least in part, a function of the short time frame considered here between baseline and midpoint of the intervention and the fact that knowledge is easier to change than behaviour in such a short period of time.

In Nepal, a diverse range of activities was conducted to increase men's knowledge and awareness related to maternal health. Separate mobile seminars were held for men on a

variety of sexual and reproductive health topics where questions posted to an anonymous question box in the community were answered. Second, a group of older married youth were trained as peer educators specifically to counsel young couples on sexual and reproductive health within marriage. Endline quantitative and qualitative data show the success of these approaches. At endline, young men in Nepal from the participatory, community mobilization site were more aware of complications related to pregnancy than young men from the control sites (Table 3). As shown in Figure 8, at baseline 30 percent of young men in the study and control sites were aware of any serious complications related to childbirth. By the endline, compared to a minor increase (37 percent) at the control site, the proportion of young men with knowledge regarding problems during childbirth doubled at the study site (60 percent).

Figure 8: Knowledge of Problems during Pregnancy, Men, Nepal



To address the mothers-in-law's attitudes, the interactive sessions under the community mobilization study arm in India encouraged women of all ages to participate, including the adolescent women's mothers-in-law and other older women. The hypothesis was that wider participation would foster trust between the generations, focus the older women's attention on special needs of young women, and increase community support for young women's needs. Health education sessions promoted healthy traditional remedies while discouraging harmful ones, for instance during the postnatal period. At the same time, older women knowledgeable about traditional, indigenous ways of addressing reproductive health problems were encouraged to share their experiences with younger married women. Process documentation based on community feedback of the sessions to date shows that this approach has indeed started to change adult gatekeepers' attitudes about young women's maternal care needs. As one older woman noted: *"I think this new system of care is good for the health of the mother and the child. This generation is lucky we did not have such system".* (Mother-in-law, India, 2003).

Mid-term interviews with mothers-in-law show an acknowledgement of the need for young women to have access to care during pregnancy for both mother and baby.

"She is still young, being pregnant she needs medicines to build up her strength. She is scared of doctors... I force her to go for care. After all this will improve the health of my own grand child, I cannot even think of stopping or objecting to any measures to improve its health". (Mother-in-law, India, 2003).

In Nepal, to facilitate communication across generations, the project formed male and female adult peer educator groups that chose to meet on a monthly basis to discuss the issues and concerns on which young people needed advice or input. The adults were trained in youth reproductive health and issues of inter-generational communication, and qualitative endline data shows that they increasingly recognize their role in youth reproductive health.

At a time when our children will be facing problems, we are able to provide various advice and suggestions to them... (Adult women, Nepal, 2003)

The community mobilization approaches followed in India and Nepal were able to achieve the difficult task of involving husbands, mothers-in-law, and key adults because they were flexible enough to incorporate and use traditional structures where appropriate while advocating for change. In India, the community mobilization arm tapped into indigenous community-based organizations. Pre-existing youth organizations provided an accepted forum where young men could gather, while indigenous women's groups, which traditionally have older women as members, offered a culturally appropriate, non-controversial forum for bringing the two generations of mothers-in-law and daughters-in-law together. In Nepal as well, the activities chosen were familiar to the communities. In both cases, it was easier to then discuss sensitive issues when the forums in which such discussions were held were non-sensitive, accepted structures for communication.

These approaches, by their innovative nature, have been able to contribute to a broader shift in the norms and attitudes of families and the community about the sexual and reproductive health needs of young people before and after marriage. For instance, in the India site, initial apprehensions about discussing a sensitive issue like pregnancy or indeed other reproductive health needs of young married women are disappearing. Recent feedback from study site community elders is for the intervention to include discussions of reproductive and maternal care with young unmarried girls and young couples, in addition to young married women. This recommendation is perhaps one of the best examples of the shift in attitudes and acceptance of the young age groups' reproductive health needs at the community level.

Increased support of health care providers

Part of the normative change that the community mobilization arm in the Nepal study focused on was a shift in attitudes among health care providers, with a view to making reproductive and maternal health care more accessible and appropriate for youth.

Prior to the intervention in Nepal, service providers reported embarrassment in discussing sexuality-related topics, discomfort with terminology, lack of appropriate knowledge of

reproductive physiology, and lack of training on counseling young people. Most providers felt it was not essential to talk to married adolescents about issues of physiology, sex and pregnancy since they were likely to already know about those topics (Mathur, Malhotra et al. 2001). The community mobilization approach was successful in changing this situation, resulting in health providers for youth who are now more attentive and less judgmental in providing services to their younger clients. An important element of the improvements in service providers at the study sites is greater awareness among both youth and adults about the qualifications, availability, and professional demeanor of the service providers with regard to youth reproductive health. Consequently, as endline data showed, youth at the study sites who had accessed services were pleased with the quality of interaction with the provider.

> *Earlier, the service provider used to give a very bad response if anyone went for counseling, hence I feared and felt embarrassed to go…but now with the help of the program, the service providers show cordial behavior and maintain confidentiality. Due to this the adolescents as well as the adults have started to go for health and counseling services.* (Youth, rural study site)

In comparison, even at endline, services in the control site continued to be regarded as low-quality.

The program in the study site also tapped into and strengthened the social networks that could effectively serve as a source for service provision. The in-depth needs assessment process had highlighted the extent to which the issue of delivering services for youth reproductive health is essentially different from reproductive health services for other age groups: cultural and social networks (including friends, but also brothers, sisters, sisters-in-law, aunts, etc.) are especially critical for information sharing and counseling among young people. This assessment was fed into intervention design in the study site, and as a result, there was a substantial difference in the nature and quality of the peer education programs in the study and control sites. For example, counseling training in addition to thematic knowledge was an important element of the study site program. The program in the control site, on the other hand, was didactic, fully determined by the implementing agencies, and did not use input on social networks and other youth needs from the baseline assessment. By the endline, therefore, better trained "peer educators" and "experienced friends" are explicitly identified as service providers by young people in the study sites, and the data show that the community members rely on this group's service provision role. No such change occurred in the control site.

Study limitations

Both the Nepal and India case studies have limitations that constrain the analyses that we can conduct. Though both the India and Nepal case studies collected census data of young people, since this analysis focuses on maternal health outcomes the sample sizes are limited. These small sample sizes unfortunately limit our ability to conduct meaningful multivariate analyses and definitively attribute change to intervention strategies.

Additionally the India case study is still on-going and we present mid-point data here, thus final conclusions on the lasting effect of the community mobilization approach in this study will need to wait till the endline is conducted and analyzed (scheduled for late 2005). However, there is some concern that study contamination will still make it difficult to attribute change to the intervention. Specifically, indigenous community-based organizations in other arms of the research study have started attending community mobilization activities and replicating them in other arms. Programmatically, this indicates the success of the community mobilization approach in this area; however, it does complicate the rigor of the research.

Finally in this paper, we focus solely on specific maternal health variables. It would be interesting to explore if community mobilization approaches have similar effects on other reproductive health issues, such as contraceptive use, treatment for reproductive or sexually transmitted infections, etc. Since the Nepal and India projects focused more broadly on youth reproductive health, we were not able to collect substantial usable data on such outcomes.

Discussion & Implications

Our studies suggest that the community mobilization approaches in both India and Nepal had mixed results insofar as knowledge of maternal care and use of services is concerned. A majority of young women had some basic knowledge of pregnancy care and delivery and we find that the community mobilization approach did not show a stronger change in knowledge as compared to the traditional approach. However, women in the community mobilization sites were more likely to know where maternal care services are available, more likely to receive antenatal care, to seek routine care at government services, and to have deliveries in a medical facility or in with a trained medical professional. While the community mobilization approach was better able than the traditional approach to change the communities' attitudes about the value of formal postnatal care, it was unable to change deeply entrenched norms around the actual use of such care in the immediate postnatal period, perhaps because of the short time frame considered here.

Where the community mobilization approach was particularly strong compared to the traditional approach was in tackling social and attitudinal changes among women, their households and their community. Community mobilization approaches gave young women the confidence and skills to articulate their reproductive health concerns and demand services, increased young men's understanding of maternal care, improved husbands' willingness to support their wives' maternal care needs, and fostered better inter-generational communication and support between mothers-in-law and daughters-in-law. Further, in working with local health care providers, peer networks, and key adults, the community mobilization approaches enhanced the availability of quality sources for reproductive health information, counseling, and services for young married women.

There were particular strategies in both the India and Nepal community development approaches that we think were critical in fostering these changes. Participation of key

community members, both youth and adults, was done in a strategic way, such that we worked with *key* community members at critical stages of the project, rather than involving *all* possible actors at all times. For example, in Nepal, male and female youth groups participated in synthesizing the needs assessment findings and then developing and prioritizing the intervention strategies. Key adults (parents, leaders, and teachers) were brought in at this point to provide the youth groups with feedback on their program design and connect them with available community resources. Second, both the India and Nepal case studies used creative and non-traditional mechanisms to change youth, community and provider attitudes and create an enabling environment. Finally, the community mobilization activities largely worked through locally established institutions – either pre-existing indigenous organizations, or newly-created youth and adult groups -- to implement the intervention program, providing a great opportunity for ownership and sustainability.

Implications for community mobilization approaches for youth reproductive health

Our findings endorse the effectiveness of comprehensive community mobilization efforts in changing the systemic and contextual barriers to good reproductive health for young married women. Nonetheless, it is important to acknowledge that, while these studies are innovative, they are small in scale. A big question, therefore, is what can be learned from these studies to scale-up and replicate community mobilization efforts to improve youth reproductive health. The two studies discussed here allow us to identify what would be some of the concerns or "red flags" to keep in mind while scaling up, as well as some of the most strategic, targeted and resource effective lessons applicable for replication and scale.

One concern that is reflected in the FRHS study arises from the very success of the community mobilization approach. This approach has now energized the local community to an extent where neither FRHS nor the local government services are able to keep up with the increasing demand for youth reproductive health services that continues to be generated in the study arm. Thus, when scaling up, the ability of existing infrastructure to sustain and satisfy any increased demand for better quantity and quality of services, and the ability to create new infrastructure if needed, has to be considered. Another possible concern also arises from the nature of community approaches themselves. By definition, a community approach cannot restrict participation to solely the target group. While this has clear advantages in the normative changes that occur in a community when the whole community participates, if such an approach is scaled up it can present substantial logistical problems in managing a large volume of participation.

Our experience points to key ingredients of community mobilization that are likely to be important for replication and scaling up. These studies suggest that, at minimum, to bring about change in youth reproductive health, a program has to include interventions that improve the provision of information or services to young people; that build young people's capacity, skills, and social capital; and that mobilize the community to build a supportive environment for youth issues. Typically, studies do not document the optimum processes by which to implement such interventions. Our studies did so, and

strongly suggest that, in implementing such interventions, community mobilization efforts have to involve key stake holders at critical stages of the program; should focus needs assessments not just on the outcomes of interest but also at the context and structure of communities; should allow adequate time for planning and coordination; and need to work through local institutions for greater sustainability. This combination of interventions and strategies that is aimed at youth, community, *and* social norms and structures is likely to yield better outcomes, community buy-in, and sustainable results than more traditional program models because they allow for the effective mobilization of local resources and capacity.

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