

Policy Brief

**Family Planning among
Adolescents and Young Adults**
Findings from
UDAYA Longitudinal Study in
Bihar, India



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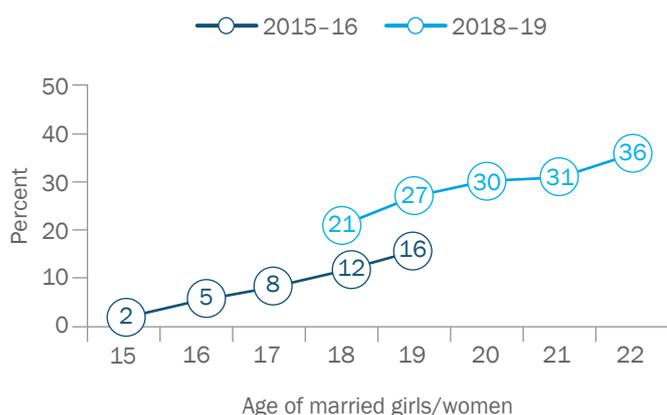
Background

Family planning is an essential investment for the health of adolescents and young women. Unintended pregnancies not only pose a serious health risk for young women, but they also affect the country's efforts to achieve the Sustainable Development Goals (SDG) on maternal and newborn mortality.

Bihar, home to 23.4 million adolescents, continues to face challenges in accelerating progress on health goals. The National Family Health Survey conducted in 2015–16 finds that 39 percent of married women in ages 20–24 years reported marrying before the age of 18 years (IIPS and ICF, 2017a). The maternal mortality in the state in 2015–17 was 165 per 100,000 live births (Office of the Registrar General, India, 2019), and the child mortality (age <5 years) was 58 per 1000 live births (IIPS and ICF, 2017b). Evidence further suggests that both marriage and reproduction during adolescence are most risky for girls. (Santhya et al., 2017).

To study the transition of adolescents to young adulthood, Population Council with support from the Bill & Melinda Gates Foundation and the David & Lucile Packard Foundation recruited a cohort of adolescents in the age group of 10–19 years in 2015–16 (the year the SDG came into being) for a study known as UDAYA (Understanding the lives of adolescents and young adults). Based on the data collected in 2015–16 and the recent follow-up survey conducted in 2018–19, this brief aims to shed further light into the changing nature of reproductive health behaviours, contraceptive knowledge, and contraceptive use and factors affecting contraceptive use in the state of Bihar.

Figure 1: Proportion of married adolescents' experience of pregnancy loss in 2015–16 and at follow-up in 2018–19



Key takeaways

- Pregnancy and child loss are high among women married as adolescents. There was a rise in such cases as the women progressed in age and the years of marriage increased. Proportion of women who reported child loss increased with increase in their age.
- There was a high level of unmet need for contraception, even as adolescents grew older. This was also true for women aged 21–22 years and who were married before the age of 19 years, where the unmet need was almost 50 percent. Therefore, the sub-group of adolescents who are married require specific programmatic attention.
- Programs did not hugely improve in-depth knowledge on modern contraceptive methods. Considering the low attention given to adolescents and young married couples until 2018, the various programmatic components had little effect on the acceptance of contraceptive methods.
- Even when the adolescents became young adults (ages 18–22 years) their agency, decision-making, and spousal communication remained low. According to the survey data until 2018–19, this stopped them from achieving better reproductive health (RH) outcomes.



Many married adolescents and young women have experienced pregnancy loss. As high a proportion as 36 percent among 22-year-old young women who were married when they were adolescents reported experience of pregnancy loss in 2018–19.

Methods

The uniqueness of the UDAYA study design is the longitudinal tracking of adolescents; thus, offering a better understanding of their reproductive journeys, including knowledge and use of contraceptives. Details of the study methodology, including the sampling procedures followed for recruitment and follow-up of UDAYA study participants, are available elsewhere (Santhya et al., 2017; www.projectudaya.in).

A sample of 6,595 adolescent girls in the age group of 10–19 years were recruited in 2015–16. This group was re-interviewed in 2018–19 and had a follow-up rate of 87 percent. The reasons for loss to follow-up were migration of the participant (4%), refusal to be re-interviewed by the parent or guardian (3%), researchers could not track the household (3%), refusal by the participant (2%), and other reasons (2%). Cases where participants gave inconsistent responses regarding their age and/or education between the two survey rounds (3%) were also excluded during the re-interview phase. Thus, 6,339 girls were retained for analysis, and the effective follow-up rate was 83 percent.

This brief is focused on 2,803 unmarried girls and 2,867 married girls who were 15–19 years old at the time of the 2015–16 survey and who were followed up in 2018–19. Bivariate and multivariate analyses were carried out to examine the changes in reproductive health and family planning access and outcome indicators over time.

The study protocol was approved by the Institutional Review Board of the Population Council.

The Problem: Pregnancy loss in young women

Data indicates that pregnancy loss in young women is common. Pregnancy loss rate, that is, percentage of pregnancies lost out of total pregnancies among adolescents and young women, is shown in Figure 2 and 3. The findings suggest that the proportion of pregnancies resulting in pregnancy loss (through miscarriage or abortion) are higher among women at the age of 16 years. After that age, the proportion of pregnancies lost remains more or less at 20 percent (19 to 22 years), which indicates the increasing proportion of live births among women of later ages. Data from the two rounds of the survey further suggest that there was marginal change (although not statistically significant) in the proportion of pregnancies between 2015–16 and 2018–19 among women at different ages.

The data further suggested that a greater percentage of women married as adolescents experienced pregnancy loss as their age progressed. At the age of 22 years, more than one in every four women in Bihar reported ever experience of pregnancy loss or child loss. Of these, miscarriage constitutes the major contributor, although the proportion who ever experienced miscarriage remains more or less same from the age of 20 years. After 20 years of age, child deaths become more common, suggesting the lack of contraceptive use to space or delay births.

Figure 2: Pregnancy loss rate by Age

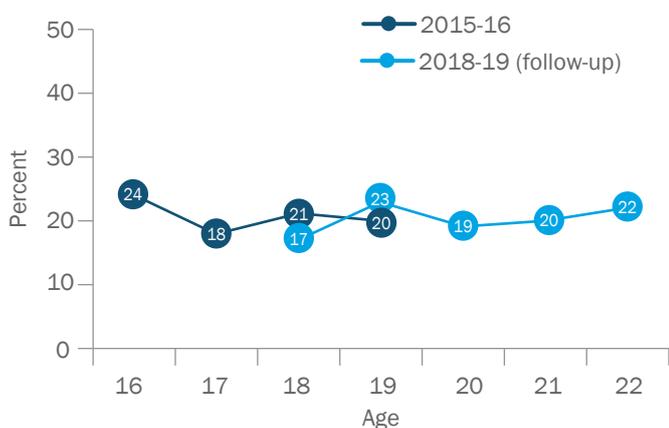
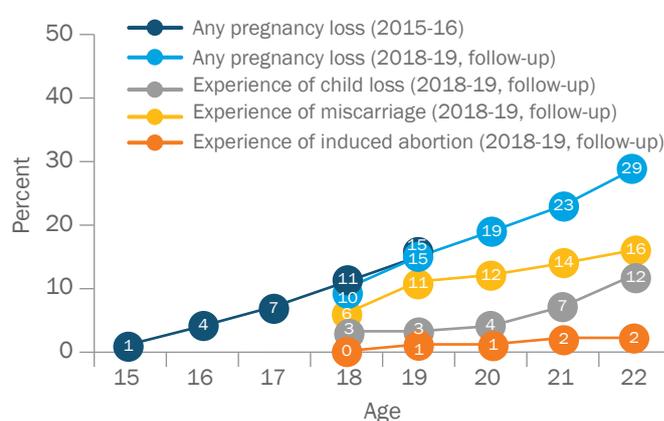


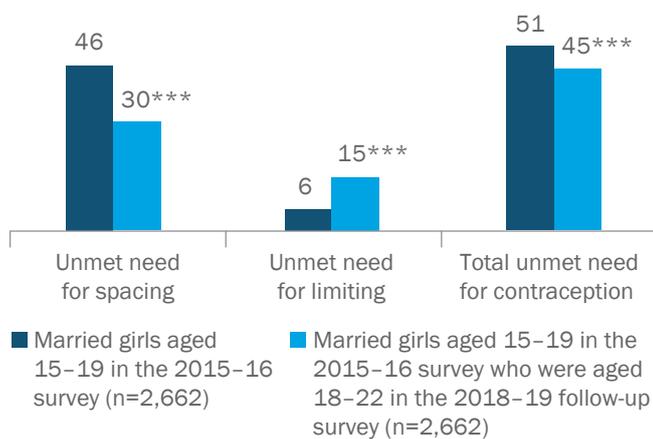
Figure 3: Percent married adolescents and young women who reported loss of pregnancy or child



Supporting evidence of this problem: Unmet need for contraception

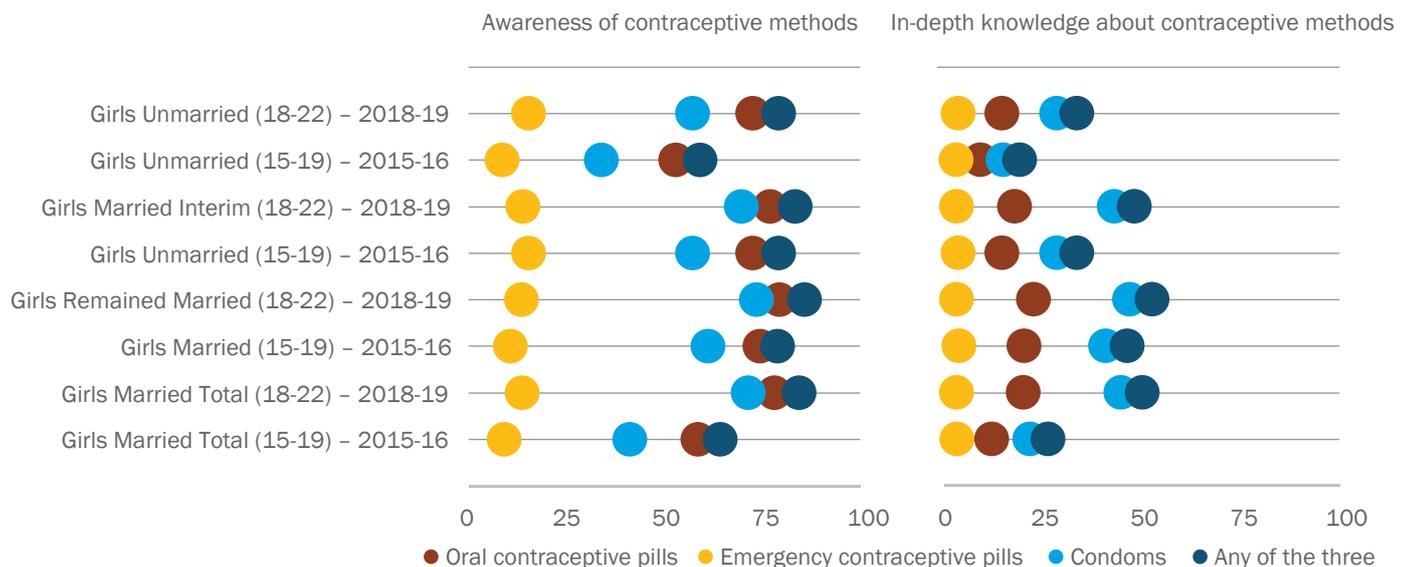
High unmet need for contraception among adolescents suggests that pregnancy loss may be due to high-risk or unintended pregnancies. The total unmet need for contraception decreased from 51 percent among married girls in ages 15–19 years in 2015–16 to 45 percent among the same cohort in 2018–19 when they were in ages 18–22 years (Figure 4). By 2018–19, the unmet need for spacing decreased to 30 percent (from 45% in 2015–16), whereas unmet need for limiting increased significantly to 15 percent (from 6% in 2015–16). Majority of young women below the age of 22 years who have expressed unmet need for limiting pregnancies already had three or more children. The unmet

Figure 4: Unmet need for contraception



Note: *** $p \leq 0.001$

Figure 5: Awareness and in-depth knowledge about contraceptive methods



Note: In-depth knowledge of modern contraceptives refers to those who are aware that oral pills should be used every day or weekly, emergency contraceptive methods should be used up to 72 hours after sexual intercourse, or one condom can be used for one sexual intercourse.

need for spacing methods among zero and first parity was the highest.

Possible reasons for unmet need for contraception

1. Low in-depth knowledge about contraceptive methods

While general awareness of at least one of the three most commonly used methods of contraception (condoms, oral pills, and emergency contraceptive pills [ECP]) is high, in-depth knowledge about the methods was limited (Figure 5). Among unmarried girls, awareness about any of the three modern contraceptive methods increased from 65 percent in 2015–16 to 86 percent in 2018–19. The awareness about any of the three methods among those who married during the inter-survey period was 91 percent. Despite high awareness of condoms and oral pills, awareness about emergency contraceptive pills was low in the two surveys among both married and unmarried adolescents/young women.

On the other hand, with the exception of knowledge on condoms among married girls, when the girls were asked specific questions to assess their in-depth knowledge about the three methods of contraception, their in-depth knowledge was limited. This could be a cause for concern in promoting use of reversible contraceptive methods.

Table 1: Specific knowledge of modern contraceptive methods by Parity, Married girls, 2018–19

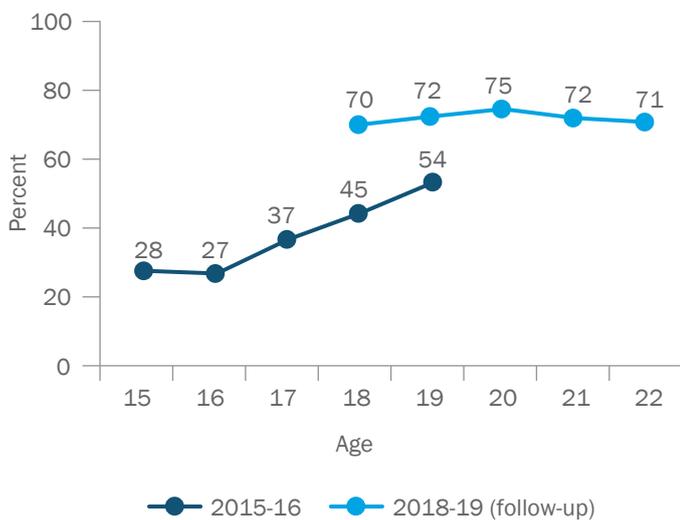
Method/Parity	0	1	2	3	4
Oral pills	14.6	19.0	21.5	25.0	11.5
ECP	1.2	2.4	1.0	0.8	0.0
Condoms	36.9	45.9	48.4	44.6	32.1
All married girls, 2018–19	738	1,321	1,287	387	45

The specific knowledge of modern contraceptive methods among married girls and women with no child is significantly low (only 15 percent had knowledge of oral pills) as compared with women who had one or more children (Table 1). On the other hand, data also indicate that young women, even those above the age of 21 years, require specific knowledge about oral pills and ECPs.

2. Lack of frontline worker interactions with adolescents and young women

Frontline worker outreach to married adolescents before they had their first child was very low. Data further confirmed the assumption that frontline worker contact may be linked to maternal health, specifically institutional deliveries. Therefore, the proportion of women who were in parity 1 reporting that they have had contact with frontline workers was significantly higher than women in parity 0 (Figure 6 and 7). The finding that frontline health workers were less likely to meet married adolescents when they did not have any children is of concern, as the health workers are a

Figure 6: Percent adolescents who reported having interactions with frontline workers over time



significant source of correct information on contraceptive methods and also on getting access to methods. It may also be that the health workers are not trained to reach every type of potential user; the girls and health workers come from the same socio-cultural context with the inbuilt assumption that girls/young women at parity 0 will want a child and is not looking to use contraception. The data in this brief suggest that the assumption is wrong and that there is a huge potential for health workers to reach girls/young women at parity 0, who are potential users of modern methods of contraception (as they have very high unmet need).

3. Low contraceptive use and skewed method-mix in the early ages

Married adolescents in the age group 15–19 years in 2015–16 showed only moderate change in contraceptive use when they became young adults (age group 18–22 years) in 2018–19. Data suggest that the use of any modern method of contraception increased from three percent to 11 percent only ($p < 0.001$). Figure 8 shows that there is no significant change in contraceptive use by parity during the inter-survey period. However, contraceptive use increased with the increase in parity. The data further confirm that married adolescents with low parity (0 or 1) who used spacing methods in 2015–16 were more likely to use contraception in parity 2+ in 2018–19. In 2015–16, among users of spacing methods at low parity (0 or 1), 54 percent were using at parity 2+ in 2018–19 as compared with six percent among non-users of spacing methods in the same parity during 2015–16 (data not shown in figure or table).

Figure 7: Percent adolescents who reported having interactions with frontline workers by parity over time

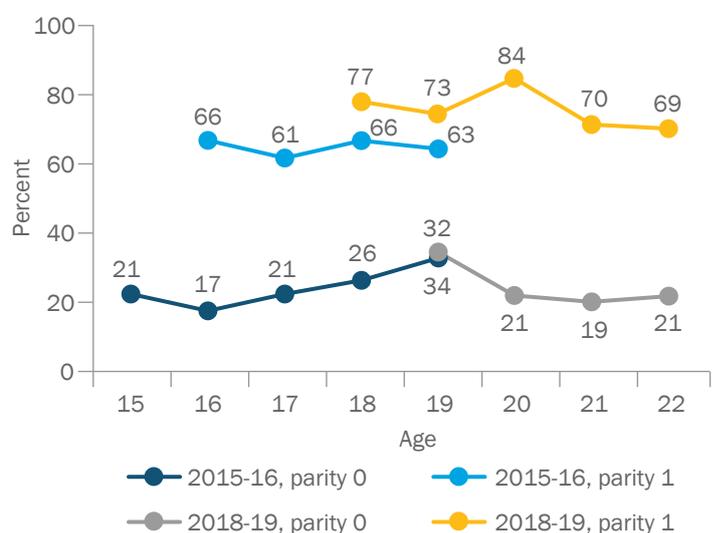
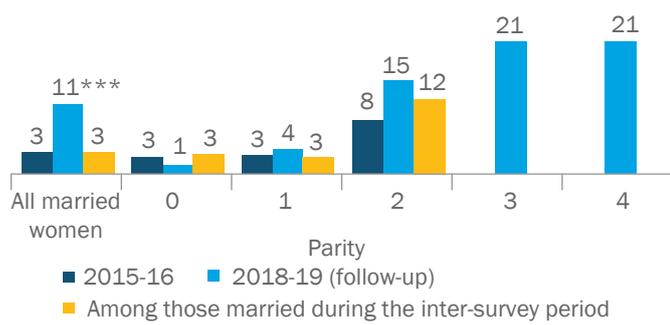


Figure 8: Percent of married women by modern contraceptive use and parity



Note: *** $p \leq 0.001$

An added concern is that, a considerable proportion of those who reported any contraceptives were using traditional methods at both time points. The traditional method use seems to be common, after female sterilisation (Figure 9). There is much more innovation is needed in Bihar to promote reversible contraceptive methods.

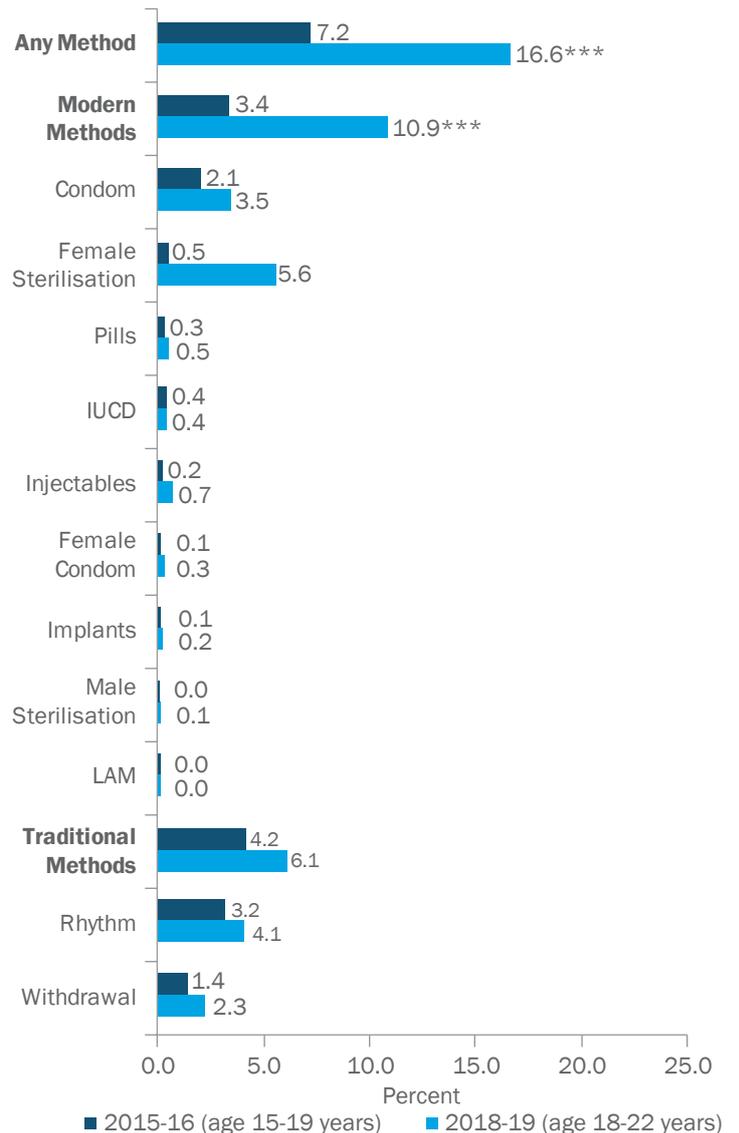
4. Lack of women’s agency, decision-making, and exposure to educational programmes

Married adolescents’ decision-making remained low at 21–22 percent in both the surveys. Although the women were in the 18–22 age group in 2018–19 and had borne children, their decision-making capability remained unchanged. Unmarried girls’ and married adolescents’ exposure to family life education and other educational programs was also limited. These factors did not show any association with contraceptive use. These findings suggest that programs need to reach girls and young women where they can be most easily accessed, for example, at home. Outreach is therefore critical for increasing women’s agency and decision-making.

5. No specific reason for non-use of contraception among young women

The survey explored reasons for non-use of contraception among married adolescents who wanted to delay having the first child. Among these adolescents, 26 percent reported not using contraception because of no or infrequent sex with husband, and 22 percent reported so because they are not aware of any method, while 17 percent did not specify any reason for non-use of contraception (perhaps this can be attributed to lack of knowledge or having the low risk perception of pregnancy). These were the three most dominant reasons for non-use of contraception and

Figure 9. Use of contraception by survey round



Note: *** $p \leq 0.001$

highlighted the need to create more awareness among young girls about their reproductive health rights and access to contraception.

Conclusion

This research study provides some key points for consideration by the Bihar state government and the national adolescent program. In particular, findings from this longitudinal study on low specific knowledge about contraceptive methods, low contraceptive use, and high unmet need among adolescents are a cause for concern. These findings argue for better information through innovative mechanisms, such as use of social media and provision of services through frontline health workers and other avenues for women and girls who are otherwise in a disadvantaged situation, specifically in rural areas of Bihar.

Recommended policy actions

1. Delay age at marriage as reproductive health risks are higher among those married below the age of 18 years.
2. Formalise frontline health worker (FLW) outreach to unmarried and married adolescents with reporting systems under health management information system (HMIS).
3. Bring reforms in schools to provide comprehensive reproductive health information, specifically for girls on agency and decision-making about their own sexual and reproductive health.

Recommended program actions

1. Emphasise on the communications related to young women's contraceptive needs and their rights and choices at facilities, village health and nutrition day (VHND), and other related platforms. Make contraceptive methods available through more ways than usual to enable young people's access.
2. Undertake a systematic approach to build competency of frontline health workers for effective communication with unmarried and married adolescents.
3. Share specific information in schools and facilities about contraceptive methods and have extensive talks on delaying first pregnancy and spacing of births between first and second birth through use of reversible modern contraceptive methods.
4. Innovative models are required to promote reversible contraception, as female sterilisation is still the most preferred choice for many young women in Bihar.

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Annexure

Key indicators	Unmarried girls aged 15–19 years in 2015–16			Married girls aged 15–19 years in 2015–16			Married in the interim survey period
	2015–16 (15–19 years)	2018–19 (18–22 years)	p-value (paired t-test)	2015–16 (15–19 years)	2018–19 (18–22 years)	p-value (paired t-test)	2018–19
	%	%		%	%		%
Pregnancy related							
Pregnancy loss rate ¹	—	—	—	20.0	21.3	0.281 ²	18.9
Proportion of adolescents who experienced pregnancy loss/child loss	—	—	—	11.5	31.9	0.000	10.6
Contraceptive use related							
Awareness of any three modern contraceptive methods ³	64.5	86.4	0.000	86.1	93.6	0.000	91.0
In-depth knowledge of any three modern contraceptive methods ³	17.6	32.1	0.000	44.9	51.2	0.000	46.6
Current use of any contraceptive method	—	—	—	7.2	16.6	0.000	7.7
Current use of modern contraceptive method	—	—	—	3.4	10.9	0.000	3.4
Unmet need for contraception	—	—	—	51.4	44.7	0.000	57.1
Unmet need for contraception (Parity 0)	—	—	—	41.1	6.7	0.000	48.0
Unmet need for contraception (Parity 1)	—	—	—	64.4	40.2	0.000	67.5
Agency and decision-making							
Mobility ⁴	81.0	72.7	0.000	36.2	57.7	0.000	48.4
Decision-making on all three items ⁵	21.4	23.3	0.000	21.9	21.3	0.030	19.0
Exposure to media and programs							
Own mobile phone	7.3	38.8	0.000	37.9	58.3	0.000	64.3
Use of social media	3.6	32.7	0.000	1.6	20.0	0.000	31.4
Family life education	23.0	25.7	0.000	11.5	12.1	0.000	19.2
Had interacted with FLW	16.4	32.8	0.000	41.9	71.2	0.000	54.6
Exposed to school health program	13.8	3.0	0.000	3.5	0.3	0.000	1.1
Members of groups	3.1	5.1	0.000	7.6	22.6	0.061	8.1
Ever participated in vocational training	12.1	36.4	0.000	16.6	29.9	0.000	33.2
Socio-demographic characteristics							
Percent completed 8 th std	73.9	81.6	0.000	47.6	49.4	0.000	72.7
Percent completed 10 th std	31.9	55.5	0.000	22.1	24.6	0.000	42.0
Awareness of legal age at marriage for girls	71.4	82.4	0.000	64.5	73.2	0.000	81.3

Notes: ¹Percentages of pregnancies lost out of total pregnancies; ²Independent sample t-test; ³Oral pills, emergency contraception and condom; ⁴Allowed to a) visit alone any shop/market/friend/relative inside the village/ward, b) visit alone any shop/market/friend/relative outside the village/ward, and c) attend any programme in the village/ward; ⁵Respondents take decisions alone or jointly on all three of the following: a) till which standard respondent will study, b) major household purchases, and c) whether respondent should work or stay at home.

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