ADOLESCENTS 360 OUTCOME EVALUATION: SUMMARY REPORT OF THE BASELINE SURVEY IN ETHIOPIA

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Results in development

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Disclaimer

The views within this document are entirely the responsibility of the outcome evaluation team.

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Acronyms

A360	Adolescents 360
ASFR	Age-specific fertility rate
CHW	Community health worker
DHS	Demographic and Health Survey
EDHS	Ethiopia Demographic and Health Survey
HCD	Human-centred design
HEW	Health extension worker
HH	Household
HIV	Human Immunodeficiency Virus
IUD	Intrauterine contraceptive device
LAM	Lactational Amenorrhoea Method
LSHTM	London School of Hygiene and Tropical Medicine
mCPR	Modern contraceptive prevalence rate
PPS	Probability proportional to size
PSI	Population Services International
PSU	Primary Sampling Unit
SDM	Standard Days Method
SNNPR	Southern Nations, Nationalities and Peoples' Region
SRH	Sexual and reproductive health

Executive summary

Introduction

The innovative, interdisciplinary Adolescents 360 (A360) programme being rolled out across Ethiopia, Nigeria and Tanzania uses human-centred design (HCD) to create context-specific multi-component interventions with the aim of increasing voluntary modern contraceptive use among adolescent girls aged 15–19 years.

There is a lack of evidence on the health impact of projects that employ HCD. The A360 evaluation comprises an outcome evaluation, a process evaluation and a cost effectiveness study. The primary objective of the outcome evaluation is to assess the impact of the A360 programme on the voluntary use of modern contraception (the modern contraceptive prevalence rate (mCPR)) among sexually active girls aged 15–19 years. A baseline survey is being conducted prior to the scale-up of the programme's interventions, with an endline survey planned for late 2019. This report details the findings from the baseline survey in one of the three A360 countries—Ethiopia.

Methods

In Ethiopia, we are conducting a pre- and post- population-based cross-sectional survey design. Baseline surveys took place between 1 September 2017 and 20 October 2017, prior to the scale-up of A360 activities, so that baseline conditions in one region in Ethiopia targeted for A360 roll-out could be documented. We conducted baseline surveys in four *woredas* (districts) (Wara Jarso, Lome, Ada'a, and Fentale) in Oromia region.

The target population for the study, married girls aged 15–19 years, was in line with the main focus of the programme in Ethiopia.

A two-stage sampling design was used. A probability sample of 57 *kebeles* (wards) was selected across the four study *woredas* with probability proportional to population size. All in these *kebeles* households were visited, from which all eligible girls were invited to take part in the survey. In addition, we surveyed a subgroup of husbands/male partners.

The survey collected baseline information on key background characteristics and sexual and reproductive health (SRH) indicators. Only married girls who reported sexual intercourse within the 12 months preceding the survey were asked questions regarding use of contraception and family planning services. Therefore, our primary outcome (mCPR) was measured only in sexually active married girls aged 15–19 years. Husbands and male partners were asked about community acceptance and social support for adolescent girls to adopt healthy SRH behaviours.

In Oromia, 1,198 married girls aged 15–19 years (Ware Jarso 417; Lome 270; Ada'a 263; Fentale 248) and 142 husbands (Wara Jarso 54; Lome 31; Ada'a 33; Fentale 24) were successfully interviewed.

Key findings

Background characteristics of adolescent girl respondents

- The median age of married adolescent girl respondents was 18 years (range 15–19 years).
- About a third of respondents had no education, and for 54.7% primary education was the highest educational level attained.
- Among married adolescent girls, 36.6% owned a mobile phone.

Sexuality, fertility and fertility preferences of adolescent girl respondents

- Overall, 98.9% of respondents reported being sexually active during the previous 12 months. The median age of first sexual intercourse was 16 years (range 11–19 years).
- A total of 805 (68.3%) married girls surveyed had ever been pregnant.
- Unmet need for modern contraception was 20.5% in married adolescent girls, made up almost entirely of unmet need for spacing.

Family planning

- Overall, 90.3% of married adolescent girls had heard of contraception. The majority of married adolescent girls aged 15–19 years knew the benefits of modern contraception. However, many respondents also had misconceptions about modern contraception.
- mCPR for married girls aged 15–19 years was 61.3%. Injectables were the most common modern method (47.1%), followed by implants (9.5%). Traditional methods were used by 0.38% of respondents.
- Overall, 86.4% of married girls said they felt able to start a conversation with their husband about contraception, and 83.0% said they felt able to obtain a contraception method if they decided to use one. About half of married girls said they felt able to use a method of contraception even if their husband didn't want them to.

Perspectives of co-habiting adults and husbands

- Overall, 94.4% of husbands had heard of contraception.
- Of the husbands surveyed, 91.7% said it was acceptable for an adolescent girl to obtain information on contraception services and products if she needed to, and 88.1% said it was acceptable for an adolescent girl to obtain a contraception method if she decided to use one.
- Overall, 94.1% of husbands said it was acceptable for an adolescent girl to start a conversation with her partner about contraception, and 52.7% said it was acceptable for an adolescent girl to use a method of contraception even if her partner didn't want her to.

Identified priority areas for programme activities promoting contraceptive use

- *Programme activities to take into account the higher than predicted baseline mCPR:* The observed mCPR of 61.3% was higher than the predicted baseline mCPR estimate of 44.0%, which may make it more challenging for the programme to achieve its projected impact on the primary outcome. To inform programming decisions, the programme should reflect on the baseline results, including the likelihood of variability in mCPR across the target regions.

  Address fears, misconceptions and myths to build trust and credibility of family planning products: Myths and misconceptions were widespread among both married adolescent girls and their husbands. Approximately a quarter of married girls in Oromia believe that some modern contraception can stop a girl from ever being pregnant again even after she stops using it. Half of married adolescent girls believe that, if a modern contraception changes a girl's menstrual bleeding, it is bad for her health and can harm her womb. Effective family planning counselling must prepare girls for the possibility that they will experience side effects and provide them with the information and tools to overcome them.

- *Increase intentions to use contraception by positioning contraception as relevant and valuable:* One of the main reasons given by married adolescent girls for not using contraception was wanting a/another child. However, the majority of married girls acknowledge the health benefits of family planning for delaying and spacing. This data may highlight the need for a planned focus on addressing social norms around the interrelationship between marriage and early childbearing among adolescent girls, and delivering communication on 1) the benefits of delaying the birth of a first child and 2) the benefits of a two- to three-year interval.

- *Increase partner communication about family planning to help create a supportive environment for accessing services:* While the majority of married girls felt able to start a conversation with their partners about contraception, the proportion who felt able to use a method of contraception even if their partner did not want them to was much lower. This data may highlight

the need for a planned focus on partner communication for married girls.

- *Foster public approval of family planning by communities to help create a supportive environment for accessing services:* Variation in key demographic characteristics between communities, including educational attainment and religion, may contribute to differences in family planning characteristics of married adolescent girls who live in those communities. These findings may highlight the need for an increased focus on tackling prevailing social norms and fostering public approval of family planning by communities that are less educated and more religiously conservative. This could help create a supportive environment for accessing services in these geographical areas.

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1. Introduction to the programme and the evaluation

Key messages:

- **The Adolescents 360 (A360) initiative being rolled out across Ethiopia, Nigeria and Tanzania aims to increase voluntary modern contraceptive use among adolescent girls aged 15–19 years.**
- **The primary objective of the outcome evaluation is to assess the impact of A360 on the voluntary use of modern contraception (mCPR) among sexually active girls aged 15–19 years.**

Adolescents 360 (A360) is a four-and-a-half year initiative co-funded by the Bill & Melinda Gates Foundation and the Children's Investment Fund Foundation (CIFF). A360 is being implemented by Population Services International (PSI) as part of a consortium with IDEO.org, the University of California, Berkeley - Centre on the Developing Adolescent, the Society for Family Health Nigeria and Triggerise. The project is being delivered in Ethiopia, Nigeria and Tanzania, in partnership with local governments, organisations and technology and marketing firms.

The A360 interventions are being designed using a human-centred design (HCD) process as a core component. The process includes the following steps:

1. **Inspiration**–a period of formative research to understand adolescent girls' sexual and reproductive health (SRH) needs and their socio-cultural environment;
2. **Ideation**—an iterative process of generating ideas, testing these ideas with adolescent girls and their communities, refining these ideas and developing prototypes and testing these prototypes in real-world settings;
3. **Implementation**—rolling out the intervention in the target communities.

The innovative interdisciplinary A360 approach combines HCD with social marketing, developmental neuroscience, sociocultural anthropology, public health and youth engagement to create better solutions for adolescents.

Ethiopia, Nigeria and Tanzania have some of the highest teenage pregnancy rates and lowest rates of modern contraceptive use among adolescents in the world.[1] A360 is being rolled out across these three countries using HCD to create context-specific multi-component interventions with the aim of increasing voluntary modern contraceptive use among adolescent girls aged 15–19 years. HCD is increasingly being used to develop health interventions, yet the evidence base for the effectiveness of this approach is limited.[2 3]

Itad, the London School of Hygiene and Tropical Medicine (LSHTM) and Avenir Health are working together to monitor, evaluate and develop learning from the A360 programme. The external evaluation of the A360 intervention comprises an outcome evaluation, a process evaluation and a cost effectiveness study.

The primary objective of the outcome evaluation, led by LSHTM, is to assess the impact of the A360 programme on the voluntary use of modern contraception (mCPR) among sexually active girls aged 15–19 years. In Ethiopia, we are using a pre- and post- population-based cross-sectional survey design. The outcome evaluation started prior to the scale-up of A360 programme activities, to make it possible to document baseline conditions in one region in Ethiopia targeted for A360 roll-out.

This report presents the methods and results of the baseline survey in Ethiopia. The baseline data will provide A360 implementation partners in Ethiopia with crucial information about family planning and reproductive health issues in their target populations on the eve of programme implementation.

The structure of this report is as follows:

Section 2 presents details on the methods used for the baseline survey.

Section 3 describes the background characteristics of the adolescent girls surveyed.

Section 4 describes the sexuality, fertility and fertility preferences of the adolescent girls surveyed.

Section 5 describes the family planning attitudes and behaviours of the adolescent girls surveyed.

Section 6 describes the background characteristics and family planning attitudes of the husbands of the adolescent girls surveyed.

Sections 7 and 8 present our key findings from the baseline survey and identify priority areas for programme activities promoting contraceptive use for A360 and for future similar projects.

2. Methods

Key messages:

- **The baseline survey took place between 1 September 2017 and 20 October 2017. It was conducted in four *woredas* (districts) (Wara Jarso, Lome, Ada'a, Fentale) in Oromia region.**
- **The target population was married girls aged 15–19 years.**
- **A two-stage sampling design was used. A probability sample of 57 *kebeles* (ward) was selected across the four study *woredas* with probability proportional to population size. All households in these *kebeles* were visited, from which all eligible girls were invited to take part in the survey.**
- **In Oromia, 1,282 potentially eligible married adolescent girls aged 15–19 years were identified; 93.4% (1,198) were successfully interviewed.**

2.1. Study objectives

The objectives of the baseline survey were to describe, in the A360 target populations, the pre-intervention prevalence of key background characteristics and SRH indicators. The outcome evaluation will be analysing the impact of A360 on these SRH indicators (Table 2.1).

Table 2.1. Primary and secondary outcomes

Outcome domain	Indicators
Primary outcome	Prevalence of modern contraceptive use among sexually active girls aged 15–19 years
Secondary outcomes	• Age-specific fertility rates • Age at first birth • Unmet need for modern contraception among sexually active girls aged 15–19 years • Adolescent girls' knowledge on the use of modern contraceptives to prevent unintended pregnancies • Adolescent girls' agency (self-efficacy) to use modern contraceptives to prevent unintended pregnancies • Adolescent girls' attitudes towards the use of modern contraceptives to prevent unintended pregnancies • Adolescent girls' access to contraceptive services and products • Adolescent girls' misconceptions about modern contraceptives • Community acceptance and social support for adolescent girls to adopt healthy SRH behaviours, including use of modern contraceptives

Our primary outcome, mCPR among 15–19-year-old married girls, was defined as follows:

Number of fecund sexually active 15–19-year-old married girls reporting use of modern contraceptives at the time of the survey

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Number of fecund sexually active 15–19 year old married girls

Modern contraception is as defined in Demographic Health Surveys (DHS):[4] male and female sterilisation, contraceptive implants, intrauterine contraceptive devices (IUDs), injectables, oral contraceptive pill, emergency contraceptive pill, male condom, female condom, Standard Days Method (SDM), Lactational Amenorrhoea Method (LAM), diaphragm, spermicides, foams and jelly.

Sexually active girls are defined as those who report having sexual intercourse in the past 12 months.

Fecund girls are defined as those who have started menstruating, are not pregnant and do not report that they are infertile.

Our study definition of mCPR differs from the standard DHS definition. Our denominator reflects the population at risk (of pregnancy), i.e., sexually active women who are not infecund or pregnant. Therefore, we consider our definition to be more informative for programming and for understanding whether A360 increases voluntary use of contraception in adolescents. However, we acknowledge that the DHS definition is more widely used and therefore present the results using DHS mCPR in Appendix D to allow for direct comparisons with DHS data and studies which use the DHS definition for mCPR.

2.2. Study design

Table 2.2 outlines a summary of the methods used in the outcome evaluation study in Ethiopia.

Table 2.2. Summary of methods

A360 country	A360 regions	Study design	Outcome evaluation study setting	Study population (sample size)	Sampling strategy
Ethiopia	Addis Ababa, Amhara, Dire Dawa, Harari, **Oromia**, SNNPR, Tigray	Cross-sectional before-and-after study	Four *woredas* in Oromia region: • Wara Jarso • Lome • Ada'a • Fentale	Married girls aged 15–19 years (1,041) Husband/male partner (128)	Two-stage design PSU: Kebele Probability sample of 57 *kebeles* (PPS). All HHs visited in selected *kebele*. All eligible girls invited to be interviewed.

SNNPR: Southern Nations, Nationalities and Peoples' Region; PSU: Primary Sampling Unit; HH: Household; PPS: Probability proportional to size.

2.3. Study settings

Ethiopia is divided into regional states, each of which is subdivided into administrative zones. Each administrative zone is subdivided into *woredas*. In Ethiopia, A360 is being implemented by Population Services International (PSI) in two city administrations and five regional states (Addis Ababa, Amhara, Dire Dawa, Harari, Oromia, Southern Nations, Nationalities and People's Region (SNNPR) and Tigray). Within each of the selected regional states, A360 will be implemented in selected *woredas* (districts). We are conducting the outcome evaluation study in four *woredas* (Wara Jarso, Lome, Ada'a and Fentale) in two administrative zones (North Shewa and East Shewa) in Oromia region.

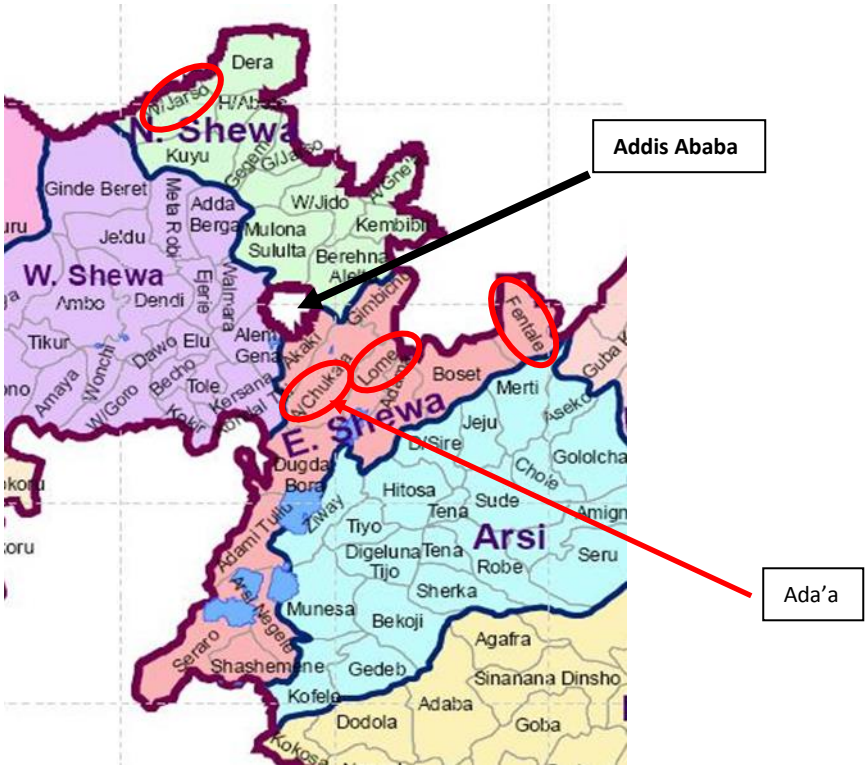
Figures 2.1 and 2.2 show the *woredas* selected for our outcome evaluation.

The study region and woredas were selected by PSI. Oromia region was selected because of its relatively low mCPR compared with other regions in the Ethiopia DHS (EDHS) 2011 (24.9%), and its standing as having the highest unmet need for contraception (29.9%) as compared with other regions.[5] Though Oromia has been targeted by large-scale contraceptive programmes in recent years, data suggests more progress can be made in this region.[5] Criteria used by PSI for selecting *woredas* for inclusion in the study included:

- Good infrastructure and accessible all year round;
- Close proximity to PSI head office in Addis Ababa;
- Population of married adolescent girls anticipated to be large.

Figure 2.1. Map of Oromia region showing administrative zones containing selected *woredas* by their boundaries

Figure 2.2. Map of North Shewa and East Shewa administrative zones showing selected *woredas* by their boundaries



2.4. Study population

The inclusion criteria for the baseline survey were as follows:

- Adolescent girls aged 15–19 years;
- Married or living as married;
- Living, at the time of the survey, in the study sites;
- Those who voluntarily provide informed consent.

Of note is that married adolescent girls under 18 years of age are considered emancipated in Ethiopia and able to provide informed consent. Therefore, no parental consent was required.

The exclusion criteria for the baseline survey were as follows:

Adolescent girls aged 15–19 years who are:

- Unmarried;
- Not living, at the time of the survey, in the study sites;
- Those who do not voluntarily provide informed consent.

Only married girls who reported sexual intercourse within the 12 months preceding the survey were asked questions regarding use of contraception and family planning services.

To measure community acceptance and social support for adolescent girls to adopt SRH behaviours, our second target study population were the husbands/co-habiting male partners of married girls interviewed. Therefore, we invited the husband/co-habiting male partner to participate following the girl's permission. In those cases where the married girl surveyed did not give permission to interview her husband/co-habiting male partner, this latter was excluded, as were adults who did not voluntarily provide informed consent.

2.5. Sampling strategy

A two-stage sampling design was used. Our Primary Sampling Unit (PSU) was the *kebele* from the 2007 census. Each *woreda* is divided into 20–40 kebeles. A *kebele* is the smallest administrative unit of Ethiopia, similar to a ward, neighbourhood or a localised and delineated group of people.

A probability sample of 57 *kebeles* was selected from across the four study *woredas* with probability proportional to *kebele* population size. Within the selected *kebele*, we visited each household and administered the questionnaire to all eligible married girls aged 15–19 years. In households that had more than one eligible married female aged 15–19 years, all consenting married adolescent girls were interviewed. For every 15 sexually active married adolescent girls aged 15–19 years interviewed, one was systematically selected and asked permission to interview her husband/co-habiting male partner.

If potentially eligible participants were not available at the first visit, a further two revisits were made to attempt to hold interviews.

2.6. Sample size

Appendix A presents a full description of the original sample size calculations and assumptions used to derive the sample size estimates. We also describe in Appendix A changes made to the original sample size calculations based on interim results from the baseline survey. Here, we provide a summary of our final sample size calculations.

The mCPR estimates used in our final sample size calculations were based on estimates of mCPR from interim results from the baseline survey following data collection in the first 45 *kebeles*. Effect estimates were based on an analysis conducted by one of our evaluation collaborators, Ms Michelle Weinberger (Avenir Health).

In Oromia region, among sexually active married girls aged 15–19 years, we assumed that, between 2017 and 2019, mCPR would increase from 58.7% to 67.5% (a 15% relative increase) in the presence of A360. We estimated that 1,041 married girls aged 15–19 years had to be surveyed to achieve 90% power.

In addition, we wanted to achieve a target sample of 128 husbands/co-habiting male partners.

2.7. Data collection tools

The questionnaires were adapted from various research instruments that have been used and validated in the study countries, including DHS[4 6 7] and Family Planning 2020 surveys.[1] These were developed in English and then translated into the local languages of the study communities. Final modifications were made to the questionnaires following an extensive pretesting exercise and after pilot surveys were conducted in communities outside of the selected study sites.

Questionnaires were administered face-to-face by female interviewers aged between 18 and 26 years. The interviewers were provided with one week of extensive training prior to fieldwork. Data was collected and recorded electronically on tablets in the field. This allows improved data quality through real-time data delivery, built-in logical checks and skip patterns.

The adolescent girl questionnaire obtained information on the following topics:

- Background characteristics of the respondent;
- Migration and movement history;
- Housing and assets;
- Marital and cohabitation status;
- Reproductive history;
- Reproductive health knowledge;
- Fertility preferences;
- Sexual history;
- Knowledge of contraceptive methods;
- Media exposure to family planning messages;
- Use of contraceptive methods (girls who reported sexual intercourse in the previous 12 months only).

The husband/co-habiting male partner questionnaire obtained information on the following topics:

- Background characteristics of the respondent and relationship to adolescent girls surveyed;
- Migration and movement history;
- Housing and assets;
- Knowledge of contraceptive methods;
- Attitudes towards use of contraceptive methods among adolescent girls.

2.8. Data analysis

All analyses were conducted in Stata 15 using weights and robust standard errors to account for the two-stage cluster sampling design.

We produced descriptive statistics on the socio-demographic and reproductive health characteristics of adolescent girls by *woreda*. Continuous variables were described as median and interquartile range. Categorical variables were described as number and proportion.

2.9. Ethics

Ethical approval was obtained from the LSHTM Ethics Committee and the Oromia Health Bureau Research Ethical Review Committee.

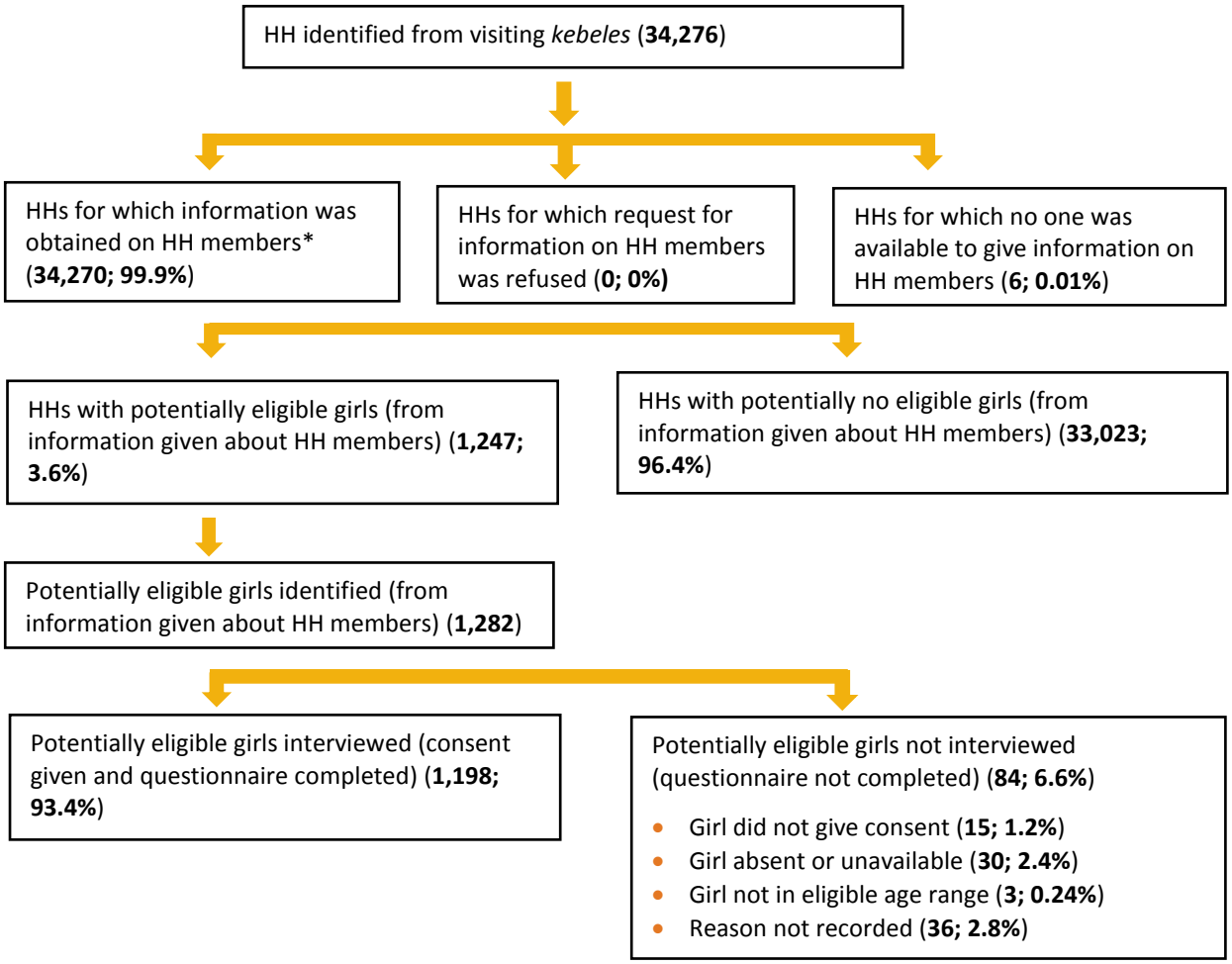
2.10. Response rates

Data collection took place between 1 September 2017 and 20 October 2017. Appendix B outlines some of the challenges with fieldwork implementation and what approaches were used to overcome these. Figure 2.3 presents the response rates for the different survey components.

In Oromia, 57 *kebeles* were visited in total, including 16 in Wara Jarso, 17 in Lome, 15 in Ada'a and 9 in Fentale. A total of 34,276 households were identified and 99.9% were successfully interviewed to obtain information regarding who lived in the household. A total of 1,282 potentially eligible married adolescent girls aged 15–19 years were identified from 1,247 households (3.6% of successfully interviewed households); 93.4% (1,198) of potentially eligible married girls were successfully interviewed (Figure 2.3).

The most common reason for not successfully interviewing an eligible girl was that the girl was absent or unavailable after a maximum of three visits.

Figure 2.3. Response rate for households and adolescent girls



* Information obtained from individual living in the household or from a neighbour.

3. Background characteristics of adolescent girl respondents

Key messages:

- **In Oromia, the median age of married adolescent girl respondents was 18 years (range 15–19 years).**
- **About a third of respondents had no education, and for 54.7% primary education was the highest educational level attained.**
- **Among married adolescent girls, 36.6% owned a mobile phone.**
- **Orthodox Christian was the main religion among respondents (65.9%), followed by Islam (24.7%).**

3.1. Age

The median age of married adolescent girl respondents is 18 years (range 15–19 years).

3.2. Education

About a fifth of respondents in Wara Jarso, Lome and Ada'a have no education. In Fentale, three fifths have no education.

In Wara Jarso, Lome and Ada'a, for 59.0%, 70.9% and 67.3%, respectively, of married adolescent girls, primary education is the highest educational level attained. The proportion of married adolescent girl respondents with primary education in Fentale is 28.8%.

3.3. Religion

Orthodox Christian is the main religion among married adolescent girls in Wara Jarso, Lome and Ada'a (92.9%, 77.6% and 91.6%, respectively). In Fentale, Islam is the main religion (88.0%).

3.4. Language

Oromo is the language most spoken outside the home by respondents (83.9%), followed by Amharic (15.9%).

3.5. Employment

The majority of married adolescent girls surveyed are not currently engaged in any activity to earn money (86.6%). In Wara Jarso, a quarter of respondents are currently engaged in an activity to earn money compared with <15% in in other *woredas* (Lome 8.8%; Ada'a 12.0%; Fentale 4.6%).

3.6. Access to media

Mobile telephones are the most widely accessed media. In Wara Jarso, Lome, Ada'a and Fentale, the proportion of married adolescent girls who own a mobile phone is 52.3%, 39.9%, 48.5% and 7.7%, respectively. The proportion of respondents with no access to a mobile phone is 26.5% in Wara Jarso, 34.1% in Lome, 25.5% in Ada'a and 71.1% in Fentale.

Married adolescent girls' access to newspapers and magazines and the internet is extremely limited.

Table C1 in Appendix C presents the background characteristics of the respondents.

4. Sexuality, fertility and fertility preferences of adolescent girl respondents

Key messages:

- **In Oromia, 98.9% of married girls aged 15–19 years had been sexually active during the past 12 months. The median age of first sexual intercourse was 16 years (range 11–19 years).**
- **A total of 805 (68.3%) married girls surveyed had ever been pregnant. About a fifth of all married girls were currently pregnant at the time of the survey.**
- **Unmet need for modern contraception was 20.5% in married adolescent girls, made up almost entirely of unmet need for spacing.**

4.1. Age at first sexual intercourse

The median age at the time of marriage was 16 years (range 11–19 years). Overall, all married girls aged 15–19 years have had sex. The median age at first sexual intercourse is 16 years (range 10–19 years).

4.2. Timing of last sexual intercourse

Figure 4.1 below presents the sexual activity behaviour of married adolescent girls in Oromia who participated in the survey.

The majority of married girls in Oromia were sexually active during the 12 months preceding the survey: 98.9% (1,186 of 1,198). About 90% of all married girls in the surveyed *woredas* were sexually active during the four weeks preceding the interview.

Overall 70.8% (847 of 1,198) of married girls were fecund and sexually active during the 12 months preceding the survey.

4.3. Teenage pregnancy

Overall, 68.3% (805 of 1,198) of married girls surveyed have ever been pregnant. Approximately a fifth of all married adolescent girls were currently pregnant at the time of the survey (Wara Jarso 11.6%; Lome 13.5%; Ada'a 20.6%; Fentale 26.0%).

4.4. Age specific fertility

Definition: The age-specific fertility rate (ASFR) is based on the number of live births to girls aged 15–19 years of age during the 12 months preceding the survey.

The ASFR for married adolescent girls aged 15–19 years in Wara Jarso, Lome, Ada'a and Fentale is 200.2, 216.4, 236.4 and 327.1 live births per 1,000 adolescent girls, respectively.

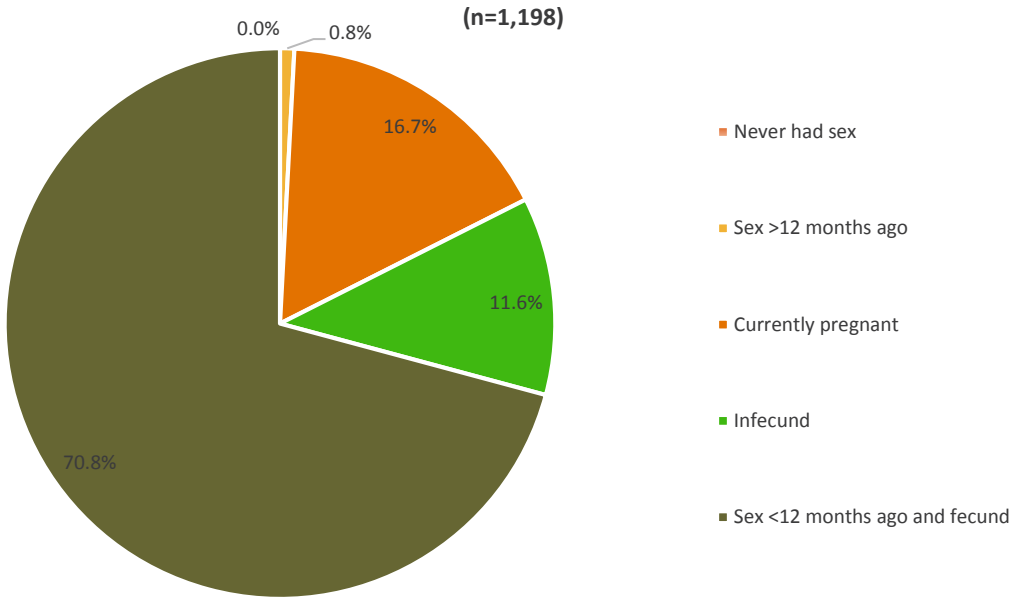
4.5. Age at first birth and planning status of most recent birth

Definition: The survey asked respondents who had had a child whether their last birth was wanted then, wanted later or not wanted at all.

Overall, 51.2% (610 of 1,198) of married girls surveyed have given birth. The median age at first birth is 17 years (range 13–19 years).

The majority of births in married adolescent girl respondents are reported as wanted at the time they gave birth (Wara Jarso 64.0%; Lome 63.4%; Ada'a 72.6%; Fentale 78.2%). Overall, about a quarter of births are reported as mistimed (wanted later than at the time they gave birth).

Figure 4.1. Sexual activity behaviour among married adolescent girls in Oromia



4.6. Unmet need for modern contraception

Definition: Family planning methods can be used to space or limit childbearing. In this survey, sexually active and fecund adolescent girls aged 15–19 years who indicated that they either want no more children (limiters) or want to wait for two or more years before having a/another child (spacers), but are not using modern contraception, are identified as having an unmet need for modern contraception. Pregnant women are considered to have unmet need for spacing or limiting if their pregnancy was mistimed or unwanted, respectively. Postpartum amenorrheic women who are not using modern contraception are considered to have unmet need for modern contraception if at the time they became pregnant they had wanted to delay or did not want more children.

About a tenth to two fifths of sexually active (had sex in the last year) and fecund married adolescent girls have an unmet need for modern contraception in Wara Jarso (18.5%), Lome (12.4%), Ada'a (10.1%) and Fentale (38.1%). As expected in this young age group, overall unmet need for modern contraception is almost entirely made up of unmet need for spacing.

Table C2 in Appendix C presents the sexuality, fertility and fertility preferences of the respondents.

5. Family planning

Key messages:

- **In Oromia, mCPR for married girls aged 15–19 years was 61.3%. Injectables were the most commonly used modern method (47.1%), followed by implants (9.5%). Traditional methods were used by 0.38% of respondents.**
- **Overall, 90.3% of married adolescent girls had heard of contraception. The majority of married adolescent girls aged 15–19 years knew the benefits of modern contraception. However, many respondents also had misconceptions about modern contraception.**
- **Overall, 86.4% of married girls said they felt able to start a conversation with their husband about contraception, and 83.0% said they felt able to obtain a contraception method if they decided to use one. About half of married girls said they felt able to use a method of contraception even if their husband didn't want them to.**

5.1. Current use of modern contraception

About a quarter of sexually active married adolescent girls in Wara Jarso, Lome and Ada'a are not currently using a family planning method. In Fentale, 85.4% of sexually active respondents are currently not using contraception.

The main reasons for not using include wanting a/another child (Wara Jarso 29.6%; Lome 18.0%; Ada'a 43.4%; Fentale 21.7%), breastfeeding (Wara Jarso 28.2%; Lome 33.3%; Ada'a 32.4%; Fentale 25.9%) and recently having had a baby (Wara Jarso 7.4%; Lome 7.5%; Ada'a 14.1%; Fentale 11.7%).

Opposition by the respondent (0.53%) or their partner (6.6%) to the use of contraception and fear of side effects (2.1%) are not common reasons reported for not using contraception.

In Wara Jarso, Lome and Ada'a, 74.2%%, 77.3% and 72.8% currently use a modern method of contraception (mCPR), respectively. Injectables are the most widely used modern method, currently used by 64.6%, 52.5% and 50.5% of sexually active married adolescent girls interviewed, respectively. The next most widely used modern method is the implant (3.7% in Wara Jarso; 21.1% in Lome; 15.6% in Ada'a).

In Fentale, 12.8% currently use a modern method of contraception (mCPR). Injectables are the most widely used modern method, currently used by 8.4% of sexually active married adolescent girls interviewed. The next most widely used modern method is the implant (2.1%).

Overall, very few girls report currently using any other modern method of contraception across the study *woredas*.

Table 5.1 shows the distribution of respondents who are currently using specific family planning methods.

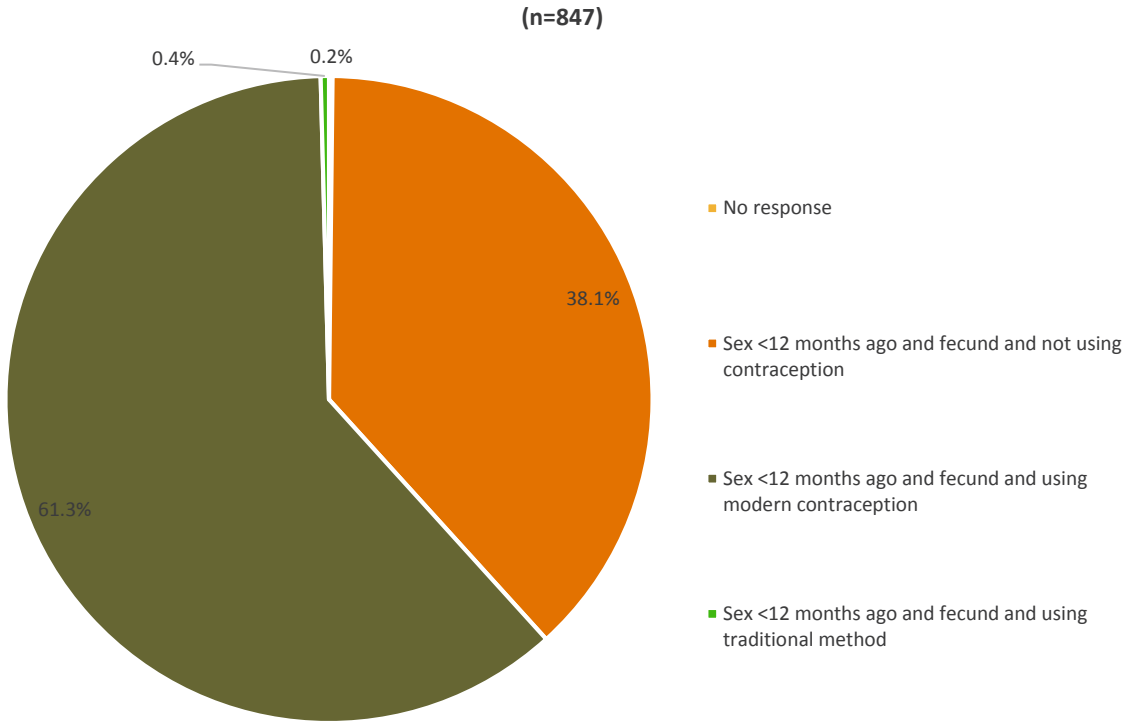
Figure 5.1 presents current use of modern contraception among sexually active and fecund married adolescent girls in Oromia who participated in the survey.

Table 5.1. Percentage distribution of sexually active and fecund adolescent girls aged 15–19 years who currently use contraception, by method used (%, 95% confidence interval)

Characteristic	Wara Jarso	Lome	Ada'a	Fentale	Total Oromia
No. of sexually active girls[1]	331	197	178	141	847
Any method	74.6 (70.4-78.3)	77.3 (70.4-83.0)	72.8 (63.6-80.4)	13.8 (6.0-28.7)	61.7 (51.3-71.2)
Any modern method[2]	74.2 (69.9-78.0)	77.3 (70.4-83.0)	72.8 (63.6-80.4)	12.8 (5.0-28.9)	61.3 (50.8-71.0)
Modern method					
Implant	3.7 (2.0-6.8)	21.1 (12.6-33.0)	15.6 (11.1-21.6)	2.1 (0.53-7.9)	9.5 (6.3-14.0)
IUD	0.93 (0.28-3.0)	0	0.42 (0.06-2.9)	0	0.42 (0.15-1.2)
Injectables	64.6 (57.9-70.8)	52.5 (42.9-61.9)	50.5 (40.3-60.7)	8.4 (3.0-21.4)	47.1 (38.4-56.1)
Daily pills	3.8 (1.0-13.4)	3.2 (1.7-6.1)	4.4 (1.6-11.6)	1.2 (0.29-4.7)	3.2 (1.6-6.3)
Emergency pills	0.16 (0.02-1.1)	0.55 (0.07-4.2)	0	0.27 (0.04-2.0)	0.24 (0.07-0.85)
Male condom	0	0	0	0	0
Other modern method	0.86 (0.22-3.3)	0	1.9 (0.58-5.7)	0.82 (0.13-4.9)	0.18 (0.02-1.3)
Any traditional method	0.42 (0.10-1.7)	0	0	1.0 (0.17-6.0)	0.38 (0.11-1.3)
Not currently using	25.4 (21.7-29.6)	22.7 (17.0-29.6)	27.2 (19.6-36.5)	85.4 (71.0-93.3)	38.1 (28.8-48.4)
Don't know	0	0	0	0	0
No response	0	0	0	0.82 (0.13-4.9)	0.18 (0.02-1.3)
Total	100.0	100.0	100.0	100.0	100.0

1 Excludes girls who are infecund and currently pregnant.
2 Modern methods include female sterilisation, male sterilisation, contraceptive pill (oral contraceptives), IUD, injectables (Depo-Provera), implants (Norplant), female condom, male condom, diaphragm, contraceptive foam and contraceptive jelly, LAM, SDM, cycle beads.

Figure 5.1. Current use of modern contraception among sexually active and fecund married adolescent girls in Oromia



5.2. Knowledge of contraceptive methods

The majority of married adolescent girls surveyed have heard of contraception (Wara Jarso 93.0%; Lome 95.5%; Ada'a 94.9%; Fentale 79.9%), of whom almost saw or heard about contraception during the 12 months preceding the interview.

Health extension workers were the most common source of information on contraception reported by married girls (Wara Jarso 28.6%; Lome 32.8%; Ada'a 24.3%; Fentale 41.0%). Radio, health facilities, friends, peers and neighbours are also common sources of information.

5.3. Myths about contraceptive methods

Definition: Respondents were read a number of statements representing common myths about contraception in Ethiopia. They were asked whether or not they agreed with the statement.

About a quarter of respondents believe that some modern contraception can stop a girl from ever being pregnant again even after she stops using it. Around a half of married adolescent girls surveyed believe that, if a modern contraceptive changes a girl's menstrual bleeding, it is bad for her health and can harm her womb, and believe that modern contraceptives may make a girl permanently fat. In Wara Jarso, Lome, Ada'a and Fentale, 8.1%, 21.1%, 4.0% and 13.5% of respondents believe that if adolescent girls use modern contraception they are more promiscuous.

5.4. Benefits of contraceptive methods

The majority of married adolescent girls believe in each of the benefits of modern contraception listed in the questionnaire, including that modern contraception can help a girl delay the birth of her first child, if she wants to, and, after she begins to have children, can allow a girl to decide when to have another child. However, only a third of respondents believe that some modern contraception reduces sexually transmitted infections.

5.5. Attitudes towards using contraceptive methods

The majority of respondents approve of married couples using a modern contraceptive method to avoid or delay pregnancy (Wara Jarso 99.5%; Lome 91.1%; Ada'a 100.0%; Fentale 71.2%).

In Wara Jarso, Lome, Ada'a and Fentale, 63.2%, 52.3%, 66.0% and 39.8% of married girls surveyed approve of couples who are not married using a modern contraceptive method to avoid or delay pregnancy, respectively.

5.6. Source of modern contraceptive methods

Definition: Adolescent girls who reported using a modern contraceptive method at the time of the survey were asked where they last obtained their current family planning method.

Health centres and clinics were the most commonly reported sources of modern contraception by married girls in Wara Jarso (72.3%), Lome (44.7%), Ada'a (67.4%) and Fentale (64.8%). Health extension workers are also a common source of modern contraception (Wara Jarso 19.8%; Lome 42.5%; Ada'a 24.1; Fentale 17.5%).

5.7. Treatment by family planning providers

Definition: Respondents were asked whether the last time they obtained a modern contraceptive method from their source they felt like they were treated respectfully.

The majority of respondents reported being treated respectfully the last time they obtained a modern contraceptive method from their source (Wara Jarso 96.1%; Lome 91.6%; Ada'a 95.4%; Fentale 81.0%).

5.8. Intention to use modern contraception in the future

Definition: Sexually active adolescent girls who were not using any modern contraceptive method at the time of the survey were asked about their future intention to use a modern contraceptive method.

Among sexually active married adolescent girls who are not currently using a modern contraceptive method, 93.9%, 76.9%, 92.4% and 40.9% say they intend to use a modern method in the future in Wara Jarso, Lome, Ada'a and Fentale, respectively.

5.9. Self-efficacy to access and use contraceptive methods

Definition: The survey asked adolescent girls four separate questions about their level of confidence in their ability to access and use family planning methods.

The majority of respondents in Wara Jarso, Lome and Ada'a say they feel able to start a conversation with their husband about contraception, say they feel able to obtain information on contraception services and products if they need to and feel able to obtain a contraception method if they decide to use one. Fewer married adolescent girls say they feel able to use a method of contraception even if their husband doesn't want them to (Wara Jarso 62.5%; Lome 51.0%; Ada'a 45.9%).

About half of respondents in Fentale say they feel able to start a conversation with their husband about contraception, feel able to obtain information on contraception services and products if they need to and feel able to obtain a contraception method if they decide to use one. Only about a quarter of married adolescent girls in Fentale say they feel able to use a method of contraception even if their husband doesn't want her to.

Table 5.2 and Table 5.3 present additional family planning characteristics of respondents.

Table 5.2. Family planning characteristics of adolescent girl respondents (%, 95% Confidence Interval)

Characteristic	Wara Jarso	Lome	Ada'a	Fentale	Total Oromia
Ever heard of contraception (%)	n=417	n=270	n=263	n=248	n=1,198
Yes	93.0 (90.2-95.1)	95.5 (92.2-97.5)	94.9 (90.7-97.3)	79.9 (67.4-88.5)	90.3 (85.9-93.4)
No	6.6 (4.5-9.4)	3.6 (1.8-6.8)	4.1 (1.9-8.7)	12.5 (8.7-17.8)	7.1 (5.3-9.4)
Don't know	0.42 (0.14-1.2)	0.91 (0.24-3.3)	0.95 (0.23-3.8)	7.5 (2.6-20.1)	2.6 (1.0-6.4)
No response	0	0	0	0	0
In the past 12 months, have you seen or heard about contraception (%)	n=385				
Yes	96.6 (91.4-98.7	100	99.1 (93.7-99.9)	100	98.7 (96.6-99.5)
No	3.4 (1.3-8.6)	0	0.90 (0.12-6.4)	0	1.3 (0.50-3.4)
Don't know	0	0	0	0	0
No response	0	0	0	0	0
Contraception information source in past 12 months (%)	n=373	n=260	n=249	n=203	n=1,085
Radio	16.6 (9.6-27.3)	33.7 (23.5-45.5)	18.2 (12.9-25.0)	14.3 (10.2-19.6)	20.2 (15.9-25.4)
Television	8.7 (4.0-17.7)	6.0 (2.9-12.1)	1.9 (0.83-4.2)	6.0 (1.6-20.7)	6.1 (3.6-10.2)
Hospital/health centre/clinic	28.4 (19.8-38.8)	12.5 (7.8-19.5)	21.6 (15.3-29.7)	16.0 (10.2-24.2)	20.4 (16.1-25.5)
HEW/CHW	28.6 (21.0-37.6)	32.8 (24.2-42.7)	24.3 (17.7-32.5)	41.0 (34.8-47.5)	31.8 (27.3-36.6)
Teachers	20.9 (16.1-26.8)	16.8 (13.1-21.4)	15.1 (11.1-20.1)	15.2 (9.0-24.5)	17.4 (14.6-20.7)
Friends/peers	32.8 (25.8-40.7)	17.4 (12.4-23.9)	25.6 (18.8-33.8)	15.5 (10.9-21.6)	23.6 (19.7-28.0)
Neighbours	21.2 (15.4-28.5)	31.2 (23.0-40.8)	19.9 (12.8-29.5)	22.6 (12.6-37.2)	23.6 (19.1-28.7)
Spouse/partner	9.4 (5.9-14.7)	8.5 (4.6-15.1)	6.6 (3.6-11.8)	3.2 (1.2-8.2)	7.1 (5.1-9.8)
Parent/guardian	10.1 (5.1-18.8)	8.9 (5.5-13.9)	13.7 (7.9-22.7)	3.1 (2.1-4.5)	8.8 (6.1-12.5)

Characteristic	Wara Jarso	Lome	Ada'a	Fentale	Total Oromia
Source of method for girls who use modern contraception	n=242	n=153	n=153	n=32	n=559
Hospital	3.4 (1.4-8.0)	8.6 (4.0-17.6)	8.6 (4.0-17.6)	9.3 (1.6-38.9)	5.1 (3.0-8.4)
Health centre/clinic	72.3 (61.6-81.0)	44.7 (27.3-63.5)	44.7 (27.3-63.5)	64.8 (37.9-84.7)	63.0 (54.0-71.1)
HEW/CHW	19.8 (12.8-29.2)	42.5 (30.1-55.9)	42.5 (30.1-55.9)	17.5 (6.5-39.5)	27.1 (20.8-34.5)
Pharmacy	2.8 (0.71-10.3)	1.5 (0.41-5.4)	1.5 (0.41-5.4)	2.1 (0.50-8.4)	2.3 (0.96-5.2)
Other	1.8 (0.52-5.9)	0	0	6.4 (0.71-39.4)	1.8 (0.83-3.8)
Don't know	0	2.7 (1.3-5.8)	2.7 (1.3-5.8)	0	0.78 (0.29-2.1)
No response	0	0	0	0	0
Treated respectfully by provider on last visit	n=242	n=153	n=132	n=32	n=559
Yes	96.1 (93.1-97.8)	91.6 (86.6-94.8)	95.4 (90.0-97.9)	81.0 (57.0-93.2)	94.0 (91.6-95.7)
No	2.5 (1.0-6.1)	3.3 (1.5-7.1)	3.9 (2.0-7.6)	16.9 (6.3-37.9)	3.7 (2.4-5.7)
Don't know	0.21 (0.03-1.6)	5.1 (2.9-9.0)	0	2.1 (0.31-12.9)	1.7 (0.86-3.2)
No response	1.2 (0.31-4.3)	0	0.75 (0.13-4.2)	0	0.69 (0.22-2.1)
Future intention to use modern contraception in girls not currently using a modern method	n=89	n=44	n=46	n=108	n=287
Yes	93.9 (86.8-97.3)	76.9 (65.3-85.5)	92.4 (76.3-97.9)	40.9 (29.5-53.4)	65.7 (52.7-76.6)
No	4.9 (2.2-10.9)	20.0 (11.6-32.1)	5.3 (0.92-24.8)	56.0 (43.2-68.2)	31.8 (21.3-44.7)
Don't know	0	0	0	0	0
No response	1.2 (0.17-7.9)	3.1 (0.41-19.7)	2.3 (0.29-16.4)	3.1 (0.91-9.9)	2.5 (1.0-5.9)

HEW = health extension worker; CHW = community health worker.

Table 5.3. Additional family planning characteristics of adolescent girl respondents (%, 95% Confidence Interval)

Characteristic	Ware Jarso	Lome	Ada'a	Fentale	Total Oromia
Agreed with misconception about contraception	n=4,618	n=260	n=251	n=203	n=1,099
Some modern contraception can stop a girl from ever being pregnant again even after she stops using it	26.7 (21.5-32.6)	35.2 (27.6-43.7)	19.3 (12.8-28.0)	24.7 (14.9-38.2)	26.7 (22.5-31.4)
If a modern contraception changes a girl's menstrual bleeding, it's bad for her health and can harm her womb	58.2 (50.0-65.9)	61.4 (50.5-71.3)	48.8 (42.4-55.2)	42.9 (33.4-52.8)	53.3 (48.1-58.4)
Some modern contraceptives can make adolescent girls permanently fat	47.4 (37.0-57.9)	55.1 (46.1-63.7)	48.7 (41.4-56.1)	36.2 (28.2-45.1)	46.6 (40.9-52.4)
Adolescent girls who use modern contraception sleep with too many men	8.1 (6.1-10.8)	21.1 (13.3-31.6)	4.0 (2.0-8.0)	13.5 (10.3-17.6)	11.5 (8.7-15.1)
Agreed with benefits about contraception	n=385	n=260	n=251	n=203	n=1,099
Preventing unwanted pregnancies is a benefit of contraception	94.3 (88.6-97.2)	90.9 (86.4-94.1)	92.4 (88.2-95.3)	84.1 (75.2-90.2)	90.7 (87.6-93.1)
Some contraception methods reduce sexually transmitted infections	33.4 (24.9-43.3)	36.8 (28.3-46.1)	30.7 (20.9-42.7)	35.2 (25.1-46.8)	34.1 (29.2-39.4)
Modern contraception can help a girl delay the birth of her first child, if she wants to	95.5 (92.0-97.5)	84.1 (78.4-88.5)	89.8 (84.6-93.4)	70.7 (63.9-76.8)	85.8 (81.1-89.5)
After she begins to have children, modern contraception can allow a girl to decide when to have another child	93.4 (88.2-96.4)	82.5 (77.3-86.7)	89.7 (76.7-95.8)	68.1 (59.8-75.3)	84.1 (78.6-88.3)
Using modern contraception can allow a girl to complete her education, find a better job and have a better life	96.5 (93.7-98.1)	85.8 (80.2-90.1)	86.7 (75.6-93.2)	71.5 (58.4-81.8)	86.1 (80.7-90.1)

Characteristic	Ware Jarso	Lome	Ada'a	Fentale	Total Oromia
Approved of using contraception	n=385	n=260	n=251	n=203	n=1,099
Married couples using a modern contraceptive method to avoid or delay pregnancy	99.5 (97.6-99.9)	91.1 (82.4-95.7)	100	71.2 (60.8-79.8)	90.8 (85.2-94.4)
Couples who are not married using a modern contraceptive method to avoid or delay pregnancy	63.2 (54.7-71.0)	52.3 (39.1-65.2)	66.0 (58.0-73.2)	39.8 (31.8-48.4)	55.6 (49.3-61.8)
Agreed with statements on accessing and using contraception	n=331	n=197	n=178	n=141	n=847
I feel able to start a conversation with my boyfriend/husband about contraception	94.7 (91.3-96.8)	92.6 (84.3-96.7)	98.4 (93.6-99.6)	55.5 (36.1-73.3)	86.4 (77.5-92.1)
I feel able to obtain information on contraception services and products if I need to	94.4 (90.0-96.9)	87.1 (83.1-90.3)	95.3 (90.2-97.8)	58.3 (47.7-68.2)	85.1 (78.7-89.8)
I feel able to obtain a contraception method if I decide to use one	92.8 (89.4-95.2)	88.6 (81.1-93.4)	91.4 (83.4-95.7)	53.0 (42.0-63.7)	83.0 (75.7-88.4)
I feel able to use a method of contraception even if my boyfriend/husband doesn't want me to	62.5 (57.8-67.0)	51.0 (38.0-63.8)	45.9 (36.7-55.3)	25.9 (16.8-37.7)	49.0 (42.4-55.5)

6. Perspectives of husbands/co-habiting male partners

Key messages:

- **To measure community acceptance and social support for adolescent girls to adopt SRH behaviours, a sample of husbands/ co-habiting male partners of married girls were surveyed.**
- **In Oromia, 142 husbands of married girls aged 15–19 years were interviewed.**
- **Overall, 94.4% of husbands had heard of contraception.**
- **Of the husbands surveyed, 94.1% said it was acceptable for an adolescent girl to start a conversation with her partner about contraception, and 88.1% said it was acceptable for an adolescent girl to obtain a contraception method if she decided to use one. Fewer husbands said it was acceptable for an adolescent girl to use a method of contraception even if her partner didn't want her to (52.7%).**

6.1. Relationships to adolescent girls in the household

All co-habiting male partners surveyed are the husbands of the sexually active married adolescent girls interviewed.

6.2. Age

The median age of husbands surveyed is 24 years (range 17–40).

6.3. Education

The proportion of husbands with no education in Wara Jarso, Lome, Ada'a and Fentale is 18.7%, 20.4%, 26.2% and 33.1%, respectively.

The majority of husbands in each *woreda* surveyed have some schooling. Primary education is the highest educational level attained in Lome (52.1%), Ada'a (56.5%) and Fentale (50.6%). Secondary education is the highest educational level attained in Wara Jarso (42.2%).

6.4. Religion

Orthodox Christian is the main religion among husbands in Wara Jarso (91.8%), Lome (82.2%) and Ada'a (93.3%).

In Fentale, Islam is the main religion (89.0%).

6.5. Language

For the majority of husbands surveyed, Oromo is the language they speak most outside the home (83.6%), followed by Amharic (16.4%).

6.6. Knowledge of contraceptive methods

Almost all husbands surveyed have heard of contraception (94.4%).

6.7. Myths about contraceptive methods

About a third of husbands believe that some modern contraception can stop a girl from ever being pregnant again even after she stops using it. Approximately two fifths believe that, if a modern contraceptive changes a girl's menstrual bleeding, it is bad for her health and can harm her womb, and also believe that modern contraceptives may make a girl permanently fat. In Wara Jarso, Lome, Ada'a and Fentale, 23.7%, 19.5%, 2.9% and 28.6% of husbands surveyed believe that if adolescent girls use modern contraception they are more promiscuous.

6.8. Benefits of contraceptive methods

The majority of husbands surveyed believe in each of the benefits of modern contraception listed in the questionnaire, including that modern contraception can help a girl delay the birth of her first child, if she wants to, and, after she begins to have children, can allow a girl to decide when to have another child. However, only two fifths of husbands believe that some modern contraception reduces sexually transmitted infections.

6.9. Attitudes towards family planning

Almost all husbands in Wara Jarso, Lome and Ada'a, and two-thirds of husbands in Fentale, approve of married adolescent girls aged 15–19 years using a modern contraception method to avoid or delay pregnancy. About three fifths of husbands surveyed in Wara Jarso, Lome and Ada'a, and approximately half of husbands in Fentale, approve of unmarried sexually active adolescent girls aged 15–19 years using a modern contraception method to avoid or delay pregnancy.

6.10. Attitudes towards self-efficacy of adolescent girls to access and use contraceptive methods

The majority of husbands surveyed say it is acceptable for an adolescent girl to obtain information on contraception services and products if she needs to, and also say it is acceptable for an adolescent girl to obtain a contraception method if she decides to use one.

The majority of husbands surveyed say it is acceptable for an adolescent girl to start a conversation with her partner about contraception (Wara Jarso 100.0%; Lome 94.0%; Ada'a 100.0%; Fentale 80.1%). Fewer husbands say it is acceptable for an adolescent girl to use a method of contraception even if her partner doesn't want her to (Wara Jarso 56.7%; Lome 54.3%; Ada'a 46.2%; Fentale 50.9%).

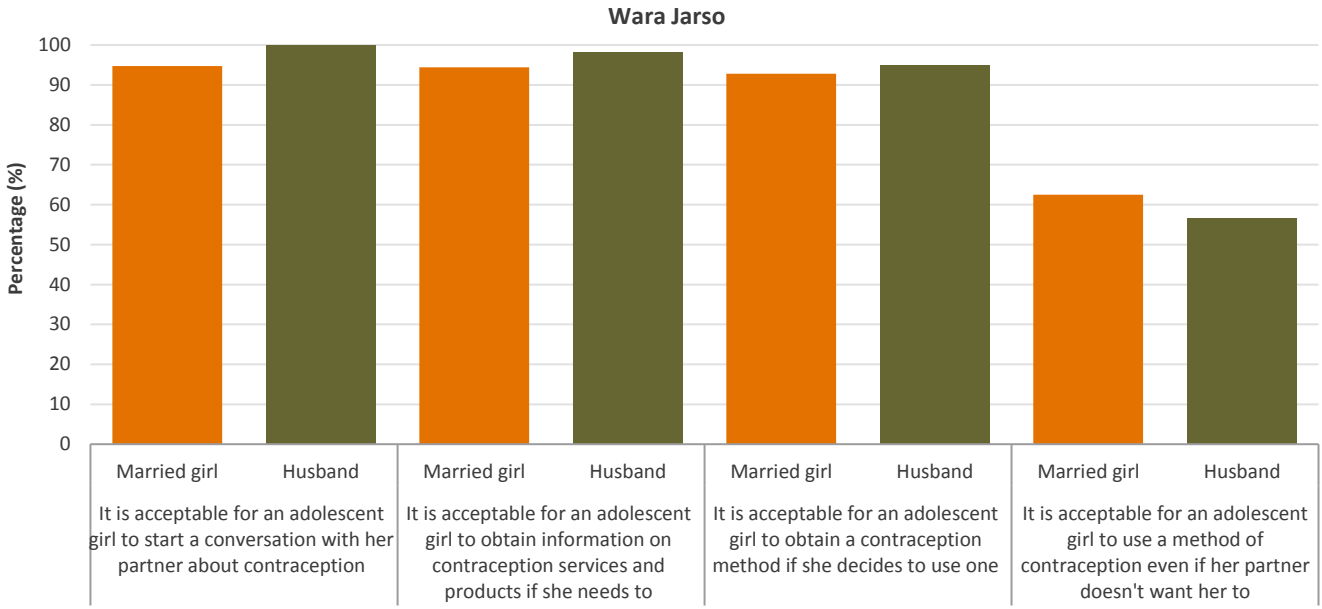
Figure 6.1 compares the attitudes of married girls aged 15–19 years and husbands towards self-efficacy of adolescent girls to access and use contraceptive methods. In Wara Jarso, Lome and Ada'a, attitudes of married girls and their husbands are broadly similar.

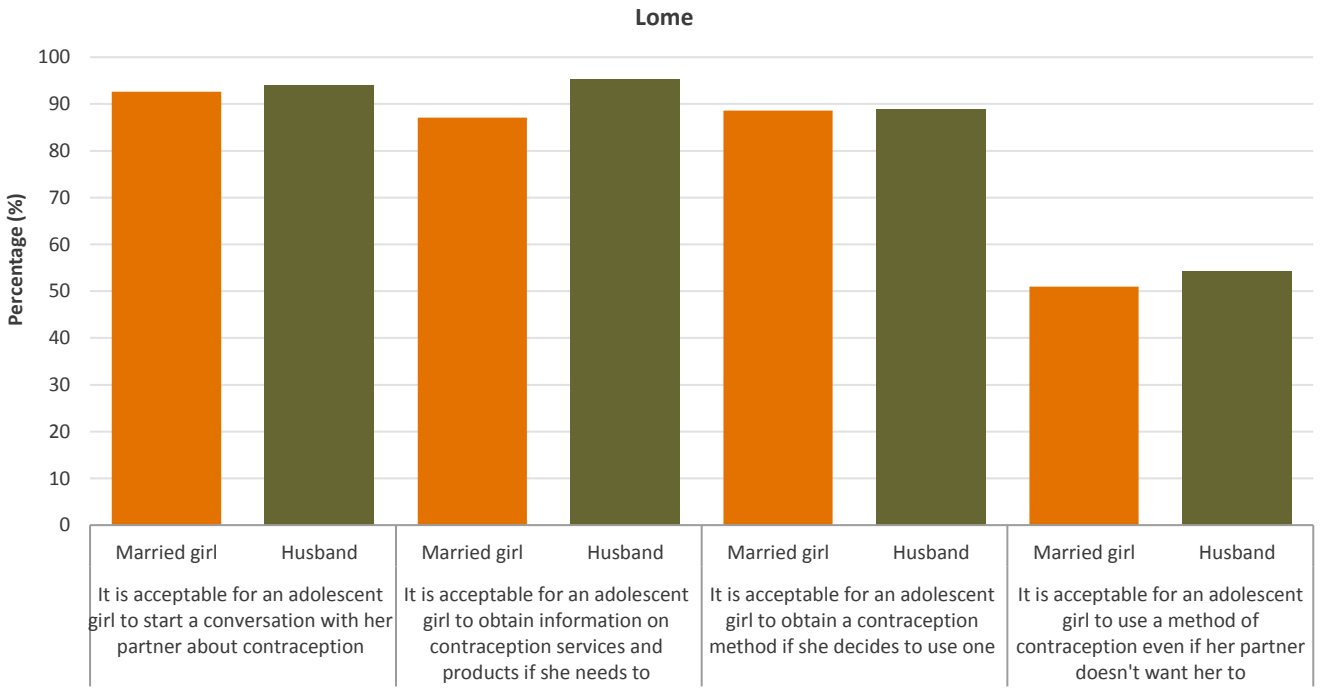
In Fentale, a higher proportion of husbands think it is acceptable for an adolescent girl to access family planning information and contraceptive products, start a conversation with her partner about contraception and use a method of contraception even if her partner doesn't want her to compared with the proportion of married girls who feel able to take these actions (Figure 6.1).

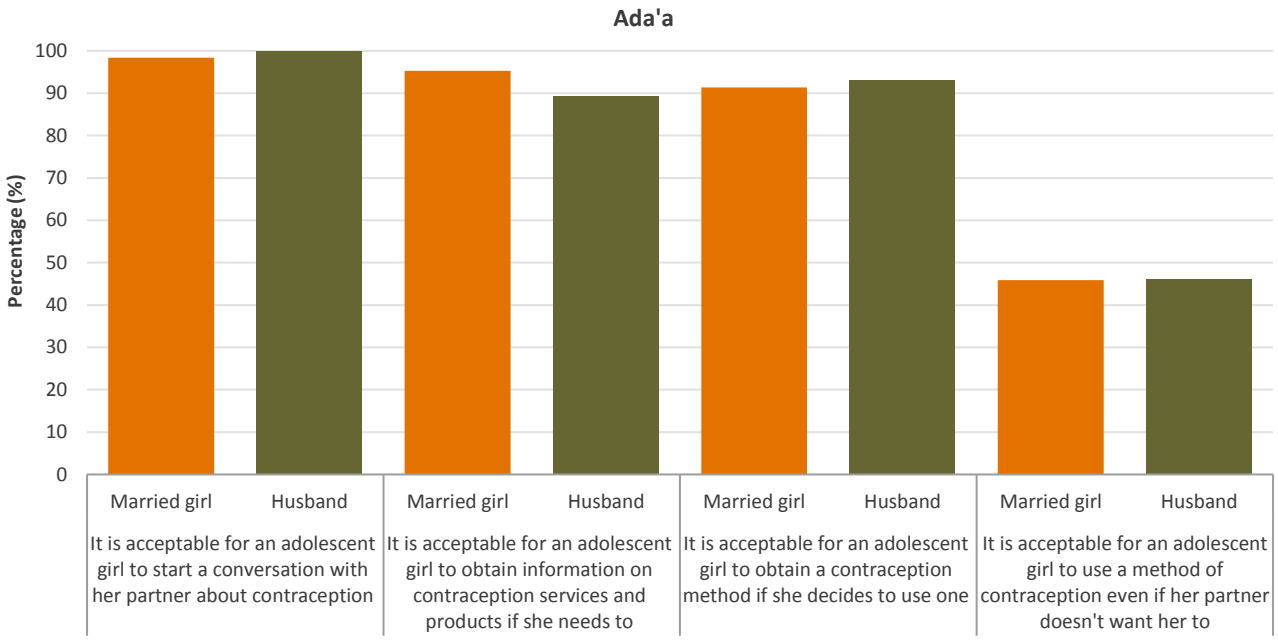
Table C3 in Appendix C presents the background characteristics of the husbands of a subgroup of sexually active married adolescent girls interviewed.

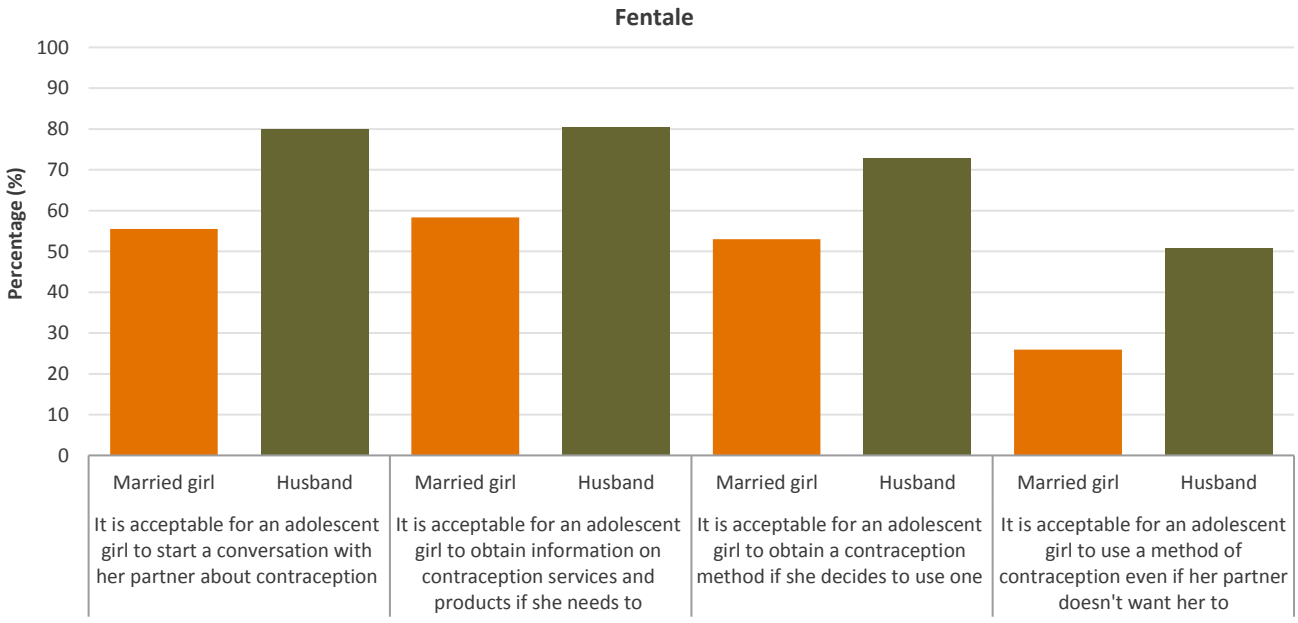
Table C4 in Appendix C presents the family planning knowledge, attitudes and beliefs of the husbands of a subgroup of sexually active married adolescent girls interviewed.

Figure 6.1. Attitudes of adolescent girls aged 15–19 years (n= 847) and husbands (n= 136) towards self-efficacy of adolescent girls to access and use contraceptive methods






Ada'a
Percentage (%)
100
90
80
70
60
50
40
30
20
10
0
Married girl
Husband
It is acceptable for an adolescent girl to start a conversation with her partner about contraception
It is acceptable for an adolescent girl to obtain information on contraception services and products if she needs to
It is acceptable for an adolescent girl to obtain a contraception method if she decides to use one
It is acceptable for an adolescent girl to use a method of contraception even if her partner doesn't want her to


Fentale
Percentage (%)
100
90
80
70
60
50
40
30
20
10
0
Married girl
Husband
It is acceptable for an adolescent girl to start a conversation with her partner about contraception
It is acceptable for an adolescent girl to obtain information on contraception services and products if she needs to
It is acceptable for an adolescent girl to obtain a contraception method if she decides to use one
It is acceptable for an adolescent girl to use a method of contraception even if her partner doesn't want her to

7. Conclusions

Key messages:

- **In Oromia, our findings for married adolescent girls with respect to family planning indicators are more positive than national estimates from the most recent EDHS, conducted in Ethiopia between January and June in 2016. This could owe to increasing trends in voluntary contraceptive use between 2016 and 2017, and/or could reflect regional variation in mCPR in Ethiopia.**
- **The baseline survey has identified several priority areas for programme activities promoting contraceptive use, including 1) addressing fears, misconceptions and myths; 2) increasing intentions to use contraception; 3) increasing partner communication about family planning; and 4) fostering public approval of family planning by communities.**

In Oromia, our findings for married adolescent girls with respect to family planning indicators are more positive than results from the most recent EDHS, conducted in Ethiopia in 2016.[8] In the EDHS 2016, current use of modern contraception among married women aged 15–19 years was 31.8% (Study protocol mCPR 61.3%; Study DHS mCPR (Appendix D) 47.2%). However, it is important to note that mCPR shows significant variation by region in Ethiopia.[8] In addition, Ethiopia has launched a number of large-scale initiatives recently that may have affected family planning indicators in adolescents, including a national strategy and campaign to tackle child marriage,[9] and expansion of the Ethiopian Health Extension Program.[10]

Also of note is the unusual age distribution of married girls in our study, with approximately 40% reporting being aged 18 years. Although, this could suggest a real peak in marriage for adolescent girls at age 18 years, it may also reflect a general lack of knowledge of age, therefore 18 is a commonly reported age. It could also suggest either misreporting of age because of fear of reporting underage marriage and/or underreporting of younger girls in a household as married for the same reason (the legal age of marriage in Ethiopia is 18 years for both girls and boys). If the latter is true, younger married girls could have been omitted from the study and then it is possible that our mCPR is higher than in the EDHS because we had a sample of older married adolescent girls who were more likely to have had their first child and use contraceptives. However, the median age of first marriage is comparable (our survey: 16 years vs. EDHS: 17 years). Age distribution of married 15–19 year old girls is not reported by one-year age groups in EDHS so we cannot make a direct comparison of age distribution with EDHS data.

Our findings demonstrate significant variation in key demographic and family planning characteristics between Fentale and the other study *woredas* (Wara Jarso, Lome, Ada'a). Married adolescent girls in Fentale were predominantly Muslim, many had no education and few owned a mobile phone. In contrast, in the other study *woredas*, married adolescent girls were predominantly Orthodox Christian, the majority had at least primary education and about half owned a mobile phone. With regard to family planning indicators, in Fentale married adolescent girls had higher unmet need for modern contraception, much lower mCPR and more negative attitudes to using contraception compared with married girls in Wara Jarso, Lome and Ada'a. These findings may highlight the need for an increased focus on tackling prevailing social norms and fostering public approval of family planning by communities that are less educated and more religiously conservative to help create a supportive environment for accessing services in these geographical areas.

Myths and misconceptions were widespread among married adolescent girls and their husbands in Oromia. Approximately a quarter of married girls believe that some modern contraception can stop a girl from ever being pregnant again even after she stops using it. Half of married girls surveyed believe that, if a modern contraceptive changes a girl's menstrual bleeding, it is bad for her health and can harm her womb. Similarly, about a third of husbands believe that some modern contraception can stop a girl from ever being pregnant again even after she stops using it, and two fifths believe that, if a modern contraceptive changes a girl's menstrual bleeding, it is bad for her health and can harm her womb. This may highlight a need to build trust and credibility of family planning products among both married adolescent girls and the communities in which they live by addressing fears, misconceptions and myths.

Overall, 79.3% of married, sexually active adolescent girls report not wanting a child in the next two years, yet two fifths are not currently using a contraceptive method. However, the majority of married girls acknowledge the health benefits of family planning for spacing, including that modern contraception can help a girl delay the birth of her first child, if she wants to, and, after she begins to have children, can allow a girl to decide when to have another child. This data may highlight the need for a planned focus on addressing social norms around the interrelationship between marriage and early childbearing among adolescent girls, and delivering communication on 1) the benefits of delaying the birth of a first child and 2) the benefits of a two- to three-year interval.

Among married, sexually active adolescent girls aged 15–19, 61.7% are currently using a contraceptive method; 61.3% are using modern contraception. Injectables (47.1%) and implants (9.5%) are the most common modern methods used. Of those reporting using a method of contraception (modern or traditional), about 93% of sexually active married girls are using long acting methods (implants, IUDs and injectables). Effective family planning counselling must prepare girls for the possibility that they will experience side effects and provide them with the information and tools to overcome them.

While the majority of married girls feel able to start a conversation with their partners about contraception, the proportion who feel able to use a method of contraception even if their partner does not want her to is much lower. This data may highlight the need for a planned focus on partner communication for married girls to help create a supportive environment for accessing services.

In summary, the key findings of this baseline report support focusing on programming activities to deliver the outputs outlined in the A360 theory of change positioning contraception as relevant and valuable, building trust and credibility of family planning products and creating a supportive environment for accessing services.

8. Programmatic implications

Programme activities to take into account the higher than predicted baseline mCPR

The observed mCPR of 61.3% was higher than expected, which may make it more challenging for the programme to achieve its projected impact on the primary outcome. To inform programming decisions, the programme should reflect on the baseline results, including the likelihood of variability in mCPR across the target regions.

Address fears, misconceptions and myths to build trust and credibility of family planning products

Myths and misconceptions were widespread among both married adolescent girls and their husbands. Approximately a quarter of married girls in Oromia believe that some modern contraception can stop a girl from ever being pregnant again even after she stops using it. Half of married adolescent girls believe that, if a modern contraception changes a girl's menstrual bleeding, it is bad for her health and can harm her womb. Effective family planning counselling must prepare girls for the possibility that they will experience side effects and provide them with the information and tools to overcome them.

Increase intentions to use contraception by positioning contraception as relevant and valuable

One of the main reasons given by married adolescent girls for not using contraception was wanting a/another child. However, the majority of married girls acknowledge the health benefits of family planning for delaying and spacing. This data may highlight the need for a planned focus on addressing social norms around the interrelationship between marriage and early childbearing among adolescent girls, and delivering communication on 1) the benefits of delaying the birth of a first child and 2) the benefits of two- to three-year interval.

Increase partner communication about family planning to help create a supportive environment for accessing services

Whilst the majority of married girls felt able to start a conversation with their partners about contraception, the proportion who felt able to use a method of contraception even if their partner did not want them to was much lower. This data may highlight the need for a planned focus on partner communication for married girls.

Foster public approval of family planning by communities to help create a supportive environment for accessing services

Variation in key demographic characteristics between communities, including educational attainment and religion, may contribute to differences in family planning characteristics of married adolescent girls who live in those communities. These findings may highlight the need for an increased focus on tackling prevailing social norms and fostering public approval of family planning by communities which are less educated and more religiously conservative. This could help create a supportive environment for accessing services in these geographical areas.

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Appendix A: Sample size calculations

Original sample size calculations

The mCPR estimates used in our original sample size calculations were obtained from PSI and were based on projections of mCPR using the most recent DHS estimates. Effect estimates are based on an analysis conducted by one of our evaluation collaborators, Ms Michelle Weinberger (Avenir Health). The assumptions used are outlined in Table A1.

In Oromia region, among sexually active married girls aged 15–19 years, we assumed that between 2017 and 2019 mCPR will increase from 44.0% to 50.8% in the presence of A360. This represents a relative increase of 15% between 2017 and 2019 in A360-exposed married girls. A sample size of 1,132 sexually active married girls aged 15–19 years would give us 90% power to detect this difference based on the assumptions in Table A1.

Taking into account the sampling design, estimated non-response and the fact that not all married adolescent girls will be currently sexually active, the final target sample size is 1,926 married girls aged 15–19 years (Table A1). In this scenario, we have estimated that the design effect will be 1.5.

Table A1: Table of assumptions for key parameters required for sample size calculations, and final target sample size taking into account various estimates of design effect

Scenario	Original 90% power to detect 15% increase in mCPR (44.0% to 50.8%)	Revised (final) 90% power to detect 15% increase in mCPR (58.7% to 67.5%)
Proportion of 15–19-year-old females who are married (or living together)	20.4% (mini DHS 2014)	11.0% (estimated from interim baseline survey data)
Proportion of married 15–19-year-olds who report sexual activity in the past year	97% (DHS 2011 – all ages married)	98% (estimated from interim baseline survey data)
Target sample of sexually active married 15–19-year-old girls	1,132	630
Target sample of all married 15–19-year-old girls Includes non-sexually active married girls	1,167	643
Estimated non-response Girls approached who refuse to participate	10%	8% (estimated from interim baseline survey data)
Total sample size of 15–19-year-old girls • Effective sample size • Taking into account estimated non-response	1,284	806
Design effect	1.5	1.5
Sample size (effective sample size * design effect)	1,926	1,041

Based on the estimated sample size and population projections from the 2007 census data, the EDHS 2016 and mini DHS 2014 data, we expected to reach the target sample size by sampling 43 eligible households (those with married girls) from 45 *kebele*s. However, during piloting we found that some *kebeles* had less than 43 households with married females aged 15–19 years. Thus, we revised our sampling strategy so that all households in the *kebele* were visited, and all eligible married girls identified were invited to participate in the survey.

We selected 45 *kebeles* in order to reach the target sample size. However, following completion of data collection in the 45 sampled *kebeles*, we had fallen significantly short of the target sample size, as our assumptions had overestimated the number of eligible girls in each *kebele*. Based on mini DHS 2014 data, we

expected 20.4% of 15–19 year olds girls to be married. However, based on data collected from eight *kebeles* in the study *woredas* this estimate was 11%. By overestimating the proportion of 15–19-year-old females who were married, we found fewer eligible married girls than predicted in each *kebele*. There has been a recent campaign in Ethiopia to reduce child marriage, which may explain, in part, why our assumptions based on 2014 mini DHS data were incorrect.

In addition, mCPR based on interim analysis of data from the 45 *kebeles* was estimated to be higher (58.7%) than our original estimate (44.0%).

Revised sample size calculations

In our final sample size calculations, we used estimates of mCPR from interim results from data collected from the first 45 *kebeles* sampled. Effect estimates were based on an analysis conducted by one of our evaluation collaborators, Ms Michelle Weinberger (Avenir Health).

In Oromia region, among sexually active married girls aged 15–19 years, we assumed that between 2017 and 2019 mCPR would increase from 58.7% to 67.5% (15% relative increase) in the presence of A360. A sample size of 630 sexually active married girls aged 15–19 years would give us 90% power to detect this difference based on the assumptions in Table A1. Taking into account the sampling design, estimated non-response and the fact that not all married adolescent girls will be currently sexually active, the final target sample size is 1,041 married girls aged 15–19 years (Table A1). In this scenario, we have estimated that the design effect will be 1.5.

Following revision of sample size calculations based on interim baseline survey results, we estimated that a further 12 *kebeles* needed to be sampled (using methods similar to those described for the first 45 sampled). Thus, in total 57 *kebeles* across the four study *woredas* were sampled to reach our revised target sample size.

Appendix B: Implementation challenges and solutions

Challenge	*Woreda*	Field response
Difficulty accessing *kebeles*		
Owing to the rainy season, some *kebeles* were inaccessible by any means of transportation – particularly those bordering or surrounded by a river.	Wara Jarso	These *kebeles* were replaced with randomly selected *kebeles* in the same *woreda*.
Difficulty locating participants		
It was more difficult than expected to find eligible married girls in their households. Many were out all day working on the farm.	All	Enumerators would travel to find an identified eligible girl. This included traveling outside of the *kebele* when a girl who lives in the *kebele* is identified by the household head, but is working on a farm located outside of the *kebele*.
Kebeles were smaller than expected, and fewer eligible married girls than anticipated were found in each *kebele*. Based on mini DHS 2014 data, we assumed that 20.4% of 15–19-year-old females are married. Data collected during our baseline survey revealed that approximately 11% of girls in the study *woredas* were married. There has been a recent campaign in Ethiopia to reduce child marriage, which may explain, in part, why our assumptions based on 2014 data were incorrect.	All	Field teams visited more *kebeles* than planned. In our original study protocol we planned to go to 45 *kebeles* and take a simple random sample of 43 married girls from each *kebele*. We actually visited 57 *kebeles* in total, and interviewed all eligible married girls aged 15–19 years in each *kebele*.
Refusals		
Owing to the sensitive nature of the study, participant refusal was more of a challenge than we have experienced in other household surveys	All	No specific response required.

Appendix C: Data tables

Table C1. Percentage distribution of adolescent girl respondents by age, education, religion, language, employment, access to media (%, n)

Characteristic	Wara Jarso n=417	Lome n= 270	Ada'a n= 263	Fentale n= 248	Total Oromia n= 1,198
Age (years)					
15	6.3 (25)	5.7 (13)	2.1 (6)	2.4 (8)	4.3 (52)
16	9.3 (38)	5.1 (14)	8.0 (23)	5.5 (15)	7.1 (90)
17	17.7 (81)	18.2 (50)	21.5 (55)	23.6 (59)	20.1 (245)
18	37.0 (152)	45.7 (123)	38.2 (102)	44.2 (109)	41.0 (486)
19	29.7 (121)	25.4 (70)	30.3 (77)	24.3 (57)	27.4 (325)
Education					
No education	18.2 (83)	21.0 (58)	21.5 (53)	61.7 (133)	31.4 (327)
Primary	59.0 (248)	70.9 (188)	67.3 (179)	28.8 (80)	54.7 (695)
Secondary	22.3 (84)	8.0 (23)	11.3 (31)	9.4 (34)	13.7 (172)
Technical/vocational	0.47 (2)	0.19 (1)	0 (0)	0.15 (1)	0.24 (4)
Don't know	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
No response	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Religion					
Orthodox Christian	92.9 (382)	77.6 (207)	91.6 (243)	7.5 (36)	65.9 (868)
Protestant	5.6 (27)	19.4 (50)	8.0 (19)	1.5 (10)	7.8 (106)
Muslim	0.12 (1)	2.0 (10)	0 (0)	88.0 (194)	24.7 (205)
Traditional	1.1 (6)	1.0 (3)	0.36 (1)	3.1 (8)	1.5 (18)
No religion	0.21 (1)	0 (0)	0 (0)	0 (0)	0.07 (1)
Don't know	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
No response	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Language (outside home)					

Characteristic	Wara Jarso n=417	Lome n= 270	Ada'a n= 263	Fentale n= 248	Total Oromia n= 1,198
Oromo	79.4 (363)	85.2 (223)	79.6 (214)	91.3 (199)	83.9 (999)
Amharic	20.6 (54)	14.0 (43)	20.0 (48)	8.8 (49)	15.9 (194)
Other	0 (0)	0.76 (4)	0.33 (1)	0 (0)	0.22 (5)
Don't know	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
No response	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Income-generating activity					
Yes	24.6 (101)	8.8 (27)	12.0 (33)	4.6 (19)	13.4 (180)
No	75.4 (316)	91.2 (243)	88.0 (230)	95.4 (229)	86.6 (1,018)
Don't know	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
No response	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Reads newspaper/magazine at least once a week					
Yes	8.4 (32)	2.5 (8)	4.5 (12)	0.44 (3)	4.2 (55)
No	60.5 (242)	52.2 (136)	58.3 (157)	25.3 (84)	48.6 (619)
Unable to read and write	31.1 (143)	44.3 (124)	37.2 (94)	74.2 (160)	46.9 (521)
Don't know	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
No response	0 (0)	0.93 (2)	0 (0)	0.15 (1)	0.24 (3)
Listens to radio at least once a week					
Yes	18.9 (64)	44.0 (114)	42.2 (113)	11.2 (31)	29.5 (375)
No	81.1 (353)	56.1 (156)	57.8 (150)	88.8 (217)	70.5 (823)
Don't know	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
No response	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Watches television at least once a week					
Yes	82.7 (4,995)	9.8 (34)	6.0 (17)	9.2 (41)	11.9 (156)
No	17.3 (1,046)	90.2 (236)	94.0 (246)	90.8 (207)	88.1 (1,042)

Characteristic	Wara Jarso n=417	Lome n= 270	Ada'a n= 263	Fentale n= 248	Total Oromia n= 1,198
Don't know	0.03 (2)	0 (0)	0 (0)	0 (0)	0 (0)
No response	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Accesses internet at least once a week					
Yes	4.0 (14)	0.82 (3)	1.3 (4)	1.3 (7)	2.1 (28)
No	96.0 (403)	99.2 (267)	98.7 (259)	98.7 (241)	97.9 (1,170)
Don't know	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
No response	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Mobile phone access					
Owns smartphone	5.1 (16)	4.5 (13)	4.3 (12)	1.8 (9)	3.9 (50)
Owns non-smart mobile phone	47.2 (184)	35.4 (95)	44.2 (120)	5.9 (23)	32.7 (422)
Accesses mobile phone at least once a week	14.8 (63)	15.8 (43)	20.1 (52)	9.4 (25)	14.5 (183)
Accesses mobile phone less than once a week	6.4 (29)	10.3 (26)	5.9 (15)	11.3 (36)	8.5 (106)
No mobile phone access	26.5 (125)	34.1 (93)	25.5 (64)	71.1 (154)	40.2 (436)
Don't know	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
No response	0 (0)	0 (0)	0 (0)	0.49 (1)	0.13 (1)

Table C2. Sexuality, fertility and fertility preferences of adolescent girl respondents (estimate, 95% Confidence Interval)

Characteristic	Wara Jarso	Lome	Ada'a	Fentale	Total Oromia
Timing of last intercourse (%)	n=417	n=270	n=263	n=248	n=1,198
Within past 4 weeks	88.4 (84.1-91.7)	96.6 (94.6-97.8)	93.2 (89.7-95.6)	87.7 (79.9-92.8)	90.8 (88.0-93.1)
Within past year	10.5 (7.5-14.6)	3.0 (1.6-5.5)	6.8 (4.4-10.4)	10.2 (5.7-17.5)	8.1 (6.1-10.8)
More than 1 year	1.0 (0.32-3.3)	0.45 (0.07-2.8)	0	2.0 (0.69-5.6)	0.98 (0.46-2.1)
Never had sex	0	0	0	0	0
Don't know	0	0	0	0	0
No response	0	0	0	0.15 (0.02-1.1)	0
Median (interquartile range) age at first sexual intercourse	n=417 16 (15-17)	n=270 16 (15-17)	n=263 16 (15-17)	n=247 16 (16-17)	n=1,197 16 (15-17)
Ever been pregnant (%)	n=417	n=270	n=263	n=248	n=1,198
Yes	56.3 (48.4-63.8)	65.4 (57.6-72.4)	76.7 (70.0-82..3)	79.1 (71.8-84.9)	68.3 (62.9-73.2)
No	43.6 (36.1-51.5)	34.7 (27.7-42.4)	23.3 (17.7-30.0)	20.9 (15.1-28.2)	31.7 (26.8-37.0)
Don't know	0.12 (0.02-0.88)	0	0	0	0.04 (0.01-0.30)
No response	0	0	0	0	0
Currently pregnant (%)	n=417	n=270	n=263	n=248	n=1,198
Yes	11.6 (9.0 -14.8)	13.5 (9.7-18.5)	20.6 (15.2-27.2)	26.0 (20.4-32.5)	17.7 (14.5-21.3)
No	87.2 (83.9-89.9)	85.1 (79.7-89.3)	78.3 (71.6-83.8)	72.9 (66.0-78.9)	81.2 (77.4-84.4)
Don't know	1.2 (0.48-3.0)	1.4 (0.48-3.8)	1.1 (0.36-3.4)	1.1 (0.32-3.5)	1.2 (0.69-2.0)
No response	0	0	0	0	0
Age-specific fertility rates (per 1,000) 15-19	n=417 200.2 (171.6-232.3)	n=270 216.4 (177.1-261.7)	n=263 236.4 (191.7-287.9)	n=248 327.1 (279.5-378.7)	n=1,198 245.4 (217.2-276.0)

Characteristic	Wara Jarso	Lome	Ada'a	Fentale	Total Oromia
Ever given birth (%)	n=417	n=270	n=263	n=248	n=1,198
Yes	45.6 (37.2-54.1)	51.3 (40.8-61.7)	57.1 (50.0-63.9)	53.9 (44.4-63.1)	51.2 (46.3-56.1)
No	54.4 (45.9-62.8)	48.7 (38.4-59.2)	42.9 (36.1-50.0)	46.2 (37.0-55.6)	48.8 (43.9-53.7)
Don't know	0	0	0	0	0
No response	0	0	0	0	0
Median (interquartile range) age at first birth	n=191 17 (16-18)	n=136 17 (16-18)	n=149 17 (16-18)	n=134 17.5 (16.5-18)	n=610 17 (16-18)
Planning status of most recent birth (%)	n=191	n=136	n=149	n=134	n=610
Wanted then	64.0 (54.6-72.4)	63.4 (53.6-72.2)	72.6 (64.3-79.6)	78.2 (64.1-87.7)	69.8 (63.4-75.5)
Wanted later	32.2 (23.9-41.8)	30.8 (20.8-42.9)	25.8 (18.6-34.7)	16.8 (9.1-29.1)	26.1 (20.7-32.4)
Wanted no more	3.8 (0.96-13.9)	5.8 (2.2-14.9)	1.6 (0.40-5.9)	5.0 (1.3-17.6)	4.1 (2.1-7.9)
Don't know	0	0	0	0	0
No response	0	0	0	0	0
Unmet need for modern contraception (%)	n=377[3]	n=237[3]	n=230[3]	n=200[3]	n=1,044[3]
No unmet need	81.6 (79.2-83.7)	87.6 (82.4-91.5)	89.9 (85.2-93.2)	61.9 (53.7-69.4)	79.5 (74.6-83.6)
Unmet need for spacing[1]	16.3 (13.9-18.9)	11.4 (8.0-16.0)	9.6 (6.2-14.5)	37.6 (30.1-45.8)	19.4 (15.1-24.4)
Unmet need for limiting[2]	2.2 (1.1-4.2)	0.97 (0.29-3.2)	0.57 (0.08-4.1)	0.51 (0.11-2.2)	1.2 (0.68-2.1)
Total unmet need	18.5 (16.3-20.8)	12.4 (8.5-17.6)	10.1 (6.8-14.9)	38.1 (30.6-46.3)	20.5 (16.4-25.4)

1 Unmet need for spacing includes pregnant women whose pregnancy was mistimed; fecund women who are non-pregnant, who are not using any modern method of contraception and say they want to wait two or more years for their next birth; and postpartum amenorrheic women, who are not using any modern method of contraception and say at the time they became pregnant had wanted to delay pregnancy.

2 Unmet need for limiting refers to pregnant women whose pregnancy was unwanted; fecund women who are non-pregnant, who are not using any modern method of contraception, andwho want no more children; and postpartum amenorrheic women, who are not using any modern method of contraception and say at the time they became pregnant had not wanted any more children.

3 Total number of adolescent girls aged 15–19 years who are fecund and sexually active (sex in the past year) or postpartum amenorrheic or pregnant.

Table C3. Background characteristics of the husbands surveyed (%, n)

Characteristic	Wara Jarso n=54	Lome n=31	Ada'a n=33	Fentale n=24	Total Oromia n=142
Relationship to adolescent girl					
Husband	100.0 (54)	100.0 (31)	100.0 (33)	100.0 (24)	100.0 (142)
Co-habiting partner	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
No response	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Age (years)					
15–19	13.7 (7)	3.3 (1)	2.9 (1)	5.0 (1)	7.4 (10)
20–24	49.8 (30)	38.5 (12)	42.3 (14)	63.1 (15)	49.0 (71)
25–29	34.4 (16)	48.7 (14)	51.3 (17)	31.9 (8)	40.5 (55)
30–34	1.0 (1)	3.9 (2)	3.4 (1)	0 (0)	1.9 (4)
35–39	0 (0)	2.4 (1)	0 (0)	0 (0)	0.51 (1)
40–44	0 (0)	3.3 (1)	0 (0)	0 (0)	0.72 (1)
Don't know	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Education					
No education	18.7 (7)	20.4 (6)	26.2 (8)	33.1 (8)	23.8 (29)
Primary	30.9 (19)	52.1 (16)	56.5 (19)	50.6 (11)	44.9 (65)
Secondary	42.2 (21)	25.5 (8)	15.6 (5)	9.0 (2)	25.9 (36)
Technical/vocational	5.4 (4)	1.9 (1)	1.7 (1)	4.4 (1)	3.7 (7)
University	2.7 (3)	0 (0)	0 (0)	2.9 (2)	1.7 (5)
Don't know	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
No response	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)

Characteristic	Wara Jarso n=54	Lome n=31	Ada'a n=33	Fentale n=24	Total Oromia n=142
Religion					
Orthodox Christian	91.8 (49)	82.2 (26)	93.3 (31)	11.0 (4)	71.6 (110)
Protestant	8.2 (5)	12.1 (3)	6.7 (2)	0 (0)	6.9 (10)
Muslim	0 (0)	1.5 (1)	0 (0)	89.0 (20)	20.6 (21)
Traditional	0 (0)	4.2 (1)	0 (0)	0 (0)	0.91 (1)
Don't know	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
No response	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Language (outside home)					
Oromo	80.1 (47)	84.3 (26)	79.8 (27)	91.9 (22)	83.6 (122)
Amharic	19.9 (7)	15.7 (5)	20.3 (6)	8.2 (2)	16.4 (20)
Don't know	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
No response	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)

Table C4. Family planning knowledge, attitudes and beliefs of the husbands surveyed (%, 95% Confidence Interval)

Characteristic	Wara Jarso	Lome	Ada'a	Fentale	Total Oromia n=142
Ever heard of contraception	n=54	n=31	n= 33	n= 24	n=142
Yes	96.0 (92.0-98.1)	97.1 (79.9-99.6)	100.0	95.1 (73.1-99.3)	94.4 (87.9-97.5)
No	4.0 (1.9-8.0)	0	0	5.0 (0.73-26.9)	3.0 (0.95-9.2)
Don't know	0	2.9 (0.36-20.1)	0	0	2.6 (0.74-8.8)
No response	0	0	0	0	0
Agreed with misconception about contraception	n=50	n=30	n=49	n=23	n=136
Some modern contraception can stop a girl from ever being pregnant again even after she stops using it	31.9 (16.9-51.9)	31.8 (19.6-47.2)	n=33	25.0 (9.5-51.4)	30.6 (22.4-40.2)
If a modern contraception changes a girl's menstrual bleeding, it's bad for her health and can harm her womb	43.7 (29.2-59.4)	39.3 (17.1-67.1)	33.2 (21.8-46.9)	30.1 (13.5-54.3)	38.2 (28.8-48.6)
Some modern contraceptives can make adolescent girls permanently fat	41.0 (26.1-57.8)	51.7 (36.6-66.5)	37.0 (23.0-53.5)	39.1 (15.2-69.7)	45.8 (35.5-56.5)
Adolescent girls who use modern contraception sleep with too many men	23.7 (10.5-45.1)	19.5 (10.1-34.5)	55.0 (32.6-75.6)	28.6 (12.6-52.5)	19.7 (12.3-29.9)
Agreed with benefits about contraception	n=50	n=30	n=33	n=23	n=136
Preventing unwanted pregnancies is a benefit of contraception	87.2 (71.0-95.0)	90.0 (70.5-97.1)	89.2 (75.7-95.6)	86.0 (66.9-94.9)	87.9 (80.6-92.7)
Some contraception methods reduce sexually transmitted infections	43.2 (28.6-59.0)	34.7 (18.6-55.4)	36.9 (22.6-54.0)	46.6 (32.5-61.3)	40.8 (32.6-49.6)
Modern contraception can help a girl to delay the birth of her first child, if she wants to	84.8 (68.1-93.6)	77.0 (62.4-87.1)	81.1 (66.6-90.2)	57.1 (45.2-68.2)	76.0 (68.0-82.4)
After she begins to have children, modern contraception can allow a girl to decide when to have another child	98.3 (88.7-99.8)	93.1 (79.4-98.0)	94.5 (80.0-98.7)	97.3 (82.3-99.7)	96.2 (91.7-98.3)

Characteristic	Wara Jarso	Lome	Ada'a	Fentale	Total Oromia n=142
Using modern contraception can allow a girl to complete her education, find a better job, and have a better life	96.0 (76.3-99.5)	87.1 (68.6-95.4)	89.3 (73.6-96.1)	63.4 (49.4-75.5)	85.2 (76.9-90.8)
Approved of using contraception	n=50	n=30	n=33	n=23	n=136
Married adolescent girls aged 15–19 years using a modern contraception method to avoid or delay pregnancy	97.0 (80.9-99.6)	97.1 (79.9-99.7)	100.0	68.0 (54.1-79.3)	91.0 (83.3-95.3)
Unmarried sexually active adolescent girls aged 15–19 years using a modern contraception method to avoid or delay pregnancy	80.5 (65.6-90.0)	77.2 (61.1-88.0)	76.6 (56.9-89.1)	48.8 (34.6-63.2)	71.7 (62.6-79.3)
Agreed with statements on adolescent girls accessing and using contraception	n=50	n=30	n=33	n=23	n=136
It is acceptable for an adolescent girl to start a conversation with her husband/partner about contraception	100.0	94.0 (79.8-98.4)	100.0	80.1 (65.5-89.6)	94.1 (87.5-97.3)
It is acceptable for an adolescent girl to obtain information on contraception services and products if she needs to	98.3 (88.7-99.8)	95.3 (83.6-98.8)	89.4 (74.4-96.1)	80.5 (63.9-90.6)	91.7 (85.4-95.5)
It is acceptable for an adolescent girl to obtain a contraception method if she decides to use one	94.8 (80.8-98.8)	88.9 (76.2-95.3)	93.1 (76.6-98.2)	72.8 (52.4-86.7)	88.1 (80.1-93.2)
It is acceptable for an adolescent girl to use a method of contraception even if her husband/partner doesn't want her to	56.7 (39.6-72.4)	54.3 (28.8-77.8)	46.2 (27.2-66.4)	50.9 (39.2-62.5)	52.7 (42.9-62.4)

Appendix D: DHS mCPR definition and results table

DHS definition of mCPR among 15–19-year-old girls:[8]

MARRIED

$$\frac{\text{Number of married 15–19-year-old girls reporting use of modern contraceptives at the time of the survey}}{\text{Number of married 15–19-year-old girls}}$$

Modern contraception: male and female sterilisation, contraceptive implants, intrauterine contraceptive devices (IUDs), injectables, oral contraceptive pill, emergency contraceptive pill, male condom, female condom, Standard Days Method (SDM), Lactational Amenorrhoea Method (LAM), diaphragm, spermicides, foams and jelly.

mCPR definition	Pros	Cons
Study protocol mCPR	• Denominator reflects the population at risk (of pregnancy), i.e., sexually active women who are not infecund, pregnant, or amenhorreic • More informative for programming • Easier to tease out the separate impacts of an intervention on (1) use of contraception in population at risk of pregnancy and (2) number of pregnancies (age-specific fertility rates are a secondary outcome in our study)	• Not directly comparable to DHS
DHS mCPR	• More widely used definition • Direct comparison can be made for married women with DHS • The DHS definition is helpful for international comparisons	• Denominator doesn't reflect population at risk of pregnancy for married women

Table D1. Percentage distribution of married adolescent girls aged 15–19 years who currently use contraception, by method used (DHS definition) (%, 95% Confidence Interval)

Characteristic	Wara Jarso	Lome	Ada'a	Fentale	Total Oromia
No. of married girls[1]	417	270	263	248	1,198
Any method	62.4 (58.9-65.8)	65.9 (58.8-72.3)	56.9 (47.3-66.0)	9.3 (4.2-19.5)	47.5 (37.3-57.8)
Any modern method[2]	62.1 (58.6-65.5)	65.9 (58.8-72.3)	56.9 (47.3-66.0)	8.7 (3.6-19.6)	47.2 (37.0-57.7)
Modern method					
Implant	4.0 (2.3-7.0)	18.9 (11.4-29.6)	12.2 (8.6-17.0)	1.3 (0.31-5.3)	7.9 (5.2-11.9)
IUD	0.74 (0.22-2.4)	0	0.28 (0.04-1.9)	0	0.29 (0.10-0.86)
Injectables	53.5 (48.2-58.6)	43.9 (35.7-52.4)	40.2 (30.7-50.6)	6.2 (2.5-14.5)	35.9 (27.9-44.8)
Daily pills	3.1 (0.82-10.8)	2.7 (1.4-5.0)	3.0 (1.0-8.1)	0.64 (0.15-2.7)	2.3 (1.2-4.5)
Emergency pills	0.12 (0.02-0.88)	0.41 (0.05-3.2)	0	0.15 (0.02-1.1)	0.17 (0.05-0.59)
Male condom	0	0	0	0	0
Other modern method	0.69 (0.18-2.6)	0	1.2 (0.38-4.0)	0.45 (0.07-3.0)	0.58 (0.25-1.4)
Any traditional method	0.33 (0.08-1.3)	0	0	0.55 (0.10-3.0)	0.26 (0.08-0.89)
Not currently using	25.0 (21.6-28.7)	20.2 (16.4-24.7)	22.5 (17.0-29.3)	62.6 (53.8-70.6)	33.9 (26.4-42.2)
Don't know	0	0	0	0	0
No response[3]	12.6 (10.1-15.7)	13.9 (10.4-18.5)	20.6 (15.2-27.2)	28.1 (23.8-32.9)	18.7 (15.6-22.2)
Total	100.0	100.0	100.0	100.0	100.0

1 All married girls in Oromia.

2 Modern methods include female sterilisation, male sterilisation, contraceptive pill (oral contraceptives), IUD, injectables (Depo-Provera), implants (Norplant), female condom, male condom, diaphragm, contraceptive foam and contraceptive jelly, LAM, SDM, cycle beads.

3 Girls who reported no sexual activity in last 12 months or reported being pregnant were not asked about use of modern contraception in the survey.