Tipping Point Program Impact Evaluation

BASELINE STUDY FINDINGS IN NEPAL

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Forward

[The Emory team recommends that a short forward be drafted by an outside expert in the social norms field.]

Acronyms and abbreviations

ASRHR	Adolescent Sexual and Reproductive Health and Rights
CEFM	Child, early, forced married
FGD	Focus group discussion
GBV	Gender-based violence
GEWV	Gender Equality and Women's Voice
IDA	Inter Disciplinary Analysts
IDI	In-depth interview
IPV	Intimate partner violence
KII	Key-informant interview
M	Mean or average
SE	Standard error
SNAP	Social Norms Analysis Plot
SES	Socioeconomic status
SRH	Sexual and reproductive health
TPP	Tipping Point Program
TPP+	Tipping Point Program Plus (emphasized social norms component)
VSLA	Village Savings and Loan Associations

Executive summary

Overview and objectives

Each year, child marriage, before age 18 years, affects more than 10 million girls globally. The practice is associated with adverse maternal and child health outcomes as well as with diminished long-term economic empowerment. About half of all child marriages occur in South Asia.

This report presents findings from the baseline survey of the CARE Tipping Point Program (TPP) impact evaluation in Nepal (May to July 2019), which is being undertaken in Kapilvastu and Rupandehi districts. CARE's full Tipping Point Program—implemented in Nepal and Bangladesh—focuses on addressing the root causes of child, early, and forced marriage (CEFM) and on promoting the rights of adolescent girls through community-level programming and evidence generation. The approach of the CARE Tipping Point Program relies on challenging social expectations and repressive gender norms and promoting girl-centric and girl-led activism to enable adolescent girls to identify and to move into social spaces where they can challenge age-based and gender-based inequalities. The operational approach of the CARE Tipping Point Program entails the synchronized engagement of different participant groups—adolescent girls, adolescent boys, parents and community members, and community leaders—around four programmatic pillars: adolescent sexual and reproductive health and rights, social-norms, girl-led movement-building, and alternative livelihoods. The Program supports the creation of public spaces for all community members to engage in the dialogue.

The Care Tipping Point Program impact evaluation in Nepal is being undertaken through a multi-institutional collaboration between implementing partners of the Gender Justice team at CARE USA and CARE Nepal with researchers in the Hubert Department of Global Health, Rollins School of Public Health at Emory University and Interdisciplinary Data Analysts (IDA) in Kathmandu, Nepal.

Impact evaluation design

The CARE Tipping Point Program impact evaluation in Nepal follows an integrated, mixed-methods design. The quantitative evaluation involves a cluster-randomized controlled trial with three arms. Participants in Arm 1 are receiving the Tipping Point Program with an emphasized social norms change component (hereafter referred to as TPP+). Participants in Arm 2 are receiving the Tipping Point Program without the emphasized social norms change component (hereafter referred to as TPP). Participants in Arm 3 are the control group.

The Emory Institutional Review Board and the Nepal Health Research Council approved the study and provided ethical oversight. Wards or ward segments, the lowest government administrative unit in Nepal, were treated as the cluster or primary sampling unit in the study. Wards or ward segments of approximately 200 households were selected with probability proportional to size, according to the 2011 Nepal census. Selected clusters were assigned randomly to one of the three study arms, for a total of 18 clusters per study arm and 54 clusters overall. Households were enumerated in each cluster to ascertain sample eligibility, and to provide the sampling frame for the community survey of social norms, pre-program estimates of CEFM, and to generate a list of eligible adolescent girls, adolescent boys, and parents of adolescents for program group formation.

The team aimed to recruit unmarried adolescent girls (n=23) and boys (n=23) ages 12-16 years in each cluster, for total sample sizes of 1,242 girls and 1,242 boys. The team also aimed to recruit 90 women and 90 men ages 25 years or older per study arm, for a planned total sample size of 540 (270 women and 270 men). Total achieved sample sizes were 270 adult women, 270 adult men, 1,134 adolescent girls, and 1,154 adolescent boys, and across study arms, 994 adolescents and adults in the control arm, 953 adolescents and adults in the TPP arm, and 881 adolescents and adults in the TPP+ arm. Detailed sample size calculations can be found in Appendix Box 1.

The baseline survey included 20 modules that measured five constructs: intrinsic agency (or 'power within'), instrumental agency (or 'power to'), collective agency (or 'power with'), social networks and social norms, and discrimination and violence as barriers to change. Adolescent girls completed all modules except for the one describing experiences with violence, alcohol, and drugs. Adolescent boys completed 16 modules. Adult community members completed five modules related to intrinsic agency, social norms, and discrimination and violence as barriers to change.

For the qualitative data collection, four of the 27 sites in each district were selected to ensure diversity with respect to ethnic, religious, and linguistic characteristics. Qualitative data were collected through in-depth interviews (IDIs) with adolescent girls and adolescent boys, key informant interviews (KIIs) with adult community leaders and influential members, focus group discussions (FGDs) with adolescent girls and adolescent boys, and FGDs with parents of adolescents in the study sites to collectively generate information on: perceptions, practices, and experiences of gender roles and responsibilities, educational and employment aspirations, decision-making around marriage, girls' safety and security, girls' mobility, and collective action; changes in the prevalence of child marriage, and social norms surrounding girls' mobility, gender roles, education, interactions with boys, and decision-making around marriage. At baseline, a total of 30 IDIs (20 with adolescent girls and 10 with adolescent boys) 32 FGDs (8 groups with adolescent girls, 8 groups with adolescent boys; 8 groups with adult women, and 8 groups with adult men) and 8 KIIs were completed.

Key findings

Background characteristics of the samples

On average, adult men and women were in their mid-forties and adolescents were almost 14 years. Most women (87%) and men (92%) were married. Tipping Point membership (based on random assignment to treatment and control arms) was 4.1% among women and 7.8% among men. More women (60%) than men (25%) were unable to read or write, compared to few adolescent girls (5%) and boys (3%). More men (71%) than women (32%) had ever attended school, but once in school, women and men achieved the same level of schooling (7.1 grades). At interview, adolescent girls and boys had completed a mean of 6.3 and 6.2 classes, respectively. Though virtually all surveyed adolescents had ever attended school (94%), a lower percentage of girls (85%) than boys (90%) still were attending, suggesting that girls and boys attended at the same rates but that dropout was slightly higher for girls. Government schools were the most common type of school attended. Vocational training was uncommon for adults (11% women; 14% men) and adolescents (6% girls; 4% boys).

Across samples, most respondents identified as Hindu (87% to 90%), and almost half (42% to 52%) belonged to upper-caste groups. The most common job among adults was in agriculture, livestock, and

horticulture (51.5% among women; 71.9% among men), while two thirds of women reported having no job or being homemakers (respondents could report multiple jobs concurrently). Among adolescent girls, 14% reported working or engaging in income-generating activities.

The socioeconomic status (SES) of sample households was mixed. While the average household had two bedrooms, a concrete or cement roof, cement or brick walls, and at least one telephone, the job of the main household head typically was in agriculture, and pen/mud/kerosene or other stove and no/non-flush or a communal latrine were common.

Child marriage

Child marriage was widespread in the study sites. In Nepal, *gauna* refers to the time when a couple co-reside or consummates their marriage. Marriage without immediate gauna was more common in Kapilvastu, with almost half of married respondents there reporting marriage without gauna (46%), compared to only 9% in Rupandehi. In general, women reported earlier median ages at first marriage and gauna than men. In Kapilvastu, women had median ages of 15 years at first marriage and 17 years at gauna, compared to 18 years at first marriage and 19 years at gauna for men. In Rupandehi, women had median ages of 14 years at first marriage and 17 years at gauna, compared to 17 years at first marriage and 19 years at gauna for men. Across districts and genders, the median age at first marriage has been increasing; whereas, the median age at gauna has been increasing less markedly, resulting in a shorter average interval between marriage and gauna. Despite these changes, the majority of 20–24 year-old women in both districts were married by age 18 (57.2% in Kapilvastu; 64.6% in Rupandehi).

In the qualitative data, most participants perceived that child marriage and the practice of *gauna* were becoming less prevalent over time due to changing norms related to the ideal age at marriage as well as legal enforcement of the marriage age at 20, while acknowledging that the practice had not disappeared entirely. Older adolescents and girls who were no longer studying, or who were disobedient, such as being perceived to engage in prohibited interactions with boys, were identified as being at greater risk of early marriage. Many participants also ascribed the continued prevalence of early marriage to elopement by adolescents. Some variation in age-at-marriage practices also was ascribed to caste and educational level, with higher status being associated with delayed marriage.

The transition to adolescence marked a period of reduced freedom of movement and greater surveillance to protect girls' reputations and family honour to ensure that girls remained marriageable. The expansion of time between the onset of adolescence and marriage brings greater opportunity for capability development in girls, but also extends the period over which family members and community feel their chastity and reputation must be guarded particularly in light of expanding opportunities, such as the proliferation of mobile phones, to interact with boys.

Intrinsic agency in adolescents

Baseline findings revealed insights about the proximate drivers of child marriage—intrinsic agency (self-confidence and awareness of rights) and individual assets (knowledge and skills).

Self-efficacy. Adolescent girls and boys were asked to rate their self-efficacy, or confidence in their ability to achieve desired goals and level of education, to access health and sexual and reproductive health (SRH) services, to negotiate with their parents, and to move freely and to speak on girls' issues in their

community. A higher score on the 0–18 self-efficacy scale indicated higher self-efficacy. The mean scores for girls and boys—at 12.9 and 13.4—were similar. The majority of girls (57.7%) and boys (58.8%) reported high confidence in their ability to achieve their life goals despite challenges. Although three in five adolescents were highly confident in their ability to achieve their desired level of education, about 13% of adolescents were not at all confident, and girls (13%) more often than boys (8%) reported no confidence in their ability to negotiate with parents about the level of education they would receive. Qualitatively, it was clear that most parents and adolescents aspired for their daughters and sons to be educated. Girls' ability to negotiate their education was somewhat compromised in the most conservative communities as girls as young as 15 were considered of marriageable age. Negotiating continued education was contingent on appropriate behavior, the availability of an upper secondary school in the village, as inter-village travel was considered less appropriate and safe for girls, and ultimately the ability of the girl to voice their aspirations in households where adult men were the ultimate and undisputed decision makers.

Regarding decisions about marriage, the majority of boys were at least somewhat confident that they could refuse an undesired marriage (78.6%), compared to 73.9% of adolescent girls. Adolescent boys were slightly more confident than adolescent girls in their ability to negotiate with their parents about marriage (80.4% vs. 75.9% reporting to be at least somewhat confident). The qualitative data largely confirmed this finding. Greater agency to refuse a marriage proposal was evident throughout most of the transcripts, although somewhat more present among participants in Rupandehi than in Kapilvastu. In response to the vignettes, there was repeated mention that the girls would not marry if they chose not to even in cases where the female protagonist was perceived to have committed some transgression that impinged on her reputation. This perceived agency was not uniformly expressed, but a trend toward greater agency to refuse, even a good proposal was evident, often in the form of disagreements among adolescents in the same focus group discussion. Parents also recognized greater agency for girls to refuse and the futility of forcing a marriage given a growing propensity of boys and girls to elope against their parents' wishes or to commit suicide instead of marrying against their wishes. This agency was less apparent in more conservative communities where girls and boys were expected to defer to their parents' wishes. But even in the more conservative communities, increasing agency among adolescents was clear, even if just in the ability to have the chance to meet before marriage, and to be consulted, which was seen by key informants, fathers, and mothers as a major change from the past when girls were not even consulted and consent was irrelevant.

Adolescent girls were asked about their confidence in their ability to work for money and their ability to do so if their family objected. One in five adolescent girls were not at all confident that they could work for money or engage in income generation if they wanted; one third (34%) were not at all confident that they could work if their family objected. Two in five girls reported a high level of confidence in their ability to work; however, this number was reduced to one in five in the case of family objection. In the in-depth interviews, few girls actually worked, limiting the data available on this theme.

Aspirations. Adolescents also described their aspirations for marriage, education, and work. Over 60% said that a girl (60%) and a boy (51.5%-56.8%) should marry after age 20; however, girls reported lower aspired mean ages at marriage (21.8 vs. 23.1) and gauna (22.2 vs. 23.4) than boys. Most parents and adolescents in the qualitative sample agreed that boys and girls should ideally wait until at least 20 years of age to get married, especially if they were currently studying. If they were not studying or learning a

trade such as sewing, then it was expected that girls of 15 or 16 should marry as there was little else for them to do. Girls also aspired more often than boys to complete Grade 10 (21.3% vs 12.7%); whereas, boys aspired more often than girls to complete Grade 12 (44.6% vs 37%) and a master's degree (14.0% vs. 10.6%). In the qualitative data, there was no clear pattern of a particular grade to which girls and boys aspired to study, except that they wanted to study as long as they could, with parents concurring on support for their children to be educated. Girls aspired to professional work less often than boys (72.2% vs. 91.4%); instead, girls more often aspired to engage in agricultural work (8.7% vs. 7.2%) and to having no job or to being a homemaker (15.4% vs. 0.5%). In in-depth interviews, almost all adolescent girls described professional career goals, such as teacher, doctor, and banker, while boys typically gave more general responses such as "working abroad." Boys who aimed to remain in Nepal also cited professional career goals such as engineer and health assistant.

Gender attitudes. Regarding gender attitudes—such as whether wives should obey their husbands, women and girls should work outside the home, and men should have the final say in important household decisions—boys had less gender equitable attitudes than the other three samples (mean score 12.5 for boys versus 13.6). In the qualitative data adolescent girls and boys described the ideal woman as the caretaker of the family, responsible for the household chores, and with limited mobility. Adolescent girls and boys often described the ideal man as one who works outside the home to provide for the family and who assists those in need. A majority of boys stated that their wives should be 1-2 years younger than them and that it was important for boys to start earning money before getting married. Although a few boys explicitly stated that they did not wish their future wives to work outside the home, many aspired to marry educated girls with professional jobs. Adolescent boys and girls said ideal men and women should be educated and listen to their elders. Similarly, adults described girls/women as caretakers and responsible for household chores while boys/men are responsible for providing for the family financially. Adults and adolescent girls also answered attitudinal questions about menstruation, including whether menstruation was shameful/embarrassing and whether women and girls should be subject to each of six restrictions. On average, adolescent girls had less stigmatizing attitudes about menstruation than did women and men (mean score 11.1 of 21 (least stigmatizing) vs 10.1 and 9.9). The qualitative data highlighted the presence of menstrual restrictions in some communities, but did not yield data on attitudes towards this practice, only that it occurred.

SRH knowledge and information. Finally, adolescent girls and boys described sources of information and knowledge of SRH. Together, half of boys and girls received some SRH instruction at school (52.2%). For girls, the primary source of SRH information was their mother (46.8%), followed by school (31.5%). Girls learned about menstruation most often from their mothers (63.0%), followed by sisters (14.7%), teachers (10.2%), and friends (6.1%). For boys, school was the main source of SRH information (34.7%), followed by books and magazines (28.8%), friends (15.5%), and rarely fathers (3.7%) or mothers (3.1%). SRH knowledge generally was low among adolescents. Only one in three adolescents correctly stated that a woman could get pregnant the first time that she had sex (34.8%). Boys more often than girls correctly identified the woman's most fertile period (64.4% vs. 51.8%); whereas, girls more often than boys correctly identified at least one negative consequence of teen pregnancy (92.7% vs. 82.2%) and at least two forms of contraception (30.3% vs. 18.1%). While less than 10% of adolescents could name spontaneously at least two STIs, 40.9% could name spontaneously at least two places to receive SRH care. Eighty-six percent of adolescent girls reported knowledge of the menstrual cycle (97.7% of girls ages 15-

16; 78.6% of girls 12-14). Among adolescent girls who knew about the menstrual cycle, 68.6% correctly identified at least two menstrual hygiene materials (79.9% of girls ages 15-16; 61.6% of girls ages 12-14).

Many qualitative participants still considered SRH a taboo subject, with adolescents typically stating they were too "shy" to discuss such topics with parents. The major exception was menstrual hygiene, which mothers were expected to teach their daughters. Both adolescent girls and their parents reported that girls were much more likely than boys to discuss SRH with family members, and that they typically sought advice from mothers, sisters, and sisters-in-law, as well as friends and teachers. Boys, on the other hand, were particularly reticent regarding SRH, only discussing such matters with friends from whom information was perceived to be only somewhat reliable. Older adolescent boys and girls had typically learned some SRH at school; however, much of this knowledge focused narrowly around menstruation and pregnancy. Few adolescents could tell interviewers anything about puberty, and were misinformed

Instrumental agency in adolescents

Mobility. girls were asked about their ability to go to each of nine locations, including school, the market, the health facility, community gatherings, recreational areas, and the homes of friends or relatives nearby, in the village, and outside the village. Responses were summed to create a scale ranging from 0 to 18, with higher scores indicating higher mobility. The mean mobility score was 7.3, and this score did not vary across age. Roughly 88% of girls were able to go to school with or without permission. After school, girls most often were able to go without permission to the homes of nearby friends or relatives (12.4%). Few girls were able to go to a health facility or provider without permission (2.8%), though 64.9% could go with permission. About 32% were unable to go at all. Four out of five girls were able to go to the far end of their village, with 9.5% able to go without permission.

In the qualitative sample, parents, boys, and girls agreed that girls had less mobility than boys, which was linked to social norms surrounding girls' and their families' reputation, as well as safety and security. While girls could travel within their own villages for school or work, their travel was limited to specific circumstances, often required relatives or female friends to accompany, and typically did not involve travel outside the village. One exception was travel to school in another town, though this was not universally accepted.

Communication with parents. Adolescent boys and girls also described their communication and negotiation with their parents about their education, freedom to select a spouse, age at marriage, and freedom of movement. For each item, adolescents stated whether they had never expressed their choice, had ever expressed their choice, or discussed their choice with their parents. Girls more often than boys had ever discussed how much education they wanted with their parents (31.8% vs. 27.9%). In in-depth interviews, half of the girls mentioned discussing their educational and employment aspirations with parents or other family members. The majority of boys and girls who discussed education and work aspirations with family members stated that their goals aligned with their parents' goals for them. The few exceptions who did not agree with parents expressed doubt that their own wishes would be realized, stating that parents had the final say in such decision making. Consequently, there was little mention of attempts to negotiate about education and employment.

Few adolescents had ever discussed selecting a spouse or the age at which they would marry with their parents. In the qualitative data, across all communities, it was expected that the girl would be asked about her willingness to get married and whether she liked the intended groom. The majority of discussion pertained to efforts by her parents or others to convince her to marry when there was the proposal was perceived to be good. If girls were still in school, they had greater latitude to negotiate a later age at marriage. Key informants also felt that boys had greater agency to negotiate marriage decisions with parents than girls. Slightly over half of adolescents discussed their freedom to go places with their parents. The majority of adolescent girls and boys did not mention negotiating mobility with parents, with boys assuming greater freedom of movement within and outside the village. Girls did not typically attempt to challenge these rules.

Adolescent girls and boys also described how they communicate with their parents. Generally, adolescents agreed that they understood clearly and were understood clearly by their parents, with few adolescent girls (5%) and boys (1%) disagreeing in part or full. Overall, adolescents were willing to listen to their parents' opinions and felt that their parents were willing to listen to their opinions. Girls more often than boys felt that their parents were unwilling to listen to their opinions (6.3% vs. 1.6%). Adolescents reported feeling comfortable talking with their parents and felt that their parents felt comfortable talking with them. Boys more often than girls fully agreed that they were comfortable talking with their parents (73.9% vs. 57.9%). Boys had a higher mean score (16.6) than girls (15.5) on a 0-18 scale denoting extent of clarity, responsiveness, and comfort of adolescent-parent communication. More nuance appeared in the qualitative data, with some adolescents stating that they were comfortable talking to parents and others expressing fear of parents' reactions. Girls, and a few boys, expressed more comfort talking to mothers than fathers.

Participation in financial activities and decisions. In our sample, 14.3% of girls engaged in some income-generating activity in the past year, with girls 15-16 years doing so twice as often as girls 12-14 years. One third of all girls had their own savings, with no differences between older and younger adolescents. Most girls (69.9%) reported no input into decisions about their own savings and household finances, but opportunities for input are higher for older adolescents. In qualitative interviews, a few girls reported working outside the home for money. Adolescent girls who did work gave at least part of their earnings to their parents and had no say in how that portion was spent but did have decision-making power over what they kept for themselves, spending it mostly on necessities.

Leadership. Finally, adolescents were asked how well each of nine items described their leadership competence, and 0-27 summative score captured level of competence. Overall, adolescent boys scored higher (18.8) than did adolescent girls (15.8), as did older than younger adolescents.

Collective agency in adolescents

Adolescents described their membership and leadership in groups, including children's or youth groups, social/cultural organizations, savings and microfinance groups, sports clubs, religious organizations, and school, municipality, and health management committees. Membership in any group was more common among boys (41.8%) than girls (22.9%). Group leadership generally was rare. The most popular groups among both girls and boys were children's or youth groups and sports clubs.

To assess collective efficacy, girls and boys described their level of agreement with each of five items, such as "*you could collaborate with community members to address a community need"* and *"girls/boys and others in your community could prevent child marriage."* Adolescent girls and boys had similar mean scores (11.0 out of 15), and scores tended to be higher for older than young adolescents, suggesting that collective efficacy increases with age. Participation in collective action—by joining others to address a community issue; speaking in public about a social problem; speaking with local authorities about community problems; and attending a demonstration about a community problem—was generally rare.

In the qualitative sample, adolescents did not mention any type of collective action to address girls' issues in their communities. Key informant knowledge and support of collective action by adolescents varied by site, with roughly half of key informants describing activities and organizations led by adolescents in their villages to address problems such as child marriage, girls' education, and adolescent SRH. Local government officials, in particular, were involved in promoting and funding such activities.

Social networks and social norms

Both adolescent girls and boys reported a high level of connectedness with their parents. Virtually all adolescents agreed they could approach their parents about any problems they face (96%). A majority of girls (75%) and boys (80%) reported that their parents helped them with their homework, and almost all adolescents (97%) agreed that they were very important to their parents.

The close social networks of adolescent girls contained a mix of family members and friends, with a majority of girls (53.1%) naming one family member or one friend as a peer. Only one girl reported a community member (i.e. non-friend, non-family member) as a person they trusted to talk to about something personal or private.

To capture social norms, adult community members and adolescent girls and boys were asked whether people in their village would approve or disprove of each of 16 social norms items surrounding women's and girls' employment, marriage, girls' mobility, menstruation, gender roles, and collective action. For a summative scale ranging from 0-48, with higher scores indicating stronger perception of gender-equitable social norms, adolescent boys had a higher mean score (28.9) than did girls (26.4), and men had a higher mean score (28.4) than did women (25.6). Men perceived social norms in their village to be supportive of menstruation and women's and girls' employment more often than did women, adolescent girls, or boys. Also, men and boys more often than women and girls perceived social norms to support girls' mobility and equitable gender roles. Perceptions of social norms around marriage and collective action varied across samples.

Empirical and normative expectations around marriage are shifting towards greater frequency and appropriateness of marriage after age 20 with greater acceptability of same-caste love marriages in some communities. Norms around marriage decision-making and interacting with boys were somewhat in flux, due in part to the inevitability in many communities of greater interaction between boys and girls, but there was still strong familial and community effort expended to protect and guide girls through the longer period of adolescence (before marriage), including normative expectations that adolescent girls did not play sports which violated normative gender expectations. There remains strong normative expectations that adolescent boys and girls will have limited interaction outside of school- or work-related issues to minimize safety risks to girls and the development of romantic relationships which could lead to a love

marriage or elopement. There also are strong empirical and normative expectations that "good girls" do not move about the village unnecessarily or alone. Roaming around, especially in the presence of boys was widely perceived to lead to safety and reputational risks. Given the community-wide implications of inappropriate behavior, neighbors and community members were strong reference groups for parents and to some extent adolescents, whose ability to spread rumors, shame parents, and damage a girl's reputation and her prospects for marriage, reinforced and perpetuated the norms. Most respondents suggested a strong sensitivity to the norms and a desire to adhere, even in the few instances were mothers wanted more freedom and capacity to develop for their daughters than what they were able to provide, especially since men in the household still wield final decision-making power over most important household decisions. Some differences in sensitivity to the norms across sub-communities were noted, such as the more liberal approach that hilly communities took toward many of the norms. However, the most consistent outlier were educated families, who were perceived to be more understanding and less concerned about violating the various norms.

Collective action is in a nascent stage, it remains more of a potential than something that is realized across communities, especially youth-led initiatives. However, the infrastructure is present in most communities, and there are key stakeholders, particularly in local government, committed to support girls' collective action. The growth of collective action will be determined in part by the ability of girls to participate fully, suggesting changes in their mobility and a broadening of girls' scope of work beyond school and home.

Barriers to change— violence, harassment, and discriminatory practices

Compared to adolescent boys in Kapilvastu, boys in Rupandehi more often reported having witnessed almost all forms of VAWG about which questions were asked. Half of all boys reported having ever witnessed a boy or male peer making sexual comments, jokes, movements, or looks at any girl (50.8%), and roughly 30% witnessed a boy or male peer brushing up against a girl in a sexual way on purpose or spreading sexual rumours about a girl. One in four boys had ever witnessed a boy or male peer writing sexual messages or graffiti about a girl. Over 20% reported ever witnessing a boy or male peer calling a girl "samalingi" (समलिंगी) or "hijada" (हिजडा), which tranlsate as slurs for lesbian and gay, repectively. Among boys who reported witnessing violence against women and girls (n = 774), three in four boys across districts reported doing nothing. About 14.3% of boys reported informing an authority figure, most often a teacher (11.2%) but also local leaders or the school committee. About 6.5% of boys reported intervening and protesting, while 2.3% blamed the girl affected or asked the girl to be silent.

In qualitative accounts, participants described safety and security issues as a major limitation on girls' mobility. While verbal teasing and other less severe forms of sexual harassment were cited as a common problem for adolescent girls, participants also described incidents of physical harassment and rape occurring in their communities. Boys and girls agreed that boys did not often tease girls from their own villages, only from other villages. Although adolescents stated that girls should tell family members or police officers if they were being teased, they also acknowledged that community members might be more likely to blame the girl for provoking the harassment. Participant narratives also suggested that bystander behavior and legal sanctions were rare. Extrajudicial violence by family members of girls who had been harassed was described as a more common outcome of reporting.

Conclusions

Impact evaluation limitations and strengths

The Tipping Point Program impact evaluation in Nepal benefits from multiple strengths. First, it has a mixed-methods design, such that quantitative and qualitative findings can be triangulated and integrated, enhancing the robustness and relevance of study findings. Second, the evaluation benefits from a range of qualitative methods implemented with a range of community constituents, allowing for a nuanced understanding of the community gender norms and structures that are barriers to girls' rights and collective action. Third, the evaluation benefits from a rigorous randomized-controlled design, that allows for an assessment of the incremental impacts of the emphasized social-norm change component, above and beyond the impacts of basic TPP package. Finally, the research-practice partnership between CARE USA, CARE Nepal, IDA, and Emory University has allowed for continual dialogue on implementation and has demonstrated the capacity of partners to implement a complex community-based program while attending to the rigor of a randomized-controlled design.

Recognizing the many strengths of the Tipping Point impact evaluation design, some challenges are notable. First, the recruitment of participants in the Tipping Point intervention groups —who also took part in the baseline survey—meant that the samples in the TPP/TPP+ arms may not have been representative of all eligible residents in those wards. Moreover, the recruitment of program participants was a challenge in some study wards, such that field staff had to seek program participation from eligible residents who had not been randomly selected for participation in the program and the survey, introducing potential selection biases. Thus, individual-level weights for the probability of selection were not estimated, analyses here were unweighted, and findings pertain to the study sample. Second, despite the randomization of wards to study arms, samples differed on selected demographic characteristics (school type, caste, religion, girls' literacy), certain household socioeconomic conditions among adolescents, and boys' perceived social norms. These differences will be controlled in endline analyses. Third, the field staff reported some challenges collecting accurate data on age at marriage and ages to determine age-eligibility for participation in the study. These difficulties were greater when the adolescent's age was gathered by proxy report, such as during household enumeration, than by self-report. These difficulties were largely overcome with repeated, independent verification by IDA field staff and CARE Nepal staff.

Implications of baseline findings for policy and programming

***Reducing pervasive CEFM*.** Sustained efforts are needed to reduce the widespread high rates of child marriage by taking advantage changing preferences for marriage at or later than 20 years.

***Addressing root causes of CEFM*.** Repressive gender norms about girls' sexuality and its sustained links to reputation and family honor underlie social restrictions that intensify at puberty and contribute to CEFM. Addressing repressive gender norms in families and communities is paramount to enabling girls to realize their rights and to pursue their aspirations for later marriage in a supportive community environment. Adult men and boys scored consistently higher on social norms scales, suggesting a disconnect between social norms among boys and men and girls' experiences. Ensuring that girls and women are able to share their experiences with male community members is a key programmatic opportunity.

***Enabling girls to achieve their educational aspirations*.** Girls report high aspirations for schooling but somewhat lower schooling aspirations than boys and low confidence in their ability to negotiate their

aspirations effectively with their parents. Efforts are needed to encourage girls to achieve their educational potential and to strengthen their self-efficacy to negotiate effectively with parents to achieve their educational aspirations.

***Cultivating girls' aspirations for work and more gender equitable attitudes*.** Despite increased literacy and educational attainment, marked gender gaps in aspirations for work persist among adolescents. In the absence of adult women role models in professional work, older adolescent girls could provide inspirational examples and role models of career success. Supporting broader normative change about the economic contributions and capabilities of women and girls would create an environment in which girls can explore their career aspirations, with a focus on achieving more gender-equitable attitudes among adolescent boys.

***Enhancing SRH knowledge and effective communication with parents*.** Given low levels of SRH knowledge and the persistent view of SRH as a 'taboo topic,' efforts are needed to develop contextually appropriate educational forums in which adolescent girls, boys, and parents can improve their knowledge and support norms change. Continued efforts also are needed to support healthy communication among adolescent girls and their parents so the voices and opinions of girls feel heard and respected, with regard to shorter-term decisions about spending their own savings and long-term decisions about their marriage partners.

***Addressing restrictions on mobility and reducing pervasive violence against girls*.** To promote girls' safety and gender equity in adolescent girls' and boys' mobility in public places, programming to support effective bystander strategies among boys is needed. Shifting norms away from burdening girls with avoiding harassment and blaming girls for their victimization toward greater sanctions and accountability for the perpetrators would reduce parents concern over their daughters' safety, and in turn, a possible reduction in mobility restrictions.

***Supporting girls' collective agency*.** Given universally low levels of collective action among adolescents, but high collective efficacy scores, efforts to reduce gender gaps in group membership and leadership competence among adolescents are needed, especially by encouraging group membership, leadership competence, and group leadership.

Key messages and implications for policy and practice

Key messages

- Gender gaps in education have declined but gaps persist. Compared to men, women more often were unable to read or write (60% vs 25%) and had never attended school (68% vs 29%). In adolescents, few girls (5%) and boys (3%) were unable to read or write, and never attendance was rare. Yet, girls were still attending less often than boys (85% vs 90%), suggesting a higher dropout rate for girls.
- Vocational training was rare in adults (11% women; 14% men) and adolescents (6% girls; 4% boys).
- Across districts, women reported earlier median ages at first marriage and gauna than men. Although the median ages at first marriage and to some extent gauna have increased across districts and genders, the majority of 20–24 year-old women were married by age 18 in both districts.

- The majority of adolescent girls and boys reported 'high confidence' in their ability to achieve their life goals despite challenges, including their desired level of education. Girls, however, were less confident than boys in their ability to negotiate their desired level of education and to refuse an undesired marriage. Only two in five girls reported high confidence in their ability to work, and this percentage was half in the case of family objection.
- A majority of adolescents agreed that a girl ideally should marry after age 20, but girls reported a lower aspired mean age at marriage (21.8 vs 23.1) and gauna (22.2 vs 23.4) than boys.
- Girls and boys had high aspirations for schooling; however, boys more often than girls aspired to complete Grade 12 (44% vs 37%) and a master's degree (14% versus 11%).
- Gender gaps in work aspirations persist among adolescents. Fewer girls (72%) than boys (91%) aspired to professional work; and girls more often aspired to be in agricultural work (9% vs 7%) and to have no job or to being a homemaker (15.4% vs 0.5%).
- Adolescent boys had slightly less gender equitable attitudes than adolescent girls and adults. Adolescent girls had less stigmatizing attitudes about menstruation than did adult women and men.
- For adolescent girls, the primary source of SRH information was their mother (46.8%) followed by school (31.5%). Girls also learned about menstruation most often from their mothers (63.0%). For boys, school was the main source of SRH information (34.7%), followed by books and magazines (29%), friends (16%) and rarely parents (3.7% fathers; 3.1% mothers). SRH knowledge generally was low. Boys more often correctly identified the most fertile period for women; whereas, girls more often correctly identified a negative consequence of teen pregnancy and at least two forms of contraception. Most girls (86%) knew of the menstrual cycle. Qualitative findings suggested that SRH continues to be a 'taboo' subject.
- The mean mobility score for girls was modest—7.3 out of a possible 18.0. In the qualitative interviews, parents, boys, and girls agreed that girls had less mobility than boys in terms of the places they could freely visit and the need for others to accompany them.
- Regarding communication with parents, girls more often than boys had ever discussed with their parents how much education they wanted (32% vs 28%). Few adolescents had ever discussed with their parents selecting a spouse or the age at which they would marry. Slightly over half of adolescents discussed with their parents the freedom to go places. Compared to boys, girls more often felt that their parents were not willing to listen to their opinions (6% vs. 2%) and less often fully agreed that they were comfortable talking with their parents (58% vs 74%).
- In qualitative data, parents described major changes in children's agency in marriage negotiation, stating that adolescents now were permitted to meet before any agreement was made and to reject proposals. Some parents stated that love marriages were acceptable in some communities. Still, adolescent girls almost universally cited fathers as the main decision makers about choice of husband and timing of marriage, and key informants stated that few girls would defy their parents' wishes.
- Engagement in income-generating activities was rare among girls (14%). Although one third of girls had their own savings, most (70%) reported no input in decisions about their own savings. Opportunities for input in such decisions may increase with age.
- Boys scored higher than girls on leadership competence, and scores generally were higher for older than younger adolescents.

- Membership in any group was more common among boys (42%) than girls (23%), and group leadership generally was rare. The most popular groups among girls and boys were children's or youth groups and sports clubs.
- Girls and boys reported similar levels of collective efficacy, and scores tended to be higher for older than younger adolescents. Participation in collective action was generally rare for girls and boys. In the qualitative data, adolescents did not mention any type of collective action to address girls' issues in their communities, and key-informant knowledge and support of collective action varied by site.
- Girls and boys reported a high level of connectedness with their parents/guardians. The close social networks of girls contained a mix family members and friends. Only one girl reported a community-member as a part of her close social network.
- Witnessing violence against women and girls was common. Adolescent boys often reported having ever witnessed a boy or male peer: making sexual comments, jokes, movements, or looks at a girl (51%), brushing up against a girl in a sexual way on purpose or spreading sexual rumours about a girl (30%), writing sexual messages or graffiti about a girl (25%), or calling a girl "fag," "dyke," "lezzie," or "queer" (over 20%). The majority of boys who witnessed violence did nothing.
- In qualitative accounts, participants described safety and security issues as a major limitation on girls' mobility. While verbal teasing and other less severe forms of sexual harassment were cited as a common problem for adolescent girls, participants also described incidents of physical harassment and rape in their communities.
- Empirical and normative expectations around marriage are shifting towards greater frequency and appropriateness of marriage after age 20 with greater acceptability of same-caste love marriages in some communities.
- Norms around marriage decision-making and interacting with boys were somewhat in flux, due in part to the inevitability in many communities of greater interaction between boys and girls, including over the phone, but there was still strong familial and community effort expended to protect and guide girls through the longer period of adolescence (before marriage), including normative expectations that adolescent girls did not play sports which violated normative gender expectations.
- There remains strong empirical and normative expectations that adolescent boys and girls will have limited interaction outside of school- or work-related issues to minimize safety risks to girls and the development of romantic relationships which could lead to a love marriage or elopement.
- There remains strong empirical and normative expectations that "good girls" do not move about the village unnecessarily or alone. Roaming around, especially in the presence of boys was widely perceived to lead to safety and reputational risks.
- Given the community-wide implications of inappropriate behavior, neighbors and community members were strong reference groups whose ability to spread rumors, shame parents, and damage a girl's reputation and her prospects for marriage, reinforced and perpetuated the norms.
- Most respondents suggested a strong sensitivity to the norms and a desire to adhere, even in the few instances where mothers wanted more freedom and capacity to develop for their daughters than what they were able to provide, especially since men in the household still wield final decision-making power over most important household decisions.
- Some differences in sensitivity to the norms across sub-communities were noted, such as the more liberal approach that hilly communities took toward many of the norms, the most consistent outlier

were educated families, who were perceived to be more understanding and less concerned about violating the norms.

Key implications for policy and practice

- Gender gaps in school dropout, disadvantaging adolescent girls, persist in these districts. Efforts are needed to understand the multifaceted drivers of girls' school dropout—including links to child marriage—and to develop gender transformative programs that supports girls' school retention and eliminates gender gaps in school dropout. The rapid intergenerational shift in schooling means that girls are on the forefront of change; however, they need visible and inspirational women role models—perhaps among older adolescents, to support career aspirations.
- Vocational training is universally uncommon. Efforts may be needed to identify the sub-groups of adolescent girls who may benefit from gender transformative vocational training.
- Child marriage remains widespread among adolescent girls. Sustained efforts are needed to reduce the high rates of child marriage throughout these districts of Nepal.
- Girls report high aspirations for schooling but somewhat lower schooling aspirations than boys and low confidence in their ability to negotiate their aspirations effectively with their parents. Efforts are needed to encourage girls to achieve their educational potential and to strengthen their self-efficacy to negotiate effectively with parents to achieve their educational aspirations.
- Gender gaps in work aspirations persist among adolescents, with girls aspiring less often than boys to professional work and more often than boys to agricultural work and homemaking. Efforts are needed to understand the reasons for these aspirational gaps, and where needed, to support girls' exploration of their professional goals.
- Given less gender equitable attitudes among boys than among girls and adults, programming should be targeted to support more gender-equitable attitudes among adolescent boys.
- Given low levels of SRH knowledge and the persistent view of SRH as a 'taboo topic', efforts are needed to develop contextually appropriate educational forums in which adolescent girls, boys, and parents can improve their knowledge about SRH and engage in concurrent dialogues to support norm change about the taboo nature of SRH, including menstruation. Efforts to support healthy communication among adolescent boys and between adolescent boys and their parents about their own and girls' sexual and reproductive rights should be considered.
- Given the low mobility scores for girls, efforts are needed to promote girls' safety and gender equity in adolescent girls' and boys' mobility in public places.
- Continued efforts are needed to support healthy communication among adolescent girls and their parents so that the voices and opinions of girls feel heard and respected, including with regard to shorter-term decisions about spending their own savings longer-term decisions about their marriage partners.
- Efforts to reduce gender gaps in group membership and leadership competence among adolescents are needed, especially by encouraging group membership, group leadership, and leadership competence among girls.
- Given universally low levels of collective action among adolescents, but relatively high collective-efficacy, there is an opportunity to cultivate girl-centred collective action that involves supportive engagement among boys.

- Violence and sexual harassment of girls remains common, and entails both safety and reputation risk for girls which motivates parents to restrict girls' mobility. Boys are perceived to be the primary perpetrators and often witness various forms of violence and harassment but do nothing. Programming to support effective bystander strategies among boys is needed to create a safer environment for girls.

Introduction

Each year, child marriage, before age 18 years, affects more than 10 million girls globally [1]. The practice is associated with adverse maternal and child health outcomes [2, 3] and diminished long-term economic empowerment [4]. About half of all child marriages occur in South Asia [5, 6]. A recent study in four high prevalence South Asian countries showed declines in girl-child marriage from 1991-1994 to 2005-2007 [1]; however, these declines were concentrated in the youngest ages. Namely, significant relative reductions occurred in the marriage of girls before age 14 years in all countries, ranging from −34.7% (95% CI, −40.6% to −28.1%) to −61.0% (95% CI, −71.3% to −46.9%); however, little or no change was seen in the marriage of 16- to 17-year-old girls for any country except Bangladesh, where the prevalence of such marriages increased by 35.7% (95% CI, 18.5% to 55.3%). Formative research by Care's Tipping Point Program (TPP) in Nepal and Bangladesh document systematic exclusion of the voices of girls in complex marriage processes [7]. When adolescent girls attempt to assert their opinions about whether, whom, and when to marry, families and communities often criticize them for challenging the authority of their male relatives [7]. The same study found that families and community members make marriage decisions for adolescents, not with them. Only boys with more schooling, income, or overseas work experience may express opinions about a spouse [7]. In Nepal, the practice of child marriage is concentrated within specific castes – including Dalits, Madhesi, low-caste Hindu women, and other economically marginalized castes [6, 7]. The social and economic isolation of these groups limits their ability to change practices like child marriage, even when aggregate patterns suggest change [7].

This report provides findings from the baseline survey of the CARE Tipping Point Program (TPP) evaluation in Nepal, undertaken through a partnership between the Emory University, Rollins School of Public Health, Inter Disciplinary Analysts (IDA), CARE USA, and CARE Nepal.

CARE Tipping Point Program

CARE was founded in 1945 with an initial focus on delivering emergency relief to survivors of World War II. Several decades later, CARE has become one of the largest anti-poverty organizations globally, providing relief to people affected by disasters and emergencies, and contributing to economic empowerment that strengthens livelihoods over the long term. CARE starts these efforts with women and girls, who often are marginalized and among the world's poorest. In this way, the CARE Gender Justice Program is working to ensure gender equality and women's and girls' empowerment by safeguarding the rights of all women and girls, including the elimination of all harmful practices, such as child, early, and forced marriage (CEFM).

CARE's Tipping Point Program focuses on addressing the root causes of CEFM and on promoting the rights of adolescent girls through community-level programming and evidence generation in Nepal and Bangladesh, as well as multi-level advocacy and cross-learning efforts across the globe.[1] The CARE Tipping Point Initiative focuses on the synchronized engagement of different participant groups—including adolescent girls, adolescent boys, parents/community members, and community leaders—around key

[1] For detail, see the CARE Tipping Point website https://caretippingpoint.org/ and phase 2 program brief https://caretippingpoint.org/wp-content/uploads/2019/03/TP-Phase-2-Program-Summary.pdf

programmatic pillars, and creates public spaces for all community members to engage in the dialogue. The CARE Tipping Point's approach relies on challenging social expectations and repressive gender norms and promoting girl-centric and girl-led activism to enable adolescent girls to identify and to move into social spaces where they can challenge age-based and gender-based inequalities.

The CARE Tipping Point Program has designed a 'social norms light' package, hereafter called TPP, which includes a core set of the social norms and activism components of the full package, hereafter called TPP+. The overall intervention package in Nepal and Bangladesh spans 18 months and includes the interventions around four programmatic pillars listed below:

- **Social norms** [with all participant groups] focused on: equity and equality; rights and duties; gender; patriarchy; power and privilege; puberty; sex and love; honour; gender-based violence (GBV); CEFM.
- **Access to alternatives** [with girls' groups only] focused on: financial literacy and the opportunity to join a Village Savings and Loans Association (VSLA).
- **Adolescent sexual and reproductive health and rights** (ASRHR) [with all participant groups] focused on: menstruation; masculinities; female sexuality; contraception; and HIV/AIDS.
- **Girls-centred movement building** [with girls' groups only] focused on: leadership; empowerment dialogues; collective action; and civic participation.

Figure 1, below, clarifies the framework for the Tipping Point Program and the Tipping Point Program + intervention packages.

Figure 1. CARE Tipping Point Program and Tipping Point Program + Packages

	Groups	Sessions	Core Trainings	Girl-led Activities (TPP+)	Joint Sessions
Core Participants	Girls	45 weekly	-**Social norms** (all) -**Access to alternatives** (G) -**ASRHR** (all core) -**Movement building** (G) -**Activist training** (G leaders) -**Activist training** (BFM)	**Girls groups 6-community activities** Mobility Menstruation Gender-division labor Dowry Family honor/SH Girls' aspirations	**6 intergroup dialogues** Girl-Boy Girl-Mother Mother-Father G-B-M-F
	Boys	45 weekly			
	Mothers	18 monthly			
	Fathers	18 monthly			
Emphasized	Religious leaders	Intensive trainings Follow-up meetings		**Girl-elected leaders 4 x-cluster activities**	**Duration 18-months** Diverse facilitations
	Local Govt				
	School Personnel				
	Project Staff Core Capacities	Gender-equity and diversity, facilitation techniques, participatory and reflective techniques, movement building, VLSA, social norms, social analysis and action			

Pilot evidence of TPP results from Phase I in Nepal

The communities in which CARE works are impoverished and socially marginalized. Parents and community members recognize the risks of early marriage with respect to the health and well-being of girls and their children. Nevertheless, limited material resources and prevailing social norms operate to limit children's choices. Parents often face the difficult decision that often ends with the perceived risks of marrying a young girl being outweighed by the perceived benefits in terms of lower dowry, family respect, avoiding the risk of love affairs, finding an acceptable match, and reducing the family's economic burdens. Based on Tipping Point's research during Phase I, several drivers contribute to this practice in these contexts.

First, the marriage process is a complex series of steps and exchanges involving families, neighbors, business interests, and government people–each with a specific interest and influence in the process. Throughout this process, however, the voices and decision-making power of the adolescents themselves are absent or negligible against the authority of fathers and brothers. When adolescents, especially girls, try to assert their choices around if, who, and when to marry, they often are stigmatized by their families and communities.

Second, dowry mirrors and perpetuates unequal gender norms. Dowry is an expected exchange within the marriage process that makes economically constrained parents feel compelled to decide between investing in education or a dowry for their daughters. Given normative expectations for girls to marry and live with their in-laws (and not engage in work outside the household), girls are not viewed as having future careers. Marriage is seen as an end point, and along with that thinking comes the calculation to invest in dowry rather than other options (like education). From a community perspective, worries over dowry and views toward girls as economic burdens can lead to decisions for earlier marriage. This perspective is especially applicable for poorer families, since dowry prices are lower for younger girls. Dowries reflect and reinforce broader social norms that value girls for their potential reproductive and domestic roles, and physical appearance, and value boys for their potential income-earning roles.

Third, family honor is tightly linked to girls' sexuality. Social pressures around family honor are key drivers for early marriage. Families want to secure their daughters future, and do not want to face threats to her character if she remains unmarried for too long after reaching puberty, or risk compromising the family's honor from love affairs/marriages. Once a girl reached puberty, a general notion exists among adults that any interaction with the opposite sex involves some sort of sexual or "love" connotation—there is an absence of a of model for platonic relationships between boys and girls and an overall fear of any intermingling between adolescent girls and boys. Risks are outweighed by the perceived benefits. For parents, in particular, the perceived risks of marrying a girl young are outweighed by the perceived benefits in terms of lower dowry, family respect, avoiding the risk of love affairs, finding an acceptable match, and reducing the family's economic burdens.

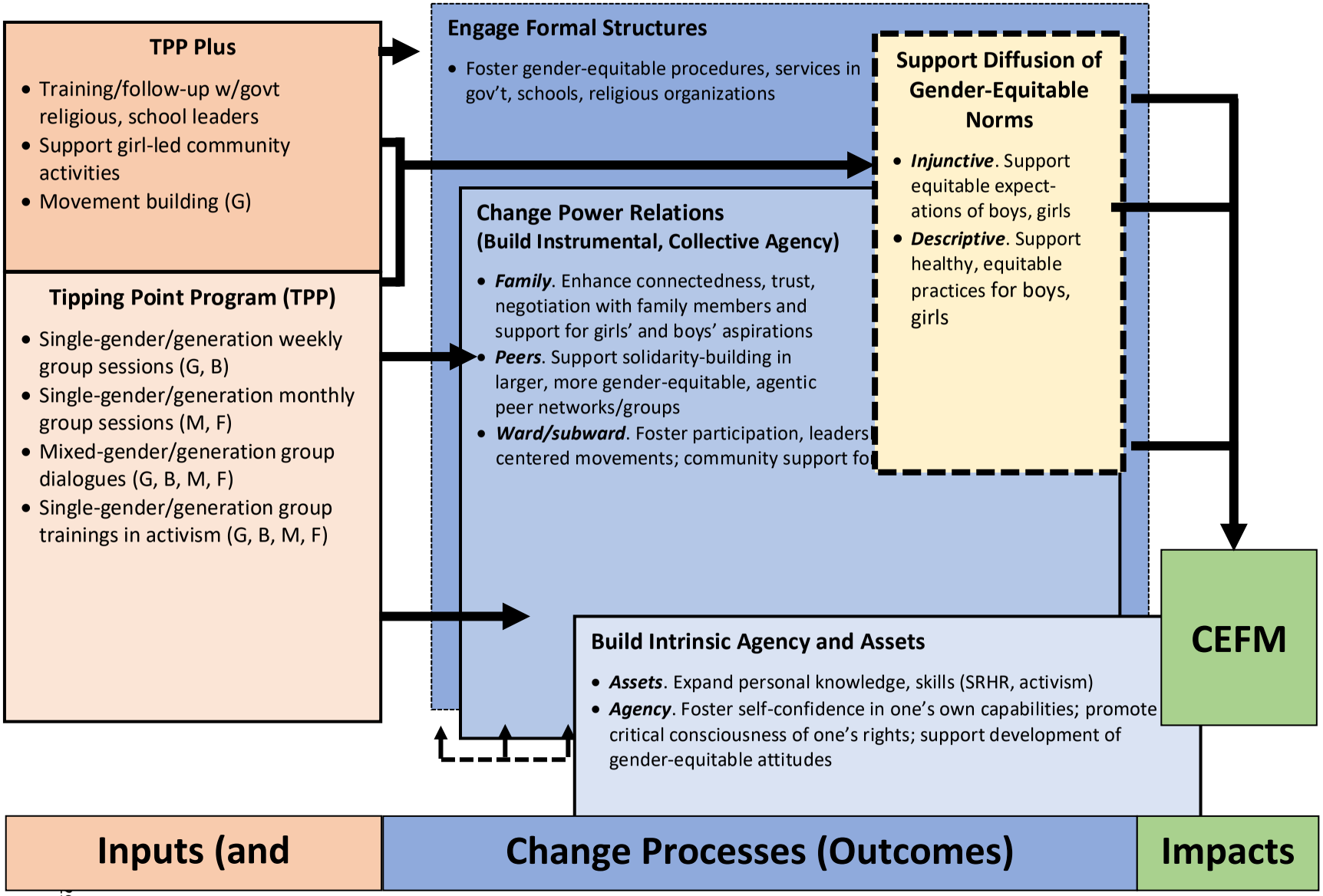
The Tipping Point Project seeks to end child marriage by working with local partners and communities to identify and test local solutions to end child marriage for good. The Tipping Point Project is designed to broaden the discourse amongst donors, researchers, and policy makers beyond a narrow focus on education and poverty towards addressing root causes, tackling social norms, addressing issues of sexuality, applying a comprehensive approach and addressing the needs of married girls. As such, Tipping

Point plans to document and disseminate research and programming findings amongst a broad audience, to help expand the conversation.

Theory of change

Figure 2 depicts the CARE Tipping Point Program Impact Evaluation Theory of Change. Boxes in orange to the far left summarize the basic components of the CARE Tipping Point Program and the CARE Tipping Point Program Plus. Boxes in blue adapt the CARE "GEWV Framework focusing on Agency, Structures and Relations"[2] to clarify the mechanisms or change processes by which TPP and TPP+ are expected to operate. First, the TPP+'s work with community leaders is expected to engage formal structures in the community to foster gender-equitable procedures and services and to facilitate social-norms shifts among key reference groups, by holding quarterly sessions with religious leaders, government officials, and school personnel. Second, TPP and TPP+ are expected to change inter-personal power relations by enhancing girls' connectedness, trust, and capacity for negotiation with family members; solidarity and movement building among peers; and participation among community members to support norm change. Third, TPP and TPP+ are expected to build individual *assets* by expanding each adolescent girl's knowledge (e.g., of sexual and reproductive rights) and skills (e.g., with respect to leadership and activism). Both programs also are expected to build individual *agency* by expanding each girl's self-confidence in her capabilities, critical consciousness of her rights, and gender-equitable attitudes. Fourth, TPP and TPP+ are expected to support the diffusion of gender-equitable norms regarding what community members believe girls *ought to do* (injunctive norms) and *actually do* (descriptive norms). Facilitated diffusion of gender-equitable norms is emphasized in TPP+, through girl-centered movement building and its four related community-level activities, social norms activities, engaging key stakeholders, and intergroup dialogues. Thus, the TPP+ intervention package has an additional 'Social norms programming' component that will be tested. This programmatic distinction will be tested. Overall, these structural, relational, intrinsic, and normative change processes are expected to support the decline in child, early, and forced marriage.

Figure 2. CARE Tipping Point Program Theory of Change



Notes. G=girl, B=boy, M=mother, F=father. Dashed arrows denote feedback loops between individual (intrinsic) agency, instrumental and collective agency in various reference groups or social networks, and formal structures in the community.

Design of the CARE Tipping Point Program Evaluation in Nepal

To allow for an evaluation of the CARE TPP and TPP+, Emory University and the CARE team have initiated a mixed-methods qualitative and quantitative evaluation. Adolescent girls and boys as well as adult community members have completed a baseline quantitative survey as well as qualitative data collection in 54 'clusters' (wards or ward segments). Qualitative data were collected through a combination of in-depth interviews, key informant interviews, and focus group discussions.

Sample design and achieved baseline samples

The quantitative evaluation of the CARE TPP/TPP+ involved the design of a cluster-randomized controlled trial with three arms: participants in Arm 1 received the TP intervention with the emphasized social norms change component (TPP+); participants in Arm 2 received the TP intervention without the emphasized social norms change component (TPP); and Arm 3 was the pure control arm. The three-arm design allowed for measurement of the effects of:

- TPP on primary and secondary outcomes through comparison of the TPP and control groups,
- TPP+ on primary and secondary outcomes through comparison of the TPP+ and control groups, and
- the emphasized social norms change component through comparison of the TPP+ and TPP groups.

In Nepal, wards are the lowest governmental administrative unit; hence, wards were designated as the clusters or the primary sampling units in this study. In the case of large wards, enumerators mapped and segmented wards into clusters of roughly equal size and selected one ward randomly from these clusters. Each cluster was randomly assigned to one of the three arms.

Once clusters were selected, enumeration of the households in each cluster was conducted to collect information on sample eligibility. Enumerators mapped selected clusters and conducted a household census of each selected cluster. The census collected basic information on household members' gender, age, marital status, age at marriage, school attainment/enrollment, and occupation. The enumeration data allowed for the estimation of various measures of CEFM across districts and study arms, provided the sampling frame for the baseline survey of all samples, and was used to generate the list of eligible adolescent girls and boys for group formation in the Tipping Point Programs.

Each ward was intended to have 20 adolescent girls at endline. Assuming a 50% prevalence of the primary and secondary outcomes (such as CEFM and agency of adolescent girls) in this study, a 5% significance level, 80% power, an intra-cluster correlation of 0.05, and a 15% effect size between study arms, 18 clusters were needed per study arm, for a total of 54 clusters in the study. Assuming a greater than 90% participation rate of eligible girls at baseline and a final 85% retention rate at endline, the number of girls to be enrolled in each cluster at baseline was 23, and the total sample size of girls to be enrolled at baseline was 1,242. Each ward also was to a sample of 20 adolescent boys at endline. Assuming similar participation and retention rates for boys, the anticipated baseline sample size for boys was the same as that for girls, 1,242.

The research team assessed the success of randomization at baseline by comparing baseline characteristics of adolescent girls and boys across all three study arms. For the community sample, for assessing social-norms change, assuming 50% prevalence of CEFM-related norms and a 15% change after

the intervention, 5% significance level, 80% power, and 5% non-response rate, a sample of 90 adult women and 90 adult men aged 25 and above was needed in each arm, making the total combined sample size of adult women and men 540.

The achieved sample sizes were 270 adult women 25 years or older, 270 adult men 25 years or older, 1,134 unmarried adolescent girls 12-16 years, and 1,154 unmarried adolescent boys 12-16 years. Across study arms, the total achieved sample sizes were 994 adolescents and adults in the control arm, 953 adolescents and adults in the TPP arm, and 881 adolescents and adults in the TPP+ arm (Figure 3).

For qualitative data collection, four of the 27 sites in each district were chosen to conduct focus group discussions and interviews. These four sites were selected to ensure a range of sites with different ethnic, religious, and linguistic characteristics. Given the lack of existing data at the ward level, CARE utilized local insight from implementing partners to identify sites that were diverse, were observed to have high levels of child marriage, and also among the first sites which would be included in the enumeration to facilitate data collection. Table 1 summarizes characteristics of the qualitative sites that were used in purposive selection.

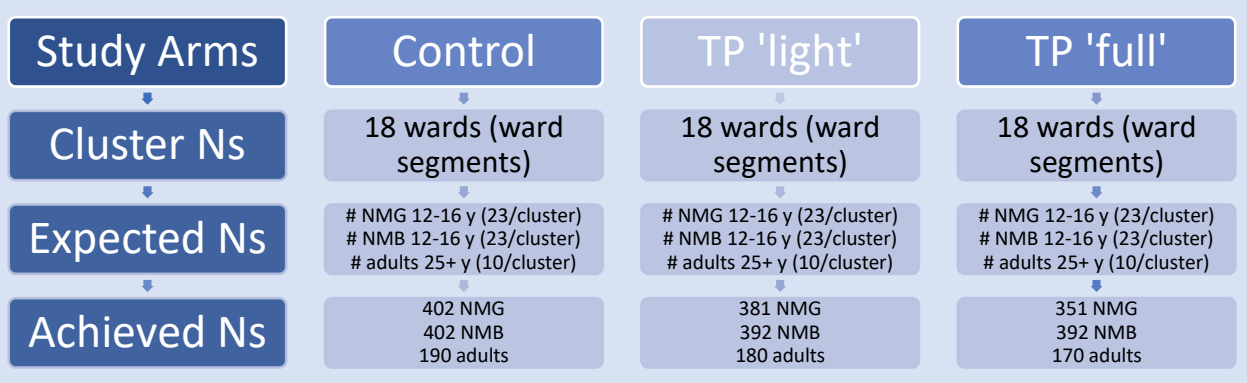
Table 1. Characteristics of the qualitative sites

Kapilvastu				
	Pathardaiya Ward 1	**Maharajganj Ward 1**	**Maharajganj Ward 2**	**Lalpur Ward 1**
Arm	TPP+	TPP	TPP+	TPP
Predominant castes & communities	Muslim	Yadav, Kurmi	Yadav, Kurmi	Yadav, Muslim
Predominant religion	Muslim	Hindu	Hindu	Mixed Hindu and Muslim
Predominant language	Awadhi	Awadhi	Awadhi	Awadhi
Rupandehi				
	Kamahariya Ward 3	**Kamahariya Ward 7**	**Manmateriya Ward 3**	**Hati Bangai Wards 1&2**
Arm	TPP+	TPP	TPP+	TPP
Predominant castes & communities	Yadav, Kurmi, Teli	Yadav, Kurmi, Teli	Yadav, Kurmi, Tharu	Yadav, Kurmi, Terai Brahmin
Predominant religion	Hindu	Hindu	Hindu	Hindu
Predominant language	Awadhi	Awadhi	Awadhi	Awadhi

All data were collected in accordance with established ethical guidelines, including review by the Institutional Review Board of Emory University and the Nepal Health Research Council. As children

comprised a large portion of the sample, UNICEF guidelines were followed for ethical research involving children. While similar to the protections afforded children through the traditional ethical guidance, UNICEF guidelines also ensure a child-centered focus throughout {Graham, 2013 #5935}. Additionally, CARE Guidelines for Interviewing Children were followed. Separate consent forms were developed for adults for each type of interview (e.g., survey, KII, FGD, IDI), and separate assent forms were developed for children for each type of interview.

Figure 3. Sample design and achieved samples at baseline, CARE Tipping Point Impact Evaluation



Notes. NMG=Never married girl; NMB=Never married boy; y=years old

Study forms

Enumeration forms were administered to the most knowledgeable woman in the household, or to any knowledgeable adult if a knowledgeable woman was unavailable. Enumerators collected contact information as well as data on the household's caste, religion, and languages spoken. For each household member, his or her name, age, relationship to household head, and schooling were recorded. For individuals above age 8 years, marital status, age at marriage, and years married also were recorded. Enumeration provided a list of eligible participants for group formation, and the TP team in CARE Nepal sought consent from 27 randomly-selected participants to be a part of the TPP and TPP+ groups. Surveys were conducted with the recruited group members.

The baseline survey included 20 modules that measured five constructs: intrinsic agency, instrumental agency, collective agency, social networks and norms, and discrimination and violence as barriers to change (Table 2). Adolescent girls completed all modules except for the module describing experiences with violence, alcohol, and drugs. Adolescent boys completed a total of 16 modules. Adult community members at least 25 years completed a total of five modules relating to intrinsic agency, social norms, and discrimination and violence as barriers to change. Adult community members did not receive any modules relating to instrumental agency or collective agency.

Table 2. Questionnaire modules and samples interviewed

Questionnaire module	Construct	Samples receiving		
		Girls	Boys	Adults
1. **Self-efficacy**	Intrinsic agency	X	X	
2. **Aspiration about marriage and education**		X	X	
3. **Attitudes about gender**		X	X	X
4. **Menstruation knowledge, attitudes, and practices**		X		

5. **Knowledge/attitudes about SRH**		X	X	X
6. **Mobility or freedom of movement**	Instrumental agency	X		
7. **Negotiation on education, marriage, mobility**		X	X	
8. **Communication and negotiation with parents**		X	X	
9. **Participation in financial activities**		X		
10. **Leadership competence**		X	X	
11. **Group membership**	Collective agency	X	X	
12. **Cohesion, solidarity, and mobilization skills**		X	X	
13. **Participation in events**		X	X	
14. **Connectedness**	Social networks and norms	X	X	
15. **Social networks**		X		
16. **Social norms**		X	X	X
17. **Differential treatment of sister**	Discrimination and violence as barriers to change	X	X	
18. **Sexual abuse**		X	X	X
19. **Peer violence**		X	X	X
20. **Violence, alcohol, and drugs**			X	

Qualitative data were collected through 30 in-depth interviews (IDIs) with 20 adolescent girls and 10 adolescent boys, eight key informant interviews (KIIs) with adult leaders, 16 focus group discussions (FGDs) with eight adolescent girls and eight adolescent boys, and 16 FGDs with parents of adolescents in the study communities. IDIs with adolescents provided in-depth narrative data on individual perceptions, practices, and experiences of gender roles and responsibilities, educational and employment aspirations, decision-making around marriage, girls' safety and security, and girls' mobility. FGDs with adolescents took a vignette approach based on CARE's SNAP framework, with narratives highlighting social norms surrounding girls' mobility and decision-making around marriage. FGDs with parents used a social norms diagnosis approach based on CARE's SNAP framework and covered girls' mobility, gender roles and responsibilities, education, and interactions with boys. KIIs with teachers and local government officials gathered data on collective action, changes in the prevalence of child marriage, social norms and practices around marriage, work, and education, and girls' safety and security.

Training and fieldwork

For the household enumeration data collection, enumerators received a two-day training on the study design and aims, use of mobile data collection equipment, and research ethics on April 29th and 30th, 2019. Enumeration occurred between May 1st and May 29th, 2019, during which 9,289 households were visited and 46,578 household members were documented.

For the baseline qualitative and quantitative data collection, and especially for the qualitative data collection, care was taken to recruit, train, and use the services of data collectors who spoke the local languages—Awadhi and Bhojpuri—in the study areas. Emory and IDA jointly conducted field training for the qualitative and quantitative data collectors at the same time. A representative from CARE Nepal joined the training to provide an overview of the Tipping Point Program and CARE's reporting protocols surrounding gender-based violence. A 10-day training from May 30, 2019 to June 8, 2019 allowed for in-depth training and practice with the study instruments, tablet-based data collection using a customized redcap mobile application designed for this study, and techniques needed to collect the data safely and rigorously. All data collectors also received training on research ethics. The last two days of training were reserved for a field test of the baseline survey forms in one of the two study districts.

Quantitative data were collected through a questionnaire (Table 1) that interviewers administered in tablet-assisted personal interviews with participants. Qualitative data collectors had university or graduate degrees in anthropology and other social science discipline and had prior experience conducting qualitative research. These interviewers received a two-day training on gender, rights, empowerment, CEFM, and qualitative research methods in addition to the general training received by all data collectors. All quantitative and qualitative data collectors were gender-matched with participants. Survey data collection occurred between June 10th, 2019 and July 10th, 2019. Qualitative data collection occurred between June 7th, 2019 and June 20th, 2019.

Analysis

Quantitative analysis

The Emory team was responsible for cleaning and analysis of survey and enumeration data. Response rates were estimated for each sample in the study (adults, adolescent girls, and adolescent boys).

Enumeration data on individual household members were used to estimate the proportion of male and female household members who married, with and without gauna, before the age of 20. Additionally, median age at marriage and median age at gauna were estimated by sex and by district. Baseline levels of early marriage were assessed across study arms.

Descriptive analyses of the survey data were performed to understand the distributions and missingness of key variables by sample, district, and study arm. Standard errors were adjusted to account for the cluster-sample design. Univariate analyses of key demographic variables were performed to summarize the background characteristics of the adult, adolescent girl, and adolescent boy samples.

Individual questions (items) in the baseline questionnaires for adults, adolescent girls, and adolescent boys were organized into *item sets* that were conceptually identified to capture a key learning outcome of the CARE Tipping Point Programs. Item sets included *self-efficacy, controlling behavior against adolescent girls, attitudes about gender roles, attitudes about gender discrimination, attitudes about menstruation, attitudes about masculinity, attitudes about gender discrimination in the family, mobility of girls, communication with parents, leadership competence, community social norms,* and *life experiences of violence*. All items were recoded to be anchored at 0. Missing responses were coded as missing for the univariate analyses of items.

For each item set, Pearson pairwise correlations were estimated to ensure that items within sets were mutually correlated and that summative scales were reasonable reflections of the learning outcomes they were intended to measure. An item was considered for deletion if the magnitude of its pairwise correlation with others in the same item set was 'low' (e.g. close to 0 and not significant). Based on this criterion, few items were deleted from item sets.

Scale reliability was estimated using Cronbach's alpha for each item set and any item subsets after item deletion. This analysis allowed selection of the optimal set of items to achieve content validity and maximum scale reliability for comparisons of interest.

Once final item sets were determined, following estimation of pairwise correlations and scale reliability, summative scales were produced to capture each outcome measured with item sets. Mean scores were

reported, as well as score tertiles to compare samples with respect to 'high prevalence' (in the highest tertile) for learning outcomes of interest. Depending upon the learning outcome, comparisons of interest were made across Kapilvastu and Rupandehi districts, adolescent girls and boys, male and female adults, or all three samples (adults, adolescent girls, adolescent boys). In the appendix, demographic characteristics and scales for major outcomes were compared across study arms (control group, TPP, and TPP+) to assess the effectiveness of randomization of wards and the representativeness of the participants identified within wards.

All group differences were assessed using X^2 tests of independence for categorical variables and t-tests for continuous (or quasi-continuous) outcomes. All analyses were completed in Stata 16 (College Station, Texas).

Qualitative analysis

Emory's team revised a qualitative codebook developed by icddr,b for TPP Bangladesh, editing to streamline existing codes and adding new codes to incorporate emergent themes from Nepal data. An initial round of changes were made based on a reading and memoing of 10 transcripts from all respondent types and finalized based on discussions with CARE and iccdr,b. The revised codebook was then used in two rounds of inter-coder reliability testing (evaluated using Cohen's kappa {Cohen, 1960 #7185}) among three Emory team members using a subset of 7 transcripts. Following each round of testing, team debriefs were used to resolve discrepancies and make minor edits to codes and definitions. This codebook was then used to code an initial subset of 10 transcripts from Pathardaiya 1 and 10 transcripts from Kamahariya 7, after which another full team discussion finalized the codebook. The three-member Emory team then coded the remaining 50 transcripts. All coding, cross-classification, and inter-coder reliability testing was performed in MAXQDA 18 (Berlin, Germany).

A narrative analysis of the in-depth interviews with adolescents began with memos of each transcript summarizing themes of ASRH, aspirations, marriage, employment, mobility, and safety and security. Structured comparisons by gender and site were compiled in matrix form. Descriptive analysis of social norms data across all 70 transcripts was performed by crossing each major theme with relevant norms codes. Thick descriptions were generated using codes underlying the five major norms designated by CARE: mobility, riding bicycles/playing sports, marriage decision-making, collective action, and interacting with boys. Analytic comparisons at the intersection of key themes examined interconnectedness and synergies, and thick descriptions were generated to interrogate these intersections. Structured comparisons by district, gender, age, and caste/community were described in a matrix detailing their impact on each key aspect of social norms, including normative and empirical expectations, sanctions and sensitivity to sanctions, exceptions, and reference groups. Documentation of the analytic process through memos and triangulation across samples and data collection methods allowed for validation at each phase of the analysis.

Limitations of the Tipping Point Program impact evaluation design in Nepal

Recognizing the many strengths of the Tipping Point impact evaluation design, some of the challenges experienced are notable. First, the recruitment of program participants—who also took part in the baseline survey—meant that the samples in the TPP/TPP+ arms may not have been representative of the eligible residents in those wards. Moreover, the recruitment of program participants was a challenge in

some study wards, such that field staff had to seek program participation from eligible residents who had not been randomly selected for participation in the program and the survey, introducing potential selection biases. Thus, it was not feasible to construct weights to determine the probability of selection for participation in the study. Analyses presented in this report were unweighted, and we take care not to generalize findings beyond the study sample. Second, despite the randomization of wards to study arms, the recruited samples may have differed across study arms in ways that were unobserved. Still, the samples were similar on many observed characteristics—including demographic, and primary and secondary outcomes. There were no differences, for example, in attitudes about controlling behaviours, gender roles, menstruation, and masculinity; adolescent leadership competence, group membership, and collective action and efficacy; girls' mobility; and perceived social norms among women, men, and girls. Samples did differ on selected demographic characteristics (school type, caste, religion, girls' literacy), certain household socioeconomic conditions among adolescents, and boys' perceived social norms. These differences will be controlled in impact analyses. Third, the field staff reported experiencing some challenges collecting accurate data on age at marriage, in part because of differences in the age at formal marriage (without consummation) and the age at gauna, or the consummation of marriage. Field staff also experienced difficulty collecting accurate ages to determine age-eligibility for participation in the survey and study. These difficulties were more pronounced when the age of an adolescent was gathered by reports from others rather than by self-report, such as during the household enumeration. Many of the difficulties in reporting age at marriage, age at gauna, and age in years were overcome with repeated, independent verification of these data by IDA field staff and CARE Nepal staff.

Nepal context

To understand the findings from the Tipping Point Program baseline survey, it is useful to understand the broader context of Nepal. A small country located in a mountainous region of South Asia between China and India, Nepal consists of 77 districts, 263 urban municipalities and 460 rural municipalities, all within 7 provinces [8]. The districts are divided into urban and rural municipalities, which are further divided into wards. Over the past 30 years, Nepal has undergone significant political change, moving from a monarchy under the control of a king to a federal parliamentary republic with a decentralised government and a prime minister. This change occurred following a civil war that lasted over a decade, from 1996 to 2006.

As of 2015, the total population size of Nepal was 28.7 million [9]. According to the 2016 Demographic and Health Survey, 59% of the total population lives in urban areas, and adolescents aged 10–19 years comprise 23% of the population [10]. The median age at first marriage for women ages 25–49 years is 17.9 years, compared with 21.7 for same-aged men [10]. Among women 25–49 years in 2016, 52% were married by age 18, compared with only 19% of men of the same age. Wealth is unequally distributed between urban and rural areas; specifically, more than half of the population living in urban areas belongs to the two highest wealth quintiles, whereas more than half of the population living in rural areas belongs to the two lowest wealth quintiles [10].

In Nepal, barriers to girls' adolescent capability development and associated social- and health-related challenges arise in part from inequitable gender norms and entrenched social hierarchies that privilege men and boys and undervalue women and girls [11, 12]. Nepali women and girls still often are expected to be caretakers of the family [13]. Harmful gender-related social norms, such as son preference,

menstrual restrictions, child marriage, dowry, and polygamy remain prevalent [12]. Girls and women may experience unequal gender power relations, compromised voice and agency within their household and community, restricted mobility and less access to schooling [12]. Intimate partner violence (IPV) is an accepted norm among many men and women, and women's exposure remains high [11].

While these gender-unequal social structures, norms and practices persist in Nepal, important changes are occurring, and opportunities may exist to accelerate progress with respect to the life chances and wellbeing of adolescent girls. Initial findings from the CARE Tipping Point Program impact evaluation will further an understanding of the lives of adolescent girls in two districts in Nepal and contribute evidence for creating targeted and effective community-based interventions to support community social norm change and girls' agency, and thereby, to prevent child marriage.

Kapilvastu and Rupandehi districts of Nepal were selected for the Care Tipping Point Initiative in part because these sites have the lowest median age at first marriage.[2] According to the 2011 census, there are 880,196 inhabitants living in 163,916 households within Rupandehi [14]. The population density is 647.20 people per sq km and on average, there are 5.37 people per household [14]. In Kapilvastu, there are 571,936 inhabitants living in 91,321 households [14]. The population density is 329.08 people per sq km and the average household size is 6.26 people [14].

Low levels of human development characterize both districts. Although life expectancies at birth in Rupandehi district, at 68.0 years, are slightly above the national average for Nepal at 66.6 years, Kapilvastu falls below the national average at 61.3 years. Kapilvastu also lags behind the Nepal average for levels of adult literacy (55% versus 67%) [15], average schooling attainment (2.8 versus 3.9 completed grades of schooling) [15] and per capita income ($990 versus $1,160 PPP) [16]. In Rupandehi, per capita income and adult literacy also are lower than the national average ($1123 PPP) [16], but levels of schooling, at 4.2 grades, and adult literacy, at 70%, are slightly higher [15].

While both districts face some socioeconomic disadvantage, structural change is evident. In the sections that follow, we provide an introduction to each of the CARE Tipping Point learning outcomes, organized conceptually to cover the outcome of primary interest (child marriage rates) as well as the theoretical mediators, to capture the constructs of intrinsic agency, instrumental agency, and collective agency. We also present findings from the CARE Tipping Point Program impact evaluation baseline survey across the control, TPP, and TPP+ study arms. We begin by describing the characteristics of the samples.

Background characteristics of the samples

- Gender gaps in education have declined but gaps persist. Compared to men, women more often were unable to read or write (60% vs 25%) and had never attended school (68% vs 29%). In adolescents, few girls (5%) and boys (3%) were unable to read or write, and never attendance was rare. Yet, girls were still attending less often than boys (85% vs 90%), suggesting a higher dropout rate for girls.
- Vocational training was rare in adults (11% women; 14% men) and adolescents (6% girls; 4% boys).

[2] See the website: girlsnotbrides.org https://www.girlsnotbrides.org/child-marriage/nepal/

Background characteristics of the samples are reported in Table 3. Overall, the mean age in the sample was 43.4 years for adult women and 45.7 years for adult men. About 92% of men and 87% of women were married, while 12% of women were widowed. Tipping Point membership was 4.1% among women and 7.8% among men.

Almost 60% of women were unable to read or write, compared to 25% of men. In contrast, only 5% of adolescent girls and 3% of adolescent boys were unable to read or write. While 71% of men have ever attended school, only 32% of adult women had ever attended. For both men and women who attended school, the average number of classes completed was 7.1.

At the time of the survey, adolescent girls and boys had completed a mean of 6.3 and 6.2 classes, respectively. Though virtually all surveyed adolescents had ever attended school (94%), there was a statistically significant difference in the percentage of girls (85%) and boys (90%) still attending school. This finding suggests that, while girls and boys were entering school in the same proportions, the rate of drop-out may have been slightly higher for girls than boys.

Across all samples, government schools were the most common type of school attended. Adolescent boys attended private schools more often than did adolescent girls (27.6% vs 19.8%). Ever receiving vocational training was reported by 11% of women and 14% of men, compared to 6% of adolescent girls and 4% of adolescent boys.

With respect to religious affiliation, 87% of women, 90% of men, 90% of girls, and 89% of boys identified as Hindu, with the next most common religious affiliation being Muslim, and the remainder identifying as Buddhist or Christian. Roughly 42% to 52% of participants across samples belonged to upper-caste groups, 26% to 32% belonged to relatively advantaged indigenous groups, and 8% to 16% belonged to Dalit groups. The remainder (8% to 11%) belonged to disadvantaged Terai and religious minority groups and to disadvantaged indigenous groups.

Adult respondents could indicate one or multiple main jobs. The most frequent job reported was agriculture, livestock, and horticulture (51.5% among women and 71.9% among men), while two thirds of women reported having no job or being homemakers. Among adolescent girls, 14% reported working or engaging in income-generating activities.

We also compared adults, adolescent girls, and adolescent boys by study arm (Appendix Table 1). Most demographic characteristics did not differ by study arm for any of the samples, with exceptions for schooling, girls' literacy, caste and religious affiliation, and, for adults, percentage working in agriculture. Adults' ever-attendance of school and grades completed did not differ by study arm, but more adults in the TPP+ group attended private schools for their education (4.7%) than did those in the control or TPP groups (1.0% and 1.7%). More adults in the TPP+ group identified as Muslim (13.5%) and as part of disadvantaged Terai and religious minority groups (13.5%) than did adults in the control or TPP groups (5.3% and 9.4%). Fewer adults in the TPP group worked in agriculture, livestock or horticulture (53.3%) than did adults in the control or TPP+ groups (67.9% and 63.5%, respectively).

Adolescent girls differed across study arms in their ability to read and write, with girls in the TPP group more often being unable to read or write (8.6%) than in the control or TPP+ groups (3.1% and 4.4%, respectively). For adolescent girls and boys, ever-attendance of school, type of school attended, and vocational training did not differ across study arm. Among adolescent boys, religion differed across study

arm, with more boys in the control group identifying as Hindu (92.5%) than boys in the TPP and TPP+ groups (87.2% and 85.8%, respectively). Caste differed across study arm for girls and boys, with girls and boys more often belonging to upper castes in the TPP group than in the control or TPP+ groups.

Table 3. Personal demographics, sample adults (N = 540), adolescent girls (N = 1,134), and adolescent boys (N = 1,154) in Rupandehi and Kapilvastu districts, Nepal

Sample Characteristics	Adult Community Members 25 Years or Older		Unmarried Adolescents 12–16 Years		
	Women (N = 270)	Men (N = 270)	Girls (N = 1,134)	Boys (N = 1,154)	*p*
Tipping Point Member, %	4.1	7.8			
Age in years, M (SE)	43.4 (0.9)	45.7 (0.8)			
Can read or write, %					0.11
Neither	59.6	24.4	5.3	3.2	
Read only	4.4	0.7	1.8	2.8	
Read and write	35.9	74.8	92.9	94.0	
Ever attended school, %	32.2	71.5	94.2	94.4	0.61
School type attended, %					0.01*
Government	28.9	67.8	72.4	65.6	
Private	2.6	2.2	19.8	27.6	
Community	0.4	0.7	1.5	1.0	
Other	-	0.7	0.4	-	
None or missing	68.2	28.5	5.9	5.8	
Grades completed, M (SE)	7.1 (0.3)	7.1 (0.2)	6.4 (0.1)	6.2 (0.1)	0.03*
Still attending school, %	1.2	2.1	85.2	90.1	0.02*
Ever received vocational training, %	10.7	14.1	5.9	4.2	0.20
Marital status					
Married	86.7	91.9			
Divorced	-	1.1			
Widowed	12.2	5.6			
Separated	0.4	0.4			
Never married	0.7	1.1			
Religion, %					0.11
Hinduism	86.7	89.6	90.4	88.6	
Buddhism	1.9	1.9	0.62	0.3	
Islam	10.4	8.2	8.2	10.7	
Christianity	1.1	-	0.7	0.4	
Other	-	0.4	-	-	
Caste, %					0.04*
Upper caste groups	41.9	52.2	46.9	47.0	
Relatively advantaged indigenous groups	31.5	32.2	28.8	25.6	
Disadvantaged Terai and religious minority groups	10.7	7.8	8.2	11.3	
Disadvantaged indigenous groups	-	-	0.4	1.5	
Dalit groups	15.9	7.8	15.4	14.6	
Main job, %[a]					
Agriculture/livestock/horticulture	51.5	71.9			
Business/entrepreneur/trade	4.8	18.5			
Daily wage/labor	3.7	16.3			
No job/homemaker	67.4	2.6			
Work/engage in income-generating activity, %			14.3		

[a]Frequencies not out of 100 (respondents could indicate multiple main jobs).

Notes. + p < .10, * p < .05, ** p < .01, *** p < .001 for the difference in baseline mean scores for self-efficacy between adolescent girls and boys

Socioeconomic conditions of the households of study samples

To assess socioeconomic conditions of the households included in the study samples, we asked adult community members and adolescent girls and boys to describe the jobs of their male household heads, home size and details about the construction of their homes, household land ownership, and ownership of items such as telephones. Details about household socioeconomic status (SES) are reported in Table 4. Comparisons by study arm are reported in Appendix Table 2.

In the sample, 43% of women and 63% of men reported that the job of their male household head was in agriculture, either daily wages or self-employment. The reported job of the male household head differed significantly for adolescent girls and boys, with girls reporting more often than boys that the male household head was working in non-agricultural jobs (36% vs. 30%).

On average, across samples, respondents lived in households with two bedrooms. The most frequent roofing material reported was concrete/cement (74.0% to 77.8%), which is indicative of higher SES than roof materials such as straw, thatch, earth, mud, tiles, and galvanized iron. Similarly, 73.3% to 81.7% of respondents indicated cement-bonded bricks/stones as their main wall material, which is indicative of higher SES than walls of bamboo, wood, or mud. Open fireplaces, mud, kerosene, or other stoves were more common (60.9% to 72.2%) in the sample than were gas stoves or smokeless ovens, which are indicative of higher SES. Having no toilet, a household non-flush toilet, or a communal latrine was more common than having a household flush toilet, although the frequencies varied by sample, with adult men and adolescent boys reporting to have a household flush toilet (64.2% and 60.9%) more often than adult women and adolescent girls (35.9% and 40.7%).

Almost all respondents had at least one phone in the house (91.8% to 97.9%), with most reporting to have at least two phones (51.5-64.3%). Eighty-five percent of all respondents belonged to households that owned, sharecropped, or mortgaged land. All participants indicated household ownership of irrigated land more frequently than non-irrigated land, except women, who reported ownership of non-irrigated land more frequently than irrigated land (49.6% vs. 38.2%).

For adult community members, household characteristics did not differ by study arm, except in that a lesser frequency of those in the TPP arm reported ownership of a gas stove or smokeless oven (25.0%) than those in the control and TPP+ arms (36.8% and 33.5%).

For girls and boys, there were a few differences in household characteristics by study arm, though no real pattern in differences. Among boys, those in the control arm reported living in households with walls, roofs, and stoves indicative of lesser SES than boys in the TPP and TPP+ arms. Among girls, those in the TPP arm lived in houses with concrete roofs (indicative of higher SES) more frequently than girls in the other study arms, while more girls in the control arm reported living in homes with gas stoves or smokeless ovens (46.6%, higher SES) than girls in the TPP arms (37.1% and 37.9%). More girls in the TPP+ arm reported that the main job of their household head was agricultural (45.0%) than girls in the control and TPP arms (35.1% and 35.4%). Finally, household land ownership was reported less frequently among girls in the TPP arm (84.8%) than among girls in the control and TPP+ arms (90.8% and 89.5%, respectively).

Table 4. Household socioeconomic status (SES), sample adults (N = 540), adolescent girls (N = 1,134), and adolescent boys (N = 1,154) in Rupandehi and Kapilvastu districts, Nepal

Sample characteristics	Adult community members 25 Years or Older		Unmarried Adolescent Girls 12–16 Years		
	Women (N = 270)	Men (N = 270)	Girls (N = 1,134)	Boys (N = 1,154)	*p*
Household SES					
Job of male household head, %					0.01*
No male	14.8	7.4	10.2	8.3	
Does not work	7.4	8.6	7.6	2.9	
Agriculture					
Daily wages	20.7	32.3	21.3	26.6	
Self-employed	22.2	30.1	16.9	23.5	
Non-agriculture					
Daily wages	10.7	8.9	14.4	14.5	
Self-employed	12.2	7.8	21.7	15.5	
Paid wages on long-term basis	11.9	4.8	7.9	8.7	
No. of bedrooms, M (SE)	2.7 (0.1)	2.9 (0.1)	2.7 (0.0)	2.8 (0.1)	0.04*
Main material of walls, %					0.22
Bamboo/leaves, unbaked bricks, wood, mud-bonded bricks/stones, or no walls	26.7	18.6	20.9	18.3	
Cement-bonded bricks/stones or other material	73.3	81.4	79.1	81.7	
Main material of roof, %					0.30
Straw/thatch or earth/mud	11.5	6.7	8.3	7.6	
Tiles/slate or other	4.4	3.7	4.8	3.6	
Wood/planks or galvanized iron	10.0	12.2	12.2	10.9	
Concrete/cement	74.1	77.4	74.8	77.8	
Type of stove, %					0.49
Open fireplace, mud, kerosene stove, or other	64.1	72.2	59.3	60.9	
Gas stove or smokeless oven	35.9	27.8	40.7	39.1	
Type of toilet, %					<0.001 ***
None, household non-flush, or communal latrine	91.1	64.2	85.4	64.6	
Household flush	8.9	35.8	14.6	35.4	
Number of telephones, %					0.34
0	2.2	8.2	2.3	2.1	
1	35.9	40.4	33.4	35.4	
2+	61.9	51.5	64.3	62.5	
Own, sharecrop, mortgage any agriculture land, %					0.03*
No	12.2	13.7	11.6	14.8	
Yes, not irrigated	49.6	26.3	26.1	32.2	
Yes, irrigated	38.2	60.0	62.3	53.0	

Notes. + p < .10, * p < .05, ** p < .01, *** p < .001 for the difference in baseline mean scores for adolescent girls and boys

Child marriage in the study sites

- Across districts, women reported earlier median ages at first marriage and gauna than men.
- Although the median ages at first marriage and to some extent gauna have increased across districts and genders, the majority of 20-24 year-old women were married by age 18 in both districts.

Overview of marriage in the study sites

In the enumeration sample, which included information on 51,504 adolescents and adult community members in Kapilvastu and Rupandehi districts, over half (59.5%) of all enumerated subjects were reported as married at the time of enumeration. Thirty-six percent were reported to have never been married, with 95.9% of these respondents reported to be under the age of 25. Less than 4% of the enumeration sample were reported as widowed, divorced, or separated.

Estimates of child marriage and age at gauna

In Nepal, *gauna* refers to the time when a married couple begins to live together and/or consummates their marriage. Enumeration data were used to estimate CEFM. Findings about age at marriage and gauna are summarized by gender, district, and age group in Table 5.

The practice of marriage without immediate gauna was more common in Kapilvastu district than in Rupandehi district, with almost half of all married enumerated subjects in Kapilvastu reporting marriage without gauna (46.2%), compared to only 9.3% reporting marriage without gauna in Rupandehi.

In both districts, women had earlier median ages at first marriage and gauna than men. In Kapilvastu, women had a median age of 15 years at first marriage and 17 years at gauna, compared to 18 years at first marriage and 19 years at gauna for men. In Rupandehi, women had a median age of 14 years at first marriage and 17 years at gauna, compared to 17 years at first marriage and 19 years at gauna for men.

Across both districts and genders, the median age at first marriage has increased over time. Married enumeration subjects over the age of 49 married at a median age of 14 years; in contrast, married enumeration subjects between ages 20-29 married at a median age of 17 years. While over half of married enumeration subjects over age 49 were married by age 15 (60.1%), only 27.3% of married enumeration subjects between ages 20-29 were married by age 15. Similarly, while 76.6% of married enumeration subjects over age 49 were married by age 18, this percentage for enumeration subjects ages 20-29 was 54.4%.

The median age at gauna also has increased across age groups in both districts, but less markedly. Married enumeration subjects over the age of 49 had a median age at gauna of 17 years, and married enumeration subjects between ages 20-29 had a median age at gauna of 18 years. As the increase in age at marriage outpaces the increase in age at gauna over time, these data suggest a trend towards a shorter interval between marriage and gauna.

In our sample, 21 enumeration subjects under the age of 15 were married (0.2%). Eight were married without gauna, and 13 were married with gauna (61.9%).

Table 5. Estimates of child marriage and age at gauna by sex, age, and district (N = 30,478), Rupandehi and Kapilvastu districts, Nepal

	Under 15	Ages 15-19	Ages 20-24	Ages 25-29	Ages 30-34	Ages 35-39	Ages 40-44	Ages 45-49	Ages 25-49	Ages 49+
Kapilvastu district										
Women, N	13	269	1,159	1,138	1,027	1,008	833	653	4,659	1,702
Married by age 15, %	-	26.0	24.5	33.8	41.4	50.7	52.7	57.3	45.8	66.2
Married by age 18, %	-	-	57.2	62.9	71.6	78.7	77.3	78.1	72.9	84.7
Median age at first marriage (SE)	14.4 (0.8)	16.0 (0.3)	17.0 (0.3)	16.6 (0.4)	15.9 (0.3)	15.1 (0.4)	15.1 (0.4)	15.1 (0.5)	15.6 (0.4)	13.4 (0.4)
Median age at gauna (SE)	16.6 (0.5)	16.6 (0.3)	17.9 (0.1)	18.0 (0.3)	17.4 (0.2)	16.9 (0.2)	17.1 (0.2)	17.1 (0.2)	17.4 (0.2)	15.6 (0.4)
Men, N	-	73	566	872	801	953	783	766	4,175	2,125
Married by age 15, %	-	18.3	10.9	17.0	20.5	26.6	27.1	36.4	25.3	45.5
Married by age 18, %	-	-	37.1	36.2	43.7	49.1	46.4	54.0	45.7	62.6
Median age at first marriage (SE)	-	16.8 (0.4)	18.8 (0.2)	19.4 (0.3)	18.9 (0.3)	18.8 (0.5)	18.3 (0.5)	17.9 (0.6)	18.7 (0.4)	16.8 (0.6)
Median age at gauna (SE)	-	17.3 (0.4)	19.6 (0.2)	20.5 (0.1)	20.3 (0.3)	20.5 (0.3)	20.1 (0.4)	20.0 (0.6)	20.3 (0.3)	18.9 (0.4)
Rupandehi district										
Women, N	6	434	1,448	1,347	1,102	1,079	774	650	4,952	1,698
Married by age 15, %	-	37.1	30.3	42.2	53.9	60.2	63.2	66.2	55.2	72.8
Married by age 18, %	-	-	64.6	64.3	76.0	84.5	84.1	87.7	77.5	88.2
Median age at first marriage (SE)	13 (0.8)	15.8 (0.1)	16.6 (0.2)	16.1 (0.3)	15.0 (0.5)	14.4 (0.3)	13.9 (0.5)	13.8 (0.3)	14.8 (0.4)	12.9 (0.5)
Median age at gauna (SE)	14.5 (0.4)	16.7 (0.1)	18.1 (0.1)	18.1 (0.2)	17.3 (0.3)	17.2 (0.2)	16.7 (0.2)	16.8 (0.2)	17.3 (0.2)	16.2 (0.2)
Men, N	1	109	738	981	906	961	715	646	4,209	2,142
Married by age 15, %	-	26.6	18.8	22.3	29.7	40.6	44.9	46.6	35.6	51.5
Married by age 18, %	-	-	46.9	43.5	51.9	64.7	67.0	66.1	57.6	68.1
Median age at first marriage (SE)	8.0	16.4 (0.2)	18.0 (0.2)	18.7 (0.2)	18.1 (0.5)	17.0 (0.3)	16.5 (0.5)	16.5 (0.4)	17.4 (0.3)	15.9 (0.5)
Median age at gauna (SE)	13.0	17.1 (0.2)	19.2 (0.1)	20.6 (0.1)	20.3 (0.4)	19.7 (0.3)	19.5 (0.4)	19.7 (0.2)	20.0 (0.2)	19.5 (0.3)

In the qualitative data, most participants stated that child marriage and the practice of *gauna* were becoming less prevalent over time due to changing norms and legal enforcement of the marriage age at 20, while acknowledging that the practice had not disappeared entirely. Older adolescents, girls who were not currently studying, or who were disobedient, such as being perceived to engage in prohibited interactions with boys, were identified as being at greater risk of early marriage. Many participants also ascribed the continued prevalence of early marriage to elopement by adolescents. Some variation in age-at-marriage practices also was ascribed to caste and educational level, with higher status being associated with delayed marriage.

Box 1. Perceptions of child marriage prevalence and changes over time

At the age of 8 we married her off. But now my grandkids will get married when they are of 18- 20 years old. We will send her right after her marriage, these days *gauna* is not practiced much. *Gauna* practices does not happen everywhere, these were old traditions. Earlier, a girl was married when they were very young be it *Madhesi, Tharu, Nepali* or any caste but now it is not practiced. If they have left their studies and are not doing anything then we marry them off. We can take responsibility of our daughters but cannot take responsibility of other's daughter. We married off our elder daughter when she was of 5 years old and did her *gauna* when she was 9 years old and rest got married when [they] were adolescent. Now we marry them off when they are 15, 17 and 20 years old. We don't marry off those girls who are educated and ambitious about life. We fix their marriage late. Those girls who aren't doing anything and staying at home idle, we marry them off early.

-mother, Rupandehi

That is right, they are not held at younger age. The ward office has already implemented rules that the marriage will not be registered if the marriage is held at younger age. Further, they will not be recommended for citizenship, etc. As a result, the marriage is held only after they reach 20-years of age. However, if they elope and marry, they can't be stopped. They may marry before 20 years.

-key informant, Rupandehi

My brother got married at the age of 12. We also have another custom which is called *gauna*. A groom could only take his bride to his home after fulfilling both customs. In our case, my brother and my sister in law got married at the early age so our family decided to do the *gauna* later. The *gauna* usually take place after 5-6 years. There was a guy who got married at the same time when my brother got married. He already has son and daughter but my brother conducted his '*gauna'* 2-3 months back only.

-adolescent boy, Rupandehi

There has been a change. Before, it was in quite large number but now it is less in number. Gradually, it is getting lesser. Let's hope and believe that *gauna* will no longer be in existence as of 10 years from now. Lots of improvement may come into practice in regard to early marriage as well.

-key informant, Kapilvastu

Even my daughter tells her father that she doesn't want to get married right now. These days, things are not like how they used to be in past. The practice of marrying girls early and doing *gauna* later has already been removed.

-mother, Kapilvastu

Comparisons across study arm

Age at first marriage and gauna were compared by gender, study arm or group, and age group (Appendix Table 3). Marital status was similar across study arms, with 59.5% of enumerated subjects indicating that they were married with or without gauna. Marriage without immediate gauna was more common among those in the control arm and TPP+ arm (18.6% and 19.5%) than those in TPP arm (11.2%). No differences were apparent for women or men across study arms in the median ages at first marriage or gauna.

However, women in the TPP arm more often were married by age 15 (57.9%) than were women in the control and TPP+ arms (46.7% and 48.7%). Almost 82% of women in the TPP arm were married by age 18, compared to less than 75% of women in the control and TPP+ arms. Similarly, men in the TPP arm more often were married by age 15 (41.5%) than men in the control and TPP+ arms (33.1% and 32.0%). Men in the TPP arm also more often were married by 18 years (>60%) than were men in the control and TPP+ arms (52.5% 54.3%). Enumerated subjects under age 15 who reported being married with or without gauna (n = 21) were distributed evenly across the three study arms. Enumerated subjects under age 20 who reported being married with or without gauna (N = 905) more often were in the TPP arm (6.5%) than in the control or TPP+ arms (5.1% and 4.5%). Four of five married enumerated subjects under age 20 were girls. For married enumerated subjects under age 20, frequency of gauna differed by study arm (71.7% in control, 73.9% in TPP, and 53.3% in TPP+).

Proximate drivers of child marriage

In the sections that follow, we discuss baseline findings with respect to the theorized proximate drivers of child marriage.

Building intrinsic agency and assets

Aspirations about marriage, education, and work

- A majority of adolescents agreed that a girl ideally should marry after age 20, but girls reported a lower aspired mean age at marriage (21.8 vs 23.1) and gauna (22.2 vs 23.4) than boys.
- Girls and boys had high aspirations for schooling; however, boys more often than girls aspired to complete Grade 12 (44% vs 37%) and a masters degree (14% versus 11%).
- Gender gaps in work aspirations persist among adolescents. Fewer girls (72%) than boys (91%) aspired to professional work; and girls more often aspired to be in agricultural work (9% vs 7%) and to have no job or to being a homemaker (15.4% vs 0.5%).

We asked adolescents to describe their aspirations about the age at which they will marry, the level of education that they will receive, and the work that they will pursue (Figure 4).

In terms of the ideal age at marriage for girls and boys, over 60% of all adolescents said that a girl ideally should marry after age 20. The second-most common response was that a girl ideally should marry after completing her studies (16.2% of girl respondents, 22.4% of boy respondents). About 10% of adolescent girls responded that a girl ideally should marry after earning money; less than 5% of adolescent boys responded similarly.

A majority of adolescent girls and boys reported that a boy ideally should marry after age 20 (51.5% vs. 56.8%). The second most common response differed between girls and boys, with girls responding that a boy ideally should marry after earning money (24.3%) and boys responding that a boy ideally should marry after completing his studies (19.6%). While one in ten of all adolescents reported that a girl ideally should marry when her parents decide, only 8% responded that a boy should marry when his parents decide.

When asked at what age they personally aspired to marry, the mean age was lower for girls than for boys (21.8 years vs. 23.1 years). Almost all adolescents reported aspiring to marry between ages 20 and 29

years (94%), with 75% of girls aspiring to marry at 20-24 years and 60% of boys aspiring to marry at this age. About 1.4% of girls reported that they never wanted to marry, compared to less than 0.1% of boys.

Adolescents and parents gave similar responses in the qualitative data. Most parents and adolescents agreed that boys and girls should ideally wait until at least 20 years of age to get married, especially if they were currently studying. If they were not studying, or learning a trade such as sewing, then it was expected that girls of 15 or 16 should marry as there was little else for them to do except to stay at home.

Box 2. Narrative from adolescents and parents regarding adolescent aspirations for marriage

Probe Question: So, is 16 an appropriate age to get married at?
P3: No, it isn't right.
P1: I think 19-20 would be more appropriate.
Probe to P1: Why 19-20 and why not 16?
P1: Because some girls have some dreams that they want to accomplish before getting married like they would want to get educated or learn something. For boys, it is 21-22, as they must only get married after learning a skill and after being independent.
-adolescent boys, Rupandehi

P3: Yes, even in our Muslim community, girls say when they don't want to get married.
P4: Even my daughter tells her father that she doesn't want to get married right now. These days, things are not like how they used to be in past. The practice of marrying girls early and doing *gauna* later has already been removed.
P6: After the girl has left school, she can learn about household chores like cooking food. Only after she has learnt everything, she should get married and not at an early age. They should only get married at the age of 20-22. At the age of 15-16, girls should go to school.
P3: Even in our village, there is a thinking that girls should be educated and sent to school.
P2: There are a lot of us in this society who think that boys and girls should be educated equally. There is a lot of difference between how things used to be earlier and how things are now.
-mothers, Kapilvastu

P: There is no such thing as wishes. My parents say they will marry me next as I am already 15 but I tell them I don't want to.
Probe Question: Why do they wish that?
P: My younger sister looks bigger than me and they say they have to get her married too. My brother is there too, if he isn't here who will give us money? They think that once he gets married he will live separately with his wife.
-adolescent girl, Kapilvastu

Girls reported a lower aspired age at gauna (22.2 years) than did boys (23.4 years). Eighty-eight percent of all adolescents reported aspiring to gauna between ages 20 and 29 years, with 66.6% of girls aspiring to gauna at 20-24 years and 52.7% of boys aspiring to gauna at this age. About six percent of girls and boys reported never wanting to have gauna. In the qualitative data, many participants stated that

marriage and gauna typically occurred simultaneously as adolescents married later, and that gauna largely persisted in cases of child marriage.

In terms of aspirations about education, one in five girls aspired to complete Grade 10 (21.3%), compared to one in eight boys (12.7%). Adolescent boys most often aspired to complete Grade 12 (44.6%); 37% of adolescent girls aspired to do the same. Roughly 5% of girls aspired to complete only Grade 6. In the qualitative data, there was no clear pattern of a particular grade to which girls and boys aspired to study, except that they wanted to study as long as they could, although there was not extensive discussion of education beyond upper secondary school. Parents also did not mention a specific grade to which they wanted their children to study, just general support for their children to be educated.

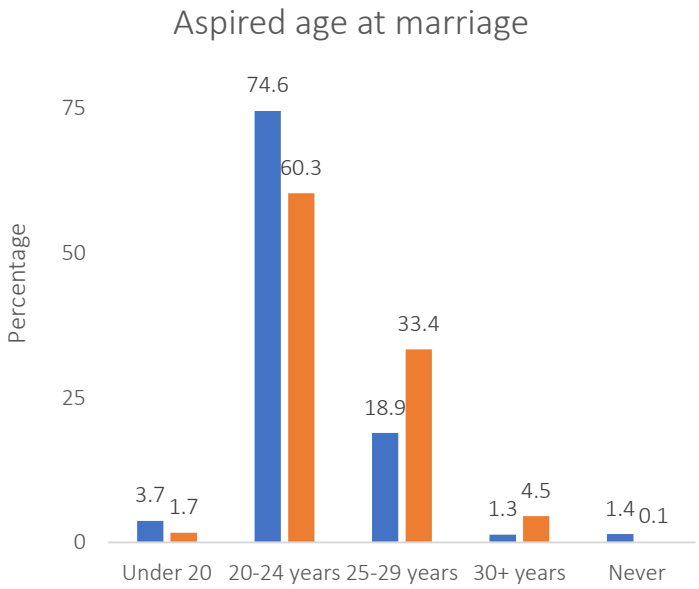
The same percentage of adolescent girls and boys aspired to completion of a bachelor degree (19.7%), while a slightly higher percentage of boys than girls aspired to a master's degree (14.0% vs. 10.6%). Girls and boys aspired equally often to education beyond a master's degree (3.4%).

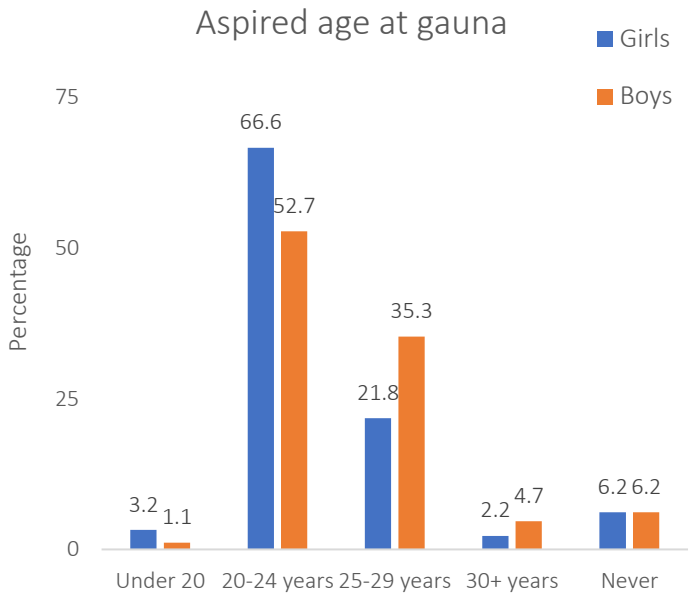
Three in four girls indicated that they would continue their education if they were to get married during school (74.6%), compared to almost 80% of boys. When asked if they would continue their education if they were to have gauna during school, 69.6% of girls and 75.5% of boys responded affirmatively. However, data from adolescent FGDs and key informant interviews suggested that few girls were permitted to continue education after moving to their in-laws' household. A key informant from Rupandehi discussed one exception to this practice:

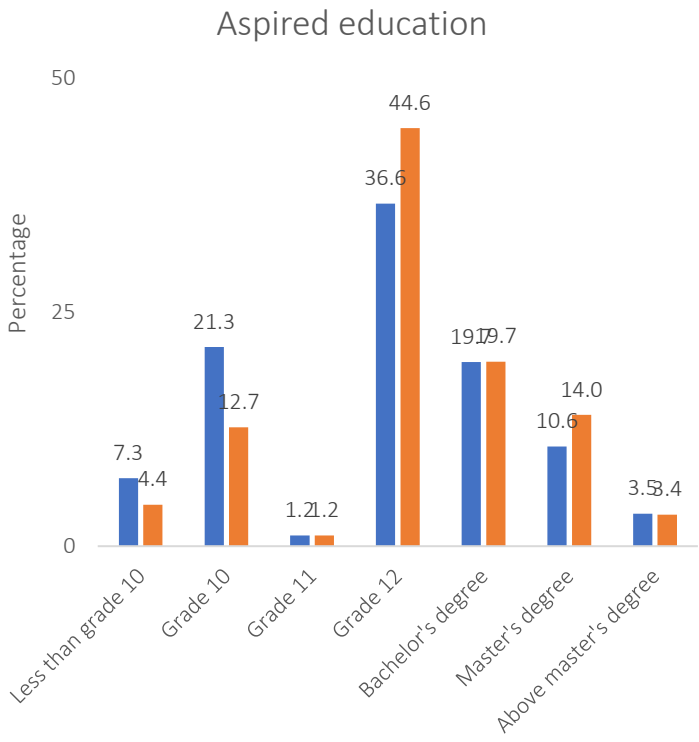
> There are one or two instances. It is from my community that belongs to Yadav caste. He brought his daughter in law to his home and made her study for 2 years. Now, since she has given birth to a child, she has halted her study for some time. The mother of the girl was perhaps a doctor in public health service. This was the reason why she made her daughter study same subject, and, this is reason why she is still giving continuation to her study even after her marriage.

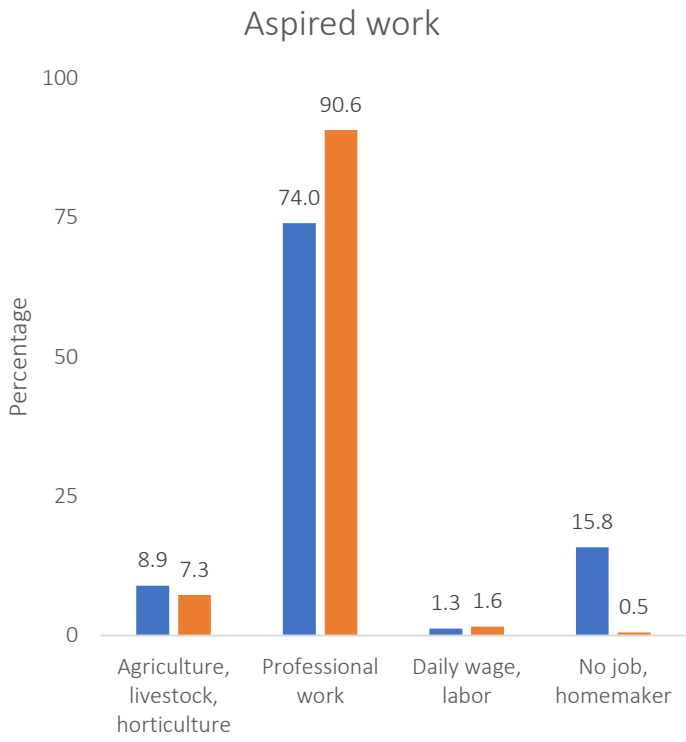
In terms of aspirations about professional work, 72.2% of adolescent girls and 91.4% of adolescent boys aspired to professional work. Slightly more adolescent girls than adolescent boys aspired to agricultural work (8.7% vs. 7.2%). Just over 15% of adolescent girls aspired to having no job or to being a homemaker, compared to 0.5% of adolescent boys. In in-depth interviews, almost all adolescent girls described professional career goals, such as teacher, doctor, and banker, while boys typically gave more general responses such as "working abroad." Boys who aimed to remain in Nepal also cited professional career goals such as engineer and health assistant.

Figure 4. Aspirations for marriage, education, and work, adolescent girls (N=1,134) and boys (N=1,154) in Rupandehi and Kapilvastu districts, Nepal









Box 3. Narratives from adolescent boys, girls, and parents regarding adolescent aspirations for education and work

I want to be educated enough to become a teacher and my mother says I should follow that path.
-adolescent girl, Kapilvastu

I will be studying engineering and if I get a government job then I will buy land and will be actively involved in development of the village. I will build a nice house and all my family with my wife will be living in that house.
-adolescent boy, Kapilvastu

I tell my father, mother and my sister regarding this. My father always tells me this that he will educate me to that level I want to study and invest money on the career she pursues. I was thinking that I would be a teacher but my sister insisted me to be a banker. So I will be a banker in future. I have also told my mother about it and they are also cooperating with my decision. I will decide myself on this and my parents are also cooperating with me.
-adolescent girl, Rupandehi

After I complete this mechanical training, I will go abroad and earn some money and return back and will open a garage of my own.
-adolescent boy, Kapilvastu

P: I tell them till which grade I want to study but our thinking doesn't match.
Probe Question: Who takes the final decision about it?
P: Both my father and mother.
-adolescent girl, Kapilvastu

Self-efficacy

- The majority of adolescent girls and boys reported 'high confidence' in their ability to achieve their life goals despite challenges, including their desired level of education.
- Girls, however, were less confident than boys in their ability to negotiate their desired level of education and to refuse an undesired marriage.
- Only two in five girls reported high confidence in their ability to work, and this percentage was half in the case of family objection.

To assess self-efficacy, adolescent girls and boys were asked to rate their confidence in their ability to achieve their desired goals and level of education, to access health and sexual and reproductive health (SRH) services, to negotiate with their parents, and to move freely and speak about girls' issues in their community. Findings about adolescent self-efficacy are reported in Table 6. Comparisons by study arm are provided in Appendix Table 4.

Responses to eleven items were summed to create a summative *self-efficacy* scale, with a theoretical range of 0-22. A higher score on the scale indicated a higher degree of self-efficacy. The mean scores for

girls and boys—at 12.9 and 13.4—were not significantly different. The range of both girls' and boys' scores was 0-22, the theoretical range. Tertiles were constructed based on adolescent girls' scores, with low scores ranging from 0-11, medium scores from 12-15, and high scores from 16-22. Among girls, 36.8% had low scores, 31.1% medium scores, and 36.4% high scores. Among boys, 34.8% had low scores, 28.8% medium scores, and 36.4% high scores.

Adolescent girls and boys were similarly confident in their ability to achieve their life goals despite challenges, with 57.7% of girls and 58.8% of boys reporting high confidence. Although three in five of all adolescents reported a high degree of confidence in their ability to achieve their desired level of education, about 13.0% of adolescents were not at all confident. Adolescent girls were less confident than adolescent boys in their ability to negotiate with parents about the level of education that they would receive, with almost 13% of girls reporting no confidence, compared to less than 8% of boys. Among adolescents who reported no confidence in their ability to achieve their desired level of education, one-third were not at all confident in their ability to negotiate their education with their parents. Qualitatively, most parents and adolescents clearly aspired for their daughters and sons to be educated. Girls' ability to negotiate their education was somewhat compromised in the most conservative communities as girls as young as 15 were considered of marriageable age. Negotiating continued education was contingent on appropriate behavior, the availability of an upper secondary school in the village, as inter-village travel was considered less appropriate and safe for girls, and ultimately the ability of the girl to voice their aspirations in households where adult men were the ultimate and undisputed decision makers.

Most adolescents were at least somewhat confident that they could access healthcare on their own if they were ill (72%), though about 1 in 4 reported that they were not at all confident. Adolescent girls were slightly more confident than adolescent boys that they could access SRH information if needed (79.8% vs. 73.8%). Adolescent girls and boys reported similar confidence in their ability to access SRH services if needed, with 3 in 4 adolescents reporting confidence.

More than half of adolescents (54.9%) reported a total lack of confidence in their ability to leave home without permission if needed, with no significant difference between adolescent girls and boys. Compared to adolescents 12-14 years, adolescents 15-16 years reported slightly more often at least some confidence in their ability to leave home without permission (48.2% versus 43.2%). Adolescent boys were slightly more confident than adolescent girls in their ability to negotiate with parents about their freedom to go places, with 86.7% of boys reporting at least some confidence, compared to 82.1% of girls. Qualitatively, the findings were similar. There was almost no mention of leaving the home without permission, especially for girls. Girls mentioned an ability to request to attend a street fair or some other activity, but very little discussion of negotiating freedom of movement in general.

Adolescent boys were slightly more confident than adolescent girls in their ability to speak about girls' problems in their community (86.7% vs. 81.6% reporting to be at least somewhat confident). Key informant interviews reflected this confidence, with many key informants discussing greater adolescent agency within families and communities, and many adolescents reported the need for greater advocacy to address girls' rights. However, evidence of actual collective action involving the adolescents in the in-depth interviews and the focus group discussions was lacking.

In terms of making decisions about marriage, more than three in four adolescent boys were at least somewhat confident that they can refuse an undesired marriage (78.6%), compared to 73.9% of adolescent girls. Similarly, adolescent boys were slightly more confident than adolescent girls in their ability to negotiate with their parents about marriage (80.4% vs. 75.9% reporting to be at least somewhat confident). The qualitative data largely confirmed this finding. Greater agency to refuse a marriage proposal was evident throughout most of the transcripts, although somewhat more present among participants in Rupandehi than in Kapilvastu. In response to the vignettes, there was repeated mention that the girls would in the end not get married if they chose not to even in cases where the female protagonist was perceived to have committed some transgression that impinged on her reputation. This perceived agency was not uniformly expressed, but a trend toward greater agency to refuse, even a good proposal was evident, often in the form of disagreements among adolescents in the same focus group discussion. Parents also recognized greater agency for girls to refuse and the futility of forcing a marriage given a growing propensity of boys and girls to elope against their parents' wishes or to commit suicide instead of marrying against their wishes. This agency was less apparent in more conservative communities where girls and boys were expected to defer to their parents' wishes. But even in the more conservative communities, increasing agency among adolescents was clear, even if just in the ability to have the chance to meet before marriage, and to be consulted, which was seen by key informants, fathers, and mothers as a major change from the past when girls were not even consulted and consent was irrelevant. Across all settings, parent input and in most cases, final decision making was still the norm, but the repeated mention of girls' agency to defer marriage, and the ability of both boys and girls to refuse a marriage proposal is evidence that change is well underway.

Adolescent girls were asked about their confidence in their ability to work for money and their ability to do so if their family objected. One in five adolescent girls were not at all confident that they could work for money or engage in income generation if they wanted; a higher percentage, 34.0%, were not at all confident that they could work if their family objected. Two in five girls reported a high level of confidence in their ability to work; this number was reduced to one in five in the case of family objection. Few girls reported actually doing any outside work in the in-depth interviews.

Table 6. Reported self-efficacy, item distributions and average self-efficacy score, adolescent girls (N=1,134) and boys (N=1,154) in Rupandehi and Kapilvastu districts, Nepal

	Unmarried Adolescent Girls 12–16 Years (N = 1,134)				Unmarried Adolescent Boys 12–16 Years (N = 1,154)			
	Not at all Confident	Somewhat Confident	Very Confident	Missing	Not at all Confident	Somewhat Confident	Very Confident	Missing
Item distributions (0-2), %								
Achieve life goals despite challenges	8.6	32.9	57.7	0.9	9.9	30.5	58.75	0.9
Achieve desired education	13.5	23.9	60.7	1.9	12.4	28.9	57.54	1.1
Access healthcare on own if ill	24.5	39.2	32.5	3.7	24.4	38.9	34.14	2.6
Leave home if needed without permission	56.0	23.6	16.2	4.1	53.9	22.7	17.94	5.5
Speak about girls' problems in community	18.4	33.9	45.0	2.7	13.3	35.7	47.23	3.8
Refuse marriage if not desired	24.5	26.3	47.6	1.6	17.9	22.6	55.98	3.5

Negotiate with parents amount of education	12.8	31.0	56.2	0.1	7.7	28.9	63.34	-
Negotiate with parents about marriage	23.6	39.0	37.0	0.4	19.2	40.6	39.86	0.4
Negotiate with parents freedom to go places	17.8	45.9	36.2	0.1	12.7	38.0	48.70	0.6
Work for money or engage in income generation if wanted	20.7	37.9	41.3	0.1				
Work for money or engage in income generation if family objected	34.0	44.8	20.7	0.4				
Access SRH information if needed	19.3	79.8		0.9	25.5	73.8		0.7
Access SRH services if needed	24.3	75.3		0.4	24.5	75.4		0.1
Total score	M	(SE)	Min	Max	M	(SE)	Min	Max
Summative score (0-22)	12.9	0.4	0	22	13. 4	0.2	0	22
Score tertiles								
High	32.1				36.4			
Medium	31.1				28.8			
Low	36.8				34.8			
Pairwise correlations, range	0.01-0.79				0.02-0.88			
Alpha reliability	0.79				0.81			

Notes. + p < .10, * p < .05, ** p < .01, *** p < .001 for the difference in baseline mean scores for self-efficacy between adolescent girls and boys

Attitudes about menstruation, adolescent sexual and reproductive health (ASRH), and gender

- Adolescent boys had slightly less gender equitable attitudes than adolescent girls and adults.
- Adolescent girls had less stigmatizing attitudes about menstruation than did adult women and men.

All participants were asked about gender roles, gender discrimination, menstruation, and masculinity. This section additionally features attitudes about adolescent sexual and reproductive health (ASRH). Adult respondents were asked whether the behaviour of adolescent girls should be controlled, and adolescent girls with male siblings were asked about perceived gender discrimination in the family. Results by sample are summarized in Tables 6 and 7, while comparisons by study arm are provided in Appendix Table 5.

Adult community members were asked how much they agreed that specific behaviours of adolescent girls should be controlled: *how they dress, how they spend their time, what friends they can see,* and *whether they can go outside alone*. A summative scale was constructed from the responses to these items, with higher scores indicating less agreement that girls' behaviour should be controlled. On average, adult women scored lower than adult men (4.5 vs. 5.9). Women's scores on the *Controlling behaviour* scale were used to create tertiles. Low scores ranged from 0-4, medium scores ranged from 5-6, and high scores ranged from 7-12. While most men (80%) had medium or high scores, 57% of women had low scores, indicating that women agreed more than men that adolescent girls' behaviour should be controlled.

Attitudes about gender roles were assessed of all participants. Participants were asked how much they agreed with the following items: *women require the protection of male kinsmen; women should accept their husbands' opinions; women should obey husbands; men should show their wives that they are the boss; women should take care of the home and family; men should have the final say about important*

household decisions; women are 'real women' only after having a child; women should tolerate violence to keep her family together; and *women/girls should work outside the home*. Responses to these items were used to construct a summative scale, with a possible score range of 0-27 (higher scores indicated more gender-equitable attitudes). Scores ranged from 2-27 for women and 0-27 for men, adolescent girls, and adolescent boys. Mean scores for women, men, and adolescent girls were all 13.6, while the mean score for adolescent boys was 12.5, indicating that adolescent boys had slightly less gender-equitable attitudes than the other groups. Tertiles were constructed for adults using women's scores and for adolescents using girls' scores. One in three women and one in four men had a high score (range: 17-27). Among adolescents, 32% of girls and 22% of boys had a high score. A higher frequency of boys (41.5%) had a low score (range: 0-11) than girls (39.2%), women (38.5%), and men (22.2%).

In the qualitative data adolescent girls and boys described the ideal woman as the caretaker of the family, responsible for the household chores, and with limited mobility. Adolescent girls and boys often described the ideal man as one who works outside the home to provide for the family and who assists those in need. A majority of boys stated that their wives should be 1-2 years younger than them and that it was important for boys to start earning money before getting married. Although a few boys explicitly stated that they did not wish their future wives to work outside the home, many aspired to marry educated girls with professional jobs. Adolescent boys and girls said ideal men and women should be educated and listen to their elders. Similarly, adults described girls/women as caretakers and responsible for household chores while boys/men are responsible for providing for the family financially. Across participants, an adolescent girl's daily responsibilities were studying, completing household chores, and helping with farming activates as needed. While they described adolescent boys' daily responsibilities as attending school and farming activities. Participants also said adolescent boys have fewer responsibilities and more free time than adolescent girls. Parents stated that adolescent boys only do household chores when female members of the family could not complete them (due to illness, not being at home, or if a family had no daughters). Parents said there was no shame in an adolescent boy doing household chores when mothers/daughters were unable to. However, they said adolescent boys and their families would be ashamed and spoken of negatively within the community if mother/daughters could have complete household tasks and adolescent boys performed these chores instead. In Kapilvastu, several parents mentioned that sons wash their clothes as part of their daily responsibilities. Additionally, in one father's group, several participants mentioned knowing boys who regularly do household chores when asked by their parents.

Box 5. Narratives from adolescent girls, adolescent boys, parents, and key informants regarding gender roles and responsibilities

In the community, to become an ideal girl, one has to learn and do household chores. Regarding boys, it is expected that they study well, be able to work, earn and support the family.

-teacher, Kapilvastu

To be a genuine daughter we need to study and need to be involved in household activities. We need to respect the word of the parents, cook food and serve food to our family members, wash dishes and clothes and clean the house. We need to respect and perform what they say us to do.

- adolescent girl, Rupandehi

He [a boy who wants to be a "man" in his community] should not be ashamed to work, any work. He should be able to stay with his family harmoniously. He should be able to educate his children, he should be able to provide some skills to his children, he should be able to earn money and give it to his family.

- adolescent boy, Rupandehi

She [the ideal woman] shouldn't fight with anyone. She shouldn't go to stroll around. She should be involved in household activities. If there are small boys and girls in the house, then she should make him play and feed him.

- adolescent boy, Kapilvastu

It is a matter of dishonor for boys to do household chores. They shouldn't do household chores, it is a girl's work to complete household chores.

-mother, Kapilvastu

Because when a mother of the household is sick, there is nothing embarrassing about the son cooking food and feeding the family.

-father, Kapilvastu

The villagers will say that, "Oh look, the son in their household is cleaning dishes and cooking food. The mother does not do anything and keeps roaming around." They will think negatively. Why are there females in the household? It us their work to take care of the house, to clean clothes, to wash dishes, to cook food. This is why it does not look good when sons or fathers do it. It is the male's responsibility to earn money. Would it look good if females starting earning? It is not good.

-mother, Kapilvastu

When I ask my son to help in the household chores like washing the dishes in front of his friends, he will do it. But once he goes out with his friends, he would get teased by them and would be made fun of because he had washed dishes at home. Then my son would end up getting embarrassed. That is the problem.

-mother, Rupandehi

It's the sons that are embarrassed and even the family too. Whenever we ask our son to do anything he refuses to do so and points it to the mother or the sister. By the time we tell him something, he will have walked away.

-father, Rupandehi

Adult community members and adolescent girls responded to questionnaire items capturing their attitudes about menstruation. Respondents indicated whether they agreed that "menstruation is shameful and embarrassing" and whether women and girls should be subject to each of six specific restrictions during menstruation. Responses were summed to create a scale with a theoretical range of 0-21, with higher scores indicating less stigmatizing attitudes about menstruation. Adolescent girls had the highest mean score of 11.1, with scores ranging from 0-21. Adult women and men had similar mean scores of 10.1 and 9.9, with scores ranging from 0-21 and 0-20, respectively. Scores were categorized in tertiles. While 37.6% of women and 33.7% of men had low scores (0-8), 24.9% of women and 25.6% of men had high scores (13-21). For girls, 39.1% had low scores (0-9), 30.0% medium scores (10-14), and 30.9% high scores (15-21). While men in Kapilvastu district had higher scores than men in Rupandehi (11.4 vs. 8.5), the opposite was true of women, who had higher scores in Rupandehi district (11.3) than in Kapilvastu (8.8). The mean score of adolescent girls did not vary significantly by district.

All participants were asked questionnaire items capturing their attitudes about masculinity. Items addressed whether men and boys should express their emotions, discuss their problems, and remain faithful to their wives, as well as the acceptability of domestic violence. Responses were summed to create a summative scale with a possible score range of 0-12, with higher scores indicating more gender-equitable attitudes about masculinity. Mean scores were 7.9 for women, 7.7 for girls, 7.3 for men, and 7.0 for boys, with scores ranging from 0-12 for all groups except women (range: 2-12). Scores of 10-12 were high, representing 24.9% of women, 14.8% of men, 29.7% of girls, and 17.2% of boys. Scores of 0-7 for adults and 0-6 for adolescents were low. Over 40% of women and 60% of men had low scores, compared to 37.8% of women and 41.4% of boys.

There were no differences in attitudes about controlling behaviours, attitudes about gender roles, attitudes about menstruation, or attitudes about masculinity across samples by study arm (Appendix Table 5).

Adolescent girls with brothers (n = 392) responded to questionnaire items about perceived gender discrimination in their families. Items addressed whether parents/guardians paid equal attention to daughters' and sons' problems, listened equally to daughters' and sons' opinions, expected daughters and sons to spend equal amounts of time on housework or chores, considered daughters' and sons' education equally important, and gave daughters and sons similar freedom to visit places. Responses were summed to create a scale with a theoretical range of 0-15, with higher scores indicating higher perceived gender-equitable attitudes within the family. Scores ranged from 0-15, and the mean score was 10.9, indicating that, overall, adolescent girls with brothers felt that attitudes within their family were somewhat gender-equitable (Table 8). Tertiles were constructed with scores of 0-10 classified as low, 11-13 as medium, and 14-15 as high. Two in five girls had a low score (41.6%), while 30% had medium scores and 30% had high scores. There were no differences in scores by study arm.

Table 7. Attitudes about menstruation, ASRH, and gender among adolescent girls (N=1,134), boys (N=1,152), and female adult (N=270) and male adult community members (N=270) in Rupandehi and Kapilvastu districts, Nepal

Scale Distributions	Adult community members 25 Years or Older								Unmarried Adolescent Girls 12–16 Years (N = 1,134)				Unmarried Adolescent Boys 12–16 Years (N = 1,152)			
	Women (N = 270)				Men (N = 270)											
	M	SE	Min	Max	M	SE	Min	Max	M	SE	Min	Max	M	SE	Min	Max
Controlling behaviour against girls	**4.5**	**0.1**	**0**	**12**	**5.9**	**0.2**	**0**	**12**								
Attitudes about gender roles	13.6	0.6	0	27	13.6	0.4	2	27	13.6	0.4	0	27	12.5	0.3	0	27
Attitudes about gender discrimination	12.4	0.2	5	15	11.1	0.2	5	15	12.1	0.2	3	15	11.8	0.1	3	15
Attitudes about menstruation	10.1	0.2	0	21	9.9	0.4	0	20	11.1	0.3	0	21				
Attitudes about masculinity	7.9	0.3	2	12	7.3	0.2	0	12	7.7	0.2	0	12	7.0	0.2	0	12
Alpha reliability																
Controlling behaviour against girls	0.77				0.58											
Attitudes about gender roles	0.84				0.75				0.77				0.65			
Attitudes about gender discrimination	0.71				0.56				0.55				0.44			
Attitudes about menstruation	0.75				0.86				0.74							
Attitudes about masculinity	0.68				0.64				0.66				0.54			

Table 8. Attitudes about gender discrimination in the family, item distributions and average gender discrimination score, adolescent girls (N=329) in Rupandehi and Kapilvastu districts, Nepal

	Unmarried Adolescent Girls 12–16 Years (n = 392)			
	Fully disagree	Partly disagree	Partly agree	Fully agree
Item distributions (0-3)				
Your parents/guardian pay attention to your problems as much as they pay attention to your brother's problems	1.5	7.7	16.8	73.5
Your parents/guardian listen to your opinion as much as they listen to a brother's opinion	2.6	7.1	22.2	67.6
Your parents/guardian expect you and your brother to spend the same amount of time on housework or chores	20.2	19.9	22.5	37.0
Your parents/guardian consider your study as important as your brother's study	5.6	7.1	21.4	65.1
Your parents/guardian give you and your brother similar freedom regarding the places you can visit	24.5	26.3	18.6	30.6
Total score	M	(SE)	Min	Max
Summative score (0-15)	10.9	0.3	0	15
Score tertiles				
High (14-15)	29.3			
Medium (11-13)	29.1			
Low (0-10)	41.6			
Pairwise correlations, range	0.26-0.78			
Alpha reliability	0.80			

Knowledge about sexual and reproductive health

- For adolescent girls, the primary source of SRH information was their mother (46.8%) followed by school (31.5%). Girls also learned about menstruation most often from their mothers (63.0%).
- For boys, school was the main source of SRH information (34.7%), followed by books and magazines (29%), friends (16%) and rarely parents (3.7% fathers; 3.1% mothers).
- SRH knowledge generally was low. Boys more often correctly identified the most fertile period for women; whereas, girls more often correctly identified a negative consequence of teen pregnancy and at least two forms of contraception. Most girls (86%) knew of the menstrual cycle.
- Qualitative findings suggested that SRH continues to be a 'taboo' subject.

We asked adolescent girls and boys to describe their sources of information about sexual and reproductive health. Around half of adolescent boys and girls reported receiving SRH instruction at school (52.2%). When asked their primary source of SRH information, adolescent girls indicated their mothers most frequently (46.8%), followed by school (31.5%). Sisters and friends were reported as primary sources by 7.4% and 6.6% of girls, respectively. Less than 0.2% of girls reported their father as their primary source of SRH information (Fig 5). In terms of their primary source for information about menstruation, girls most often indicated their mothers (63.0%), followed by their sisters (14.7%). Teachers and friends also were important sources of menstruation information (10.2% and 6.1%, respectively).

For adolescent boys, school was the primary source of SRH information (34.7%), followed by books and magazines (28.8%). Sixteen percent of boys reported friends as their primary source of SRH information. Slightly more boys reported their fathers as their primary source of SRH information (3.7%) than boys reporting their mothers (3.1%) (Fig 5).

We also asked adolescents several questions to assess their knowledge of SRH (Table 9). Roughly one in three adolescents were able to correctly state that a woman can get pregnant the first time that she has sex (34.8%), with adolescents ages 15-16 years replying correctly more frequently than adolescents ages 12-14 (38.1% vs. 32.8%).

While more boys than girls correctly identified that women are most fertile between periods (64.4% vs. 51.8%), more girls than boys were able to correctly identify at least one negative consequence of teen pregnancy (92.7% vs. 82.2%).

More girls were able to spontaneously name at least two forms of contraception (30.3%) than boys (18.1%). While less than 10% of adolescents were able to spontaneously name at least two STIs, 40.9% were able to spontaneously name at least two places to receive SRH care.

Eighty-six percent of adolescent girls reported knowledge of the menstrual cycle, with 78.6% of girls ages 12-14 reporting knowledge and 97.7% of girls ages 15-16 (Table 10). Among adolescent girls who know about the menstrual cycle, 68.6% correctly identified at least two menstrual hygiene materials (61.6% of girls ages 12-14 and 79.9% of girls ages 15-16).

Sexual and reproductive health was still considered a taboo subject by many qualitative participants, with adolescents typically stating they were too “shy” to initiate discussion of such topics with parents. The major exception was menstrual hygiene, about which mothers were responsible for teaching their daughters. Both adolescent girls and their parents reported that girls were much more likely to discuss SRH with family members than boys, and that they typically sought advice from mothers, sisters, and sisters-in-law, as well as friends and teachers. Boys, on the other hand, were described as particularly reticent to discuss SRH with family members, only discussing such matters with friends. Fathers, too, expressed reluctance to discuss SRH with sons, noting in at least one community that since they are uneducated, they cannot discuss these issues with their sons. Further, the fathers did not discuss these issues with their parents when they were young and had no experience or expectation that such conversations were needed, although not considered inappropriate. Very consistently, the mother was reported as the primary source of information for girls, which was usually not imparted until the girl had her first menstrual period. . Older adolescent boys and girls had typically learned some SRH at school; however, much of this knowledge focused narrowly around menstruation and pregnancy. Few adolescents could tell interviewers anything about puberty, and some gave misinformation such as, “A boy should get married at 18 year of age as his sexual organ only become developed after this age. Male sexual organs get fully developed from 18 to 49 years of age and a boy only should get married after 18 years of age. A girl should get married after 15 years as their reproduction health fully gets developed at this age. At 15 years they will be sexually developed.” Adolescents regarded the information they received from their peers as somewhat reliable.

Figure 5. Primary source of information about puberty, adolescent girls (N=1,133) and boys (N=1,154) in Rupandehi and Kapilvastu districts, Nepal

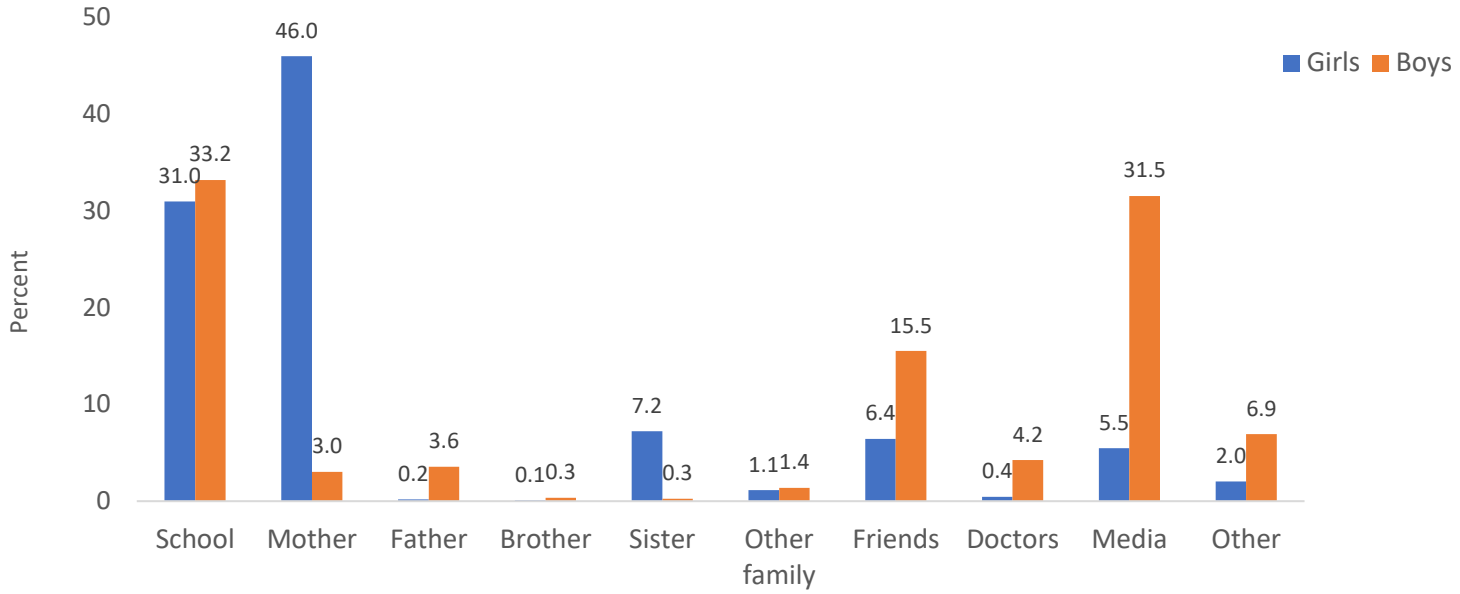


Table 9. Knowledge of SRH among adolescent girls (N=1,134) and boys (N=1,154) in Rupandehi and Kapilvastu districts, Nepal

	Unmarried Adolescents 12–16 Years		
	Girls (N = 1,134)	Boys (N = 1,154)	*p*
Percentage ever received SRH instruction at school	51.5	52.9	0.7
Percentage correctly stating that a woman can get pregnant the first time she has sex	35.3	34.2	0.7
Percentage correctly identifying that a woman's most fertile time is between periods	51.8	64.4	<0.001
Percentage correctly identifying at least one negative consequence of teen pregnancy	92.7	82.2	<0.001
Percentage able to spontaneously name at least 2 STIs	9.5	7.5	0.1
Percentage able to spontaneously name at least 2 places to receive SRH care	42.2	39.6	0.3
Percentage able to spontaneously name at least 2 forms of contraception	30.3	18.1	<0.001

Figure 6. Primary source of information about menstruation, adolescent girls (N=974) in Rupandehi and Kapilvastu districts, Nepal

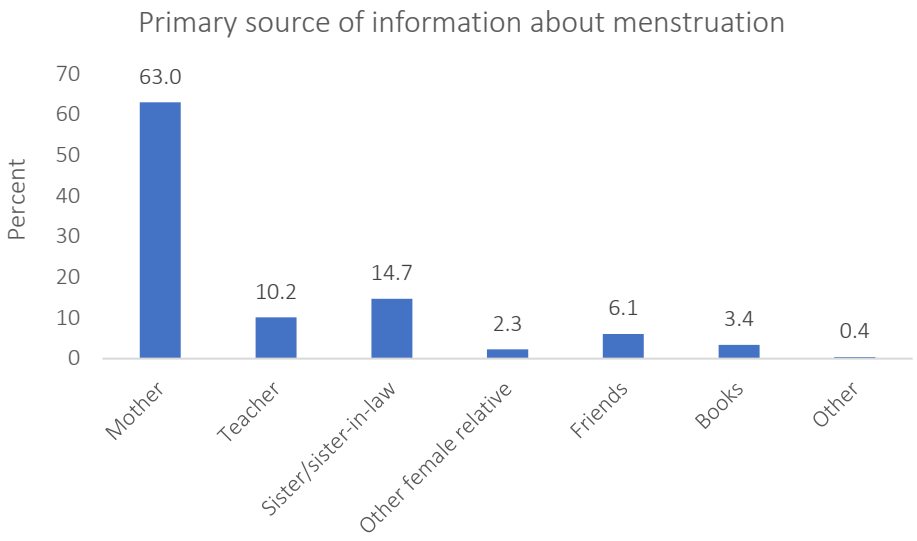


Table 10. Knowledge about menstruation among adolescent girls (N=1,134) in Rupandehi and Kapilvastu districts, Nepal

	Unmarried Adolescents Girls 12–16 Years			*p*
	Overall (N=1134)	Kapilvastu (N = 573)	Rupandehi (N = 561)	
Percentage reporting knowledge of the menstrual cycle	86.0	79.9	92.2	0.01
Percentage correctly identifying at least 2 menstrual hygiene materials	68.6	62.3	75.0	0.02
Percentage correctly identifying that a woman's most fertile time is between periods	51.8	51.3	52.2	0.77
Percentage correctly identifying at least one negative consequence of teen pregnancy	92.7	94.4	90.9	0.11
Percentage able to spontaneously name at least 2 STIs	9.5	5.6	13.6	0.02
Percentage able to spontaneously name at least 2 places to receive SRH care	42.2	39.8	44.6	0.33
Percentage able to spontaneously name at least 2 forms of contraception	30.3	12.0	49.0	<0.001

Box 4. Narratives from adolescent girls, adolescent boys, and parents regarding ASRH

When it's regarding their menstruation and hygiene, they tell their mothers but the sons, they don't say anything to us.

-father, Kapilvastu

My mother teaches me about using pads, changing them, maintaining cleanliness. I learned about maintaining cleanliness in the school, from the teacher who teaches health education.

-adolescent girl, Rupandehi

The person we try to talk to about this, that very person will be the one to scold us. They will ask us what kind of a person we are to be talking about such things. And they also will also accuse parents. They will say, "These parents have not controlled their children."

-adolescent boy, Rupandehi

A mother must teach her daughter about using pad and about sanitation. If the mother doesn't teach such things, how will the kids know about it? A mother definitely has to teach about these things.

-mother, Kapilvastu

They feel shy. They used to be scared to tell about their menstruation in the beginning. They used to skip their classes by telling lies that they had headaches if something like that happened in school.

-teacher, Rupandehi

It is a topic that brings shame and isn't discussed in open environment, either by boys, girls or by society. They talk about it in secret. If something happens to girl then she takes it more shyly. If boys are educated then they talks about it with their friends regarding the things that has occurred to them. But girls won't discuss about this matter openly. She talks about this thing openly with her mother or with her sister in law. They feel shy to talk about it and it is still a problem.

-teacher, Rupandehi

With the boys, they don't tell us but they share it amongst their friends. The father and son can never be equal. Here in our village we are not so educated and don't have a lot of knowledge and neither do our sons which is why they don't share anything as such with us because they are shy.

-father, Kapilvastu

We talk about health issues regarding adolescent boys and girls during the Health subject in school. What we learn in school, we also talk about it amongst ourselves. We also talk about these things while we are doing our homework. There are very few people who talk about getting married after 18 or having sex after marriage or not giving birth to more children or using condoms while having sex, and issues about HIV AIDS openly. I have got some friends with whom I can talk about these topics openly. I once studied that we need to get married after reaching certain age and I fully agree with that. That is all I have to share.

- adolescent boy, Kapilvastu

Changing power relations

Mobility of girls

- The mean mobility score for girls was modest—7.3 out of a possible 18.0.
- In the qualitative interviews, parents, boys, and girls agreed that girls had less mobility than boys in terms of the places they could freely visit and the need for others to accompany them.

Adolescent girls were asked about their ability to go to each of nine locations, including school, the market, the health facility, community gatherings, recreational areas, and the homes of friends/relatives nearby, in the village, and outside the village. Girls could respond that they were *unable to go, able to go with permission*, or *able to go without permission* to each location. Responses were summed to create a *Mobility of Girls* scale with a theoretical range of 0-18, with higher scores indicating higher mobility. Quantitative findings about the mobility of girls are reported in Table 11.

The mean mobility score was 7.3, with scores ranging from 0-17. The mean mobility score of adolescent girls ages 15-16 years (7.3) did not vary statistically significantly from the mean score of adolescent girls ages 12-14 (7.2).

Roughly 88% of girls were able to go to school (either with or without asking permission), but 12.3% of girls reported being unable to go to school. Of these girls, 53.8% reported not currently attending school. Older adolescent girls (15-16 years) were twice as frequently unable to travel to school than adolescent girls ages 12-14 years (19.0% vs. 8.1%). After school, the place where girls were most frequently able to go without permission was to the homes of nearby friends/relatives (12.4%). Tertiles were constructed where scores of 10-18 were high, 7-9 were medium, and 0-6 were low. While 37.9% and 39.3% of girls in Kapilvastu scored had high or medium scores, respectively, girls in Rupandehi more frequently had medium scores (57.2%) than high scores (31.2%). Only 11.6% of girls in Rupandehi had low scores, compared to 22.9% of girls in Kapilvastu.

Few girls reported being able to go to a health facility/provider without permission (2.8%), though 64.9% were able to go with permission. About 32% reported being unable to go at all. There were no differences between older and younger adolescent girls.

Four out of five girls were able to go to the far end of their village, with 9.5% able to go without permission. There were no differences between older and younger adolescent girls.

Parents, boys, and girls in the qualitative sample agreed that girls enjoyed less mobility than boys. While girls were permitted to travel around within their own villages for school or work, they were limited to specific circumstances, often had to be accompanied by relatives or female friends, and typically could not leave the village. A major exception was travel to a school in another town, although this was not universally acceptable for girls. Parents, girls, and boys linked girls' limited mobility to social norms surrounding girls' and their families' reputation, as well as safety and security.

Table 11. Mobility of girls, item distributions and average mobility score, adolescent girls (N=1,134) in Rupandehi and Kapilvastu districts, Nepal

	Unmarried Adolescent Girls 12–16 Years											
	Overall (N = 1,134)				Kapilvastu (n = 573)				Rupandehi (n = 561)			
	Unable to go	Go with permission	Go without permission	Missing	Unable to go	Go with permission	Go without permission	Missing	Unable to go	Go with permission	Go without permission	Missing
Item distributions (0-2)												
Kin house (*bari*) located nearby	11.7	75.7	12.4	0.2	19.6	62.8	17.5	0.2	3.7	88.8	7.3	0.2
Far end of village	20.3	70.1	9.5	0.1	26.4	58.1	15.5	-	14.1	82.4	3.4	0.2
School	12.3	58.0	29.6	0.1	16.8	52.5	30.5	0.2	7.7	63.6	28.7	-
Market	28.7	67.7	3.4	0.2	33.2	61.8	4.9	0.2	24.1	73.8	2.0	0.2
Health facility/provider	31.8	64.9	2.8	0.4	38.6	56.2	4.9	0.4	25.0	73.8	0.7	0.5
Other friends/relatives in village	15.2	77.5	7.2	0.1	19.7	69.6	10.5	0.2	10.5	85.6	3.9	-
Other friends/relative outside village	28.5	68.4	2.9	0.2	30.7	65.3	3.8	0.2	26.2	71.7	2.0	0.2
Community meeting, gathering	51.0	46.7	2.3	-	54.3	42.8	3.0	-	47.6	50.8	1.6	-
Fair/park/somewhere else for recreation	44.8	53.4	1.4	0.4	45.4	51.3	2.8	0.5	44.2	55.6	-	0.2
Total score	M	(SE)	Min	Max	M	(SE)	Min	Max	M	(SE)	Min	Max
Summative score (0-18)	7.3	0.3	0	17	7.1	0.5	0	17	7.5	0.1	1	14
Score tertiles												
High (10-18)	17.3				37.9				31.2			
Medium (7-9)	48.2				39.3				57.2			
Low (0-6)	34.6				22.9				11.6			
Pairwise correlations, range	0.16-0.56				0.19-0.61				0.02-0.51			
Alpha reliability	0.83				0.86				0.75			

Box 6. Narratives from adolescent girls, adolescent boys, and parents regarding girls' mobility

There is a garden nearby that we go to. Girls don't go anywhere. Girls aren't allowed to visit the garden too. They stay at home and finish household chores. I don't know why they aren't allowed to go anywhere.

-adolescent boy, Kapilvastu

I am scared to go out alone. Whenever I have to go out, I go with my older brother. I am scared because there are drunk people outside.

-adolescent girl, Kapilvastu

My parents tell me not to go to the river alone. We should not go to lonely places and fields. They tell me that I should not go very far (from the village/home).

-adolescent girl, Rupandehi

The friends who roam around, such girls are considered bad girls. Those girls who stay at home, live in her principles, stays with her brothers, are called good girls and responsible girls.

-mother, Rupandehi

Communication and negotiation

- Regarding communication with parents, girls more often than boys had ever discussed with their parents how much education they wanted (32% vs 28%). Few adolescents had ever discussed with their parents selecting a spouse or the age at which they would marry. Slightly over half of adolescents discussed with their parents the freedom to go places. Compared to boys, girls more often felt that their parents were not willing to listen to their opinions (6% vs. 2%) and less often fully agreed that they were comfortable talking with their parents (58% vs 74%).
- In qualitative data, parents described major changes in children's agency in marriage negotiation, stating that adolescents now were permitted to meet before any agreement was made and to reject proposals. Some parents stated that love marriages were acceptable in some communities. Still, adolescent girls almost universally cited fathers as the main decision makers about choice of husband and timing of marriage, and key informants stated that few girls would defy their parents' wishes.

Adolescent boys and girls were asked questions about their communication and negotiation with their parents surrounding their education, freedom to select a spouse, age at marriage, and freedom of movement. For each of the four items, adolescents could indicate whether they had never expressed their choice, had ever expressed their choice, or discussed their choice with their parents. Findings about communication and negotiation with parents are summarized in Table 12.

More girls than boys had ever discussed how much education they wanted with their parents, with 31.8% of girls having discussed their choice with their parents, compared to 27.9% of boys. Half of boys had never expressed their choice with their parents. In in-depth interviews, half of these girls mentioned discussing their educational and employment aspirations with parents or other family members. The majority of boys and girls who discussed education and work aspirations with family members stated that their goals aligned with their parents' goals for them. The few exceptions who did not agree with parents expressed doubt that their own wishes would be realized, stating that parents had the final say in such decision making. Consequently, there was little mention of attempts to negotiate about education and employment.

Few adolescents had ever discussed selecting a spouse or the age at which they would marry with their parents. Slightly more adolescent girls than boys ever expressed their choice about selecting a spouse (7.4% vs. 4.9%). For both girls and boys, 10.1% ever expressed their choice about the age at which they would marry. Older adolescents (ages 15-16 years) expressed their choice more frequently than did younger adolescents (ages 12-14 years) (13.1% vs. 8.3%). About 53.2% of adolescent girls ages 15-16 had expressed their choice with their parents. The vast majority of the text around communication and negotiation pertained to discussion of marriage. While some extreme examples were provided of negative reactions of parents to a girls' refusal to marry, the majority of the discussion pertained to efforts by her parents or others to convince her to marry in a good proposal had been received. Across all communities, it was expected that the girl would be asked about her willingness to get married and whether she liked the intended groom, however, there seemed to be more latitude to discuss further the issue of marriage and reasons for refusal in Rupandehi. There was considerable discussion about a girl not getting married if she did not want to, especially in Rupandehi. Parents also recognized the dangers in a poor interpersonal

match. Across all the transcripts, it was clear that if girls were still in school, they had greater latitude to negotiate a later age at marriage. And as the vignettes dealt with girls under the age of 20, the recognized legal age of marriage, it was clear that a girl who was studying and obeying her parents had greater power to communicate her wishes. Whether these preferences influenced the final decision, however, depended on the family and the community and the ability of the girls to speak out. Many were scared to discuss this issue with their father. Key informants also felt that boys had greater agency than girls to negotiate marriage decisions with parents. Slightly over half of adolescents discussed their freedom to go places with their parents. There were no differences between older and younger adolescents in expressing choice about freedom of movement. In interviews, however, the majority of adolescent girls and boys did not mention negotiating mobility with parents, with boys assuming greater freedom of movement within and outside the village. While parents often communicated to their daughters where they were permitted to go and with whom, girls rarely mentioned any attempt to negotiate these restrictions. Likewise, parents discussed girls who disobeyed rules about freedom of movement but did not mention daughters' attempts at negotiating or openly challenging these rules. One of the few parents who discussed such attempts, a mother from Rupandehi, stated, "She doesn't go to visit any place and neither do we send her to visit any places. She asks and we often scold her off and she doesn't go anywhere. It is a shameful act to send the daughter out of the house."

Adolescent girls and boys were additionally asked to describe how they communicate with their parents in terms of clarity, responsiveness, and comfort. Generally, adolescents agreed that they both understood clearly what their parents/guardians say and are understood clearly by their parents, with less than 5% of adolescent girls and 1% of adolescent boys disagreeing in part of full (Table 13).

Overall, adolescents were willing to listen to their parents' opinions and felt that their parents were willing to listen to their opinions. A higher percentage of adolescent girls than boys felt that their parents were not willing to listen to their opinions (6.3% vs. 1.6%).

Adolescents reported feeling comfortable talking with their parents and felt that their parents feel comfortable talking with them. A higher frequency of adolescent boys than girls fully agreed that they were comfortable talking with their parents (73.9% vs. 57.9%). More nuance appeared in the qualitative data, with some adolescents stating that they were comfortable talking to parents and others expressing fear of parents' reactions. Girls, and a few boys, expressed more comfort talking to mothers than fathers.

Box 7. Narratives from adolescent girls and parents regarding parent-child communication

Yes, there are so many people in this community who are able to tell this [that they wish to delay marriage] to their mother only but aren't able to tell their father… they feel shy to say such things to their fathers.

-adolescent girl, Kapilvastu

I talk to my parents about general things like: I want to study or want to play. I talk to my mother about the things that I like to eat or the clothes that I want to wear. She purchases it for me. She loves me. My father and mother make all the household's decisions. It does not really matter about who makes the final decision.

-adolescent girl, Rupandehi

I have never said anything to them because I am scared and I can never tell my parents what I want. My thoughts and wants matches with my parents.

-adolescent girl, Rupandehi

P1: I will talk to my wife about it. Then, my wife would go and ask my daughter about things like, "You have now left school, do you want us to get you married or not?"
P6: This is the same thing that I had done with my granddaughter who ran away. I had asked her about her wishes.
P3 to P6: Maybe she got scared. Maybe she was feeling shy and she couldn't express her real feelings.
P1: But there was no need to shy away from her own mother.

-fathers, Rupandehi

Responses to the items regarding clarity, responsiveness, and comfort of adolescent and parent communication were summed to create a scale with potential scores ranging from 0-18. Higher scores indicate higher clarity, responsiveness, and comfort in communication. Boys had a higher mean score (16.6) than did girls (15.5). Mean scores did not vary statistically significantly between adolescents 12-14 years and adolescents ages 15-16 (16.0 and 16.1, respectively).

Table 12. Communication and negotiation with parents about education, marriage, and freedom of movement, item distributions and average negotiation score, adolescent girls (N=1,134) and boys (N=1,154) in Rupandehi and Kapilvastu districts, Nepal

	Unmarried Adolescent Girls 12–16 Years (N = 1,134)				Unmarried Adolescent Boys 12–16 Years (N = 1,154)			
	Never expressed choice	Ever expressed choice	Discussed or consented to decision	Missing (or not applicable)	Never expressed choice	Ever expressed choice	Discussed or consented to decision	Missing (or not applicable)
Item distributions (0-2)								
How much education you wanted	42.2	25.6	31.8	0.4	50.3	21.3	27.9	0.5
Selecting your spouse	91.9	6.4	1.1	0.7	94.7	2.6	2.3	0.4
Age you will marry	89.2	7.9	2.2	0.7	89.8	5.2	4.9	0.2
Freedom to go places	48.9	22.7	28.4	0.1	46.5	22.0	31.5	-

Table 13. Clarity, responsiveness, and comfort of communication between adolescent and parent, item distribution and average communication score, adolescent girls (N = 1,134) and boys (N = 1,154) in Rupandehi and Kapilvastu districts, Nepal

	Unmarried Adolescent Girls 12–16 Years (N = 1,134)				Unmarried Adolescent Boys 12–16 Years (N = 1,154)			
Item distributions (0-3)	**Fully disagree**	**Partly disagree**	**Partly agree**	**Fully agree**	**Fully disagree**	**Partly disagree**	**Partly agree**	**Fully agree**
Clarity								
I understand what my parent/guardian is saying.	1.0	2.3	29.1	67.7	-	0.7	14.3	85.1
My parent/guardian understands me clearly.	0.4	3.7	27.1	68.8	0.1	0.8	18.0	81.2
Responsiveness								
I am willing to listen to my parent/guardian's opinions.	0.6	3.8	30.4	65.2	0.3	1.3	22.3	76.2
My parent/guardian is willing to listen to my opinions.	1.1	5.3	31.6	62.1	0.3	1.3	24.8	73.6
Comfort								
I feel comfortable talking with my parent/guardian.	1.4	4.3	36.4	57.9	0.4	2.4	23.3	73.9
My parent/guardian seems comfortable talking with me.	0.4	2.5	25.5	71.7	0.1	0.7	18.3	80.9
Total score	**M**	**(SE)**	**Min**	**Max**	**M**	**(SE)**	**Min**	**Max**
Summative score (0-18)	15.5***	0.1	4	18	16.6	0.1	6	18
Score tertiles								
High	60.5				76.3			
Low	39.5				23.7			
Pairwise correlations, range	0.38-0.65				0.25-0.60			
Alpha reliability	0.86				0.79			

Notes. + p < .10, * p < .05, ** p < .01, *** p < .001 for the difference in baseline mean scores for clarity, responsive, and comfort of communication between adolescent girls and boys

Box 8. Narratives from adolescent girls, key informants, and parents regarding communication and negotiation around marriage, education, and freedom of movement

Only educated families take opinions of their daughters. Otherwise, they always think positively of boys and negatively of girls. They think that after getting their daughters educated, they will not do other works. When I talk about my studies with my grandfather, he asks me to study how much ever I can and want.

–adolescent girl, Rupandehi

Whenever there's *mela* (Fun Park) in the village I tell them that I want to go too. I also talk to them about my exams and school. They give me permission to do things as required.

–adolescent girl, Rupandehi

Ordinarily, those that are courageous enough to speak out, may say no if they don't like the boy. However, majority of the girls can't speak out against the wish of the parents, and marry and go following their parents' decision. One of my uncle's daughter (cousin) has been subjected to misbehaviour and sufferings, after she got married according to her parents' wish, to a boy that her parents said rich and good.

–key informant, Rupandehi

In the past a daughter wasn't allowed to see the guy she is getting married to but familial decision was the ultimate decision. But now a girl and a boy can meet and talk to each other. The girls are given opportunities to suggest regarding the boys and regarding the marriage. They aren't able to know the family details but they are asked if they are ready for the marriage or not. If the girl denies to get married then, people will ask many questions to her regarding her decision. There are very few girls capable enough to deny the marriage in this village.

–key informant, Kapilvastu

I have never said anything to them because I am scared and I can never tell my parents what I want. My thoughts and wants matches with my parents.

–adolescent girl, Kapilvastu

Most of them tell their parents that they want to pursue more levels of education but the parents will tell them that they don't have money to educate them more and tell them to complete 10th grade so they can get them married.

–adolescent girl, Rupandehi

P: I tell them till which grade I want to study but our thinking doesn't match.
Probe Question: Who takes the final decision about it?
P: Both my father and mother.

–adolescent girl, Kapilvastu

In case of boys, they readily express their opinion regarding the marriage. However, in case of girls, only a few express their opinion. They readily marry with the boy that their parents choose for them.

-key informant, Rupandehi

Participation in financial activities and decision-making

- Engagement in income-generating activities was rare among girls (14%).
- Although one third of girls had their own savings, most (70%) reported no input in decisions about their own savings.
- Opportunities for input in such decisions may increase with age.

We asked adolescent girls about their participation in financial activities and financial decision-making. Findings are summarized in Table 14.

In our sample, 14.3% of girls engaged in any income-generating activity in the past year, with about one in five girls ages 15-16 years reporting doing so, compared to one in ten girls ages 12-14 years.

One-third of all girls had their own savings, with no differences between older and younger adolescents. More girls in Rupandehi district had their own savings than did girls in Kapilvastu (43.8% vs. 23.3%). A little over six percent of all adolescent girls owned income-generating assets.

Most girls (69.9%) reported no input into decision-making about their own savings and household finances, while few (2.7%) reported having a lot or total input. Fewer adolescent girls ages 15-16 years reported no input into financial decision-making than did adolescent girls ages 12-14 years (62.0% and 74.9%), suggesting that girls may have greater opportunity for input in decision-making about household finances as they age. Girls from households where mothers have a role in financial decision-making had more input into financial decision-making than girls from households where fathers or other non-parent household members make all financial decisions (Figure 7).

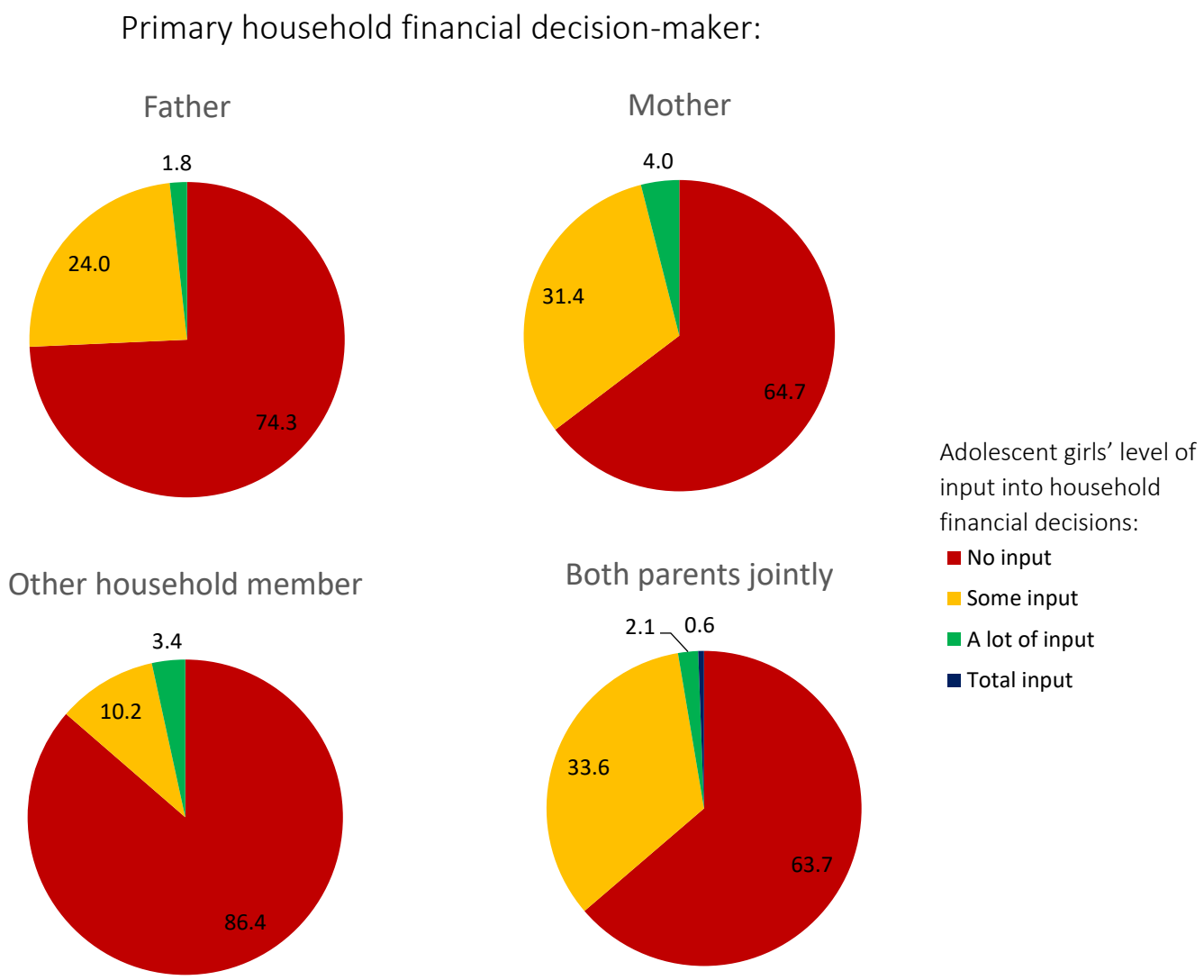
About two in five girls reported that their fathers make decisions about the household finances (40.1%), and 22.2% reported that their mothers do so. In 30% of girls' households, decisions about finances are made jointly by mothers and fathers. Around 8% of girls reported that a household member other than their parents makes decisions about the household finances.

In qualitative interviews, very few girls reported working outside the home for money, with the majority of these doing agricultural labour. These girls either used their money to buy school materials or gave the money to parents. A larger proportion of boys performed paid labor, and they similarly gave the money to their parents. One girl from Rupandehi related, "I give most of my earnings to my father. I keep a little for myself. My father decides all about what to do with that money. People in the village appreciate my work."

Table 14. Reported participation in financial activities, adolescent girls (N=1,134) in Rupandehi and Kapilvastu districts, Nepal

	Unmarried Adolescent Girls 12–16 Years	
	Kapilvastu district (n = 573)	**Rupandehi district** (n = 561)
Percentage engaging in income-generating activity in the past 12 months	15.6	12.9
Percentage with own savings	23.3	43.8
Percentage owning assets that could help generate income	7.3	5.2

Figure 7. Input in decision-making about own savings and household finances, adolescent girls (N=1,134) in Rupandehi and Kapilvastu districts, Nepal, disaggregated by primary household financial decision-maker



Leadership competence

- Boys scored higher than girls on leadership competence, and scores generally were higher for older than younger adolescents.

Adolescents were asked how well each of nine items described their leadership competence, and responses were summed to create a *Leadership Competence* scale with a theoretical range of 0-27. Higher scores on the Leadership Competence scale indicate higher leadership competence.

Overall, adolescent boys scored higher (18.8) than did adolescent girls (15.8). The mean score for adolescent girls ages 15-16 years (16.2) was higher than that for adolescent girls ages 12-14 years (15.6). Similarly, the mean score for adolescent boys ages 15-16 years (18.3) was higher than that for adolescent boys ages 12-14 years (19.8). These findings are summarized in Table 15 and suggest that leadership competence increases with adolescent age.

Leadership competence was significantly higher for girls in Kapilvastu (19.1) than girls in Rupandehi (12.5). In contrast, boys in Rupandehi had a higher mean score (19.6) than boys in Kapilvastu (18.1). There were no detected differences by study arm.

While almost three in four girls in Kapilvastu agreed, in part or full, that they are often a leader in groups (74.1%), fewer than one in four girls in Rupandehi felt similarly (20.4%). Most girls in Kapilvastu agree that they prefer to be a leader than a follower (80.3%) and that they prefer to have leadership roles in group projects (85.3%), while in Rupandehi, 41.2% of girls prefer to lead rather than follow and 39.2% prefer to have leadership roles in group projects. Among boys, in Kapilvastu, 59.1% agreed in part or full that they are often a leader in groups, compared to 71.6% in Rupandehi. In both districts, a higher percentage of boys (75%) agreed that they preferred to be a leader rather than follower and that they preferred to have leadership roles in group projects.

Generally, both boys and girls agree in part or full that they possess traditional leadership qualities such as the ability to organize people to get things done (77.6% and 64.1%), the ability to talk in front of groups (73.6% and 72.8%), and having other people follow their ideas (73.1% and 63.7%). About four in five girls and boys agree that they like to work on solving problems themselves, rather than waiting and seeing if someone else will deal with it. Similarly, about three in four girls and four in five boys agree that they like to try new things that are challenging to them.

Almost 90% of girls in Kapilvastu, 65% of girls in Rupandehi, 75% of boys in Kapilvastu, and 80% of boys in Rupandehi agree in part or full that they want to have as much say in their community as possible. Of these participants, 24.2% of girls and 43.9% of boys reported membership in at least one group, higher than participants who disagreed with wanting to have as much say in their community as possible (girls, 18.4%; boys, 34.5%).

Table 15. Leadership competence, item distributions and average leadership competence score, adolescent girls (N=1,134) and boys (N=1,152) in Rupandehi and Kapilvastu districts, Nepal

	Unmarried Adolescent Girls 12–16 Years (N = 1,134)				Unmarried Adolescent Boys 12–16 Years (N = 1,154)			
	Fully disagree	Partly disagree	Partly agree	Fully agree	Fully disagree	Partly disagree	Partly agree	Fully agree
Item distributions (0-3)								
I am often a leader in groups	38.8	13.9	26.1	21.2	21.1	13.6	25.7	39.6
I prefer to be a leader rather than a follower	24.8	14.3	32.4	28.5	10.8	12.1	29.7	47.5
I prefer to have a leadership role in a group project	23.6	14.0	34.3	28.1	9.9	13.8	33.2	43.1
I can organize people to get things done	19.6	16.3	37.3	26.8	9.2	13.2	33.7	43.9
Other people usually follow my ideas	16.7	19.6	43.6	20.1	10.8	16.1	36.8	36.3

I find it very easy to talk in front of a group	14.6	12.6	45.4	27.4	10.4	16.1	34.7	38.9
I like to work on solving a problem myself rather than wait and see if someone else will deal with it	7.5	13.3	42.0	37.3	6.7	10.5	28.9	53.9
I like trying new things that are challenging to me	8.9	14.6	43.0	33.5	5.9	12.0	30.6	51.5
I want to have as much say in my community as possible	8.4	14.4	45.9	31.3	8.1	14.4	35.3	42.2
Total score	M	(SE)	Min	Max	M	(SE)	Min	Max
Summative score (0-27)	15.8***	0.4	0	27	18.8	0.5	0	27
Score tertiles								
High	33.0				49.7			
Medium	31.8				29.9			
Low	35.2				20.5			
Pairwise correlations, range	0.33-0.75				0.36-0.71			
Alpha reliability	0.92				0.92			

Notes. + p < .10, * p < .05, ** p < .01, *** p < .001 for the difference in baseline mean scores for leadership competence between adolescent girls and boys

Group membership

- Membership in any group was more common among boys (42%) than girls (23%), and group leadership generally was rare.
- The most popular groups among girls and boys were children's or youth groups and sports clubs.

We asked adolescents to describe their membership and leadership in groups, including children's or youth groups, social/cultural organizations, savings and microfinance groups, sports clubs, religious organizations, and school, municipality, and health management committees. Findings are summarized in Table 16.

Membership of any group was more common among adolescent boys than adolescent girls, with 41.8% of boys reporting being a member of at least one group, compared to 22.9% of adolescent girls. Girls ages 15-19 years reported group membership (21.1%) less frequently than girls ages 12-14 years (24.1%). In contrast, older boys reported group membership (48.2%) more frequently than did younger boys (38.2%).

In terms of group leadership, 4.5% of boys and 3.5% of girls reported leadership of at least one group. A slightly higher frequency of older girls than younger girls reported group leadership (4.1% vs. 3.2%). Similarly, a slightly higher frequency of older boys than younger boys reported group leadership (5.8% vs. 3.8%).

The most popular groups among girls and boys were children's or youth groups and sports clubs. Almost thirteen percent of girls and 18.5% of boys reported participation in children's or youth groups. One in 10 girls and more than three in 10 boys reported participation in sports clubs. Very few participants reported participation in microfinance organizations, rural/urban municipalities, or health management committees.

Table 16. Group membership among adolescent girls (N=1,134) and adolescent boys (N=1,154) in Rupandehi and Kapilvastu districts, Nepal

	Unmarried Adolescent Girls 12–16 Years (N = 1,134)			Unmarried Adolescent Boys 12–16 Years (N = 1,154)		
	Leader	Member	Missing	Leader	Member	Missing
Children or youth group	24	114	-	15	199	-
Social/cultural organization	3	28	-	6	28	1
Savings group	4	70	3	-	49	2
Microfinance organization	-	9	2	1	25	3
Sports club	11	106	4	28	348	6
Religious organization	2	14	2	1	13	5
School management committee	7	39	2	5	32	3
Rural/urban municipality	2	3	3	1	1	3
Health management committee	1	5	1	2	14	3
Other	2	9	3	3	-	2
At least one group	40	260	-	52	482	-

Cohesion, solidarity, and mobilization skills

- Girls and boys reported similar levels of collective efficacy, and scores tended to be higher for older than younger adolescents.
- Participation in collective action was generally rare for girls and boys.
- In the qualitative data, adolescents did not mention any type of collective action to address girls' issues in their communities, and key-informant knowledge and support of collective action varied by site.

To assess collective efficacy, adolescent girls and boys were asked to describe their level of agreement with each of five items: *You could collaborate with community members to address a community need, Girls/boys and others in your community could prevent child marriage, Girls/boys and others in your community could prevent violence against girls, Girls/boys and others in your community could try to achieve girls' rights,* and *Girls/boys and others in your community would help each other during needs*. Responses to these items were summed to create a *Collective Efficacy* scale with a theoretical score range of 0-15. Higher scores on the scale indicate higher collective efficacy. Findings are summarized in Table 17.

In our sample, adolescent girls and boys did not vary statistically significantly in their mean scores for collective efficacy (11.0 for both). For both groups, scale scores ranged from 0-15. Adolescents ages 15-16 years had a higher mean score (11.5) than adolescents ages 12-14 years (10.8), suggesting that collective efficacy may increase as adolescents grow older.

Mean collective efficacy scores did not vary by study arm for either girls or boys. For boys, there was a difference in scores by district, with boys in Kapilvastu having a statistically significantly higher mean (11.5) than boys in Rupandehi (10.5).

Roughly four in five girls and boys agreed that they could collaborate with community members to address a community need (80.4% and 79.3%). Almost all girls agreed that girls in their community would help each other when needed (94.8%), while 88.3% of adolescent boys felt similarly about boys in their

community. Girls also agreed slightly more often than did boys that members of their community could prevent child marriage (80.5% vs. 78.5%), prevent violence against girls (83.1% vs. 80.3%), and try to achieve girls' rights (86.6% vs. 83.8%).

Table 17. Collective efficacy, item distributions and average collective efficacy score, adolescent girls (N=1,134) and boys (N=1,152) in Rupandehi and Kapilvastu districts, Nepal

	Unmarried Adolescent Girls 12–16 Years (N = 1,134)				Unmarried Adolescent Boys 12–16 Years (N = 1,154)			
	Fully disagree	Partly disagree	Partly agree	Fully agree	Fully disagree	Partly disagree	Partly agree	Fully agree
Item distributions (0-3)								
You could collaborate with community members to address a community need	6.4	13.2	44.5	35.9	7.3	13.4	37.1	42.1
Girls and others in your community could prevent child marriage	8.3	11.2	42.3	38.2				
Girls and others in your community could prevent violence against girls	5.5	11.3	43.5	39.6				
Girls and others in your community could try to achieve girls' rights	3.8	8.6	48.4	39.3				
Girls and others in your community would help each other during needs	1.2	4.0	36.7	58.2				
Boys and others in your community could prevent child marriage					8.5	13.0	34.3	44.2
Boys and others in your community could prevent violence against girls					7.7	12.0	35.9	44.5
Boys and others in your community could try to achieve girls' rights					5.7	10.6	43.9	39.9
Boys and others in your community would help each other during needs					4.6	7.2	28.90	59.4
Total score	**M**	**(SE)**	**Min**	**Max**	**M**	**(SE)**	**Min**	**Max**
Summative score (0-15)	11.0	0.2	0	15	11.0	0.2	0	15
Score tertiles								
High	24.7				31.9			
Medium	31.0				26.5			
Low	44.3				41.6			
Pairwise correlations, range	0.29-0.69				0.46-0.77			
Alpha reliability	0.78				0.88			

Participation in collective action

We asked adolescent girls and boys about their participation in collective action, specifically about their experiences in joining with others to address a problem or common issue in their community; speaking out in public about a problem that affects someone other than them; speaking with local authorities or governmental organization about problems in their community; and attending a demonstration about a problem in their community. Findings related to participation in collective action are summarized in Table 18 and Box 5.

Overall, participation in collective action was low. Less than 6% of boys and less than 2% of girls reported ever having speaking out in public about a problem affecting someone else or joining others to address a

problem or common issue in their community. About 3% of boys and less than 1% of girls reported talking with local authorities or governmental organizations about problems in the community. Less than 4% of adolescents reported having ever attended a demonstration about a problem in their community (3.5% of boys and 1.4% of girls).

Though participation in collective action was low in both districts, more girls and boys in Rupandehi district than in Kapilvastu district reported participation in collective action. Adolescents ages 15-16 years indicated participation in each of the four collective action items more frequently than did younger adolescents (3.3-6.0%, compared to 1.2-2.6%). While this finding might suggest higher participation in collective activities among older adolescents, it may be explained by older adolescents having lived longer and thus having had more opportunity to engage in collective action than younger adolescents.

Adolescents from the qualitative sample did not mention any type of collective action to address girls' issues within their communities, although one girls' focus group suggested such action as a way of reducing child marriage. This may have been due to the removal of collective action questions from girls' FGD guides to shorten them to an acceptable administration time as salient responses were not received during pilot-testing of these questions. While boys received these questions, their answers did not reflect collective action, but rather volunteerism and service in their communities. Key informant knowledge and support of collective action by adolescents varied widely by site, with roughly half of key informants describing activities and organizations led by adolescents in their villages to address problems such as child marriage, girls' education, and ASRH. Data on collective action was entirely absent in the remaining key informant narratives. Local government officials in particular were involved in promoting and funding such activities in communities where such activities occurred.

Table 18. Percentage of adolescent girls (N=1,134) and adolescent boys (N=1,154) participating in collective action in the past 12 months in Rupandehi and Kapilvastu districts, Nepal

	Unmarried Adolescent Girls 12–16 Years			Unmarried Adolescent Boys 12–16 Years		
	Overall (N = 1,134)	Kapilvastu district (n = 573)	Rupandehi district (n = 561)	Overall (N = 1,154)	Kapilvastu district (n = 587)	Rupandehi district (n = 567)
…joined other people to address a problem or common issue in your community	1.9	3.0	0. 9	5.1	3.8	6.5
…spoken out in public about a problem that affects someone else	1.6	1.8	1.4	5.6	6.8	4.3
…talked with local authorities or governmental organizations about problems in the community	0.8	0.7	0.9	3.1	3.9	2.3
…attended a demonstration about a problem in your community	1.3	0.7	2.0	3.5	4. 8	2.1

Box 9. Key informant narratives of collective action

The head of local ward office, women ward members, and local intellectuals gather all adolescents from all seven wards of the village and inform them that they are conducting various programs for the adolescents' benefits. They also inform about the budget that has been allocated for them. The adolescents are also told how to request for funds. They also publish booklets with the information and distribute in the group, and ask the adolescents to get the funds from them and carry out activities. They also call by phone. We have received good cooperation from them.

-key informant, Rupandehi

As for the girls, since the society is changing, they are seen getting involved in various plays or are getting involved in child clubs. They are getting involved in clubs and through the help of various organizations and are also involved in the activities that are bringing the societal change and nuisance eradication. In this ward, we are actively working to increase the capacity of the adolescent girls and for this we are continuously providing information in regard to rights and duties of a girl i.e. to read and write; basics rights; sports related rights; and various other things; that are regarded as the fundamental rights of everyone. They are united in themselves as well. We have set up a network to discuss regarding rights and duties and in association with them we are launching new plans and selecting different activities in promoting these things. We discussed about the fundamental rights of the child, establishment of child friendly school and work place, keeping sanitary pads in the school and awareness program through child involvement. Though we have both boys and girls network in this ward, we are involving clubs more actively to increase the awareness.

-key informant, Kapilvastu

Connectedness with parents and social networks

- Girls and boys reported a high level of connectedness with their parents/guardians.
- The close social networks of girls contained a mix family members and friends.
- Only one girl reported a community-member as a part of her close social network.

We asked adolescents in our sample how much they agreed with each of three statements about their connectedness with their parents/guardians: *You can approach your parent(s)/guardian(s) for any problem you face, Your parent(s)/guardian(s) help you with your homework,* and *You are very important to your parent(s)/guardian(s).* Results are presented in Table 19.

In our sample, both adolescent girls and boys reported a high level of connectedness with their parents/guardians. Virtually all adolescents agreed that they could approach their parents about any problems they face (96%). Almost 75% of girls and 80% of boys reported that their parents helped them with their homework. Over 97% of adolescents agreed that they were very important to their parents.

Table 19. Reported connectedness with parents among adolescent girls (N=1,134) and adolescent boys (N=1,154) in Rupandehi and Kapilvastu districts, Nepal

	Unmarried Adolescent Girls 12–16 Years (N = 1,134)				Unmarried Adolescent Boys 12–16 Years (N = 1,154)			
	Fully disagree	Partly disagree	Partly agree	Fully agree	Fully disagree	Partly disagree	Partly agree	Fully agree
Item distributions (0-3)								

You can approach your parents/guardian for any problem you face.	1.6	2.5	30.2	65.8	1.2	2.9	18.4	77.5
Your parents/guardian help you with your homework.	18.0	7.9	27.4	46.7	10.5	9.7	26.8	53.1
You are very important to your parents/guardian.	1.0	1.8	19.4	77.8	0.4	1.74	11.6	86.2

Adolescent girls were asked to list up to three peers, defined as people who they trusted to talk to about something personal or private (Figure 9). In our sample of 1,134 girls, 6.7% of girls listed three people, 17.6% listed two people, 53.4% listed one person, and 22.3% listed no one. Girls in Kapilvastu district listed no peers almost four times as frequently as did girls in Rupandehi district (36.0% vs. 8.4%). The number of peers reported did not differ between adolescents ages 12-14 years and adolescents ages 15-16 years.

The peer social networks of adolescent girls contained a mixture of family members and friends. About two in five girls listed at least one family member as a peer (42.3%), with 0.4% listing three family members. Forty-two percent of girls listed at least one friend, with 4.7% listing three friends. Only one girl reported a community member (i.e. non-friend, non-family member) as a person they trusted to talk to about something personal or private.

Figure 8. Characteristics of social networks of adolescent girls (N=1,134) in Rupandehi and Kapilvastu districts, Nepal

		Percentage of girls reporting 0, 1, 2, or 3 friends as peers			
		0 friends	**1 friend**	**2 friends**	**3 friends**
Percentage of girls reporting 0, 1, 2, or 3 family members as peers	**0 family members**	22.9	22.8	7.3	4.7
	1 family member	30.3	6.1	1.1	
	2 family members	4.1	0.4		
	3 family members	0.4			

Social norms

- Empirical and normative expectations around marriage are shifting towards greater frequency and appropriateness of marriage after age 20 with greater acceptability of same-caste love marriages in some communities.
- Norms around marriage decision-making and interacting with boys were somewhat in flux, due in part to the inevitability in many communities of greater interaction between boys and girls, including over the phone, but there was still strong familial and community effort expended to protect and guide girls through the longer period of adolescence (before marriage), including normative expectations that adolescent girls did not play sports which violated normative gender expectations.
- There remains strong empirical and normative expectations that adolescent boys and girls will have limited interaction outside of school- or work-related issues to minimize safety risks to girls and the development of romantic relationships which could lead to a love marriage or elopement.
- There remains strong empirical and normative expectations that good girls do not move about the village unnecessarily or alone. Roaming around, especially in the presence of boys was widely perceived to lead to safety and reputational risks.
- Given the community-wide implications of inappropriate behavior, neighbors and community members were strong reference groups whose ability to spread rumors, shame parents, and damage a girl's reputation and her prospects for marriage, reinforced and perpetuated the norms.
- Most respondents suggested a strong sensitivity to the norms and a desire to adhere, even in the few instances were mothers wanted more freedom and capacity to develop for their daughters than what they were able to provide, especially since men in the household still wield final decision-making power over most important household decisions.
- Some differences in sensitivity to the norms across sub-communities were noted, such as the more liberal approach that hilly communities took toward many of the norms, the most consistent outlier were educated families, who were perceived to be more understanding and less concerned about violating the norms.

To capture social norms, for each of sixteen social norms items, adult community members and adolescent girls and boys were asked whether people in their village would approve or disprove of each of sixteen social norms items surrounding women's and girls' employment, marriage, girls' mobility, menstruation, gender roles, and collective action. Responses by sample are presented in Table 20.

More men than women, adolescent girls, and boys perceived social norms in their village to support women's and girls' employment. About 60% of men agreed in part or full that most people in their village would approve of a non-school-going, unmarried girl working outside the home, compared to slightly more than half of women (53.2%), girls (56.1%), and boys (50.2%). More than seven out of ten men also agreed in part or full that most in their village would approve if a married woman worked outside the home (71.9%), compared to slightly more than half of women (51.4%), girls (57.1%), and boys (55.3%).

Perceptions of social norms around marriage differed between sample groups. Adolescents agreed more frequently than adults that people in their village would approve if a girl under 20 were to marry if her family honor was at risk (girls, 69.2%; boys, 70.7%; women, 40.6%; men, 51.3%). While more than half of

boys and men (56.0% and 52.8%) agreed that people in their village would approve if a girl had a love marriage, only around 40% of women and girls felt similarly (40.1% and 39.5%). Girls agreed less frequently (61.0%) than all other groups that people in their village would approve if a girl expresses opinions about marriage to her parents (women, 69.6%; men, 70.3%; boys, 67.5%).

Men and boys perceived social norms in their villages to be supportive of girls' mobility more frequently than did women and girls. Less than half of women and girls agreed in part or full that people in their village would approve if a girl went outside of the village alone (46.5% and 48.9%), compared to 67.5% of men and 55.6% of boys. Fewer women and girls than men and boys agreed that people in their villages would approve if a girl walks alone to visit her friend in her free time (women, 47.6%; girls, 55.5%; boys, 60.0%; men, 67.8%) or if a girl goes to the bazaar alone (women, 48.8%; girls, 53.0%; boys, 60.3%; men, 63.1%). While more than seven in ten of all respondents agreed that people in their village would approve if a girl rides a bicycle for leisure, again, men and boys agreed more frequently (89.6% and 80.8%) than did women and girls (71.7% and 73.6%).

Men perceived more supportive social norms around menstruation than did women or adolescent girls and boys. While 62.4% of men agreed in full or part that people in their village would approve if a girl speaks openly about menstruation, less than half of women, girls, and boys responded similarly.

Men and boys more frequently perceived social norms to support equitable gender roles than did women and girls. While almost 79% of men and 74% of boys agreed that most people in their village would approve if a boy regularly cooks food for his family, only 55.0% of women and 61.4% of girls agreed. Almost 79% of men and 75% of boys also agreed that most people in their village would approve if a boy regularly does household chores like washing and sweeping for his family; only 53.5% of women and 57.7% of girls agreed.

Perceptions of social norms around collective action varied across samples. Whereas 65.5% of girls and 74.1% of boys agreed in part or full that people in their village would approve if a girl advocates for girls' needs in the community, 56.9% of women and only 20.9% of men agreed. More men and boys (77.5% and 72.3%) than women and girls (56.5% and 69.8%) agreed that people in their village would approve if a boy supports his sister to play football and other outdoor sports. More adolescents (68.5% of girls and 74.2% of boys) than adult women (56.9%) and men (65.6%) agreed that people in their village would approve if a boys scolds his friend for eve teasing. Over 80% of men, almost 80% of boys and 75% of girls, and 70% of women agreed that people in their village would approve if a boys supports his sister or female friend in standing up to the community for her rights.

Responses to the sixteen social norms items were summed to create a *Social Norms* scale with a theoretical score range of 0-48, with higher scores indicating stronger perception of gender-equitable social norms. Reliability of the scale (Cronbach's alpha) was 0.84 for adolescent boys, 0.86 for adult men, 0.88 for adolescent girls, and 0.92 for adult women. Mean *Social Norms* scale scores were 25.6 for women (range: 2-48), 28.4 for men (range: 3-47), 26.4 for girls (range: 0-48), and 28.9 for boys (range: 0-48), with a statistically significant difference in scores for girls and boys. Boys in the control arm had a statistically significantly higher mean score (31.1) that boys in the TP or TP+ arms (26.9 and 28.8); there were no other differences across samples by study arm or by district.

Additionally, the nine items outlining social norms for women and girls and the five items outlining social norms for boys were used to create two separate scales, *Social Norms for Women and Girls* (theoretical score range: 0-33) and *Social Norms for Boys* (theoretical score range: 0-15). Reliability of the *Social Norms for Women and Girls* scale ranged from 0.76 to 0.83, while reliability of the *Social Norms for Boys* scale ranged from 0.78 to 0.89. For each scale, a higher score indicates stronger perception of gender-equitable social norms. Mean *Social Norms for Women and Girls* scores were 17.0 for women (range: 1-33), 19.0 for men (range: 3-33), 17.1 for girls (range: 0-33), and 18.4 for boys (range: 0-33), with statistically significant differences between women and men and between girls and boys. In comparing scores across study arms and districts, there were no statistically significant differences in scores except that boys in Rupandehi had a lower mean score (19.1) than boys in Kapilvastu (20.0).

Mean *Social Norms for Boys* scores were 8.6 for women, 9.4 for men, 9.3 for girls, and 10.5 for boys, with scores ranging from 0-15 for each sample. The difference between girls' and boys' scores was statistically significant, as were the differences between girls by study arm and boys by study arm. Girls in the control arm had a higher mean score (10.1) than girls in the TPP and TPP + arms (8.5 and 9.4); similarly, boys in the control arm had a higher mean score (11.1) than boys in the TPP and TPP+ arms (9.9 and 10.5).

Table 20. Perceived social norms among adolescent girls (N=1,134), adolescent boys (N=1,154), and adult community members (N=540) in Rupandehi and Kapilvastu districts, Nepal

	Adult Female Community Members 25 Years or Older (N = 270)				Adult Male Community Members 25 Years or Older (N = 270)				Unmarried Adolescent Girls 12–16 Years (N = 1,134)				Unmarried Adolescent Boys 12–16 Years (N = 1,154)			
Most people in my village will APPROVE…	**Disagree**		**Agree**		**Disagree**		**Agree**		**Disagree**		**Agree**		**Disagree**		**Agree**	
	Fully	Partly	Partly	Fully	Fully	Partly	Partly	Fully	Fully	Partly	Partly	Fully	Fully	Partly	Partly	Fully
Employment																
if a non-school going, unmarried girl works outside home to earn money	21.9	24.9	33.1	20.1	12.3	27.6	41.4	18.7	24.6	19.3	32.7	23.4	27.7	22.1	24.4	25.8
if a married woman goes out of house to work.	23.8	24.9	30.9	20.5	7.8	20.4	52.6	19.3	22.8	20.1	32.3	24.8	25.8	19.0	27.8	27.5
Marriage																
of a girl under 20 getting married if her family honor is at risk.	11.2	12.3	62.1	14.5	11.5	48.0	30.9	9.7	15.5	15.3	38.0	31.2	15.7	13.7	35.3	35.4
if a girl expresses her opinion regarding her marriage to her parents.	10.8	19.7	45.4	24.2	6.7	23.0	54.4	15.9	18.4	20.6	38.3	22.7	14.8	17.8	32.8	34.7
if a girl had a love marriage.	38.7	21.2	24.9	15.2	12.6	34.6	44.2	8.6	41.8	18.6	27.9	11.6	23.8	20.2	30.3	25.7
Most people in my village will NOT APPROVE…	**Disagree**		**Agree**		**Disagree**		**Agree**		**Disagree**		**Agree**		**Disagree**		**Agree**	
	Fully	Partly	Partly	Fully	Fully	Partly	Partly	Fully	Fully	Partly	Partly	Fully	Fully	Partly	Partly	Fully
Mobility																

if a girl goes to the bazaar alone.	25.7	23.1	30.1	21.2	18.3	44.8	29.1	7.8	26.0	27.0	23.5	23.5	35.4	24.9	21.3	18.5
of a girl going outside the village alone.	22.7	23.8	33.1	20.5	15.6	51.9	25.2	7.4	22.2	26.7	27.5	23.7	30.1	25.5	24.2	20.1
if a girl rides a bicycle for leisure.	38.1	33.6	17.2	11.2	25.3	64.3	7.8	2.6	48.0	25.6	16.6	9.9	50.2	30.6	11.7	7.6
if a girl walks alone to visit her friend in her free time.	22.7	24.9	36.8	15.6	12.7	55.1	22.9	9.4	28.9	26.6	25.3	19.2	32.6	27.4	19.6	20.4
Menstruation																
if a girl speaks openly about menstruation.	23.4	25.3	35.7	15.6	15.6	46.8	30.9	6.7	24.2	24.9	25.7	25.3	24.6	24.5	22.8	28.2
Gender roles																
If a boy regularly cooks food for his family.	27.1	27.9	30.1	14.9	19.3	59.6	15.2	5.9	32.8	28.6	19.8	18.9	49.1	24.4	14.2	12.2
if a boy regularly does household chores (washing, sweeping) for his family	28.6	24.9	24.9	21.6	17.8	61.1	14.1	7.0	32.4	25.3	20.6	21.6	47.8	26.8	13.7	11.8
Collective action																
if a girl advocates for girls' needs in the community.	25.7	31.2	31.2	11.9	5.2	15.7	61.4	17.6	33.1	32.4	21.6	13.0	45.3	28.8	14.6	11.2
if a boy supports his sister to play football and other outdoor sports.	27.1	29.4	29.4	14.1	18.2	59.3	15.2	7.4	37.9	31.9	17.8	12.5	43.9	28.4	16.8	10.9
if a boy scolds his friend for eve teasing.	24.9	32.0	31.6	11.5	16.0	49.6	22.8	11.6	34.8	33.7	18.3	13.2	44.7	29.5	12.8	13.0
if a boy supports his sister/female friend in standing up to the community for her rights.	33.5	36.8	21.2	8.6	20.5	61.0	14.1	4.5	42.8	31.8	15.6	9.8	49.8	29.6	12.6	8.0

Findings from the qualitative data provide nuanced insight into key social norms that relate to girls' empowerment and the prevention of early and forced marriage. In this section, we discuss essential elements of these social norms including empirical and normative expectations, perceived changes over time, and reference groups who are influential in girls' and boys' adherence to the norms. We also describe sanctions associated with violating the norm, sensitivity to those sanctions, and exceptions to the norm (i.e. persons or groups who can violate the norm with a degree of impunity). In this section we also describe potential differences by district, age, gender, and caste or other contextual features relevant to the norms' manifestation and perpetuation.

Social norms around marriage decision-making

Across districts and respondents, fathers were identified as the primary decision makers with regards to their children's spouses and timing of marriage. Boys and girls identified fathers as key reference group, more influential than peers, community, or other relatives. Parents and key informants also recognized the father or male household head as the key reference group. Other family members played a lesser role in decision making, particularly mothers serving as intermediaries between daughters and fathers. According to parents, adolescents used to get married without meeting their future spouses or being consulted at all, but now it was more standard to allow potential spouses to meet each other and to decide whether they were compatible.

> In the past a daughter wasn't allowed to see the guy she is getting married to but familial decision was the ultimate decision. But now a girl and a boy can meet and talk to each other. The girls are given opportunities to suggest regarding the boys and regarding the marriage. They aren't able to know the family details but they are asked if they are ready for the marriage or not. (male key informant, Kapilvastu)

The ability to marry someone of choice was perceived more strongly by parents than adolescents. Some parents stated that in certain communities, namely Tharu, Hilly, and to a much lesser extent, Madhesi, adolescents were choosing their own spouses and marrying with parents' approval.

Nowadays, boys and girls get married according to their own wishes and thinking. Parents' role is only to go see the chosen partners. The decision to get married is mostly taken by the boys and girls themselves (father, Rupandehi). Parents described girls as having more freedom to delay marriage and to refuse proposals than previously, but adolescent girls and parents typically accepted that parents would have the final say.

> The things has changed, they also take suggestion from the daughter these days. If both boy and girl agree to marry then only marriage is held or else everyone backs off. No marriages will be held as to protect future of the boy and girl from getting spoiled. The final decision is of parents. No son or daughter comes forward telling that they want to get married but amongst them, amongst boy and girl if they are in love with each other then they will marry each other and no one can / will stop them. This type of incidents can also be seen nowadays. (male key informant, Rupandehi)

Elopements were perceived to be on the rise, with nearly every parent-focused interview or discussion mentioning cases in their communities or nearby communities, which was a deep source of concern given the social repercussions. The negative ramifications of an elopement made them more vigilant of their children, especially girls, but also more hesitant to force them to marry against their wish. They described and expressed fear of the lengths (suicide, elopement) their children would go to avoid being married against their wish. While sensitivity to sanctions around elopement was described as weaker in Hilly communities, these views were expressed by members of other castes rather than by Hilly participants themselves. These concerns influenced how much pressure and authority parents were willing to assert over their children's marriage.

> Parents make the decision in order to avoid any bad rumour in the society concerning the girl. Generally, it is customary to ask for consent of boys and girls before making the decision. In majority of cases where the girl does not wish to marry, now a days, parents

> don't force her to marry because they are fearful that the girl may kill herself. (female key informant, Rupandehi)

Almost all participants perceived that child marriage was becoming less common. The perceived average age at first marriage ranged from 15-20 years of age for girls. Key informants and adolescent girls cited some instances of younger adolescents in their communities getting married, however. *Gauna* also was perceived to be becoming less common as child marriages decreased, particularly among educated or "aware" families. The continued prevalence of child marriage in some areas often was linked with dowry, as it was believed that less dowry would be demanded of younger brides, putting pressure on poorer families to marry their daughters early. This also contributed to a perception that child marriage largely persisted only among the poor and uneducated

> As per dowry, though government of Nepal has made law on it, it is still in practice and in system as well... dowry system has created insecurities in village and societies. It is because, if they don't get dowry as per their demands girl is mentally tortured, unwanted things are shared with her, girl is cursed with painful and abusive words. Something bad is spoken against the girl as well as her father and mother. Dowry system seems to be in trend in every community. It is only the matter of more or less. It is now still in practice. (key informant, Kapilvastu)

In general, participants held favorable attitudes towards marriage after the age of 20 for girls and boys and expressed a belief that this was becoming the norm. This perspective was especially true of adolescents and was often attributed to greater education and awareness. Many adolescents and some parents cited dangers of early marriage, such as difficult pregnancy, that they reported learning in school or from organizations. This suggests that schools and organizations may be important drivers of norms change with regard to child marriage. Key informants also cited strict legal penalties, including imprisonment, as a deterrent.

> Because of several trainings that we receive in the village, people know of a lot of things these days. We have learnt the right age to get them married and we know that they should not be married off early. But if the families don't have knowledge and are uneducated, they will marry their daughter off once she becomes a little big. Then, the daughter will get pregnant right away and she could lose her life while giving birth too. (mother, Kapilvastu)

In qualitative data, several parents and adolescents stated that love marriages would be acceptable under certain circumstances, as long as they were within the same caste as inter-caste marriage was taboo.

> These days, girls can get married to someone of their own choice but their caste and ethnicity has to match. (mother, Kapilvastu)

The level of consensus in the qualitative sample was more varied on how acceptable it was for adolescent girls to refuse marriage proposals, with responses varying by whether she was studying, how old she was, and whether her reputation was in question. For example, many adolescents in focus groups were less opposed to the idea of a girl who had left school to get married before the age of 20, and participants of all types suggested that this was a common exception to the ideal of marriage at 20.

> If a daughter is studying then it is 20 years of age or else, if she is not studying then they think of getting her married right from the age of 16 years and they have got them married as well. They think that an uneducated daughter may have affairs with someone after she became grown up and it could damage the reputation of the family. So they conduct her marriage at the early age. (adolescent girl, Rupandehi)

This suggests that while normative expectations around child marriage are shifting, empirical expectations may lag behind, and there remain key exceptions to this trend such as school dropouts. This was supported by key informants, who cited education as a major negotiating point for delaying marriage. Adults felt that girls under 16 had more agency to refuse proposals, but after 16 there was increasing normative pressure to accept. Adolescents tended to hold more conservative views on the acceptability of going against their parents' decision, with parents describing more agency for adolescents than adolescent themselves.

> She should agree to her parents' decision, if she doesn't follow the rituals/practices of the community then relatives and friends will say that Laxmi is doing whatever she wants to do. She has left the study also, staying at home and has not even like the guy. These are the things they will say. (adolescent boy, Rupandehi)

Key informants also expressed this view, claiming that while norms surrounding marriage decision making had changed to allow adolescents, and especially boys, a larger role in the process, it was a small minority of girls who would feel comfortable enough to go against the wishes of their parents. Despite the growing acceptability of allowing adolescents a degree of choice in the marriage decision making process, and in some cases, even allowing adolescents to choose a spouse for themselves, eloping without parents' permission was viewed as a gross transgression of community norms.

Both adolescents and parents described community members as the primary reference group/sanction enforcer for parents in the marriage decision making process. Sanctions against parents came mainly from other adults in the village, who might "backbite" or start rumors about daughters who refused proposals, thus impacting family and even community-wide reputation. Adolescents described parents as very sensitive to these sanctions, which could damage the reputation of the family or the community as a whole. Therefore, parents were highly invested in enforcing norms around marriage decision making within the household by imposing sanctions on daughters who challenged their decisions. This may suggest that adolescent perceptions of their own role in marriage decision making may be closer to reality than their parents'- while they have been given the opportunity to participate in the process, they are still expected to acquiesce to their fathers' decisions.

> She will say, 'We will be humiliated and people in the village will say that even after inviting the guy to their house, they are not marrying off their daughter. They will say, they have called the guy themselves but have not married off her daughter.' (adolescent boy, Kapilvastu)

> If a girl does not agree with her parents about the marriage proposal, then the family will have to be ashamed. Parents have cared for and nurtured their child until she grows up. Yet, she does not agree to what her parents say. It is, therefore, a matter of shame. It becomes of no use that their parents raised the girl. Feed her, invest in her school and at

the end, she does not agree with her parents! Therefore, parents should be ashamed. (father, Rupandehi)

In cases where adolescents eloped without their parents' consent, sanctions were much harsher. Most parents agreed that if their children eloped, they would be disowned and might even face physical violence:

> That girl didn't listen to what we had to say. If she comes back and steps inside our house, I will cut her. (father, Rupandehi)

> Even the people in the village will say "Look, her daughter ran away and got married, she got married on her own will". Everyone will say that. If that happens, then parents will be ashamed of their daughter and in that situation nobody will call her daughter home. (mother, Rupandehi)

Whether or not girls were sensitive to these sanctions was a subject of debate in FGDs, with many adolescents stating that the girls in vignettes would go against their parents' wishes and others arguing that they would marry as their parents had decided. This may be reflective of norms in flux which may differ among diverse caste and communities.

Box 10. Variations in perceived sensitivity to sanctions related to marriage decision making

Participant 3: She will also think that, "If everyone is saying then I will also get married, right now they are not concerned about me, my parents will educate me so I will get married and after I get educated then they will do my gauna."
Participant 2: She will get married, they won't send her right away, and they will educate her and send her after that.
Participant 6: She will also think that everyone has been requesting so I will just get married.
Participant 4: If everyone says to get married, then she will agree.
Participant 2: She will listen to her heart, if it says study then she will study and if it says get married, then she will get married.
Participant 5: How can she listen to her heart? She has to listen to her parents.
Participant 2: After everyone tries to make her understand, she will also think if I don't get married then I will be humiliated so I should get married.
Participant 1: She will say that she will get married as everyone is trying to console her. (adolescent boys, Kapilvastu)

Probe Question: Would Meena be convinced after she listens to what her mother has to say?
Participant 1: Meena will say that, "I'm an educated girl. People in the society will keep talking but I will do something nice."
Probe Question: After saying that, would Meena agree to get married?
Participant 1: No, she wouldn't. (adolescent girls, Rupandehi)

Based on perceptions of the prevalence of elopements, some adolescents were insensitive to even extreme parental sanctions such as abandonment. On the other hand, parents feared that adolescents

might commit suicide rather than agree to an unwanted marriage, which suggests that some adolescents were extremely sensitive to sanctions. At least one girls' focus group stated that girls in their community elope despite recognizing the consequences:

> Participant 5: A girl [name] ran away and had gotten married.
> Participant 4: Maybe they think about it and then run away.
> Participant 5: Those who run away suffer later. (Rupandehi)

Parents in the same communities allowed adolescents more agency in marriage decision making also were described as less sensitive to these sanctions, possibly inviting children who had eloped back into the family after a period of time.

> In the hill caste group they will call their daughter [who eloped] after 4- 6 months but in our caste group we don't call our daughters. (mother, Rupandehi)

While both parents and adolescents expressed negative attitudes towards child marriage and suggested that norms were shifting against it, marriage before 20 was considered more acceptable if girls had left school and were not otherwise employed, even by adolescents. Educated families were perceived as more likely to allow their daughters to delay marriage to complete their studies, while uneducated families were perceived as more likely to marry daughters early and to discontinue their schooling.

> Yes, girls do speak these days saying that they shouldn't be married off at the young age. If boys and girls have a wish to study then they also make an agreement that they will get married after they attain certain level of education…this depends on the type of families. If the family is educated then it happens; whereas if the family is poor then it does not happen. In poor families parents decide. (female key informant, Kapilvastu)

Norms reinforcing the primacy of the father in decision making around his children's marriage have shifted considerably among certain castes, namely Hilly and Tharu, and are only now perceived to be beginning to shift in Madhesi communities. In Hilly and Tharu castes, all participant types reported that adolescents would be consulted in the decision making process and even permitted to choose their own spouse with parental approval. Parents described Muslim communities as less accepting of girls choosing their own spouses. Another exception were educated families who were perceived to offer greater involvement of the girl in decisions marriage decisions. Thus, norms were perceived to vary greatly between communities, but to be fairly consistent within communities. It is worth noting that girls in higher castes are also more likely to be educated, so the distinction between caste and education as exceptions is not clear-cut.

> In the Tharu community, the guardians make the decision only after they hear from the girl. Now a days, more of them are educated and enlightened, and hence the girls make a decision on their future after very careful evaluation. (female key informant, Rupandehi)

> It is the custom of the society. The parent decides and they won't listen to their daughter. Those who are educated ask their daughter and only get her married if she says yes but if they are uneducated they won't consult with their daughter. They will decide everything and daughter also accepts the parents' decision of getting married. (adolescent girl, Rupandehi)

> The decision regarding arrange marriage is taken by the father in some families and in very few family this responsibility is upon mother. In entirety, I have heard that mother isn't allowed to speak a single word. The father himself goes to sees. He along with few villagers and close relatives' and goes to see how much riches and assets the family of the boy have and gets his daughter married only considering this factor. They won't ask their daughter, I don't think they will ask her. Even if they ask her they won't agree to her suggestions. (key informant, Rupandehi)

Social norms around adolescent girls' mobility

Norms around girls' ability to walk alone were discussed within a broader frame of mobility. Girls overall had considerably less freedom of mobility than did boys in both districts and in all castes/ethnicities While boys might visit each other's houses or roam around with greater freedom, girls especially needed a purpose, often related to maintaining the home and rarely for leisure, especially as they reached adolescence. Girls' mobility through school-based activities was generally considered appropriate by parents.

> Most of the time they visit with their friend in garden or visits some shop. To buy foods or to study they visit a friend at the neighborhood or goes to friends place or goes to school. They may go to the market or goes for a tour from school or goes to the farm with their parents or sometime goes to a marriage. (adolescent girl, Rupandehi)

Boys overall, seemed to have more flexibility to "roam" than did girls, in large part due to the degree of protection perceived to be needed for girls and their reputations. Roaming around was widely recognized as being a negative trait for girls and women, in part as a reflection of potential dereliction of duties at home, but especially since "roaming" was associated with the likelihood that girls' will be harassed or teased or assaulted by "roaming" boys. Adults and adolescents were in agreement about a girl's risk of encountering bothersome or dangerous boys while outside the home. Girls themselves seemed to internalize the risks of boys' presence, noting their presence amongst places that were considered unsafe or the source of their fear while moving about the village.

While teasing and harassment was considered inappropriate for boys and girls, with potential sanctions at home, girls and their families harbored the greatest risk to the girls' reputation and family honor, as being harassed drew suspicions about girls' character and her upbringing, unless she was seen by others as defending herself verbally or physically. But even in these situations, her presence in such a situation raised questions about her upbringing as neighbors perceived the girl to have too much freedom and risked being "spoiled." Being seen interacting with boys, even outside of her control, drew suspicions and rumors of illicit intent or behavior.

> They will say, because the parents allow their daughters to roam around alone that's the reason the boys will tease her. They will think negative about her parents. (adolescent boy, Rupandehi)

Boys risked losing their reputation as a respectable person, but their behavior, while universally viewed to be inappropriate, also was seen as natural and expected, especially in an environment of poor education and illiteracy, which was noted throughout the transcripts.

> There are negative impacts too because when our daughters go outside they get teased by the boys and when they've reached a certain age it does happen because males get attracted to females and vice versa. That's the law of nature. (adolescent boy, Kapilvastu)

While a few girls mentioned that they did in fact move about alone, especially to go to school, to go to a family member's house, or to run errands for their families, the vast majority were accompanied by a family member or a group of friends and the "range" of mobility differed by household and was especially constricted in Muslim households.

> Yes, I have an example. It's wrong to send a girl anywhere. In our society, we have to know our place, we can't just send them anywhere. Here, if a Muslim girl wants to go a wedding she has to go and come with her mother. (father, Kapilvastu)

Although expressed in only one focus group discussion in Kapilvastu, a mother expressed a preference for greater mobility for her daughter as a means to greater awareness and capability development. It is presented here to identify a potential entry point for programming.

> When girls are allowed to go out, they become smart, they can clear their misconceptions about things, and be able to talk to people. If they are not allowed to go outside at all, they become shyer and will not be able to talk to people. The other day, my daughter also participated in your discussion. She wasn't able to talk. That is exactly the reason why she wasn't able to talk and express herself, because she doesn't go out of the house (mother, Kapilvastu)

Across qualitative samples, it was universally perceived to be safer and more appropriate for girls to travel in groups or with family as this was seen to protect them from being teased or harassed, which was the most frequently reported threat to their wellbeing. Boys, girls and parents identified "roaming" boys as a safety risk and the protection afforded girls by traveling in groups or with an adult was similarly recognized by adolescents and parents. Spending too much time with a boy, especially alone was among the greatest risks to the girl's reputation as this was almost universally seen by parents as a prelude to prohibited relationships, physical contact such as holding hands, or running away together to elope which carried considerable risk to not only the girl's and boy's reputations, but also their family's and their community's, as the stigma was contagious. Adolescent boys and girls also recognized the reputational risks of these transgressions that were largely associated with "roaming" and both associated a lack of unnecessary mobility as a characteristic of a "good girl."

Given the impact on the neighborhood and the entire community, neighbors and villagers, key reference groups for parents, were widely recognized as powerful surveillers and the source or transmitter of rumors. Neighbors often would tell parents what they had witnessed, as well as talk amongst themselves. Parents were keenly aware of the potential for "backbiting" and honor loss that accompanied such talk, which fueled their pursuit of prevention, in large part by restricting girls' mobility or requiring them to be accompanied when moving about the village.

Overall, most qualitative respondents across districts, ethnic subgroups, and ages were sensitive to the norm and felt that compliance was most likely. Not complying was perceived to bring consequences meted out by parents including not being allowed to leave the home alone for any reason, being withdrawn from school, being married off at a young age, or beaten. Most generally it seemed that individuals complied. While adolescents might comply to avoid punishment by their parents, they also were keenly aware of the sanctioning power of villagers in this process as well as their responsibility to uphold the family honor.

Even the parents who allowed more freedom of movement for their girls and the few girls who moved about more freely, the judgement of others, "outsiders" was still palpable.

> We go to study to schools but outsiders who look at us have negative perceptions about it too. They think that we are wrong since we go and come to school alone. Even when there is a function at the school and we happen to reach home late because of it, they would make it a big deal. (adolescent girls, Kapilvastu)

Similar to the other norms described in this section of the report, educated families were perceived to be different and to be less sensitive to the sanctions associated with violating the norm. Nevertheless, the vast majority of girls seemed to move around alone very infrequently.

Social norms around adolescent girls' leisure activities, including sports and bike riding

Compared to other themes, girls' engagement in sports and leisure activities was less frequently mentioned. Across participants there was consensus that boys have more leisure time and freedom to play sports and ride bikes than girls. Girls generally are preoccupied with school and housework.

> They [adolescent girls 12 to 16] clean the house, prepare meals, wash the dishes, and play for 2-4 hours. What else would they do? Right after they come from school, they do their homework. (mother, Rupandehi)

> They [adolescent girls 12-16] don't play any sports. Cleaning dishes is the sports for them. (mother, Rupandehi)

Parents and adolescents mentioned that generally only younger girls leave the compound to play sports or play sports outside of a school activity. Parents indicated older girls (12-16) are not allowed to play because it would be inappropriate for their age and attract unwanted attention.

> Nobody will send their grown adolescent daughters to play outside/play sports. Once they become an adolescent, they will no longer be sent to play sports. In our society, we usually send boys. (father, Rupandehi)

> When they are young, they can play games but when they become adolescents, it doesn't suit girls to go and play games like that. It is very wrong to let adolescent girls play games. If it is allowed, there are high chances of such girls becoming spoilt. (mother, Kapilvastu)

Caste was not mentioned often in discussion of leisure and play, but in one father's group it was mentioned that within Hilly communities, adolescent daughters are allowed to play sports. But caste does not seem to be an important factor defining the norms around leisure and sports.

> Such things are not practiced here, it happens in Pahadi (Hilly) area but here such things don't happen. (father, Kapilvastu)

Participants repeatedly mentioned that adolescent girls simply did not have the time to play sports with their responsibilities to school and household chores. Participants did mention that adolescent boys have more opportunity and less restrictions to playing, but they do have to complete their schoolwork and work outside of the home (farming, attending the family shop, raising animals).

> The kids don't get so much free time as they are mostly occupied with school work. Some schools start as early as 6 a.m. in the morning and another one starts at 10 a.m. They don't have time to do unnecessary things. And once they are home, we also don't give them time to engage in other unnecessary activities. (father, Rupandehi)

Some participants indicated that even if girls were finished with their schoolwork and household chores, they should not be playing sports.

The primary sanction mentioned by participants was being negatively spoken about in the community. Some adolescents said daughters would be beaten if they disobeyed their parents and played sports (outside of school). Mothers also expressed concern that their daughters would not be marriageable by others if they played sports.

> If we send them to play outside, people say that it will be difficult to get them married. (mother, Rupandehi)

Parents expressed concern over how community members would react if their daughters could play. Some mentioned they would worry their daughters would run away if they could participate in sports or if they were given too much leisure time. Parents expressed concern and even fear over the reaction of other community members if they let their daughters play sports (especially if they played them outside of school or not in their village).

> People will say that if we send our adolescent daughters to play with the boys then it will not be surprising if she elopes with a boy. (mother, Kapilvastu)

Some parents expressed a desire to be able to send their daughters outside to play and stated that community reaction was a reason why they did not.

> Let's say that I would want my daughter to go and play outside, but it is the outside people who see, who tend to perceive it negatively. They could say things like, "See, how so and so is sending their grown up daughter to play football." This is how things are in our village. We wish for our daughters to go and play outside but the mindset of our society is not right. (mother, Kapilvastu)

While both parents and adolescents mentioned the consequences of an adolescent girl playing, parents were far more concerned about those consequences than girls or boys appeared to be. Mothers and fathers agree that daughters can participate in sports or other leisure activities (such as singing competitions) if they are associated with school. Parents generally agreed that younger girls had more freedom to play compared to older girls. Several mothers indicated it was inappropriate for 12-16-year-old adolescent girls to play outside due to the physical changes adolescent girls undergo and the unwanted attention to those changes playing outside could attract from community members. A fathers' group indicated the girls were likely to "get into trouble" and "do something wrong" such as interact with boys if they played outside. Another fathers group indicated that girls of this age are "grown up" and are of marriageable age so they should not play outside.

> Mostly the younger girls go to play these sports. The elder ones don't go as much as the younger ones. (father, Rupandehi)

> When the girls play, their chests move a lot and the parents get blamed for it which is why we don't send them to play. (mother, Rupandehi)

Parents/family seemed to be the biggest norm enforces, with parents/family restricting their daughters' ability to play sports. While there were few lived experiences of adolescent daughters playing sports parents indicated community members would reinforce norms by speaking negatively about daughters who would play sports.

> As daughters start getting older we don't allow them. We don't send them out so that we are able to maintain our prestige and honor. (father, Rupandehi)

Both parents and adolescents described community members as an important reference group, but parents viewed community members as more important than any other peer group, while adolescents seemed to view their parents/family as the most important. Overall, there was near uniform sensitivity to the sanctions across participants, with few exceptions for school-related sports, and play that did not involve boys and occurred in the same village. These exceptions were mentioned very infrequently relative to the broader concensus that adolescent girls did not engage in these activities and should not.

Social norms around interacting with adolescent boys

On balance, there was a recognition across genders, ages, and districts that interaction occurs between boys and girls, although perceived to not occur or to occur less frequently in Muslim communities. The interaction was focused on talking, in-person or increasingly frequently via phone. Adolescent girls were mixed in response to whether they talked to boys, some saying yes and some saying no. Fathers and some groups in Kapilvastu were in agreement that the interaction happened, especially in Rupandehi, or was not a frequent occurrence, especially in Kapilvastu among Muslim communities.

> Question: Is there anyone here who doesn't let their [girls] talk to the boys while going to school or in the neighbourhood?
> Participant 1: No one.
> Participant 2: Nobody stops them.
> Participant 3: No one. (fathers, Rupandehi)

> If the girl and boy don't hold any negative mindsets for each other then they can and if they don't have positive mindset then they cannot talk. (adolescent girls, Kapilvastu)

> No, there isn't anybody like that. When they are young, they go to school to study but as they become mature, they will mostly stay at home itself. In other communities, girls who go to campus might talk to boys. But in our community (Muslim community), it doesn't happen. (mothers, Kapilvastu)

While district did seem to be important, the real divisions seemed to be at the sub-locality level, among smaller caste / ethnic / religious groups. Madhesi community reported to be more conservative regarding boys and girls interacting compared to hilly communities. Muslim community members were more conservative about interactions with boys and girls than other communities. This distinction was much more frequently mentioned than any other division. There was a brief mention of differences between

Nepalis and Indians, with Indian families perceived to be more conservative about interactions between opposite sex, but this distinction was rarely mentioned.

> In our community (Muslim), boys and girls have different places to go to study. Girls have a different classroom and boys have a different classroom. Boys and girls cannot talk to each other there. Even if it the girls' father goes to the school, he will have to speak to her from outside and cannot go in. (mother, Kapilvastu)

Overall, interacting with the opposite sex generally was considered to lead to bad consequences. There was less mixing of girls and boys in some communities in Kapilvastu where greater separation of the sexes was more common and considered more appropriate. Although there was diversity even within Kapilvastu of the acceptability of interacting with the opposite sex.

> If parents allow boys and girls to interact then they will get spoilt, that's why we don't allow them to talk. We keep them in the house with rules that they have to follow. They should just eat well and stay at home, and what is the need to talk to boys unnecessarily? If they have an interaction, they can leave some impression. So we keep them in house. (father, Kapilvastu)

Some interaction, especially described my men in Rupandehi was considered to be beneficial, although most men, women and adolescents could similarly recount the risks to girls' reputations and families' honor.

When interaction was said to occur, it was only within very proscribed situations and only when there is a need, such as discussing school work or other work-related activity, and never in private. Acceptable interactions usually were among school friends, relatives, persons from the same village, and among individuals considered to be of good character. Interacting in a controlled environment as part of arranged marriage proceedings was generally considered appropriate. Most other interactions, even if innocent had the potential to generate suspicion among community members and the assumption of inappropriate behavior.

> We will question the daughter, 'What business have you got with the boy? Only speak with him if you have any work with him or else don't speak. Stay at home, complete your household chores and don't talk to boys.' (mother, Rupandehi)

Other forms of interaction were considered to be unacceptable, by parents and many adolescent girls and boys, including roaming around with a boy, communicating frequently with a boy, or on the phone. Such interactions were considered to lead to the most severe social and safety risks.

> It is not wrong when a girl talks to a boy one day. But if a girl keeps talking to the boy constantly for 30 days, that is when the problem begins. They will always show some kind of symptoms. Neither a girl nor a boy will do something bad if they talk to each other once but they will do something troublesome if they do so for 30 days. (father, Rupandehi)

> Sir, before there were no such things as television, video games and anything as such and people used to meet other the way they wanted to and that's how they used to get spoiled.

> But now if a guy and a girl sit together it is considered to be bad. That is how girls end up getting married. These days there are so many things thing in the market that everything is visible to everyone. (father, Kapilavstu)

> Participant 5: The thing is kids watch television and play video games from a young age like eight years old and boys and girls who are 12 to 16 years old have a relationship like a husband and wife and their feelings start developing. That is why their parents restrain them from going anywhere. I am not educated but I am scared of where they go because at that age they develop all their feelings and desires. (father, Kapilavstu)

Among all communities, mixing of young kids was more common. When girls were "mature", then mixing was considered to be much less appropriate.

> Those parents whose daughters have grown up, the boys should not sit, talk and eat with them. (father, Kapilvastu)

> No they don't, those who are of her age, she talks to them only. They shouldn't roam around sometimes. When they go to school or come from school then they talk. No one sees from home and even they see then parents (mother and father) will scold her. Mature girls talking to boy and talking over the phone is not good and parents scold her. (mother, Rupandehi)

> Not for the daughters of this age. But when they are of the age 18-20, the villagers definitely start talking on our back. There is no tradition of letting our grown-up daughters to talk with boys here at Madhesh. (fathers, Rupandehi)

There was near uniform understanding of the potential sanctions to unnecessary or overly frequent interaction with boys, given the association of such interaction with a potential to develop romantic relationships,with an emphasis on community sanctions. "Back-biting" and rumors, which could damage the girl's reputation and the family's honour, were frequently noted sanctions from other community members, who were largely responsible for enforcing norms around interacting with the opposite sex. Families were keenly aware of this possibility and some said they were "afraid of society" mentioning that the parents had to strictly limit interactions with boys. Even if they wanted to do something different, there was strong social pressure not to in order to avoid the sanctions. Therefore, families were said to mete out the sanctions such as restricting her communication with boys, limiting her education and mobility, and possibly using violence to avoid societal consequences.

> They will think negatively. Because they assume there must be something wrong about the girls, otherwise why would they go and talk to boys. Regardless of the topics they were talking about, the villagers will think badly of them. (mothers, Kapilvastu)

> No one from the family will say anything. But, the neighbors seeing that our daughters on the way to school talking with a boy, will definitely start talking about the daughter saying things about her character stating that she goes to school with a boy. When these neighbors again see them coming from school together then they start discriminating us. (father, Rupandehi)

> They might say that if their daughter continues to talk with the boy, they will get dishonored. They will think that if it continues the neighbors might also come and talk to them about how their daughter is bringing disgrace upon the village. The neighbors will also ask the parents not to allow their daughter to talk with boys like that and that if she gets humiliated once, she will be humiliated forever… (adolescent girl, Kapilvastu)

This reputational damage was said to occur even in situations where the girl was clearly being harassed. While it was widely recognized that the boys were being inappropriate, the blame and most serious reputational risk was with the girl, especially if she was perceived to not "fight back."

> They will forbid her from getting out of the house because when she gets out of her house, boys tease her. They will stop her from going out to keep her safe and protect her from getting spoiled. (adolescent girl, Kapilvastu)

There were no real district or age differences in sanctions. Adolescents in response to the vignettes similarly recounted the range of potential parental and social sanctions. Adults were more nuanced about whether the sanctions would apply and when, noting potential differences among certain sub-communities already mentioned and among families who were uneducated. Overall though, all persons, young and older were similarly recounting the range of perceived personal, familial and village-level consequences of perceived inappropriate interactions with boys.

The vast majority of discussion among parents suggested strong sensitivity to the sanctions from the community and a desire to prevent them from occurring. Preventing the fallout from an infraction was considered less costly than dealing with the social costs. For example, if children eloped, parents considered it to bring shame on the family. For adolescent girls, there was evidence of potential differences in the sensitivity to the sanctions. In response to the question about whether Sunita would continue to see Pankaj after being sanctioned by her parents, there was frequently divided opinion. Some said yes she woud continue to see him, others in the same group said no. In a few transcripts, there was consensus, but overall, in most female adolescent transcripts, Sunita's response could go either way exemplied below.

> Question: Do you think Sunita will stop talking to Pankaj or will continue talking to him?
> Participant 6: She will continue talking to him.
> Participant 2: If it is true love then she will not stop meeting him.
> Participant 1: If the girl has brains, she will stop talking to Pankaj. If she thinks that her parents are right and think well for her, she will tell Pankaj that if they continue talking, people from the neighborhood will think negatively. She will tell Pankaj that even if they talk about farm or anything, people will not say good things about them, and that they should stop meeting each other. (adolescent girls, Kapilvastu)

As with other norms, families who were educated were seen to be the exception to the norm, which was linked to rural life.

> If the parents are educated then this might just be normal for such households. If the parents are not educated, then it is how thing are. When households have educated parents, they will give good knowledge to their children as well. In families where adults

> consume alcohol, have a lot of fights, it is a big deal for such families. If such families see their daughter talking to someone, they will take it very negatively. If educated families see a girl doing it, they will think that the boy and the girl must be simply talking about homework or studies. (adolescent girl, Kapilvastu)

> In rural village, they have very narrow minded thinking which is why they think negatively. If they were educated, then they would have thought differently. (mother, Rupandehi)

Social norms around collective action

Relative to other codes, collective action was among the least frequently mentioned. For many adolescent transcripts, the discussion of collective action centered around adolescents helping their friends to solve problems through various forms of social support. The discussion among adolescents also focused on community works and volunteerism, although at least one key informant also focused on community volunteerism as a characteristic of a good adolescent. There was less recognition or collective action among youth, and in at least one adult interview, the adolescents in their community were deemed to be unprepared for such work. However, there was some recognition of the potential benefits of collection action among youth, suggesting what could or should be done to prevent child marriage and other social problems. However, there was no specific mention of benefit of collective action by girls.

> Participant 4 to Participant 6: We can only stop child marriage when all of us unite together for it.
> Moderator**:** First and foremost, it is important to make families understand. It is very important to spread awareness about it.
> Participant 4: Yes, we must go from house to house in order to spread public awareness about it. (adolescent girls, Rupandehi)

The discussion about collective action was most robust in the adult key informant interviews. This finding may be a feature of differences in inquiry for adolescent and the adult interviews, and the focus on key adult stakeholders. Organic collective action at the village level arose in response to local disputes or, more frequently mentioned, to redress incidents of sexual violence perpetrated against girls. The community was described as coming together to solve the problem, including working with the village council.

> If anyone fights or quarrels with someone, then the whole community comes together to stop the fight. They tell them that this is a community and that these kind of act deteriorates community standard. (adolescent boy, Rupandehi)

Across both districts, the majority of the collective action described was done by adults for adolescents and children. In both districts, there also was evidence of investment in adolescent capability development, particularly through local and municipal governments, often in cooperation with local organizations. The programming focused on enhancing school registration through campaigns and the development of local schools for girls. While local and municipal governments were recognized as supporting adolescent capability development, communities where organizations were active seemed to have the most organized and robust investment in adolescent capability development.

Adolescent and child clubs at the local level were seen as the focus of much programming, but there was evidence of broader community-wide efforts to engage adolescents in establishing local governmental budget allocations for adolescent programming, including information on how to access these funds for clubs or other activities. Communities varied in the amount adolescent focused programming and collective action that occurred, but there is clear infrastructure and precedent for collective action (adolescent and child clubs), local budgetary support, and a recognition of the power of collective action.

Across districts there was relatively little difference in collective action. One key distinction was a perception among at least one key informant interviewee in Kapilvastu of a need for adolescent focused programming that was responsive to the greater gender-segregation among the Muslim community to enhance enrollment of girls. Responses to this need was the establishment of girls-only schools and community-wide campaigns to support adolescent enrollment in schools, which was among the most frequently noted collective action supporting youth. Overall, there was general consensus that adolescents are less engaged in collective action than they have the potential for, especially if given training and support to do so.

Qualitative Norms Summary

Empirical and normative expectations around marriage are shifting towards greater frequency and appropriateness of marriage after age 20 with greater acceptability of same-caste love marriages in some communities. Norms around marriage decision-making and interacting with boys are somewhat in flux, due in part to the inevitability in many communities of greater interaction between boys and girls, but there was still strong familial and community effort expended to protect and guide girls through the longer period of adolescence (before marriage). This process also extended the period in which adolescent girls and boys were at risk of reputational damage and family dishonor if norms violations were even suspected, let alone to actually occur. In response, there is strong normative expectations that adolescent boys and girls will have limited interaction outside of school- or work-related issues to minimize safety risks to girls and the development of romantic relationships which could lead to a love marriage or elopement. There also are strong empirical and normative expectations that “good girls” do not move about the village unnecessarily or alone. Roaming around, especially in the presence of boys was widely perceived to lead to safety and reputational risks. In response to this risk, girls’ mobility was considerably restricted, to proscribed locations, and most often accompanied by family or friends.

These limitations extended to sport and leisure time, wherein boys were more likely to have more leisure time and to be allowed to play outdoors and engage in sports. Mobility and leisure activities were perceived as a threat to the socially expected gender roles and responsibilities which soon to be married (older) adolescents were supposed to perform. Boys on the other hand, while also governed by expectations for their gender, often were perceived by all as potential threats to girls. Their ability to roam around allowed them to be in public spaces such as fairs and markets, where they were often perceived to be a risk to girls’ reputations. Girls, boys, men and women all recognized the possibility that a girl would be teased or harassed by boys, especially if she were not accompanied. While teasing was universally acknowledged to be inappropriate behavior, the risk was borne most heavily by girls.

Given the community-wide implications of norms violations, neighbors and community members were strong reference groups for parents, and to some extent adolescents, whose ability to spread rumors,

shame parents, and damage a girl's reputation and her prospects for marriage, reinforced and perpetuated the norms. Given the social implication of noncompliance, most respondents suggested a strong sensitivity to the norms and a desire to adhere, even in the few instances were mothers wanted more freedom and capacity to develop for their daughters than what they were able to provide, especially since men in the household still wield final decision-making power over most important household decisions. While some differences across sub-communities were noted, such as the more liberal approach that hilly communities took toward many of the norms, the most consistent outliers were educated families, who were perceived to be more understanding and less concerned about violating the norms. While these families might not be swayed by the prevailing norms, the disapproval of other community members was still strongly felt. Further, there is evidence of differences in normative expectations around marriage and decision-making, especially parents, especially fathers' perception that adolescents have much greater say in the process, including when and with whom to marry. Adolescents also noted changing expectations in this respect, but their dicussion, and that of in-depth interviewees suggests that fathers are still the primary decision maker.

These norms influenced collective action, but given its nascent stage, it remains more of a potential than something that is realized across communities, especially youth-led initiatives. However, the infrastructure is present in most communities, and there are key stakeholders committed to this issue. The growth of collective action will be determined in part by the ability of girls to participate fully, suggesting changes in their mobility and a broadening of girls' scope of work beyond school and home.

Addressing Safety and Violence against Girls in the Community

- Witnessing violence against women and girls was common. Adolescent boys often reported having ever witnessed a boy or male peer: making sexual comments, jokes, movements, or looks at a girl (51%), brushing up against a girl in a sexual way on purpose or spreading sexual rumours about a girl (30%), writing sexual messages or graffiti about a girl (25%), or calling a girl "fag," "dyke," "lezzie," or "queer" (over 20%). The majority of boys who witnessed violence did nothing.
- In qualitative accounts, participants described safety and security issues as a major limitation on girls' mobility. While verbal teasing and other less severe forms of sexual harassment were cited as a common problem for adolescent girls, participants also described incidents of physical harassment and rape in their communities.

TPP+ engages with formal structures by working with local religious leaders and government and school personnel to foster gender-equitable attitudes and facilitate social-norms shifts. Such shifts may result in procedures and services that seek to ensure safety and security of girls and women against violence in the community.

We asked adolescent boys about their experiences witnessing violence against women and girls (Table 21). Boys in Rupandehi district reported having witnessed almost all forms of VAWG asked at higher frequencies than boys in Kapilvastu district.

Half of all adolescent boys reported having ever witnessed a boy or male peer making sexual comments, jokes, movements, or looks at any girl (50.8%), and roughly thirty percent witnessed a boy or male peer brushing up against a girl in a sexual way on purpose or spreading sexual rumours about a girl.

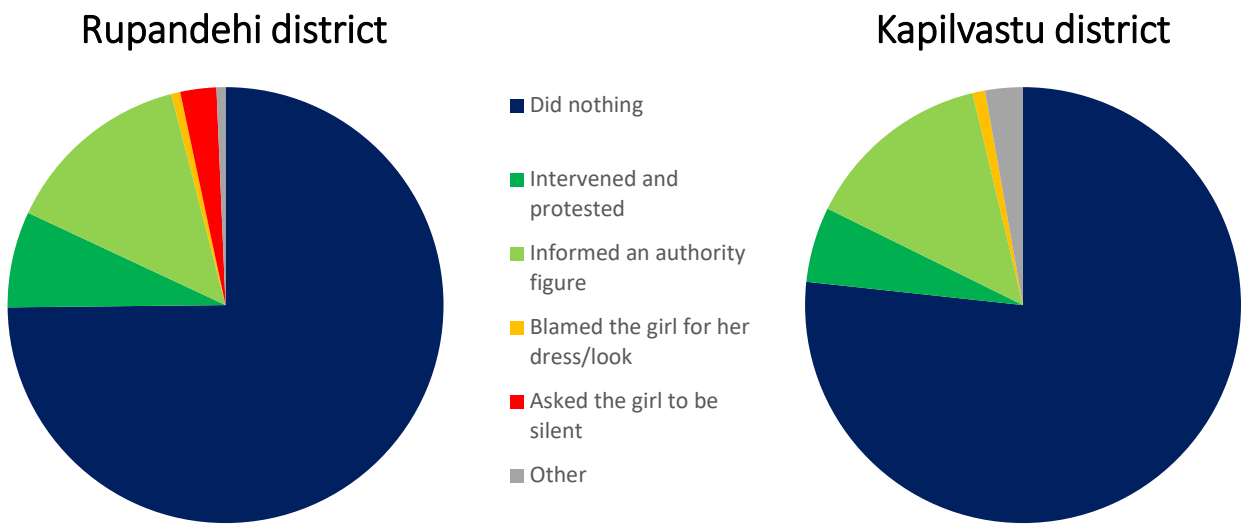
One in four boys had ever witnessed a boy or male peer writing sexual messages or graffiti about a girl. Over 20% reported ever witnessing a boy or male peer calling a girl “fag,” “dyke,” “lezzie,” or “queer.”

Adolescent boys who reported ever witnessing violence against women and girls (n = 774) were asked to describe their main reaction (Figure 10). Across districts, three in four boys reported doing nothing. About 14.3% of boys reported informing an authority figure, most frequently a teacher (11.2%) but also local leaders or the school committee. About 6.5% of boys reported intervening and protesting, while 2.3% blamed the girl affected or asked the girl to be silent.

Table 21. Percentage of adolescent boys (N = 1,154) witnessing violence against women and girls in Rupandehi and Kapilvastu districts, Nepal

Ever witnessed a boy or male peer….	**Unmarried Adolescent Boys 12–16 Years**	
	Kapilvastu district (n = 587)	**Rupandehi district** (n = 567)
Making sexual comments, jokes, movements, or looks at any girl	42.6	59.3
Brushing up against a girl in a sexual way on purpose	32.9	25.8
Spreading sexual rumours about a girl	23.0	41.5
Calling a girl “fag,” “dyke,” “lezzie,” or “queer”	19.9	22.9
Flashing or “mooning” a girl	5.5	11.1
Pulling at a girl’s clothing in a sexual way	11.6	9.2
Blocking a girl’s way or cornering her in a sexual way	8.7	16.8
Forcing a girl to do something other than kissing	7.8	16.8
Spying on a girl as they dressed or showered	6.5	12.9
Forcing a girl to kiss	3.9	10.9
Touching, grabbing or pinching a girl in a sexual way	3.9	8.3
Showing, giving, or sending a girl sexual pictures, photographs, messages, or notes	7.0	18.0
Writing sexual messages or graffiti (e.g. on bathroom walls, in locker rooms, in a note or book) about a girl	18.6	31.4
Pulling a girl’s clothing off or down	4.6	13.9

Figure 9. Main reaction of adolescent boys (n = 774) witnessing violence against women and girls in Rupandehi and Kapilvastu districts, Nepal



In qualitative accounts, participants described safety and security issues as a major limitation on girls' mobility. While verbal teasing and other less severe forms of sexual harassment were cited as a common problem for adolescent girls, participants also described incidents of physical harassment, rape, and femicide occurring in their communities. Boys and girls agreed that boys did not often tease girls from their own villages, only from other villages. Although adolescents stated that girls should tell family members or police officers if they were being teased, they also acknowledged that community members might be more likely to blame the girl for provoking the harassment. Moreover, participant narratives suggested that bystander behavior and legal sanctions were rare. Extrajudicial violence by family members of girls who had been harassed was described as a more common outcome of disclosure and reporting.

Box 11. Narratives from key informants and adolescent boys and girls regarding safety and violence against women and girls

People would usually say that their daughters don't get teased but if other girls get teased they would say that it happened because of the girl herself.

–adolescent girl, Rupandehi

And there were no electric lights in our village, earlier. There were no lights in poles. The leaders (guardians) of the village had just installed electric poles. But now with the participation of young girls themselves, electric lights have been provided in all "tole" (locations). There is bright light in the night. There is no fear to walk at night, it is convenient to move around here and there.

–key informant, Rupandehi

They used to have a domestic house worker of 18 years. She was taken to a sugarcane farm and harassed by [name's] son there. He was freed because he was powerful and luckily the boy's family couldn't kill the girl. Later, police took the necessary action and he was convicted for harassment. He was taken into the prison for 3 days after which he was freed because he came from a powerful family.

–adolescent boy, Kapilvastu

I have seen the boys teasing girls. This happens right in front of that road. These boys roam around and tease girls from another village. The whistle at them or laugh at them.

–adolescent boy, Kapilvastu

Adolescent boys were asked about their life experiences of violence, specifically, how frequently they were involved in a fight with a knife, gun, or other weapon; participated in a gang; drink alcohol in a month; and used drugs in the past year. Results are summarized in Table 22.

In Kapilvastu, less than 1.2% of boys reported being involved in a fight with a weapon, drinking alcohol, or using drugs in the past year. In Rupandehi, less than 2% of boys reported being involved in a fight with a weapon or drinking alcohol, and about 2.3% reported using drugs in the past year. Ever-participation in a gang was higher in Rupandehi district than in Kapilvastu (11.6% vs. 2.4%). Though 4.4% of adolescent boys in Rupandehi district reported only once participating in a gang, 3.5% reported participating 2-3 times, and 3.7% reported participating more than three times. Life experiences of violence did not differ statistically significantly between adolescent boys ages 12-14 years and adolescent boys ages 15-16 years.

Table 22. Life experiences of violence, adolescent boys (N = 1,154) in Rupandehi and Kapilvastu districts, Nepal

	Unmarried Adolescent Boys 12–16 Years							
	Kapilvastu district (n = 587)				Rupandehi district (n = 567)			
Item distributions (0-3)	**Never**	**Once**	**2-3 times**	**3+ times/ weekly**	**Never**	**Once**	**2-3 times**	**3+ times/ weekly**
How often have you been involved in a fight with a knife, gun or other weapon?	98.8	0.2	0.7	0.3	98.2	1.1	0.4	0.4

How often have you participated in a gang?	97.6	0.5	0.9	1.0	88.4	4.4	3.5	3.7
How often do you drink alcohol in a month?	98.8	0.2	0.5	0.5	98.6	0.9	0.4	0.2
How often have you used drugs in the last year?	99.0	0.3	0.2	0.5	97.7	1.6	0.7	-

Discussion

Importance of the Tipping Point Program and Evaluation

The Tipping Point Program is a novel, integrated social-norms and girl-led movement-building initiative that is designed to address the root causes of CEFM. It integrates group-based dialogue and training with key constituents of communities—adolescent girls, adolescent boys, parents, and community leaders—in a girl-centred initiative designed to enhance their awareness of and negotiation of their gender rights in an environment that becomes more supportive of change. The initiative is being undertaken in communities of Nepal that are characterized by high levels of child marriage despite having moderate household standards of living on several criteria. The impact evaluation integrates rigorous qualitative and quantitative methods in a cluster-randomized controlled design, allowing for inferences to be made to the included sample. The sample is similar in many ways to the population of the two study districts, suggesting that the trial may offer some insights to the population in these areas. If found to be effective, the Tipping point Program, and the study design, have enormous opportunity for scale-up to other settings in South Asia, as well as to other regions of the world where CEFM remains prevalent.

Below, we discuss the implications of the Tipping Point Program Evaluation thus far for policy and community-based practice to address CEFM and to ensure the gender rights of adolescent girls.

Implications for policy and practice

The findings from this mixed-methods baseline assessment of the Tipping Point Program Impact Evaluation in Nepal have important implications for policies and practices to reduce child marriage by changing its drivers with respect to repressive community-wide gender norms, girls' intrinsic and instrumental agency, unsafe conditions for girls in the community, and girls' collective action.

***Reducing pervasive CEFM*.** CEFM remains widespread among adolescent girls in these districts of Nepal. Sustained efforts are needed to reduce the high rates of child marriage that take advantage of the clearly changing preferences for marriage at or later than 20 years, in compliance with the law.

***Addressing root causes of CEFM*.** The root causes of CEFM most likely relate to repressive gender norms about girls' sexuality and its sustained links to reputation and family honor. These norms underlie an array of social restrictions that intensify when girls reach puberty, including restrictions related to menstruation, mobility in public spaces, and the ability to negotiate for their rights. Addressing repressive gender norms in families and communities is paramount to enabling girls to realize their rights and to pursue their aspirations for later marriage in a supportive community environment. It is notable that adult men and boys scored consistently higher on social norms scales, even norms related to men, than did women and

girls. One explanation is that men and boys do not experience sanctions first hand and so think conditions for girls are less restrictive than girls themselves report. This possible disconnect between social norms among boys and men and girls' experiences is a key opportunity for programming -- to ensure that girls and women are able to share openly their perception of the restricted expectations they sometimes feel and to sensitize men and boys to the realities of girls' experiences.

***Enabling girls to achieve their educational aspirations*.** The gender norms that underpin CEFM also contribute to girls' limited opportunities in other domains. Girls report high aspirations for schooling but somewhat lower schooling aspirations than boys and low confidence in their ability to negotiate their aspirations effectively with their parents. Efforts are needed to encourage girls to achieve their educational potential and to strengthen their self-efficacy to negotiate effectively with parents to achieve their educational aspirations. At the same time investments in girls' agency is not enough. Concurrent and coordinated efforts also are needed to change restrictive normative expectations of girls among community constituents—including adolescent boys, parents, and key community stakeholders. Thus, integrated efforts are needed to support girls' agency to achieve their high educational aspirations and greater gender equity in schooling.

***Cultivating girls' aspirations for work and more gender equitable attitudes*.** These girls are at the forefront of inter-generational change—they have much more schooling and greater literacy than their mothers and other adult women in the community. Still, marked gender gaps in aspirations for work persist among adolescents, with girls aspiring less often than boys to professional work and more often to agricultural work and homemaking. Efforts are needed to understand the reasons for these aspirational gaps and to support girls' to explore their professional goals. In the absence of adult women role models in professional work, older adolescent girls could provide inspirational examples and role models of career success. Also, supporting broader normative change about the economic contributions and capabilities of women and girls would create a supportive environment in which girls can explore their career aspirations. Finally, given less gender equitable attitudes among boys than among girls and adults, programming should support more gender-equitable attitudes among adolescent boys.

***Enhancing SRH knowledge and effective communication with parents*.** Given low levels of SRH knowledge and the persistent view of SRH as a 'taboo topic,' efforts are needed to develop contextually appropriate educational forums in which adolescent girls, boys, and parents can improve their knowledge about SRH, to expand the definition of SRH beyond menstruation, and to engage in concurrent dialogues to support norm change about SRH, including menstruation, as a taboo. Efforts to support healthy communication—especially among adolescent boys and between boys and their parents—about girls' SRHR should be prioritized. Continued efforts also are needed to support healthy communication among adolescent girls and their parents so the voices and opinions of girls feel heard and respected, with regard to shorter-term decisions about spending their own savings and long-term decisions about their marriage partners.

***Addressing restrictions on mobility and reducing pervasive violence against girls*.** Girls' mobility is constricted in part by concerns over their safety. Indeed, violence and sexual harassment of girls remains common. Boys often witness various forms of violence and harassment but do nothing. Efforts are needed to promote girls' safety and gender equity in adolescent girls' and boys' mobility in public places. Programming to support effective bystander strategies among boys is needed to create a safer

environment for girls. Shifting norms away from burdening girls with avoiding harassment and blaming girls for their victimization toward greater sanctions and accountability for the perpetrators would reduce parents concern over their daughters' safety, and in turn, a possible reduction in mobility restrictions.

***Support girls' collective action*.** Efforts to reduce gender gaps in group membership and leadership competence among adolescents are needed, especially by encouraging group membership, leadership competence, and group leadership among girls. Given universally low levels of collective action among adolescents, but high collective efficacy scores, there is an opportunity to cultivate girl-centred collective action that involves supportive engagement among boys, parents, and the community.

Appendix

Sample size calculation

In calculating the sample size for each boundary partner (adolescent girls, boys, fathers and mothers), we assumed group size of 20 and prevalence rate of 50% for each outcome of the Tipping Point project. Based on an extensive literature review, we assumed 15% reduction in child marriage post intervention. We consider statistical significance at 5% level and 80% power. As we considered a cluster randomized controlled trial, we considered intra-cluster correlation (ICC) during sample size calculation. The ICC differs for different outcomes. We calculated ICC=0.05 for child marriage using data from one of our previous nationally representative studies. As information on ICC for decision making is unavailable, we used this ICC value for calculating the sample size. A 15% non-response/attrition rate has been added to the total sample for each group.

Sample size for female adolescent group members

Outcome 1: Child marriage (% of unmarried adolescent girls)

Parameter used:

% in unexposed group = 65%
% in exposed group = 50%
Expected difference = 15% (difference)
Significance level = 5%
Power = 80%
Average cluster size = 20
Intra cluster correlation (ICC) = .05
Non-response = 15%

Estimated sample sizes:

Design effect = 1.95
# of clusters per arm = 18
Sample size per arm = 360
Number of clusters for 3 arms = 54
Sample size for 3 arms = 1,080
Total sample size with non-response = 1,080+1,080*15% = 1,242
Final sample size per cluster = 23

Outcome 2: Adolescent Girls experience increased power over major life decision areas (marriage, education, engagement in livelihoods activities, bodies/sexuality)

All the parameters used are same and hence the sample size will be the same as above.

Sample size for male adolescent group members

Outcome: Adolescent boys experience increased perceived options and increased decision-making power over major life decisions (marriage, education, engagement in livelihoods activities, bodies/sexuality) and demonstrate gender-equitable behaviors.

Parameters used:
% in unexposed group = 65%
% in exposed group = 50%
Expected difference = 15% (difference)
Significance level = 5%
Power = 80%
Average cluster size = 20
Intra cluster correlation (ICC) = .05
Non-response = 15%

Estimated sample sizes:
Design effect = 1.95
# of clusters per arm = 18
Sample size per arm = 360
Number of clusters for 3 arms = 54
Sample size for 3 arms = 1,080
Total sample size with non-response = 1,080+1,080*15% = 1,242
Final sample size per cluster = 23

Sample size for community level measurement of social norms (random sample of adult community members)

Outcome: Weakening of gendered social norms that limit adolescent girls' lives, particularly norms regarding girls' playing sports, interacting with boys, moving across and outside of their village, and individually and collectively asserting their rights to equality and to take major life decisions

Parameters used:
Significance level = 5%
Power = 80%
Expected difference = 15% (difference)
% in unexposed group = 50%
% in exposed group = 65%
Non-response = 5%

Estimated sample sizes:
Sample per arm = 170
Total sample for 3 arms = 510
Total sample size with non-response = (510+25.5) = 535.5/536≈540

Sample size per arm = 180

Appendix Box 1. Sample size calculations.

Ward are the lowest government administrative unit in Nepal. Hence, wards were treated as clusters or the primary sampling units in this study. Some smaller wards were aggregated to achieve clusters with a sufficient number of households for program recruitment. Each ward or ward aggregate had one adolescent girls' group consisting of 20 members. Assuming 50% prevalence of the primary outcomes (i.e., child, early and forced marriage and decision-making by adolescent girls) in this study, 5% significance level, 80% power, intra-cluster correlation of 0.05, and 15% change between study arms, 18 clusters per arm were required, making the total number of clusters 54. Considering 15% non-response rate among the group members, the group size was increased to 23, and the total sample size was 1,242.

Each cluster also had one adolescent boys' group, consisting of 20 members. The sample size was the same as the girls' group i.e., 1,242.

For the community survey, for assessing social-norms change, assuming 50% prevalence of CEFM-related norms and a 15% change after the intervention, 5% significance level, 80% power, and 5% non-response rate, a sample of 90 adult women and 90 adult men aged 25 and above was needed in each arm, making the total combined sample size of adult women and men 540.

Appendix Table 1. Demographics by study arm in Kapilvastu and Rupandehi districts, Nepal

Sample Characteristics	Adult community members				Adolescent girls				Adolescent boys			
	Control	TP	TP+	*p*	Control	TP	TP+	*p*	Control	TP	TP+	*p*
N	190	180	170		402	381	351		402	392	360	
Gender, %				-								
Men	50.0	50.0	50.0									
Women	50.0	50.0	50.0									
Tipping Point Member, %	3.2	7.8	7.1	0.1								
Age in years, M (SE)	45.7 (1.3)	42.6 (1.0)	45.3 (0.6)	0.1								
Can read or write, %				0.7				0.01				0.1
Neither	41.6	43.3	41.2		3.1	8.6	4.4		2.1	5.0	2.5	
Read only	3.2	3.3	1.2		2.0	1.4	2.0		3.9	2.1	2.3	
Read and write	55.3	53.3	57.7		94.9	90.0	93.6		94.0	92.9	95.2	
Ever attended school, %	51.1	52.8	51.8	0.9	95.8	92.1	94.6	0.1	95.3	94.1	93.6	0.6
School type attended, %				0.04				0.1				0.6
Government	49.0	50.6	45.3		72.4	71.1	73.8		63.9	66.3	66.7	
Private	1.0	1.7	4.7		22.4	17.6	19.4		30.6	26.3	25.8	
Community	1.0	-	0.6		0.5	2.9	1.1		0.8	1.3	0.8	
Other	-	-	1.2		0.2	0.5	0.3		-	-	-	
None	49.0	47.8	48.2		4.5	7.9	5.4		4.7	6.1	6.7	
Grades completed, M (SE)	6.8 (0.3)	7.4 (0.3)	7.2 (0.4)	0.4	6.7 (0.1)	6.1 (0.2)	6.3 (0.3)	0.03	6.6 (0.1)	5.9 (0.2)	6.1 (0.3)	0.03
Still attending school, %	1.0	1.7	0.0	0.3	82.3	77.4	80.1	0.7	84.3	86.5	82.8	0.1
Ever received vocational training, %	13.7	9.4	14.1	0.3	5.2	5.8	6.8	0.7	4.7	3.1	4.7	0.4
Marital status				0.3								
Married	86.3	90.6	91.2									
Divorced	0.5	-	1.2									
Widowed	11.6	7.8	7.1									
Separated	-	0.6	0.6									
Never married	1.6	1.1	-									
Religion, %				0.01				0.07				0.01
Hinduism	91.6	89.4	82.9		92.2	88.7	90.3		92.5	87.2	85.8	
Buddhism	2.6	-	2.9		1.0	-	0.9		0.3	0.3	0.3	
Islam	5.3	9.4	13.5		5.8	10.8	8.3		6.8	12.5	13.1	
Christianity	0.5	0.6	0.6		1.0	0.5	0.6		0.5	-	0.8	
Other	-	0.6	-		-	-	-		-	-	-	
Caste, %				0.00				0.00				0.00
Upper caste groups	42.1	56.7	42.4		40.1	58.5	42.2		44.6	56.1	39.7	
Relatively advantaged indigenous groups	43.2	19.4	32.4		35.6	17.3	33.6		32.7	14.0	30.3	
Disadvantaged Terai and religious minority groups	5.3	9.4	13.5		6.2	10.5	8.0		7.5	13.0	13.9	
Disadvantaged indigenous groups	-	-	-		0.3	0.3	0.6		1.0	1.5	1.9	
Dalit groups	9.5	14.4	11.8		17.7	13.4	15.1		14.2	15.3	14.2	
Main job, %[a]												
Agriculture/livestock/ horticulture	67.9	53.3	63.5	0.01								

Business/entrepreneur/ trade	10.0	12.2	12.9	0.7								
Daily wage/labor	8.9	13.9	7.1	0.1								
No job/homemaker	30.0	39.4	35.9	0.2								
Work/engage in income-generating activity, %					14.4	13.1	15.1	0.7				

[a]Frequencies not out of 100 (respondents could indicate multiple main jobs).

Appendix Table 2. Household socioeconomic status (SES) by study arm in Rupandehi and Kapilvastu districts, Nepal

Household SES	Adult community members				Adolescent girls				Adolescent boys			
	Control	TP	TP+	*p*	Control	TP	TP+	*p*	Control	TP	TP+	*p*
N	190	180	170		402	381	351		402	392	360	
Job of male household head, %				0.09				0.04				0.87
No male	14.8	10.6	7.7		12.7	9.5	8.3		10.7	6.4	7.8	
Does not work	6.4	8.9	8.8		8.0	8.4	6.3		2.7	3.1	2.8	
Agriculture												
Daily wages	27.0	20.0	32.9		19.2	18.6	26.8		26.4	26.5	26.8	
Self-employed	25.4	26.7	26.5		15.9	16.8	18.2		23.4	23.2	24.0	
Non-agriculture												
Daily wages	11.6	9.4	8.2		16.4	12.3	14.3		14.0	15.6	14.0	
Self-employed	9.0	11.7	9.4		21.6	23.9	19.4		15.5	15.8	15.1	
Paid wages on long-term basis	5.8	12.8	6.5		6.2	10.5	6.8		7.2	9.4	9.5	
No. of bedrooms, M	6.2	6.1	6.3	0.32	2.6	2.8	2.7	0.24	2.7	2.9	2.8	0.23
Main material of walls, %				0.28				0.15				<.01
Bamboo/leaves, unbaked bricks, wood, mud-bonded bricks/stones, or no walls	22.6	26.1	18.9		22.4	17.6	22.8		23.6	14.5	16.4	
Cement-bonded bricks/stones or other material	77.4	73.9	81.1		77.6	82.4	77.2		76.4	85.5	83.6	
Main material of roof, %				0.95				<.01				<.01
Straw/thatch or earth/mud	7.4	10.6	9.4		5.7	9.5	10.0		8.0	6.9	8.1	
Tiles/slate or other	4.2	4.4	3.5		6.5	2.6	5.1		6.5	1.8	2.5	
Wood/planks or galvanized iron	12.1	10.0	11.2		17.2	7.9	11.1		15.4	8.2	8.9	
Concrete/cement	76.3	75.0	75.9		70.7	80.1	73.7		70.1	83.2	80.6	
Type of stove, %				0.04				0.01				0.03
Open fireplace, mud, kerosene stove, or other	63.2	75.0	66.5		53.4	62.9	62.1		55.9	65.0	61.9	
Gas stove or smokeless oven	36.8	25.0	33.5		46.6	37.1	37.9		44.1	35.0	38.1	
Type of toilet, %				0.60				0.34				0.12
None, household non-flush, or communal latrine	75.3	79.3	78.7		84.3	84.4	87.7		62.4	62.9	68.9	
Household flush	24.7	20.7	21.3		15.7	15.6	12.3		37.6	37.1	31.1	
Number of telephones, %				0.08				0.97				0.93

0	3.1	6.7	5.9		2.0	2.4	2.6		2.0	2.0	2.2	
1	35.8	44.4	34.1		33.1	34.2	32.8		36.6	33.7	35.9	
2+	61.1	48.9	60.0		64.9	63.4	64.7		61.4	64.3	61.8	
Own, sharecrop, mortgage any agriculture land, %				0.35				<.01				0.14
No	14.2	14.4	10.0		9.2	15.2	10.5		15.7	15.0	13.6	
Yes, not irrigated	33.2	39.4	41.8		21.9	24.7	32.5		27.9	36.0	33.1	
Yes, irrigated	52.6	46.1	48.2		68.9	60.1	57.0		56.5	49.0	53.3	

Appendix Table 3. Estimates of child marriage and age at gauna by study arm, Rupandehi and Kapilvastu districts, Nepal

	Under 15	Ages 15-19	Ages 20-24	Ages 25-29	Ages 30-34	Ages 35-39	Ages 40-44	Ages 45-49	Ages 25-49	Ages 49+
Control arm										
Women, N	1,439	1,226	1,109	910	769	745	640	508	3,527	1,586
Married by age 15, %	-	5.6	16.6	28.2	39.9	47.3	51.9	56.3	43.0	63.1
Married by age 18, %	-	-	40.9	51.7	68.9	76.2	76.6	79.1	68.9	81.1
Median age at first marriage (SE)	13.3 (0.3)	16.0 (0.3)	17.1 (0.6)	17.1 (0.5)	16.2 (0.7)	15.2 (0.7)	15.0 (0.8)	14.8 (0.6)	15.8 (0.6)	13.6 (0.5)
Median age at gauna (SE)	17.0 (1.0)	16.7 (0.2)	18.2 (0.2)	18.4 (0.2)	17.7 (0.2)	17.3 (0.2)	17.0 (0.2)	16.8 (0.1)	17.5 (0.2)	15.7 (0.3)
Men, N	1,593	1,245	934	770	599	654	535	521	3,079	1,695
Married by age 15, %	-	1.1	6.6	13.4	19.9	29.1	33.5	37.6	25.6	45.4
Married by age 18, %	-	-	18.0	27.4	40.4	50.3	53.1	54.5	43.9	60.4
Median age at first marriage (SE)	-	16.6 (0.3)	18.4 (0.6)	19.3 (0.5)	19.7 (0.4)	18.3 (0.6)	17.7 (0.7)	17.7 (0.5)	18.6 (0.5)	16.9 (0.7)
Median age at gauna (SE)	-	17.3 (0.3)	19.3 (0.3)	20.6 (0.1)	21.2 (0.2)	20.2 (0.3)	20.0 (0.3)	20.3 (0.2)	19.4 (0.1)	19.5 (0.1)
TPP arm										
Women, N	1,587	1,297	1,350	970	751	757	525	458	3,461	1,489
Married by age 15, %	-	7.6	25.4	45.7	59.9	62.4	68.8	67.0	58.7	72.9
Married by age 18, %	-	-	52.2	68.4	79.8	85.9	86.3	85.6	79.7	85.0
Median age at first marriage (SE)	15.5 (-)	15.8 (0.2)	16.3 (0.3)	15.6 (0.4)	14.1 (0.4)	13.9 (0.3)	13.0 (0.4)	13.3 (0.4)	14.2 (0.3)	12.3 (0.4)
Median age at gauna (SE)	16.8 (-)	16.7 (0.1)	17.9 (0.1)	18.0 (0.2)	17.0 (0.2)	16.9 (0.2)	16.4 (0.3)	16.8 (0.3)	17.1 (0.2)	16.4 (0.3)
Men, N	1,824	1,324	1,082	842	668	727	510	476	3,223	1,698
Married by age 15, %	-	1.3	7.8	19.5	32.0	39.2	42.4	49.2	34.5	54.8
Married by age 18, %	-	-	20.6	79.8	54.5	62.0	61.6	65.1	54.2	69.3
Median age at first marriage (SE)	8.0 (-)	16.9 (0.3)	18.1 (0.2)	18.5 (0.3)	17.3 (0.5)	16.7 (0.4)	16.0 (0.5)	16.0 (0.5)	17.0 (0.4)	15.2 (0.6)
Median age at gauna (SE)	13.0 (-)	17.3 (0.2)	19.4 (0.1)	20.6 (0.1)	19.7 (0.3)	19.7 (0.3)	19.1 (0.4)	19.6 (0.4)	19.8 (0.2)	19.2 (0.6)
TPP+ arm										
Women, N	1,419	1,068	996	769	674	661	531	434	3,069	1,346
Married by age 15, %	-	5.8	18.9	32.0	40.5	52.8	48.8	55.1	44.5	61.6
Married by age 18, %	-	-	42.6	56.7	67.2	76.4	73.3	76.0	68.9	78.5

Median age at first marriage (SE)	13.0 (-)	15.7 (0.2)	17.0 (0.2)	16.4 (0.2)	15.8 (0.4)	15.0 (0.4)	15.1 (0.3)	14.7 (0.5)	15.5 (0.3)	13.5 (0.4)
Median age at gauna (SE)	14.7 (-)	16.5 (0.2)	18.2 (0.2)	17.8 (0.1)	17.5 (0.1)	17.3 (0.2)	17.2 (0.2)	17.2 (0.1)	17.4 (0.1)	15.9 (0.3)
Men, N	**1,437**	**1,082**	**833**	**647**	**537**	**588**	**492**	**464**	**2,728**	**1,527**
Married by age 15, %	-	0.9	6.7	15.3	20.7	28.7	29.1	34.1	24.9	42.1
Married by age 18, %	-	-	19.3	33.5	41.2	52.9	50.2	55.4	45.9	58.9
Median age at first marriage (SE)	-	15.6 (0.7)	18.2 (0.4)	19.0 (0.3)	18.6 (0.5)	18.0 (0.4)	17.9 (0.6)	17.3 (0.5)	18.2 (0.4)	16.6 (0.6)
Median age at gauna (SE)	-	16.8 (0.4)	19.3 (0.1)	20.3 (0.2)	20.2 (0.3)	20.0 (0.3)	20.1 (0.4)	19.7 (0.3)	20.1 (0.2)	19.3 (0.5)

Appendix Table 4. Reported self-efficacy, item distributions and average self-efficacy score among adolescents by study arm in Rupandehi and Kapilvastu districts, Nepal

Item distributions (0-2) Summative score (0-26)	Control				TP				TP+			
	Not at all Confident	Somewhat Confident	Very Confident	Missing	Not at all Confident	Somewhat Confident	Very Confident	Missing	Not at all Confident	Somewhat Confident	Very Confident	Missing
Adolescent girls	N = 402				N = 381				N = 351			
Achieve life goals despite challenges	9.2	30.9	59.2	0.8	8.1	37.3	53.8	0.8	8.3	30.5	60.1	1.1
Achieve desired education	13.2	24.1	61.9	0.8	13.9	24.2	58.8	3.2	13.4	23.4	61.3	2.0
Access healthcare on own if ill	22.9	39.3	33.1	4.7	25.7	39.4	29.9	5.0	25.1	39.0	34.8	1.1
Leave home if needed without permission	51.7	26.9	15.4	6.0	57.2	22.1	16.3	4.5	59.5	21.7	17.1	1.7
Speak about girls' problems in community	16.4	37.1	42.5	4.0	20.0	32.3	44.1	3.7	19.1	31.9	48.7	0.3
Refuse marriage if not desired	20.4	27.9	49.3	2.5	28.4	26.5	43.3	1.8	25.1	24.2	50.4	0.3
Negotiate with parents amount of education [284]	9.5	30.6	59.7	0.3	13.7	32.3	54.1	-	15.7	29.9	54.4	-
Negotiate with parents about marriage [288]	18.2	39.8	40.8	1.2	27.3	37.8	34.9	-	25.9	39.3	34.8	-
Negotiate with parents freedom to go places [293]	12.2	47.3	40.3	0.3	20.0	44.4	35.7	-	21.9	46.2	31.9	-
Work for money or engage in income generation if wanted[a]	15.7	42.5	41.5	0.3	26.3	33.9	39.9	-	20.5	37.0	42.5	-
Work for money or engage in income generation if family objected[a]	28.9	48.3	22.1	0.8	39.9	40.7	19.2	0.3	33.6	45.3	20.8	0.3
Access SRH information if needed	19.4	79.4		1.2	17.9	81.9		0.3	20.8	78.1		1.1
Access SRH services if needed	23.4	75.9		0.8	21.8	78.0		0.3	28.2	71.8		-
Total score	M	(SE)	Min	Max	M	(SE)	Min	Max	M	(SE)	Min	Max
Summative score	15.5	1.0	0	26	14.5	0.7	0	26	14.9	0.5	1	26
Pairwise correlations, range	0.01-0.83				0.00-0.73				0.01-0.82			
Alpha reliability	0.83				0.83				0.80			
Adolescent boys	N = 402				N = 392				N = 360			
Achieve life goals despite challenges	10.7	26.9	61.7	0.8	9.2	30.6	59.2	1.0	9.7	34.4	55.0	0.8
Achieve desired education	12.7	24.1	61.7	1.5	11.7	31.6	55.1	1.5	12.8	31.4	55.6	0.3

Access healthcare on own if ill	19.9	42.0	36.1	2.0	25.0	39.3	31.9	3.8	28.6	35.0	34.4	1.9
Leave home if needed without permission	50.8	22.6	21.6	5.0	55.6	22.2	16.3	5.9	55.6	23.3	15.6	5.6
Speak about girls' problems in community	11.0	34.8	49.8	4.5	14.3	36.2	45.9	3.6	14.7	36.1	45.8	3.3
Refuse marriage if not desired	15.7	19.4	61.0	4.0	19.1	25.5	51.0	4.3	19.2	23.1	55.8	1.9
Negotiate with parents amount of education [284]	8.5	29.6	61.9	-	6.4	25.8	67.9	-	8.3	31.7	60.0	-
Negotiate with parents about marriage [288]	15.9	43.0	41.0	-	18.4	40.1	40.6	1.0	23.9	38.3	37.8	-
Negotiate with parents freedom to go places [293]	11.7	36.1	51.2	1.0	11.0	39.5	49.0	0.5	15.8	38.3	45.6	0.3
Access SRH information if needed	23.1	75.9		1.0	27.6	72.2		0.3	25.8	73.3		0.8
Access SRH services if needed	21.9	78.1		-	26.8	73.2		-	25.0	74.7		0.3
Total score	M	(SE)	Min	Max	M	(SE)	Min	Max	M	(SE)	Min	Max
Summative score	13.8	0.3	0	22	13.2	0.2	0	22	13.1	0.4	0	22
Pairwise correlations, range	0.001-0.90				0.001-0.88				0.09-0.85			
Alpha reliability	0.81				0.79				0.82			

Notes. + p < .10, * p < .05, ** p < .01, *** p < .001 for the difference in baseline mean scores for self-efficacy between adolescent girls and boys
[a]Adolescent girls only.

Appendix Table 5. Attitudes about menstruation, ASRH, and gender across study arms in Rupandehi and Kapilvastu districts, Nepal

Scale Distributions	Control					TP					TP+					*p*
	N	M	SE	Min	Max	N	M	SE	Min	Max	N	M	SE	Min	Max	
Adult community members	190					180					170					
Controlling behaviour against girls (0-12)	187	5.3	0.1	0	12	179	5.3	0.1	0	12	167	5.0	0.2	0	10	0.58
Adolescent sexual and reproductive health (0-27)	189	14.3	0.3	5	24	180	13.6	0.4	2	26	170	13.9	0.5	5	27	0.43
Menstruation (0-21)	189	9.9	0.5	0	20	180	9.7	0.5	0	21	170	10.6	0.4	0	20	0.44
Gender roles (0-27)	190	13.7	0.6	0	27	180	13.5	0.4	2	27	170	13.7	1.0	2	27	0.98
Gender discrimination (0-15)	189	11.8	0.1	6	15	180	11.4	0.2	5	15	170	12.0	0.5	5	15	0.36
Women's and girls' roles (0-33)	190	19.1	0.3	3	30	180	18.8	0.4	7	28	170	19.4	0.9	11	30	0.87
Manhood and masculinity (0-15)	190	10.2	0.2	0	15	180	10.0	0.3	3	15	170	10.0	0.4	5	15	0.78
Adolescent girls	402					381					351					
Adolescent sexual and reproductive health (0-27)	396	15.7	0.5	0	27	379	14.5	0.4	0	27	351	14.6	0.4	2	27	0.41
Menstruation (0-21)	392	11.8	0.4	0	21	378	10.3	0.3	0	21	349	11.3	0.6	0	21	0.05
Gender roles (0-27)	398	13.6	0.4	0	27	381	12.3	0.4	0	27	351	13.1	0.5	0	27	0.23
Gender discrimination (0-15)	401	12.2	0.2	3	15	381	11.8	0.1	3	15	351	12.0	0.1	4	15	0.37
Women's and girls' roles (0-33)	402	21.5	0.7	0	33	381	20.6	0.6	6	31	351	21.3	0.4	6	33	0.64
Manhood and masculinity (0-15)	402	10.4	0.4	0	15	381	9.7	0.3	3	15	351	10.4	0.4	1	15	0.46

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