

ENDLINE ASSESSMENT REPORT: IMPROVING REPRODUCTIVE HEALTH AND PREVENTING CHILD MARRIAGE IN VIETNAM

HealthBridge Foundation of Canada

16 October 2025



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EXECUTIVE SUMMARY

The endline assessment of the four-year Improving Reproductive Health and Preventing Child Marriage in Nepal and Vietnam project was conducted in Son La, Vietnam in early 2025. The overall goal of the endline assessment was to evaluate the project's success by comparing baseline and endline findings for key indicators related to utilization of SRMCH services, assess the changes in knowledge and attitudes among men, women and adolescents on sexual and reproductive health (SRH), gender equality (GE) and child marriage, assess the changes in capacity of health facilities in the catchment area to provide SRH services, and document lessons learned and recommendations for scaling or replicating the project. The primary and secondary data was collected using a mixed-methods approach. A cross-sectional study design was employed to collect the survey data, the HMIS data was also collected. An observational assessment was conducted in the health facilities by an expert consultant.

The endline assessment found an improvement in knowledge and attitudes in some areas of SRH and GE among men and women in the community including family planning and violence against women. Among students, there was also an improvement in knowledge and attitudes in some areas of SRH and GE including conception, contraceptives and relationships. Both women and adolescent girls reported a notable increase in their confidence in discussing SRH, accessing information about SRH, and making SRH decisions. The use of reproductive and maternal health services, as measured by the key performance indicators, all increased and met or exceeded the project targets. In total the project supported eight health facilities and out of the seven that were assessed at the endline on infrastructure, education and communication materials, human resources and waste management, five received full scores and the remaining two scored seven out of eight. In conclusion, the endline assessment of the project found important improvements in the availability and use of quality reproductive maternal and child health services, an improvement in the knowledge and attitudes among the community and an increase in the confidence of women and girls to make decisions about SRH.

INTRODUCTION

The Improving Reproductive Health and Preventing Child Marriage in Nepal and Vietnam project was funded by Global Affairs Canada and implemented between 2021 – and 2025. In Vietnam, the project was implemented in the Thuan Chau District of Son La province.

Son La is a mountainous and remote province in the Northwest of Vietnam, 330 kilometres away from Hanoi. The majority of the population resides in rural and mountainous areas (86.4%). The province's population is 1.3 million (of which 49.7% are women), and it is home to 12 different ethnic minority groups who account for more than 80% of the total population, mainly Thai (53.6%), Hmong (16.1%), and Muong (6.8%). Reproductive health services for adolescents are limited, difficult to access and of

low quality, and unmarried adolescents often face barriers and do not receive enough attention, particularly in the most remote communities.

There is a lack of Comprehensive Sexuality Education (CSE) for adolescents in the target communities, and barriers to accessing information about sexual and reproductive health (SRH) information, such as family-planning methods and resources, leads to adverse events such as higher rates of unintended pregnancy and child marriage. Child marriage forces girls out of school and denies them autonomy in making decisions about SRH. Child marriage, pregnancy and childbirth amongst adolescents disrupt young couples' lives, prematurely imposing adult responsibilities that can adversely impact their physical, emotional, and economic well-being, particularly for girls. Child marriage interrupts education, limits earning potential, can lead to early parenthood, restricts girls' agency, and reinforces cycles of poverty and gender inequality. Child marriage and early pregnancy can also impact the growth and development of fetuses and children¹.

In Son La Province, the early marriage rate has reduced from 21.2% to 11.3% between 2015 and 2024. There were 962 cases of early marriage recorded in 2024. However, the rate of pregnancy among adolescents is increasing from 10% in 2018 to 15.1% in 2024².

In the target communities, the project organized 330 education sessions for 7,375 people (1,642 men, 5,733 women) on various topics including adolescent sexual and reproductive health (ASRH), child marriage, family planning, and gender inequality.

In schools, teachers received training courses on CSE, ASRH and gender-responsive communication skills. Thirty-three education events were held in schools, with a total of 4,638 student attending the events. Six adolescent reproductive health information corners were set up at six project schools, where adolescents could access useful information about ASRH.

To improve the utilization of quality and gender-responsive ASRH health services, 34 commune healthcare staff received training and refresher training on gender equality and ASRH. Additionally, 27 healthcare staff working in district and provincial hospitals were trained on gender responsiveness in providing ASRH services. Eight health facilities were provided with essential equipment, communication materials, and supplies.

This endline assessment was carried out in Son La, Vietnam (Appendix 1: Project Logic Model).

GOAL & OBJECTIVES

GOAL

This endline assessment aimed to evaluate the project's success by comparing baseline and endline data to determine changes in key indicators. This assessment also integrated reflections and lessons learned

¹ Chae S, Ngo T. The global state of evidence on interventions to prevent child marriage [Internet]. Population Council; 2017 [cited 2024 Oct 11]. Available from: https://knowledgecommons.popcouncil.org/departments_sbsr-pgy/533

² Son La provincial Department of Population; and Son La CDC annual report 2024

throughout the project's implementation, including insights from the midline assessment, to provide recommendations for future projects.

SPECIFIC OBJECTIVES

- Measure changes in the knowledge and attitudes of community women, men, and adolescent boys and girls regarding sexual and reproductive health (SRH), gender equality (GE), and child marriage between the baseline and endline.
- Assess changes in access to SRH services using HMIS data, focusing on the following indicators:
 - #/% of women/adolescent girls who utilized family planning services in the past year
 - #/% of women/adolescent girls who utilized four antenatal care services as per protocol in the past year
 - #/% of women who delivered their last child in a health institution in the past year
 - #/% of women/adolescent girls who received postnatal care services in the first week after birth in the past year
- Assess changes in the capacity of participating health facilities to provide SRH services, focusing on four domains: facilities, equipment, human resources, and waste management.
- Document lessons learned and provide recommendations for scaling or replicating the project in other contexts.

METHODOLOGY

ASSESSMENT METHOD

We used data collection techniques similar to those employed in the baseline survey, making pilot testing of survey questions and data collection process unnecessary. To align with project activities, we excluded certain baseline questions from the adult and adolescent surveys that were not relevant.

A mixed-methods approach was used to collect both primary and secondary data. This included a cross-sectional study design to conduct surveys with adults and adolescents, reviewing HMIS data, and observing health facilities.

SURVEY

The data collection team received thorough orientation and training on the project, data collection techniques, ethical considerations for working with the community, and data protection and privacy protocols. All team members were from the local communities and spoke Thai, the local language.

The data collection team was comprised of a team lead and one team member (both female). The team lead collaborated with the local project implementation team (CDC Son La) to plan and carry out data collection, which was completed between January 6th and 12th, 2025.

ADOLESCENTS

All six project schools were informed about the endline assessment in advance. On the day of data collection, the team met with the school administration to brief them on the process and review the forms. Consent was obtained from school principals on behalf of the students, following the local practice for obtaining consent for minors in Vietnamese schools.

Two schools provided a designated room for the survey, while the other schools conducted it in the classroom. The data collection team ensured sufficient space between students to maintain privacy and confirmed that children answered the questions independently to assess their knowledge. The team lead described the survey process and how to complete it, emphasizing the different types of questions to help adolescents navigate them correctly.

Students were encouraged to ask questions if they needed clarification. After submitting the survey, the team lead reviewed the responses to ensure all questions were answered. If any were missing, the student was asked to review the survey again. None of the students required translation from Vietnamese to Thai to complete the survey.

Once all completed questionnaires were checked, the team lead conducted a quick assessment of knowledge gaps by identifying questions that a significant number of students answered incorrectly. Using this opportunity, the team lead provided accurate information on those topics. At one school, there was not enough time to review the questions with students, so the team lead discussed them with the school principal to share with teachers and students later. In the remaining schools, she communicated directly with the students. Each student then received a small notebook as a token of appreciation for their participation.

ADULTS

The survey with adults was conducted in 18 villages across six communes. The data collection team followed a similar process as in schools, explaining the survey, how to answer the questions, and offering assistance in reading the questions, or translating into Thai if needed. Consent was obtained from all adult participants.

The research assistant assisted 20 individuals who had difficulty reading or understanding the questions by reading them aloud and/or translating the questions and answering options.

To accommodate people's schedules, data collection in one village was completed during the evening. Participants were provided the equivalent of 2.00 CAD as transportation allowance for attending the survey.

HMIS DATA

In collaboration with CDC Son La, health facilities, and commune health centres the team lead collected HMIS data at both provincial and commune levels. The process went smoothly. The health system is transitioning from a paper system to a software-based system for recording the HMIS data, which is expected to simplify data management and record-keeping in the future.

HEALTH FACILITY ASSESSMENT

A local expert with a medical degree, who was one of the individuals involved in the baseline health facility assessment for the project, conducted observations at seven health facilities using an observation checklist. The expert contacted health facilities in advance to ensure access to complete observations and record data, with input from health facility staff. Health facilities observation was conducted between March 18th and 21st, 2025.

SAMPLE SIZE AND SAMPLING

SURVEY

To align with the baseline assessment, the sample size calculation from the baseline was used to determine the total sample size for adults (162 females and 162 males) and adolescents (240 boys and 240 girls)³.

The endline assessment was conducted in Son La province, covering two communes in Thuan Chau district and four communes/wards in Son La city. Three villages were randomly selected from each commune for the assessment. 183 women and 159 men from the six project communes participated.

At the community level, stratified random sampling was employed. The population was stratified by commune, with six eligible communes included. Within each commune, three villages were randomly selected to ensure proportional representation across communes. Prior to the survey day, village leaders invited villagers to participate in the assessment through door-to-door visits. On the day of the assessment, the data collection team and a community educator visited the villages and conducted the survey among individuals who attended the commune house. If multiple family members attended, one member from each family was selected to participate.

The assessment was conducted in six project schools, including three secondary and three high schools. 240 adolescent girls and 238 adolescent boys were selected from three secondary schools (two in Thuan Chau district and one in Son La City) and three high schools in Son La City. To align with the baseline, an equal number of students were selected from grades eight to 11. At the school level, stratified sampling was applied to determine the number of students from each grade and convenience sampling was used to select students from each grade.

Inclusion criteria included currently living or studying in the project communes, being able to communicate (understand and respond to questions), and being willing to participate in the survey.

HEALTH FACILITY ASSESSMENT

A total of seven project-supported health facilities were included in the endline survey. Four of the health facilities included in the endline assessment were not part of the baseline survey. The findings section presents a complete list of health facilities along with their baseline and endline scores, where available.

TOOLS

³ A total of 195 adults and 213 adolescents took part in the baseline assessment.

Two separate surveys were administered for adolescents and adults (Appendix 2 and 3). Male and female respondents answered the same set of questions, except for the women's agency questions, which were answered by female respondents only.

The data collection team explained the project, the purpose of the endline assessment, confidentiality, data privacy, and respondents' rights. Informed consent was obtained from adults and teachers (on behalf of students). For adolescents, further oral consent was obtained before conducting the survey (Consent forms can be found in Appendix 4).

To assess health facilities, an observation checklist was used, prepared according to the *National Guidelines for Reproductive Health Services* (issued under the Minister of Health's Decision No. 4128/QĐ-BYT dated July 29, 2016) (Appendix 5).

An Excel sheet was developed to record HMIS data. The data was initially recorded in paper form before being entered into the Excel sheet for analysis.

DATA MANAGEMENT

The data collection team lead reviewed the completed surveys at the end of each working day to ensure their completeness. Survey data were entered into SPSS 29.0.0.1 for data entry. Data checking and descriptive analysis were performed by the HealthBridge Evaluation Expert.

For health facility assessments, an observation checklist was used to determine scores in four domains: physical infrastructure, health care equipment and communication materials, human resources, and waste management. Each category was scored between zero and two, with the highest possible total score being eight. The scores were determined by a local expert who conducted the observations and curated the data file.

HMIS data were collected from the CDC Son La and commune health centers, and where necessary, additional calculations were completed manually on paper. The results, including numbers and percentages, were reported.

The data collection team lead ensured data confidentiality by securely storing the completed questionnaires in a locked filing cabinet and the electronic data files on a password-protected computer at all times. Respondents were identified only by IDs, and no names were recorded on the surveys. After sharing the files with HealthBridge, the lead deleted all electronic copies and destroyed all paper records. Data files were stored on HealthBridge's computers in password-protected folders.

ETHICS APPROVAL

The Center for Creative Initiatives in Health Promotion of Vietnam Union Science and Technology Association reviewed the endline assessment protocol and provided ethics approval (No. 251224, dated December 25, 2024).

LIMITATIONS

The endline assessment was conducted smoothly with no major limitations; however, there are a few points that need to be acknowledged.

When comparing baseline and endline findings, it's important to note that data was collected from the same communes but not necessarily the same villages. We have no reason to believe that including different villages would have affected the findings, as the population characteristics and project activities were intended to remain similar. However, since this was not controlled for, we can only assume comparability between baseline and endline data. The schools remained the same at baseline and endline assessment.

The characteristics of the adult survey respondents appear to be similar to those of the broader community. However, we cannot be fully confident that the people who attended the survey are representative of the entire village. For example, individuals living closer to commune centers or administrative buildings may be more actively involved in community initiatives and therefore have higher awareness or knowledge of topics such as SRH, which is the focus of this project. Conducting a household survey to address this potential bias would not have been feasible due to logistical constraints.

Both adults and adolescents found the attitude questions and questions on women's agency difficult to answer. The main challenges were the response options and the question format. Participants struggled to differentiate between similar options, such as "very confident" and "confident." Additionally, the matrix format of the women's agency questions, where questions were listed in rows and response options in columns, was not easy for them to navigate. While this may not have affected the validity of the findings, there is a potential for impact, and should be acknowledged.

Six schools participated in the endline survey. However, one school was unaware of the assessment, requiring the team to spend additional time preparing them for the survey. Despite this, data collection was completed on the same day. This highlights the need to add an extra step in future planning to ensure all schools and other data collection sites are informed and prepared before fieldwork begins.

The data collection team lead observed that high school students were more confident and quicker in filling out the survey. In contrast, secondary school students, especially boys, were distracted and noisy, and struggled to answer the questions. The level of engagement among younger students, particularly boys, may have impacted the findings. However, the team lead reviewed all surveys to ensure their completeness before dismissing the students.

The questions for attitudes on gender equality had four response categories (strongly agree, agree, disagree, strongly disagree) while the questions for attitudes on reproductive health had only three categories (agree, disagree, don't know). Due to limited access to fully disaggregated raw baseline data, we could not adjust the response options for full consistency. As a result, findings for these two topics are presented separately, maintaining their original response categories.

Regarding health facility assessments, it should be noted that not all project-supported health facilities were assessed in the baseline survey. Additionally, the Chieng Bom Commune Health Centre was not assessed at endline because it was under construction, and the handover process by the Government was not complete at the time of assessment. Therefore, it was not possible to measure changes in the scores for the five facilities between baseline and endline. The findings can only compare the scores achieved at endline with the total possible score.

FINDINGS

This section presents endline findings alongside baseline findings to highlight changes over time. The baseline assessment was conducted in March 2022, while endline data collection took place between January and February 2025.

The findings are organized under four main headings: (1) ultimate outcome, where no changes were expected, and we only report the results; (2) changes in Key Performance Indicators (KPIs); (3) surveys with adolescents in schools and community members; and (4) health facility assessment.

ULTIMATE OUTCOME

The project's ultimate goal was to improve health and gender equality and reduce the incidence of child and early marriage among women and adolescent girls in vulnerable communities in Vietnam and Nepal. Two indicators were used to measure progress: the number of adolescent girls married in the two years prior to data collection and the adolescent birth rate. As shown in Table 1, there was a slight decrease in the adolescent marriage rate and a slight increase in the adolescent birth rate.

Table 1 Adolescent girls' marriage rate and birth rate at baseline and endline

Indicator	Baseline	Endline
N/% currently married (women aged under 18 in the last two years)	782 (13.0%)	962 (11.3%)
Adolescent Birth Rate	2155 (10.6%)	2181 (12.2%)

CHANGES IN KEY PERFORMANCE INDICATORS

Data for four KPIs are presented in the table below. HMIS records from Commune Health Stations were used to report the KPIs. All KPIs met the target of a 5% increase, with three achieving a 10% increase from baseline values.

It is important to note that age-disaggregated data were not available, so the numbers represent totals for all ages. To ensure consistency in HMIS data collection, the baseline data was collected again by the consultant at the time of the endline data collection and these are the figures reported below to compare baseline and endline results.

Table 2 KPIs at baseline and endline and progress towards targets

Indicator	Baseline	Target	Endline
N/% of women/adolescent girls who utilized family planning services in the past year	98	5-10% increase (103-108)	121
N/% of women/adolescent girls who utilized 4 antenatal care services as per protocol in the past year	505 (72.8%)	5-10% increase (530-555)	568 (80.0%)
N/% of women who delivered their last child in a health institution in the past year	641 (92.5%)	5-10% increase (673-705)	683 (96.2%)
N/% of women/adolescent girls who received postnatal care services in the first week after birth in	462 (66.7%)	5-10% increase (485-508)	549 (77.3%)

the past year			
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SURVEY RESULTS

ADULTS

CHARACTERISTICS OF RESPONDENTS

A total of 342 villagers (53.5% women) from six communes completed the survey. The average age was 35.7 years. Most respondents (80.7%) belonged to the Thai ethnic minority group. The majority (80.4%) were married, with an average age at marriage of 20.8 years, ranging from 13 to 37 years. Table 3 provides a detailed summary of respondent characteristics.

Table 3 Characteristics of Adult Respondents

Variable	Men	Women	Total
Age in years N (Mean± SD)			
	159 (36.1± 12.1)	183 (35.3± 12.5)	342 (35.7± 12.3)
Ethnicity (N (%))			
Thai	126 (79.2%)	150 (82.0%)	276 (80.7%)
Kinh	10 (6.3%)	16 (8.7%)	26 (7.6%)
Khang	13 (8.2%)	13 (7.1%)	26 (7.6)
Khmu	7 (4.4%)	2 (1.1%)	9 (2.6%)
H'Mong	2 (1.3%)	1 (0.5%)	3 (0.9%)
Lao	1 (0.6%)	0 (0.0%)	1 (0.3%)
Dao	0 (0.0%)	1 (0.5%)	1 (0.3%)
Marital status (N (%))			
Single	38 (23.9%)	15 (8.2%)	53 (15.5%)
Married	118 (74.2%)	157 (85.8%)	275 (80.4%)
Divorced/separated	3 (1.9%)	4 (2.2%)	7 (2.0%)
Widow	0 (0.0%)	7 (3.8%)	7 (2.0%)
Age at marriage N (Mean± SD)			
	121 (22.7± 4.1)	168 (19.4± 2.5)	289 (20.8± 3.7)

KNOWLEDGE OF SRH

There were four questions to assess knowledge of SRH. Three had multiple correct answers, while one had one correct answer. Table 4 presents the baseline and endline findings, disaggregated by sex. At endline, a considerable number of men and women selected the correct answer(s), with percentages ranging from 72.3% to 97.3%. For most response options, the percentage of individuals choosing the correct answer(s) increased notably from baseline to endline. The only exception was the question on emergency contraception, where baseline percentages were already high, showing only a slight improvement at endline.

Table 4 Knowledge of SRH at baseline and endline: unwanted pregnancy, unprotected sex, and contraception

Knowledge question	Correct answers	Baseline		Endline	
		Men	Women	Men	Women

Name the causes of unwanted pregnancy that you know.	Do not use birth control while having sex	240 (70.2%)	214 (74.8%)	155 (97.5%)	178 (97.3%)
	Using contraception incorrectly	195 (57.0%)	195 (68.2%)	146 (91.8%)	178 (97.3%)
	Failure of contraception	82 (24.0%)	101 (35.3%)	115 (72.3%)	171 (93.4%)
In your opinion, what are the consequences of unprotected sex?	Unplanned pregnancy	188 (55.1%)	180 (62.7%)	143 (89.9%)	169 (92.3%)
	Getting a sexually transmitted disease	233 (68.3%)	213 (74.2%)	149 (93.7%)	175 (95.6)
	HIV/AIDS infection	164 (48.1%)	132 (46.0%)	140 (88.1%)	169 (92.3%)
According to you, how to use condoms properly?	Packaging must be intact, not expired	272 (79.3%)	238 (83.2%)	153 (96.2%)	182 (99.5%)
	Each condom can only be used once	281 (81.9%)	237 (82.6%)	147 (92.5%)	177 (96.7%)
When do you think emergency contraception is used?	Within 72 hours after having sex	221 (65.0%)	217 (76.1%)	127 (79.9%)	141 (77.0%)

ATTITUDE ON SRH AND GENDER EQUALITY

The endline assessment findings show an improvement in the percentage of survey respondents with a positive attitude toward reproductive health, as defined by three statements, as shown in Table 5. Further, the percentage of respondents who were uncertain (chose “don’t know” option) decreased notably from baseline to endline.

At endline, more respondents disagreed with the statement that using a condom is a sign of not trusting the loyalty of one's partner. There was also a notable increase in the percentage of men who agreed that using a condom is a sign of not being loyal.

Table 5 Attitude on reproductive health at baseline and endline

Attitude statement	Answering options	Baseline		Endline	
		Men	Women	Men	Women
Women can refuse to have sex with men when they don't want to.					
	Agree	291 (84.8%)	258 (89.9%)	156 (98.1%)	178 (97.3%)
	Disagree	36 (10.5%)	21 (7.3%)	1 (0.6%)	5 (2.7%)
	Don't know	16 (4.7%)	8 (2.8%)	2 (1.3%)	0 (0%)
It is acceptable to discuss contraceptive methods between two lovers or between husband and wife.					
	Agree	272 (79.3%)	263 (91.6%)	154 (96.9%)	181 (98.9%)

	Disagree	36 (10.5%)	14 (4.9%)	3 (1.9%)	2 (1.1%)
	Don't know	35 (10.2%)	10 (3.5%)	2 (1.3%)	0 (0%)
Using condoms is a sign that you do not trust the loyalty of your lover/partner /spouse.					
	Agree	60 (17.5%)	67 (23.3%)	43 (27.0%)	37 (20.2%)
	Disagree	222 (64.7%)	185 (64.5%)	113 (71.1%)	145 (79.2%)
	Don't know	61 (17.8%)	35 (12.2%)	3 (1.9%)	1 (0.5%)

Nine statements with response options ranging from *strongly agree* to *strongly disagree* were used to assess attitudes toward gender equality. Depending on the statement, either agreement or disagreement can reflect a positive attitude. To make it easier to observe changes between baseline and endline, responses were also grouped into broader categories: *agree* and *disagree*.

Table 6 presents the findings, with the detailed four-category responses shown in light gray for readers who may be interested. As seen in Table 6, for some statements, there is an increase in the *strongly agree* response and a decrease in the *agree* response from baseline to endline. This may appear contradictory, as in the case of the statement *Wives must always obey their husbands*.

The findings show varying levels of change in attitudes between different statements and between men and women. Both men and women demonstrated improvements in their attitudes toward gender equality when responding to the following statements:

Boys must be stronger than girls.

Violence against women is acceptable in some situations.

In contrast, for the following statements, both men and women largely maintained their baseline responses, indicating little to no change in attitude:

For women, taking care of their home and children is more important than the development of their career.

Men are the breadwinners in the family.

Men cannot take care of children as well as women.

Differences emerged in other areas. Women showed noticeable improvements in their attitudes, while men's responses remained largely unchanged:

Women should tolerate and endure violence to keep the peace of their family.

Wives must always obey their husbands.

Men have more decision-making power in the family than women.

Contraception is the responsibility of women.

Table 6 Attitude on gender equality at baseline and endline

Attitude statement	Answering options	Baseline		Endline	
		Men	Women	Men	Women
For women, taking care of their home and children is more important than the development of their career.					
	Disagree	221 (64.4%)	196 (68.3%)	104 (65.4%)	138 (75.4%)
	Agree	122 (35.6%)	91 (31.7%)	55 (34.6%)	45 (24.6%)
	Strongly disagree	46 (13.4%)	36 (12.5%)	41 (25.8%)	55 (30.1%)
	Disagree	175 (51.0%)	160 (55.7%)	63 (39.6%)	83 (45.4%)
	Agree	103 (30.0%)	88 (30.7%)	46 (28.9%)	34 (18.6%)
	Strongly agree	19 (5.5%)	3 (1.0%)	9 (5.7%)	11 (6.0%)
Women should tolerate and endure violence to keep the peace of their family.					
	Disagree	274 (79.9%)	221 (77.0%)	127 (79.9%)	174 (95.1%)
	Agree	69 (20.1%)	66 (23.0%)	32 (20.1%)	9 (4.9%)
	Strongly disagree	98 (28.6%)	80 (27.9%)	55 (34.6%)	69 (37.7%)
	Disagree	176 (51.3%)	141 (49.1%)	72 (45.3%)	105 (57.4%)
	Agree	69 (20.1%)	64 (22.3%)	20 (12.6%)	8 (4.4%)
	Strongly agree	0 (0%)	2 (0.7%)	12 (7.5%)	1 (0.5%)
Men cannot take care of children as good as women.					
	Disagree	22 (64.7%)	171 (59.8%)	106 (66.7%)	125 (68.3%)
	Agree	121 (35.3%)	115 (40.2%)	53 (33.3%)	58 (31.7%)
	Strongly disagree	15 (4.4%)	20 (7.0%)	24 (15.1%)	40 (21.9%)
	Disagree	207 (60.3%)	151 (52.6%)	82 (51.6%)	85 (46.4%)
	Agree	112 (32.7%)	97 (33.8%)	40 (25.2%)	51 (27.9%)
	Strongly agree	9 (2.6%)	18 (6.3%)	13 (8.2%)	7 (3.8%)
Wives must always obey their husbands.					
	Disagree	259 (75.7%)	225 (78.4%)	118 (74.2%)	161 (88.0%)
	Agree	83 (24.2%)	62 (21.6%)	41 (25.8%)	22 (12.0%)
	Strongly disagree	36 (10.5%)	35 (12.2%)	36 (22.6%)	58 (31.7%)
	Disagree	223 (65.2%)	190 (66.2%)	82 (51.6%)	103 (56.3%)
	Agree	77 (22.5%)	55 (19.2%)	34 (21.4%)	20 (10.9%)
	Strongly agree	6 (1.8%)	7 (2.4%)	7 (4.4%)	2 (1.1%)
Boys must be stronger than girls.					
	Disagree	113 (32.9%)	75 (26.3%)	65 (40.9%)	95 (51.9%)
	Agree	230 (67.1%)	210 (73.7%)	94 (59.1%)	88 (48.1%)
	Strongly disagree	13 (3.8%)	8 (2.8%)	12 (7.5%)	32 (17.5%)
	Disagree	100 (29.2%)	67 (23.5%)	53 (33.3%)	63 (34.4%)
	Agree	201 (58.6%)	185 (64.9%)	68 (42.8%)	64 (35.0%)
	Strongly agree	29 (8.5%)	25 (8.8%)	26 (16.4%)	24 (13.1%)
Men have more decision-making power in the					

Attitude statement	Answering options	Baseline		Endline	
		Men	Women	Men	Women
family than women.					
	Disagree	226 (66.1%)	159 (55.6%)	98 (61.6%)	126 (68.9%)
	Agree	116 (33.9%)	127 (44.4%)	61 (38.4%)	57 (31.1%)
	Strongly disagree	16 (4.7%)	9 (3.1%)	17 (10.7%)	52 (28.4%)
	Disagree	210 (61.4%)	150 (52.4%)	81 (50.9%)	74 (40.4%)
	Agree	95 (27.8%)	98 (34.3%)	37 (23.3%)	50 (27.3%)
	Strongly agree	21 (6.1%)	29 (10.1%)	24 (15.1%)	7 (3.8%)
Violence against women is acceptable in some situations.					
	Disagree	274 (79.9%)	244 (85.0%)	134 (84.3%)	163 (89.1%)
	Agree	69 (20.1%)	43 (15.0%)	25 (15.7%)	20 (10.9%)
	Strongly disagree	93 (27.1%)	67 (23.3%)	47 (29.6%)	74 (40.4%)
	Disagree	181 (52.8%)	177 (61.7%)	87 (54.7%)	89 (48.6%)
	Agree	63 (18.4%)	39 (13.6%)	23 (14.5%)	19 (10.4%)
	Strongly agree	6 (1.7%)	4 (1.4%)	2 (1.3%)	1 (0.5%)
Contraception is the responsibility of women.					
	Disagree	266 (77.6%)	232 (80.8%)	121 (76.1%)	160 (87.4%)
	Agree	77 (22.4%)	55 (19.2%)	38 (23.9%)	23 (12.6%)
	Strongly disagree	55 (16.0%)	68 (23.7%)	34 (21.4%)	69 (37.7%)
	Disagree	211 (61.5%)	164 (57.1%)	87 (54.7%)	91 (49.7%)
	Agree	72 (21.0%)	52 (18.1%)	31 (19.5%)	18 (9.8%)
	Strongly agree	5 (1.5%)	3 (1.0%)	7 (4.4%)	5 (2.7%)
Men are the breadwinners in the family.					
	Disagree	155 (45.2%)	118 (41.3%)	65 (40.9%)	85 (46.4%)
	Agree	188 (54.8%)	168 (58.7%)	94 (59.1%)	98 (53.6%)
	Strongly disagree	15 (4.4%)	8 (2.8%)	22 (13.8%)	30 (16.4%)
	Disagree	140 (40.8%)	110 (38.5%)	43 (27.0%)	55 (30.1%)
	Agree	169 (49.3%)	147 (51.4%)	46 (28.9%)	66 (36.1%)
	Strongly agree	19 (5.5%)	21 (7.3%)	48 (30.2%)	32 (17.5%)

Seven statements were used to measure women's confidence in discussing, accessing information, and making SRH decisions. Across all areas, confidence levels increased notably from baseline to endline, with a more significant rise in the 'very confident' category compared to 'confident.' Additionally, the percentage of women who selected 'don't know' at baseline dropped considerably at the endline⁴. Table 7 presents the findings.

Table 7 Level of women's confidence in SRH decision making at baseline and endline, as measured by seven statements

⁴ There were 11 missing records for all agency questions at baseline.

Item	Answering options	Baseline	Endline
Discuss sexual and reproductive health issues with others (children, relatives, acquaintances, partners).			
	Very confident	54 (19.6%)	66 (36.1%)
	Confident	149 (54.0%)	106 (57.9%)
	Not confident	59 (21.4%)	9 (4.9%)
	Do not know	14 (5.1%)	2 (1.1%)
Actively seek information and services related to sex and reproductive health.			
	Very confident	72 (26.1%)	65 (35.5%)
	Confident	146 (52.9%)	108 (59.0%)
	Not confident	45 (16.3%)	10 (5.5%)
	Do not know	13 (4.7%)	0 (0%)
Refusing to have sex with your spouse/lover when you don't want to have sex.			
	Very confident	48 (17.4%)	64 (35.0%)
	Confident	125 (43.6%)	102 (55.7%)
	Not confident	80 (29.1%)	15 (8.2%)
	Do not know	22 (8.0%)	2 (1.1%)
Asking your spouse/lover to use birth control, or else you will refuse to have sex.			
	Very confident	48 (17.5%)	72 (39.3%)
	Confident	125 (45.5%)	101 (55.2%)
	Not confident	80 (29.1%)	8 (4.4%)
	Do not know	22 (8.0%)	2 (1.1%)
If you plan to have children, you will decide how many children to have.			
	Very confident	44 (16.0%)	66 (36.1%)
	Confident	153 (55.6%)	100 (54.6%)
	Not confident	35 (12.7%)	11 (6.0%)
	Do not know	43 (15.6%)	6 (3.3%)
If you are pregnant, you will decide where to go for antenatal care.			
	Very confident	61 (22.4%)	80 (43.7%)
	Confident	127 (44.3%)	94 (51.4%)
	Not confident	54 (19.9%)	3 (1.6%)
	Do not know	30 (11.0%)	6 (3.3%)
If you are about to give birth, you will be the one to decide which medical facility you want.			
	Very confident	101 (36.7%)	92 (50.3%)
	Confident	142 (51.6%)	89 (48.6%)
	Not confident	31 (11.3%)	0 (0%)
	Do not know	1 (0.4%)	2 (1.1%)

The target for the indicator, “N/% of women who feel they can make their own decisions regarding SRH”, was set at a 10% increase. As shown in Table 8, this target was not only met but also notably exceeded across all areas of women's agency, as measured by seven statements.

Table 8 Women who answered “confident” or “very confident” to seven statements about SRH decision making at baseline and endline

Item	Baseline	Target (%)	Endline
Discuss sexual and reproductive health issues with others (children, relatives, acquaintances, partners).	203 (73.6%)	81.0	172 (94.0%)
Actively seek information and services related to sex and reproductive health.	218 (79.0%)	86.9	173 (94.5%)
Refusing to have sex with your spouse/lover when you don't want to have sex.	190 (68.8%)	75.7	166 (90.7%)
Asking your spouse/lover to use birth control, or else you will refuse to have sex.	173 (62.9%)	69.2	173 (94.5%)
If you plan to have children, you will decide how many children to have.	197 (71.6%)	78.8	166 (90.7%)
If you are pregnant, you will decide where to go for antenatal care.	188 (69.1%)	76.0	174 (95.1%)
If you are about to give birth, you will be the one to decide which medical facility you want.	243 (88.4%)	97.2	181 (98.9%)

ADOLESCENTS

CHARACTERISTICS OF RESPONDENTS

A total of 478 students (240 girls) from six schools (four secondary and two high schools) participated in the survey. They were in grades eight to eleven, with an average age of 14.5 years. The majority (66.1%) belonged to the Thai ethnic minority group.

Table 9 Characteristics of students

Variable	Boys	Girls	Total
Age in years N (Mean± SD)			
	238 (14.5± 1.1)	240 (14.5± 12.5)	478 (14.5± 1.1)
Grade (N (%))			
8 th	53 (22.3%)	53 (22.1%)	106 (22.2%)
9 th	68 (28.6%)	68 (28.3%)	136 (28.5%)
10 th	55 (23.1%)	59 (24.6%)	114 (23.8%)
11 th	62 (26.1%)	60 (25.0%)	122 (25.5%)
Ethnicity (N (%))			
Thai	153 (64.3%)	163 (67.9%)	316 (66.1%)
Kinh	67 (28.2%)	55 (22.9%)	122 (25.5%)
Hmong	11 (4.6%)	6 (2.5%)	17 (3.6%)
Khang	4 (1.7%)	8 (3.3%)	12 (2.5%)
Muong	2 (0.8%)	4 (1.7%)	6 (1.3%)
Dao	1 (0.4%)	3 (1.3%)	4 (0.8%)

Lao	0 (0.0%)	1 (0.4%)	1 (0.2%)
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KNOWLEDGE OF SRH

Adolescents' knowledge was assessed using 13 questions. Five questions had a single correct answer, while the remaining had two or more correct answers. Tables 10–13 present the baseline and endline findings, disaggregated by sex.

Both boys and girls showed considerable improvement in their knowledge of signs of male and female puberty. At baseline, a higher percentage of girls had correct knowledge of puberty. By endline, girls continued to demonstrate greater knowledge of signs of female puberty, while a higher percentage of boys correctly identified signs of male puberty (Table 10).

Table 10 Knowledge of adolescents on signs of male and female puberty at baseline and endline

Knowledge question	Correct answers	Baseline		Endline	
		Boys	Girls	Boys	Girls
What are the signs of female puberty?					
	Breasts grow bigger	82 (53.6%)	201 (89.7%)	225 (94.5%)	235 (97.9%)
	Start to grow armpit and pubic hair	70 (45.8%)	176 (78.6%)	199 (83.6%)	231 (96.3%)
	Development of sex organs	72 (47.1%)	150 (67.0%)	193 (81.1%)	205 (85.4%)
	Hips expand, slimmer form	46 (30.1%)	123 (54.9%)	163 (68.5%)	193 (80.4%)
	Rapid increase in height and weight	58 (37.9%)	164 (73.2%)	175 (73.5%)	182 (75.8%)
	Menstruation appears	86 (56.2%)	205 (91.5%)	219 (92.0%)	239 (99.6%)
	The appearance of pimples	64 (41.8%)	157 (70.1%)	169 (71.0%)	181 (75.4%)
What are the signs of male puberty?					
	Testicles and penis enlarge	86 (56.6%)	140 (62.5%)	220 (92.4%)	220 (91.7%)
	Broken voice, exposed pharynx	120 (78.4%)	170 (75.9%)	236 (99.2%)	238 (99.2%)
	Rapid increase in height and weight	91 (59.9%)	144 (64.3%)	214 (89.9%)	216 (90.0%)
	Muscles in shoulders, chest, and arms get bigger	75 (49.0%)	132 (58.9%)	205 (86.1%)	202 (84.2%)
	Grows pubic hair, mustache	84 (55.3%)	149 (66.5%)	212 (89.1%)	226 (94.2%)
	Have a wet dream (ejaculate while sleeping)	72 (47.1%)	126 (56.3%)	214 (89.9%)	211 (87.9%)
	The appearance of pimples	66 (43.4%)	126 (56.3%)	155 (65.1%)	211 (87.9%)

Knowledge of pregnancy and conception, assessed through four questions outlined in Table 11, increased from baseline to endline among both boys and girls. In both assessments, a higher percentage of girls answered the questions correctly.

Table 11 Knowledge of adolescents on conception at baseline and endline

Knowledge question	Correct answers	Baseline		Endline	
		Boys	Girls	Boys	Girls
In your opinion, when can a male friend make a female friend pregnant?	Since the appearance of ejaculation	90 (59.6%)	151 (68.3%)	193 (81.1%)	213 (88.8%)
From when do you think a female friend can get pregnant?	Since menstruating	84 (55.3%)	187 (83.5%)	188 (79.0%)	222 (92.5%)
What kind of contact between a boy and a girl will result in pregnancy?	Unsafe sex (with intercourse)	128 (83.7%)	206 (92.0%)	233 (97.9%)	239 (99.6%)
Can a female friend get pregnant the first time she has sex?	Yes	83 (54.6%)	142 (63.4%)	201 (84.5%)	205 (85.4%)

Adolescents answered three questions regarding the causes and consequences of unplanned pregnancies. At endline, at least 90% of respondents selected at least one correct answer for each question, with girls demonstrating higher accuracy. As shown in Table 12, both boys and girls showed notable improvement in understanding the causes of unplanned pregnancies. Additionally, a considerably higher percentage of adolescents at endline identified the consequences of unprotected sex and early pregnancy.

Table 12 Knowledge of adolescents on the causes and consequences of unplanned pregnancy at baseline and endline

Knowledge question	Correct answers	Baseline		Endline	
		Boys	Girls	Boys	Girls
What are the causes of unplanned pregnancy?					
	Do not use contraception during sex	92 (60.1%)	179 (80.3%)	219 (92.0%)	226 (94.2%)
	Using contraception incorrectly	68 (44.4%)	140 (62.8%)	207 (87.0%)	223 (92.9%)
	Failure of contraception	44 (28.8%)	129 (57.8%)	174 (73.1%)	198 (82.5%)
What are the consequences of having unprotected sex?					
	Unintended pregnancy	98 (64.1%)	193 (86.5%)	228 (95.8%)	235 (97.9%)
	Getting a sexually	81 (52.9%)	177 (79.4%)	228 (95.8%)	229 (95.4%)

	transmitted disease				
	HIV/AIDS infection	92 (60.1%)	175 (78.5%)	220 (92.4%)	220 (91.7%)
	Get married early	50 (32.7%)	114 (51.1%)	152 (63.9%)	151 (62.9%)
	Unsafe abortion	63 (41.2%)	141 (63.2%)	159 (66.8%)	170 (70.8%)
In your opinion, how does pregnancy and childbirth before the age of 18 affect the mother and baby?					
	The child is not healthy	96 (63.2%)	165 (73.7%)	208 (87.4%)	225 (93.8%)
	The child is not properly nurtured	57 (37.5%)	142 (63.4%)	186 (78.2%)	182 (75.8%)
	The mother can die in childbirth	75 (49.3%)	145 (64.7%)	187 (78.6%)	204 (85.0%)
	Impact on mother's education	81 (53.3%)	176 (78.6%)	210 (88.2%)	224 (93.3%)
	Impact on mother's health	84 (55.3%)	183 (81.7%)	223 (93.7%)	229 (95.4%)

An increase in the percentage of both boys and girls who had heard of contraception methods was observed from baseline to endline. Almost all adolescents were aware of male condoms, and more than 85% knew about emergency contraceptives. Additionally, 78% of boys and 84% of girls were aware of daily oral contraceptives. Table 13 presents findings on all forms of contraception.

Male condoms were correctly identified by more than 90% of adolescents as a method for preventing both pregnancy and sexually transmitted disease. However, female condoms remained less recognized, with only a slight increase in knowledge from baseline.

There was a notable improvement in awareness of when emergency contraception should be used for effectiveness. However, this knowledge remained lower compared to general awareness of contraceptive types.

Table 13 Knowledge of adolescents on contraception methods at baseline and endline

Knowledge question	Correct answers	Baseline		Endline	
		Boys	Girls	Boys	Girls
Do you know or have you heard of any of the following methods of contraception?					
	IUD/contraceptive ring	54 (35.3%)	155 (69.2%)	200 (84.0%)	210 (87.5%)
	Male condom	128 (83.7%)	179 (79.9%)	237 (99.6%)	237 (98.8%)
	Female condom	58 (37.9%)	106 (47.5%)	180 (75.6%)	198(82.5%)
	Daily oral contraceptives	89 (58.2%)	172 (76.8%)	187 (78.6%)	203 (84.6%)
	Emergency Contraceptive Pills	60 (39.2%)	132 (58.9%)	207 (87.0%)	211 (87.9%)
	Injectable	25 (16.3%)	58 (25.9%)	110 (46.2%)	112 (46.7%)

	Contraceptives				
	Contraceptive implants	17 (11.1%)	52 (23.2%)	96 (40.3%)	111 (46.3%)
	Contraceptive patch	20 (13.1%)	53 (23.7%)	94 (39.5%)	105 (43.8%)
	Vaginal diaphragm	27 (17.6%)	42 (18.8%)	74 (31.1%)	68 (28.3%)
	Cervical cap	13 (8.5%)	16 (7.1%)	60 (25.2%)	70 (29.2%)
Choose two contraceptive methods that both prevent pregnancy and prevent sexually transmitted diseases.					
	Male condom	126 (82.4%)	184 (82.1%)	224 (94.1%)	220 (91.7%)
	Female condom	71 (46.4%)	118 (52.7%)	142 (59.7%)	155 (64.6%)
In your opinion, how to use condoms properly?					
	Packaging must be intact, not expired	88 (57.5%)	166 (74.1%)	221 (92.9%)	235 (97.9%)
	Each condom can only be used once	99 (64.7%)	153 (68.3%)	225 (94.5%)	235 (97.9%)
When do you think emergency contraception is used?					
	Within 72 hours after having sex	47 (31.3%)	109 (49.1%)	177 (74.4%)	210 (87.5%)

ATTITUDE OF RELATIONSHIPS AND SEXUAL BEHAVIOUR, GENDER EQUALITY, AND SRH DECISION MAKING

Adolescents' attitudes toward reproductive health and gender equality were assessed through their responses to five and nine statements, respectively. Additionally, adolescent girls reflected on five statements to report their level of confidence in making sexual and reproductive health (SRH) decisions.

The response options for the reproductive health attitude questions were 'true' and 'not true,' differing from the response options used for gender equality attitudes. This wording was initially identified by the consultants who conducted the baseline assessment as appropriate for the target group. To ensure consistency, the same language was maintained at endline, with 'true' corresponding to agreement and 'not true' to disagreement.

As shown in Table 14, changes in the percentage of adolescents holding positive or negative attitudes did not follow a consistent pattern across all statements. A higher percentage of both boys and girls expressed positive attitudes toward girls having the right to refuse sex, open discussions between partners about contraceptives, and the idea that using a condom is not necessarily a sign of mistrust.

In contrast, neither boys nor girls appeared confident in their ability to access contraceptives at endline. Additionally, the statement 'Love must have sex; without sex, it is not love' was identified as true by a higher percentage of boys at endline. At the same time, a higher percentage of both boys and girls

identified it as not true. This discrepancy may be explained by the fact that the percentage of adolescents selecting 'don't know' decreased notably at endline.

Table 14 Attitude of adolescents on relationships and sexual behaviours at baseline and endline

Attitude statement	Answering options	Baseline		Endline	
		Boys	Girls	Boys	Girls
Some say love must have sex, without sex it is not love.					
	True	9 (6.0%)	3 (1.3%)	29 (12.2%)	6 (2.5%)
	Not true	97 (64.7%)	193 (86.5%)	194 (81.5%)	229 (95.4%)
	Don't know	44 (29.3%)	27 (12.1%)	15 (6.3%)	5 (2.1%)
A girlfriend can refuse to have sex with her boyfriend when she doesn't want to.					
	True	118 (77.6%)	208 (94.1%)	232 (97.5%)	239 (99.6%)
	Not true	7 (4.6%)	4 (1.8%)	3 (1.3%)	0 (0%)
	Don't know	27 (17.8%)	9 (4.1%)	3 (1.3%)	1 (0.4%)
You feel ashamed and apprehensive about seeking birth control.					
	True	9 (5.9%)	12 (5.4%)	60 (25.2%)	56 (23.3%)
	Not true	91 (59.9%)	157 (70.4%)	149 (62.6%)	172 (71.7%)
	Don't know	52 (34.2%)	54 (24.2%)	29 (12.2%)	12 (5.0%)
It is acceptable to talk and discuss contraceptive methods between two lovers.					
	True	92 (60.5%)	163 (73.4%)	227 (94.6%)	227 (94.6%)
	Not true	11 (7.2%)	13 (5.9%)	6 (2.5%)	6 (2.5%)
	Don't know	49 (32.2%)	46 (20.7%)	7 (2.9%)	7 (2.9%)
Using a condom is a sign that you don't trust your lover's loyalty.					
	True	12 (7.9%)	1 (0.5%)	15 (6.3%)	17 (7.1%)
	Not true	92 (60.9%)	164 (73.9%)	203 (85.3%)	213 (88.8%)
	Don't know	47 (31.1%)	57 (25.7%)	20 (8.4%)	10 (4.2%)

Nine statements with response options ranging from *strongly agree* to *strongly disagree* were used to assess adolescents' attitudes toward gender equality. Depending on the statement, either agreement or disagreement reflected a positive attitude. To facilitate comparison between baseline and endline, responses were also grouped into two broader categories: *agree* and *disagree*.

Table 15 presents the findings, with detailed four-category responses shown in light gray for readers who may be interested.

The findings indicate an overall increase in the percentage of both boys and girls who hold positive attitudes toward most topics, with the greatest improvements seen in the three statements: For women, taking care of their home and children is more important than the development of their career; women should tolerate and endure violence to keep the peace in their family; and wives must always obey their husbands.

Less change was observed in attitudes on the following five statements: Men cannot take care of children as well as women; wives must always obey their husbands; men have more decision-making power in the family than women; violence against women is acceptable in some situations; and contraception is the responsibility of women.

At baseline, approximately 75% of boys and 50% of girls agreed that 'boys must be stronger than girls. A similar proportion of both boys and girls held this belief at endline. Additionally, a slight shift was observed in attitudes toward men's role as the main breadwinner in the family. At endline, a slightly higher percentage of boys and a slightly lower percentage of girls maintained the belief that men should be the primary breadwinners.

Table 15 Adolescents' attitude on gender equality at baseline and endline

Attitude statement	Answering options	Baseline		Endline	
		Boys	Girls	Boys	Girls
For women, taking care of their home and children is more important than the development of their career.	Disagree	88 (58.7%)	165 (74.3%)	191 (80.3%)	223 (92.9%)
	Agree	62 (41.3%)	57 (25.7%)	46 (19.3%)	17 (7.1%)
	Strongly disagree	18 (12.0%)	81 (36.5%)	58 (24.4%)	92 (38.3%)
	Disagree	70 (46.7%)	84 (37.8%)	133 (55.9%)	131 (54.6%)
	Agree	42 (27.5%)	52 (23.4%)	39 (16.4%)	16 (6.7%)
Women should tolerate and endure violence to keep the peace of their families.	Strongly agree	20 (13.3%)	5 (2.3%)	7 (2.9%)	1 (0.4%)
	Disagree	108 (71.5%)	200 (90.1%)	230 (96.6%)	229 (95.4%)
	Agree	43 (28.5%)	22 (9.9%)	8 (3.4%)	11 (4.6%)
	Strongly disagree	42 (27.8%)	129 (58.1%)	150 (63.0%)	171 (71.3%)
	Disagree	66 (43.7%)	71 (32.0%)	80 (33.6%)	58 (24.2%)
Men cannot take care of children as good as women.	Agree	29 (19.2%)	17 (7.7%)	8 (3.4%)	9 (3.8%)
	Strongly agree	14 (9.3%)	5 (2.3%)	0 (0.0%)	2 (0.8%)

Attitude statement	Answering options	Baseline		Endline	
		Boys	Girls	Boys	Girls
	Disagree	100 (66.7%)	151 (68.0%)	174 (73.1%)	185 (77.1%)
	Agree	43 (28.5%)	71 (32.0%)	64 (26.9%)	55 (22.9%)
	Strongly disagree	23 (15.3%)	46 (20.7%)	46 (19.3%)	34 (14.2%)
	Disagree	77 (51.3%)	105 (47.3%)	128 (53.8%)	151 (62.9%)
	Agree	38 (25.3%)	65 (29.3%)	54 (22.7%)	51 (21.3%)
	Strongly agree	12 (8.0%)	6 (2.7%)	10 (4.2%)	4 (1.7%)
Wives must always obey their husbands.					
	Disagree	113 (75.8%)	213 (96.4%)	214 (89.9%)	236 (98.3%)
	Agree	36 (24.2%)	8 (3.6%)	24 (10.1%)	4 (1.7%)
	Strongly disagree	18 (12.1%)	122 (55.2%)	94 (39.5%)	123 (51.2%)
	Disagree	95 (63.8%)	91 (41.2%)	120 (50.4%)	113 (47.1%)
	Agree	30 (20.1%)	6 (2.7%)	22 (9.2%)	4 (1.7%)
	Strongly agree	6 (4.0%)	2 (0.9%)	2 (0.8%)	0 (0.0%)
Boys must be stronger than girls.					
	Disagree	38 (25.5%)	115 (52.3%)	58 (24.4%)	123 (51.2%)
	Agree	111 (74.5%)	105 (47.7%)	180 (75.6%)	117 (48.8%)
	Strongly disagree	8 (5.4%)	26 (11.8%)	6 (2.5%)	27 (11.3%)
	Disagree	30 (20.1%)	89 (40.5%)	52 (21.8%)	96 (40.0%)
	Agree	64 (40.3%)	79 (35.9%)	108 (45.4%)	96 (40.0%)
	Strongly agree	47 (31.5%)	26 (11.8%)	72 (30.3%)	21 (8.8%)
Men have more decision-making power in the family than women.					
	Disagree	82 (54.7%)	164 (74.2%)	153 (64.3%)	201 (83.8%)
	Agree	68 (45.3%)	57 (25.8%)	85 (35.7%)	39 (16.3%)
	Strongly disagree	17 (11.3%)	79 (35.7%)	29 (12.2%)	81 (33.8%)
	Disagree	65 (43.3%)	85 (38.5%)	124 (52.1%)	120 (50.0%)
	Agree	51 (34.0%)	53 (24.0%)	75 (31.5%)	38 (15.8%)
	Strongly agree	17 (11.3%)	4 (1.8%)	10 (4.2%)	1 (0.4%)
Violence against women is acceptable in some situations.					
	Disagree	120 (79.5%)	182 (82.4%)	195 (81.9%)	207 (86.3%)
	Agree	31 (20.5%)	39 (17.6%)	43 (18.1%)	33 (13.8%)
	Strongly disagree	42 (27.8%)	102 (46.2%)	81 (34.0%)	114 (47.5%)
	Disagree	78 (51.7%)	80 (36.2%)	114 (47.9%)	93 (38.8%)
	Agree	28 (18.5%)	39 (17.6%)	41 (17.2%)	33 (13.8%)
	Strongly agree	3 (2.0%)	0 (0.0%)	2 (0.8%)	0 (0.0%)
Contraception is the responsibility of women.					
	Disagree	103 (68.7%)	183 (83.2%)	198 (83.2%)	218 (90.8%)
	Agree	47 (31.3%)	37 (16.8%)	40 (16.8%)	22 (9.2%)
	Strongly disagree	33 (22.0%)	106 (48.2%)	97 (40.8%)	141 (58.8%)
	Disagree	70 (46.7%)	77 (35.0%)	101 (42.4%)	77 (32.1%)
	Agree	34 (22.7%)	31 (14.1%)	34 (14.3%)	16 (6.7%)
	Strongly agree	13 (8.7%)	6 (2.7%)	6 (2.5%)	6 (2.5%)

Attitude statement	Answering options	Baseline		Endline	
		Boys	Girls	Boys	Girls
Men are the breadwinners in the family.					
	Disagree	40 (26.8%)	74 (33.5%)	53 (22.3%)	98 (40.8%)
	Agree	109 (73.2%)	147 (66.5%)	185 (77.7%)	142 (59.2%)
	Strongly disagree	9 (6.0%)	15 (6.8%)	5 (2.1%)	25 (10.4%)
	Disagree	31 (20.8%)	59 (26.7%)	48 (20.2%)	73 (30.4%)
	Agree	62 (41.6%)	115 (52.0%)	114 (47.9%)	118 (49.2%)
	Strongly agree	47 (31.5%)	32 (14.5%)	71 (29.8%)	24 (10.0%)

Five statements were used to measure adolescent girl's confidence in discussing, accessing information, and making SRH decisions. Across all areas, overall confidence level increased from baseline to endline. Additionally, the percentage of girls who selected 'don't know' at baseline dropped considerably at the endline. Table 16 presents the findings.

Table 16 Level of adolescent girls' confidence in SRH decision making at baseline and endline, as measured by five statements

Item	Answering options	Baseline	Endline
Discuss sexual and reproductive health issues with others (friends, parents, relatives, teachers).			
	Very confident	21 (9.5%)	20 (8.3%)
	Confident	92 (41.4%)	142 (59.2%)
	Not confident	76 (34.2%)	69 (28.7%)
	Do not know	33 (14.9%)	9 (3.8%)
Actively seek information and services related to sex and reproductive health (birth control methods, condom use, where to buy condoms).			
	Very confident	25 (11.3%)	42 (17.5%)
	Confident	131 (59.3%)	160 (66.7%)
	Not confident	44 (19.9%)	26 (10.8%)
	Do not know	21 (9.5%)	12 (5.0%)
Refusing to have sex with your boy friend/lover when you don't want to have sex yet.			
	Very confident	100 (45.7%)	142 (59.2%)
	Confident	80 (36.5%)	83 (34.6%)
	Not confident	15 (6.8%)	6 (2.5%)
	Do not know	24 (11.0%)	9 (3.8%)
Asking your boy friend/lover to use birth control, or else you will refuse to have sex.			
	Very confident	79 (36.1%)	120 (50.0%)
	Confident	87 (39.7%)	101 (42.1%)
	Not confident	2 (0.9%)	2 (0.8%)

Item	Answering options	Baseline	Endline
	Do not know	51 (23.3%)	17 (7.1%)
Don't agree to get married when you don't want (even your boyfriend, and family insist you to get married).			
	Very confident	111 (50.0%)	143 (59.6%)
	Confident	78 (35.1%)	79 (32.9%)
	Not confident	16 (7.2%)	11 (4.6%)
	Do not know	17 (7.7%)	7 (2.9%)

The target for the indicator, “N/% of adolescent girls who feel they can make their own decisions regarding SRH”, was set at a 10% increase. As shown in Table 17, this target was met for all items except for confidence in refusing to get married when not wanting to. However, this item showed a notable improvement and almost achieved the target.

Table 17 Adolescent girls who answered “confident” or “very confident” to five statements about SRH decision making at baseline and endline

Item	Baseline	Target (%)	Endline
Discuss sexual and reproductive health issues with others (friends, parents, relatives, acquaintances, teachers).	113 (50.9%)	56.0	162 (67.5%)
Actively seek information and services related to sex and reproductive health.	156 (70.6%)	77.7	202 (84.2%)
Refusing to have sex with your boyfriend/lover when you don't want to have sex yet.	180 (82.2%)	90.4	225 (93.8%)
Asking your boyfriend/lover to use birth control, or else you will refuse to have sex.	166 (75.8%)	83.4	221 (92.1%)
Don't agree or refuse to get married when you don't want to.	189 (85.1%)	93.6	222 (92.5%)

HEALTH FACILITY ASSESSMENT

A total of eight health facilities were supported by the project. Overall, the assessment scores suggest that the project-supported health facilities were in good condition, as evaluated by the four standard domains (Table 18). Baseline data was unavailable for half of the facilities, preventing a comparison between all facilities baseline and endline results. However, the endline scores showed that three out of the four facilities assessed at baseline achieved full scores by the end of the project. At the endline, the Tong Co Commune Health Centre, received a total score of seven out of eight, and a score of one out of two for equipment and communication materials. While a sufficient variety of specialized instruments was reported, the number of such instruments was limited. Specifically, there was only one set for IUD (Intrauterine Device) insertion and removal, and one set for gynecological examinations. The Thuan Chau District Health Centre also did not obtain the highest score, scoring a total of seven out of eight at the endline and showed a decrease in its score from baseline. This was due to not meeting the human resources requirement, as the in-charge physician had passed away and had not been replaced at the time of data collection.

In general, seven project supported health facilities that were assessed at the endline have enough capacity to provide SRH services for local people. Some level of improvements were recorded in communication materials and human resources where health facilities have updated communication materials and healthcare workers received training and refresher trainings on ASRH in the last two years.

Table 18 Scores of project supported health facilities at baseline and endline

Facility	Infrastructure		Equipment and communication materials		Human resources		Waste management		Total	
	Baseline	Endline	Baseline	Endline	Baseline	Endline	Baseline	Endline	Baseline	Endline
Chieng Bom Commune Health Centre	1		2		1		0		4	
Chieng Le ward Health Centre	1	2	0	2	2	2	1	2	4	8
Thuan Chau District Health Centre	2	2	2	2	2	1	2	2	8	7
Chieng Ngan Ward Health Centre		2		2		2		2		8
Chieng Sinh Ward Health Centre		2		2		2		2		8
Chieng Den Commune Health Centre		2		2		2		2		8
Tong Co Commune Health Centre		2		1		2		2		7
CDC Son La General Clinic	2	2	2	2	2	2	2	2	8	8

DISCUSSION AND RECOMMENDATIONS

The findings indicate improvements in most of the measures assessed at both baseline and endline among general community members and school students. Although these individuals may have participated in the project activities, the selection process did not account for their exposure to these activities. These improvements include increased knowledge and better attitudes among adults and adolescents regarding reproductive health, child marriage, and GBV. Additionally, the perceived agency of community women and adolescent girls to make decisions about their SRH was enhanced. Key performance indicators also showed better access to SRH and maternal and child health services for women and adolescent girls. Furthermore, the findings indicated that project-supported facilities were equipped with essential equipment and supplies to provide SRH services.

In planning and conducting the endline assessment and data analysis, every effort was made to replicate the baseline assessment. Although a different group of consultants conducted the data collection and entry at the endline, we ensured that the baseline assessment protocol was followed as closely as possible. We reviewed the tools and removed questions that were only relevant for the baseline to refine project activities and were not needed for the endline.

Both the baseline and endline assessment consultants had expertise in research and data management. The HealthBridge Evaluation Expert provided technical support to ensure data quality, validity, and alignment with ethical considerations. Data checking showed that the data was of good quality and accuracy.

The characteristics of adult and adolescent respondents showed a reasonable distribution across gender, age, ethnicity, and marital status (for adults), reflecting the population's demographics. This distribution indicates that the respondents reasonably represent the community, allowing the findings to be generalized to the whole community with confidence.

ULTIMATE OUTCOME AND KPIS

We did not expect to see changes in the ultimate outcome of the project as measured by changes in child marriage and adolescent birth rate. Comparing the indicators between baseline and endline did not reveal considerable differences in these measures. However, it is worth discussing the patterns and accuracy of recording these indicators in the national and local context.

Child marriage and adolescent birth rates changed during the COVID-19 pandemic at both national and district levels in Vietnam. Prior to the pandemic, the 2017 National Survey on Reproductive and Sexual Health of Vietnamese adolescents aged 10-24 years ⁵ showed that the average age of first sexual intercourse among survey subjects (ages 14-24) was 18.7 years, earlier than the 2010 survey results (19.6 years).

At the local level, personal communication with informants provided additional contextual information. Changes in social norms are perceived to explain the observed trend. In the past, premarital sex was considered taboo and "forbidden," leading adolescents to marry and then have children. Nowadays, societal attitudes have shifted, and it is more accepted for adolescents to have sex before marriage. Some parents are also accepting of their children having children before marriage.

⁵ <https://vietnam.unfpa.org/en/publications/2016-national-survey-sexual-and-reproductive-health-among-vietnamese-adolescents-and>

Local health staff recognized that an improved recording system is another reason for the higher numbers of early marriages and adolescent births. In other words, a better recording system can lead to higher observed cases of early marriage and adolescent birth. Conversely, local informants noted that strict government policies on child marriage have led families to delay registering early marriages until the legal age is reached. Since marriage rates are calculated based on the age in the marriage certificate, this common practice can underestimate the number of early marriages.

All KPIs met the target of a 5% increase, with three indicators achieving more than 10% increase from baseline values. While project activities are believed to have contributed to this progress, it's important to acknowledge that other factors outside of the project control such as government policies and initiatives supporting the same communities and health facilities may also have played a role in driving these changes.

KNOWLEDGE AND ATTITUDES OF ADULTS ON SRH

There was a notable improvement in knowledge of SRH among adults from baseline to endline. The pattern of increase in the percentage of men and women who provided correct answers was similar, with women showing a slightly better percentage at both baseline and endline. Although we cannot be certain who attended the community events or how frequently, the community's knowledge of SRH has evidently improved.

Comparing baseline and endline findings showed an overall improvement in attitudes towards reproductive health. One interesting finding was that fewer respondents were uncertain about their attitudes towards reproductive health. This shift in attitude can be explained by increased awareness.

One notable finding is the attitude towards using a condom as a sign of disloyalty. While a higher percentage of respondents disagreed with the statement, a higher percentage of men at endline (10% higher) agreed that using a condom is a sign of disloyalty. This difference can be explained by a considerable reduction in the percentage of both men and women who were undecided about this matter at endline. The responses may indicate that the question on using the condom as a sign of disloyalty needed rephrasing to avoid implying approval of sex outside of established relationships.

An improvement in holding positive attitudes towards other aspects of reproductive health was observed; for example, more respondents agreed that women can refuse to have sex when they don't want to. When interpreting such findings, it is important to consider the cultural context, the size of the community, and other factors that might impact behavior. The findings suggest that cultural norms and contextual factors shaping gender roles—especially those that have been ingrained for generations without manifesting clear harmful consequences—are difficult to change. For example, both men and women showed little to no change in their attitudes toward statements such as "For women, taking care of their home and children is more important than the development of their career" and "Men are the breadwinners in the family."

At the same time, the lack of change does not necessarily indicate resistance to gender equality. Some norms may persist because they align with the community's lived realities. For instance, women may not express a desire to take on the breadwinner role because it could add to their already heavy workload. Many ethnic minority women often have lower levels of education and limited proficiency in the national language compared to men. These factors can make it more difficult for them to envision themselves as the primary earners in their families. Additionally, men typically make major financial

decisions in these communities, which can further reinforce the perception that it is unrealistic for women to become the main breadwinners. This highlights the importance of understanding whether certain attitudes remain unchanged due to genuine acceptance or because of practical constraints.

Further investigation is needed to distinguish between what people genuinely want to change and what is being promoted by decision-makers or external influences. Gender roles are deeply embedded in the social fabric of communities, and unless people recognize a need for change themselves, substantial shifts in attitudes should not be expected.

Sometimes, adult respondents only recalled attending a session after the community educator who delivered it reminded them. This recall issue may stem from various factors, such as the time elapsed since participation, the session format, or how engaging and relevant the content was to participants. During the reflection meeting on lessons learned, the local team suggested that in addition to improving sessions' content and format, selecting a short, easy-to-remember project name and consistently using it on promotional materials could enhance recognition and recall. Reinforcing key messages through multiple engagement points and reminders may also strengthen participants' connection to the project and its activities, potentially improving long-term engagement.

KNOWLEDGE AND ATTITUDES OF ADOLESCENTS ON SRH

The endline assessment was carried out in the project participating schools; therefore, we can assume that boys and girls responding to the survey had a similar exposure to project events at their schools. A significant increase in the percentage of boys and girls demonstrating correct knowledge was an expected outcome of the project, and this was achieved.

The lower level of boys' knowledge compared to girls at baseline may indicate that girls are often seen as the primary responsible party for SRH matters. This could also be influenced by discussions at home, such as conversations with mothers or other family members. However, boys showed notable improvement in their knowledge about SRH at endline. This increase is particularly important for topics such as emergency contraceptive pills, where the percentage of boys who said they were aware of this method more than doubled.

The endline findings continued to indicate that fewer boys demonstrated correct knowledge compared to girls. This can be explained by the fact that boys started with lower levels of knowledge, as shown in the baseline, and this gap persisted throughout the project despite overall increases in knowledge.

This is a key finding, as it highlights the knowledge gap between boys and girls. To reduce this gap, it is essential to identify the factors contributing to this difference. Conducting research to understand the causes of the knowledge disparity and to identify tailored interventions for boys will be crucial in helping them catch up with girls in terms of SRH knowledge.

Adolescent boys and girls did not show improvement in their attitude toward the statement, "You feel ashamed and apprehensive about seeking birth control." In contrast, a significantly higher percentage of both boys and girls at the endline found it acceptable to discuss contraceptive methods with their partners.

Improvement in girls' agency and boys' attitudes toward supporting girls' agency is an important outcome that reinforces gender equality. Increased openness in discussing contraception is another crucial outcome, as it may help reduce the incidence of unwanted pregnancies among adolescents and,

in some cases, prevent early marriages. While improved attitudes on these topics are essential, feeling confident in accessing contraceptives is equally critical in preventing unwanted pregnancies.

This assessment does not provide direct insight into the underlying reasons for adolescents' persistent discomfort with accessing contraceptives. However, it may be influenced by broader community attitudes toward adolescent contraceptive use. This is a key finding that calls for further exploration.

A slight increase was seen in the number of adolescent boys who believed that men should be the primary breadwinners, and by endline, nearly 60% of girls held the same view. Given the local context, where women often take on significant—yet frequently unpaid—responsibilities, this finding should not necessarily be viewed as negative. It may reflect adolescents' expectation that men should take responsibility for providing a good life for their families.

At endline, a greater proportion of adolescents disagreed with the statement that a woman's primary role is to care for the home and children rather than pursue a career. This is a promising finding, indicating a shift in holding a gender-equitable attitude among young people which can in turn drive a sustained change in harmful social norms.

However, fewer boys and girls agreed that men can take care of children as well as women. This finding should be interpreted with caution because adolescents, with their knowledge of their communities and social norms, may not see men as capable of taking care of children. In other words, they may want to see men take care of their children similarly to women, but they don't perceive men as capable of doing so. This recognition may highlight the need to equip men with essential knowledge and skills to effectively care for children.

Adolescent girls showed improvement in their perceived agency to make SRH decisions. A notable finding emerged regarding their ability to refuse sex. By endline, nearly all boys (97.5%) and girls (99.6%) agreed that girls have the right to refuse sex if they do not want to. Additionally, among the agency-related questions asked exclusively to girls, 94% reported feeling very confident or confident in their ability to refuse sex. This is a significant finding, as girls' increased agency alone may have limited impact without a corresponding shift in boys' attitudes. For long-term positive outcomes, it is essential that boys also support and respect girls' autonomy in decision-making.

HEALTH FACILITY ASSESSMENT

At the end of the project, five health facilities achieved the maximum score of eight, while two facilities scored seven. These scores were based on assessments across four domains: infrastructure, equipment and communication materials, human resources, and waste management.

All the health facilities had been recently constructed and fully equipped at the time of assessment. The narrative report of the health facility assessment highlighted the availability of services. Commune health centres receive low birth deliveries because nowadays mothers tend to go to higher level health facilities (district/provincial general hospitals) for deliveries. From pregnancy stages, some families go to district and provincial general hospitals for ANC care because those facilities have ultrasound services. Frequent services with a high number of clients at the health stations include child immunization, health insurance examinations, communication campaigns, and general health examinations.

This is an anecdote and could not be generalized, but it calls for further investigation into the pattern of access and the associated factors that encourage or prevent women and adolescent girls from accessing

services to ensure maximum uptake of services by the target group. Additionally, monitoring the type of services used, along with the number of visits, should be done to refine the project activities in a way that targets the most demanding services or activities to maximize access and effectiveness.

CONCLUSION

The project was successfully delivered as planned, with thoughtful adjustments made to ensure broader reach and minimal disruption to existing systems. For instance, the shift from classroom-based CSE to mass school CSE events allowed engagement with all students without affecting the school curriculum. While implementers faced challenges across different settings, many of these were addressed through refinements in project activities, demonstrating adaptability and responsiveness throughout the implementation process.

Endline findings show a satisfactory level of improvement compared to baseline, in the capacity of supported health facilities. These facilities are now better equipped with trained human resources and essential materials to provide SRH services. Both adults and adolescents demonstrated increased knowledge of SRH and more positive attitudes toward gender equality. The agency of women and girls in making SRH-related decisions also showed promising progress, indicating a shift toward improved agency in SRH decision making.

Community reception of the project was notably positive. Feedback from implementing teams, community members, and students suggests that the activities were well-aligned with local needs and values. There is strong potential for sustaining these efforts, provided that resources remain available. These findings underscore the importance of continued investment in SRH initiatives and highlight the value of flexible, inclusive approaches in achieving meaningful outcomes.

APPENDICES

Appendix 1: Project Logic Model

Appendix 2: Adult Survey

Appendix 3: Adolescents Survey

Appendix 4: Consent Forms

Appendix 5: Health Facility Assessment Tool