
Informing Reproductive and Child Health Social and Behavior Change Programs

Findings from a household survey in Nepal



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About SHOPS Plus: Sustaining Health Outcomes through the Private Sector (SHOPS) Plus is USAID’s flagship initiative in private sector health. The project seeks to harness the full potential of the private sector and catalyze public-private engagement to improve health outcomes in family planning, HIV/AIDS, maternal and child health, and other health areas. SHOPS Plus supports the achievement of US government priorities, including ending preventable child and maternal deaths, an AIDS-free generation, and FP2020. The project improves the equity and quality of the total health system, accelerating progress toward universal health coverage.



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Acronyms

ANC	Antenatal Care
CRS	The CRS Company
CPR	Contraceptive Prevalence Rate
DHS	Demographic and Health Survey
NDHS	Nepal Demographic and Health Survey
KAP	Knowledge, Attitudes, and Practices
GGMS	Ghar Ghar Maa Swasthya
mCPR	Modern Contraceptive Prevalence Rate
MII	Method Information Index
OAM	Opportunity, Ability, and Motivation
POS	Point-of-Sale
PPS	Probability Proportional to Size
RAI	Remote Area Initiative
SBC	Social and Behavior Change
SES	Socioeconomic Status
SLC	School Leaving Certificate
UP	Uterine Prolapse

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Overview and Objectives

The Sustaining Health Outcomes through the Private Sector Plus (SHOPS Plus) project seeks to harness the full potential of the private sector and catalyze public-private engagement to improve health outcomes in family planning, HIV/AIDS, maternal and child health, and other health areas. In Nepal, the project focuses on building the technical capacity and financial sustainability of the CRS Company (CRS), a Nepalese social marketing organization and key USAID partner. CRS leads the *Ghar Ghar Maa Swasthya (GGMS)*, or Healthy Homes project, in 49 urban and rural districts of Nepal (nearly two-thirds of the country) from both hill and mountain regions. The GGMS project aims to increase access to family planning products and improve child health indicators through marketing and distribution of subsidized family planning and child health products.

As part of the GGMS project, CRS is implementing community-based social and behavior change (SBC) activities called the Remote Area Initiative (RAI) in certain parts of four hill districts: Terhathum, Ramechhap, Tanahu and Aghakhanchi (see Figure 1). These RAI areas, which are also included in the larger GGMS project, were selected because they are some of the most remote and have some of the poorest reproductive and child health indicators in Nepal. This is the second phase of CRS' RAI program, and the curriculum will focus on social and behavior change activities related to family planning access and choice, diarrhea prevention and treatment, use of antenatal care services and facility delivery, and uterine prolapse prevention and treatment. The RAI program has a variety of SBC components including interpersonal communication and community events. In contrast, the larger GGMS program focuses solely on product marketing and distribution.

Figure 1: Map of Nepal highlighting new RAI districts



SHOPS Plus subcontracted with a local research firm called New Era to conduct a knowledge, attitudes, and practices (KAP) baseline survey in the GGMS and RAI districts. The primary objectives of this survey are to assess current KAP in key health areas to:

- 1) Provide CRS with relevant information to plan for RAI activities,
- 2) Provide CRS with data to inform program management and product messaging in GGMS areas, and
- 3) Serve as a baseline (endline to be conducted in 2019-20) to evaluate the effectiveness of the GGMS and RAI interventions during the period of SHOPS Plus assistance to CRS (from 2017-2020).

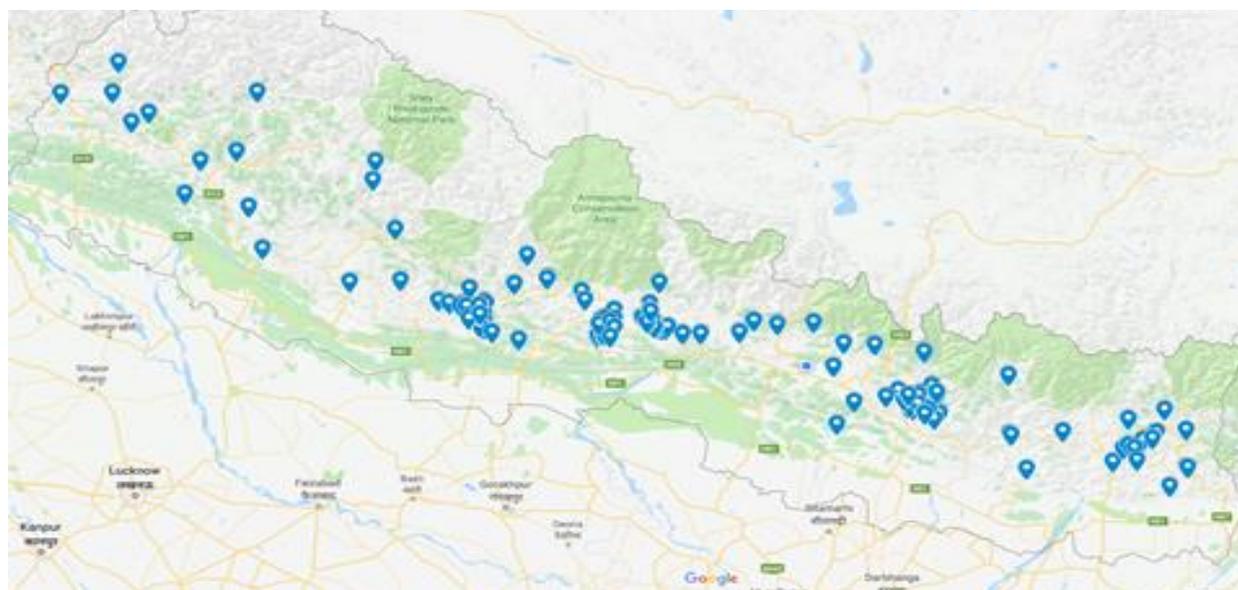
This report presents outcomes from the baseline GGMS and RAI surveys as well as recommendations to inform CRS' GGMS and RAI programs. Key outcomes included in this report are the modern contraceptive prevalence rate (mCPR), the percentage of caregivers who

used ORS and zinc to treat diarrhea in children under 5, the percentage of pregnant women who attended four or more ANC visits, the percentage of women who delivered in health centers, knowledge of hand washing, and the percentage of households that treat their drinking water.

Sampling

Multi-stage cluster sampling was used for this survey. Clusters were selected from two sampling frames (one for GGMS and one for RAI) using a probability proportional to size (PPS) methodology. Clusters were defined as the ward level, and Census 2011 data was used to develop the sampling frames. One hundred and eighteen and 65 clusters were selected for the GGMS and RAI samples, respectively (see Figure 2).

Figure 2: GGMS Sampling Sites



If the selected cluster had more than 200 households, the cluster was further divided by the field research team into several smaller segments based on settlement patterns, landmarks, roads, and rivers. A segment was then selected randomly using a segment selection template provided by SHOPS Plus. Once the cluster was selected, the field team conducted door-to-door household visits to prepare a complete list of households within the cluster. Following the 2016 Nepal Demographic and Health Survey (NDHS), a household was defined as a person or group of related or unrelated people who usually live together in the same dwelling unit(s) or in connected premises, who acknowledge one adult member as the head of the household, and who have common cooking and eating arrangements.

Individuals eligible for study participation included women age 15-49 years who are normal residents of the sampled household and who are either married/in union or have never been married. Widowed, separated, and divorced women were excluded in addition to women who were visiting the household as a guest, as these women are not part of CRS' target audience. After the household listing was complete, a random household selection template (an Excel-based tool) was used to select 27 households from each of the selected wards. A cluster size of

27 households was used to sample approximately 30 women per cluster: based on NDHS 2016 data, the expected number of reproductive age women (15-49 years) per household is 1.168, and $27 \times 1.168 \approx 32$. Excluding divorced, widowed, separated and house guests who spent the night before at the house, we expected a cluster sample of 27 to yield approximately 30 interviews. The major sampling challenge faced during fieldwork is that we found fewer women than expected in each sampled household, so our sample size fell short of what we projected. To compensate for this, we returned to 17 RAI clusters and randomly selected 27 additional households (excluding those that had already been sampled). This change was accounted for in weighting procedures.

There was no other household replacement. All survey information was collected on tablets using computer assisted personal interviewing. Informed consent was collected from all respondents prior to data collection. The study protocol was reviewed and approved by the Abt Associates Institutional Review Board in the US and the National Health Research Council in Nepal.

The GGMS and RAI baseline samples included 3293 and 1956 women, respectively. All women included in the RAI sample were also included as part of the GGMS sample. Sampling weights were calculated and applied to the analysis to account for the over-representation of women from the RAI areas in the GGMS sample. The GGMS and RAI samples were weighted to be representative of married and never married women age 15-49 in the GGMS and RAI districts, respectively.

Results in this report refer to both GGMS and RAI areas, unless otherwise noted.

Demographics

More than eight out of ten women in both the GGMS and RAI areas are married or in union (referred to as married hereafter). Half of women live in urban areas and half in rural, based on Nepal's 2016 urbanity definitions. The age distribution is spread fairly evenly across three age categories: 15-24 years, 25-34 years, and 35-49 years. Unsurprisingly, the large majority (more than 90 percent) of never married women are in the youngest age group of 15-24 years.

The research team calculated socioeconomic status (SES) using the validated Nepal Equity Tool, an asset-based index that has been simplified from the longer NDHS version. Overall, GGMS women are significantly poorer than RAI women: 64 percent of GGMS women are in the bottom two wealth quintiles compared to 51 percent of RAI women ($p < 0.05$). GGMS women are also less educated than RAI women: 30 percent of GGMS women have no education compared to 20 percent of RAI women ($p < 0.01$). In both GGMS and RAI areas, never married women have much higher education levels: at least 40 percent of never married women have a school leaving certificate (SLC) or above compared to less than 25 percent of married women. The higher poverty and lower education levels among the GGMS households is important context as this report compares and contrasts family planning and maternal and child health indicators between RAI and GGMS areas.

Among married women, many live without their partners. One-third of married GGMS women and 39 percent of RAI women reported that they do not currently live with their partner (not a significant difference: $p > 0.05$). On average, women who do not live with their partners have been living apart for one year. The high prevalence of migrant partners in the GGMS and RAI

areas has important implications for family planning findings, particularly related to levels of current use, intention to use, and preferences for particular methods. See Annex A for additional information on demographic characteristics.

Media Habits

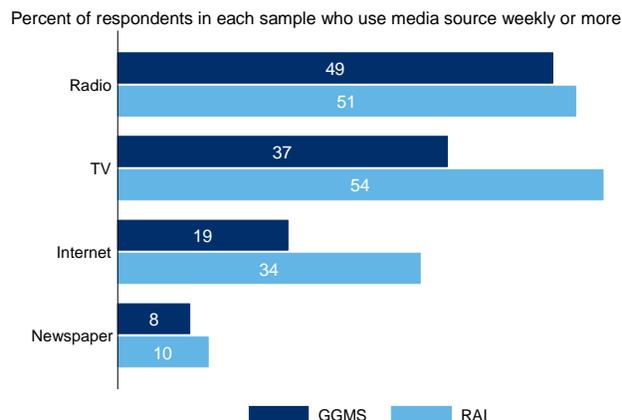
We asked respondents about their typical consumption of radio, TV, newspaper, and the Internet. Use of TV and Internet are higher among RAI households: 54 percent of RAI women watch TV weekly compared to 37 percent of GGMS women ($p < 0.01$). Internet use is almost double among RAI women compared to GGMS women (34 percent versus 19 percent, $p < 0.01$). In GGMS households, radio is the most popular media source (49 percent watch weekly), whereas TV is most common in RAI households (54 percent watch weekly).

Younger women in both GGMS and RAI areas use all types of media more than older women. This is not particularly surprising given global trends that show high use of media among youth. Over two-thirds of the youngest (15-24 years) RAI and GGMS women listen to the radio weekly, making this the best way to reach the largest number of young women. In GGMS areas, radio remains the most effective media outlet through which to reach the largest number of older women. To reach older women in RAI areas, however, TV is the best media source, as 60 percent watch TV weekly versus 51 percent who listen to the radio weekly.

Among women who watch TV, Nepal TV is the most popular station. Kantipur Daily is the most popular newspaper, and Facebook is the most popular Internet site. Radio listenership is decentralized across numerous regional FM stations, which may make radio advertising on a particular channel less effective.

Lastly, mobile phone ownership is quite high in GGMS and RAI areas. Over two-thirds of GGMS women have their own mobile phone, while 79 percent of RAI women own a phone ($p < 0.01$). Unsurprisingly, women with a higher education level or higher SES are more likely to own a phone. For example, only 44 percent of GGMS women with no education own a cell phone compared to 93 percent of women with a SLC or above. Thus, mobile-based communications that aim to target the poorest or lowest educated women would be less effective.

Figure 3: RAI women are more likely to watch TV than GGMS women

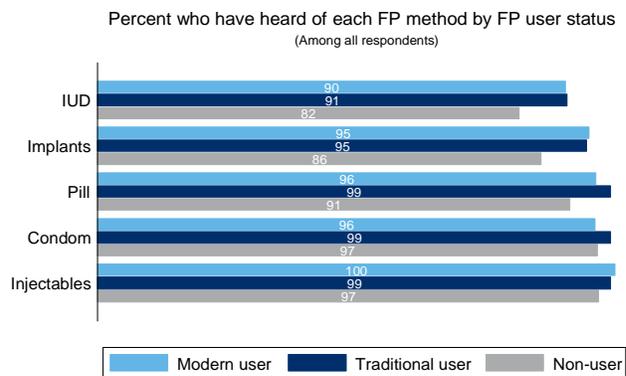


Family Planning Knowledge, Attitudes, and Practices

Family Planning Knowledge

Knowledge of modern contraceptive methods is extremely high among women in GGMS and RAI areas. Ninety eight percent of respondents are aware of at least three modern methods. Knowledge of injectables, condoms, pills, and sterilization is highest, all above 95 percent.

Figure 4: GGMS knowledge of FP methods by type of user



Modern user N=1003; Traditional user N=343; Non-user N=1947
All differences are statistically significant between 1) modern and non-users and 2) traditional and non-users

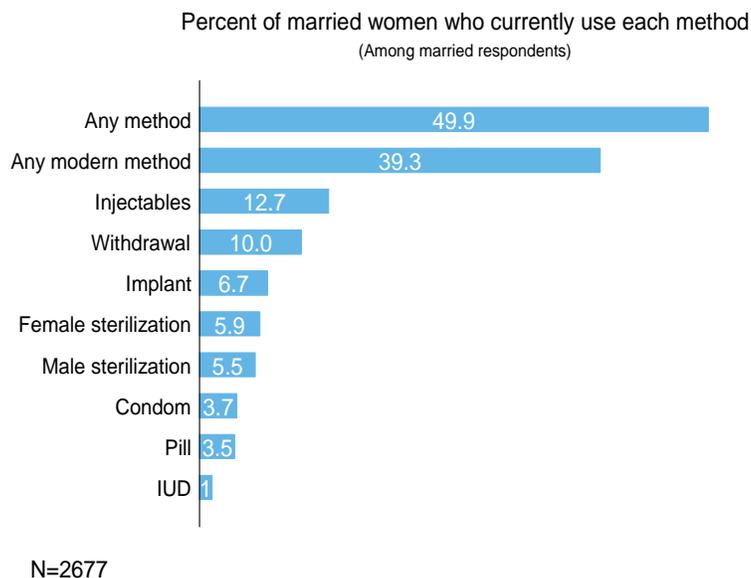
Awareness of implants, intrauterine devices (IUDs), female condoms, and emergency contraception (EC) varies by marital status. Married women are more likely to be aware of implants and IUDs, while never married women are more familiar with female condoms and EC. For example, 93 percent of married GGMS women are aware of implants compared to 76 percent of never married GGMS women. Conversely, 49 percent of never married GGMS women are aware of female condoms compared to 29 percent of married GGMS women. Female condoms and EC are short-acting methods controlled by the female and may be more commonly used among unmarried women.

GGMS women not currently using a contraceptive method are significantly less likely to be aware of numerous modern family planning methods (see Figure 4). While method awareness is still quite high among non-contraceptive users, this is a useful finding to consider as CRS' programs aim to educate women about contraceptive options. Knowledge of existing methods is a critical first step to increasing access and use.

Family Planning Current Use

The KAP survey found a contraceptive prevalence rate (CPR) of 50 percent and mCPR of 39 percent in GGMS areas.¹ The findings are extremely similar in RAI areas (CPR is 52 percent and mCPR is 37 percent). These results also align with 2016 NDHS findings, which reports a CPR of 53 percent and mCPR of 43 percent. There are some variations in specific method use between our KAP and NDHS results, the largest of which is use of female sterilization. The NDHS reports that 15 percent of women are sterilized, while our survey found that 6 percent are sterilized. This difference is explained by the fact that a substantial proportion of sterilized women from the NDHS survey are in the Terai region, which is not part of the GGMS districts.

Figure 5: Injectables are leading contraceptive method among GGMS women



In RAI areas, there are substantial district variations in family planning use (see Table 1). Ramechhap has the highest CPR at 68 percent and an mCPR of 57 percent. The other three districts have a lower CPR (46 percent to 50 percent) and mCPR (30 percent to 32 percent). Additional investigation may be warranted to learn more about what sets Ramechhap apart from the other three districts. This difference has programmatic implications: RAI family planning promotion activities should primarily focus in the three districts other than Ramechhap.²

Table 1. CPR and mCPR in the four RAI districts

District	CPR	mCPR
Ramechhap	68%	57%
Terhatum	50%	31%
Arghakhanchi	47%	32%
Tanahu	46%	30%

¹ If respondents reported currently using more than one method, we classified the woman as using the most effective method that she reported.

² When CRS selected RAI districts, one factor it considered was mCPR, which was calculated based on family planning products supplied by the government through the public sector. Based on this source, Ramechhap had an mCPR of 33%. However, this data does not include women who obtain their contraceptive from another district or from the private sector. It seems that more women in this district are obtaining their method from outside Ramechhap or from private sector sources compared to the other three RAI districts.

Interestingly, no unmarried women in the KAP survey reported currently or ever using a family planning method. Given stringent cultural norms that unmarried women should not be sexually active, this finding may be due to under-reporting. Among married women, current contraception use is extremely different when stratifying by partner presence. For example, among RAI women, only 11 percent of women with a partner absent currently use contraception compared to 76 percent of women who currently live with their partner (see Figure 6).

In RAI areas, the CPR is higher among women with no education (63 percent) compared to women with a higher education level (49 percent). While surprising, this pattern holds true in NDHS 2016 findings, as well. However, CPR and mCPR are fairly consistent across education levels in the GGMS households. Among RAI women, the higher CPR among women with no education is attributed to higher sterilization (22 percent compared to 10 percent among all RAI women), injectable use (11 percent compared to 8 percent among all RAI women), and implant use (10 percent compared to 4 percent among all RAI women).

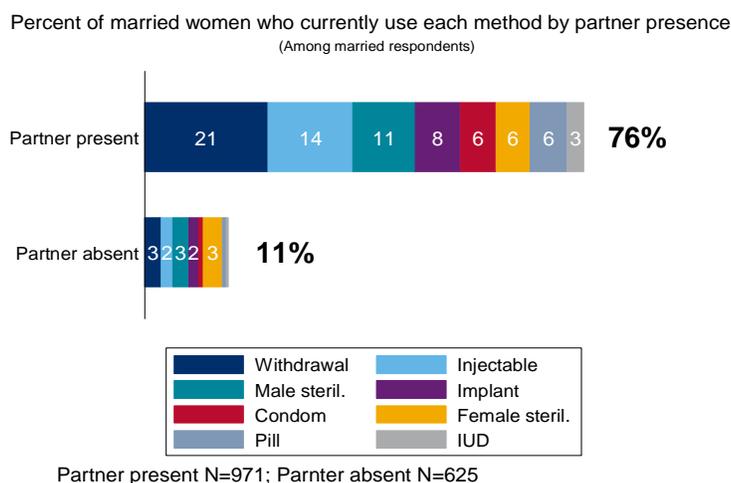
Across all population segments, the mCPR is substantially lower than the CPR, due to high use of withdrawal. This is a key programmatic finding, as the RAI curriculum can incorporate educational information about the relative benefits of modern methods compared to withdrawal, while also recognizing that some women may have a preference for traditional method use.

Family Planning Brand Use and Method Source³

Injectable brands: In Nepal, there are two injectable brands currently on the market: Sangini and Depo Provera, the latter of which is distributed exclusively by the public sector. Nearly three-fourths of GGMS and RAI women use Depo Provera. However, among urban and wealthier injectable users (who are often the same individuals), Sangini use is more common than Depo Provera. For example, nearly 70 percent of RAI injectable users in the top two wealth quintiles use the Sangini brand. When examining all Sangini users, they are spread evenly across income and education levels. Nearly half of Sangini users are 25-34 years old, and the majority live in hill areas (79 percent).

Pill brands: Pill use is spread evenly across the top three leading brands: Sunaulo Gulaf, Nilocon White, and the Ministry of Health and Population (MoHP) brand. Sunaulo Gulaf users are primarily younger women (83 percent are under 35). They are from both urban and rural areas, and nearly two-thirds of them are in the lowest two wealth quintiles. Nilocon White users are also fairly young: 75 percent are under age 35. More than 80 percent are from urban areas and from hill areas. Half of Nilocon White users are in the bottom two wealth quintiles, so this pill

Figure 6: CPR is nearly 7 times higher among women with a partner present



³ In this section, users of each method are defined as current users or those who used the method in the last 12 months.

brand is used by fewer low-income women compared to Sunaulo Gulaf. This difference reflects CRS' strategy to segment the market of pill users by income levels: CRS aims to offer a lower priced brand (Sunaulo Gulaf) to lower income women and emphasize a higher positioning and price brand (Nilocon White) to wealthier women. It appears that CRS' targeting strategy is more successful for Sunaulo Gulaf than for Nilicon White.

Condom brands: The MoHP freely supplied condom is the most popular condom among GGMS and RAI women followed by Dhaal, Panther, and then D'zire. Among GGMS condom users, 28 percent use the MoHP free supply, 19 percent use Dhaal, 17 percent use Panther, and 4 percent use D'zire. Among RAI condom users, only 9 percent use Panther, while 8 percent use D'zire. However, these differences are not statistically significant. Given the social norms that men are responsible for condom selection and purchase, one should not infer that the preferences are reflective of the general population. Many women could not recall the condom brand they used last time, so the sample size was too small to examine demographics among current brand users. Among *ever-users* of the CRS condom brands (Dhaal, Panther, and D'zire), most are from hill areas (73 percent). Two-thirds have a secondary education or higher. Users are spread fairly evenly across urbanities, age groups, and wealth quintiles. These demographic profiles are consistent for *ever-users* across all three condom brands.

Contraception sources: Two-thirds of contraceptive users obtain their method from a public sector source, and just over one-fifth go to private sources.⁴ The remainder go to another source (friend, family, or partner) or are unsure from where the method was obtained. The majority of private sector users purchase their method from a pharmacy. Less than 2 percent of all women go a private clinic or hospital. As expected, private sector use is higher among women from the highest two wealth quintiles than the lowest two quintiles (37 percent versus 15 percent, respectively).

Family Planning Discontinuation, Non-Use, and Intentions

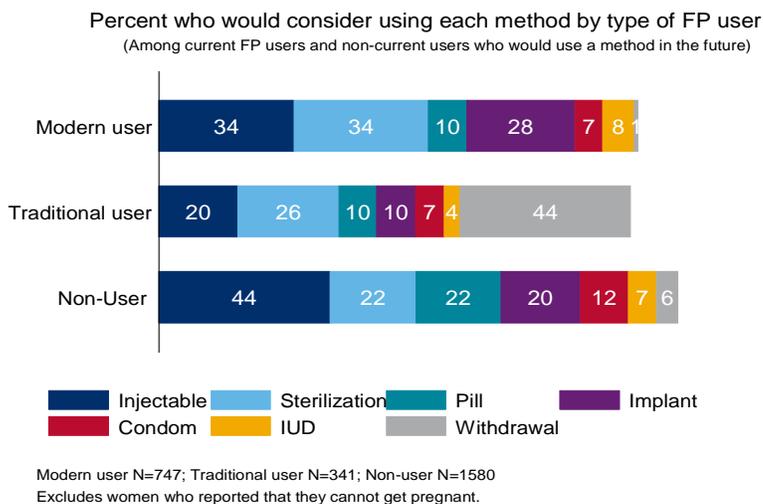
The KAP survey asked women who stopped using contraception in the last 12 months why they had stopped. The majority (63 percent of GGMS women and 80 percent of RAI women) are not using a contraceptive method because their husband is away. Approximately one in ten are not using a method because they wanted more children, and another 10 percent are not using a method due to infrequent or a lack of sexual activity. Lastly, approximately 10 percent stopped using a method due to side effects or health concerns. Women in this last category represent those with whom CRS should focus their contraceptive promotion efforts. These women appear to have a desire to use a family planning method but have discontinued use due to health concerns and may be willing to use another method that better fits their needs and preferences. It may be difficult for CRS to have a large effect on increasing the mCPR, as the majority of women report discontinuation due to a migrant partner or a desire for more children, which likely limits their intention to use a method in the immediate future.

⁴ **Public sector** includes: Hospitals, clinics, primary health care centers, health posts, urban health clinics, community health units, primary health care outreach, mobile clinics, and female community health volunteers. **Private sector** includes: Private hospitals and clinics, pharmacies, Sangini outlets, and nongovernmental organizations. **Other** includes friends, relatives, and partners.

The survey also asked women who reported that they would like to limit or space their births but were not currently using any method (which may include some women who discontinued a method in the last 12 months) why they were not doing so. These women reported the same rationale as above (i.e., large majority have a migrant partner or report lack of sexual activity). This demonstrates again that CRS' GGMS and RAI programs may have a limited effect in increasing the mCPR in these populations, given women's reported rationale for non-use.

We asked users who said they would consider using a method in the future as well as all non-users which methods they would consider using. Most women said they would consider using an injectable followed by sterilization.

Figure 7: Current non-users are most likely to consider using injectables in the future



There are interesting patterns in intention to use family planning when disaggregated by type of user (see Figure 7).⁵ Non-users are most likely to consider using injectables (44 percent). In addition, 22 percent of non-users would consider using the pill and 20 percent the implant. Some of these women may have migrant partners and would start using these methods when their husband is home.

Current traditional method users are most likely to consider using withdrawal, demonstrating that they may not be willing to deviate away from a traditional method. That said, more than one-fourth of traditional users would consider sterilization and one-fifth would consider using injectables. The RAI program can use this information to talk with both non-users and traditional method users about the benefits of methods under consideration among these women.

Emergency Contraception

Only 22 percent of GGMS women and 30 percent of RAI women have heard of EC (p<0.01). Women who are more highly educated, unmarried, younger, and urban are more likely to have heard of EC. Awareness of EC is somewhat lower in Arghakhanchi (26 percent) and Ramechhap (27 percent) compared to Tanahu (32 percent) and Terhathum (38 percent). Only 6 percent of GGMS women and 7 percent of RAI women have ever used EC. Women who have ever used EC are mostly from hill districts (89 percent), urban (78 percent), wealthy (58 percent in top two wealth quintiles), and highly educated (62 percent have an SLC or higher).

Knowledge regarding the purpose of EC could be improved: less than two-thirds of women who have heard of EC correctly reported that EC is an emergency pregnancy prevention measure to be used up to three days after unprotected sex. The majority of women (83 percent in GGMS and 90 percent in RAI) reported that EC can be purchased from a pharmacy. 17 percent of

⁵ Note that bars on graph sum to greater than 100%, as respondents could select multiple methods.

women incorrectly reported that EC is an abortion pill that ends pregnancy. The RAI program should help close the gap in low EC awareness and knowledge about what the product is and from where it can be purchased so that women have full information about this effective family planning method. For couples who have infrequent sex due to migration, use of condoms along with EC could be an appropriate choice.

Family Planning Quality

Overall, the KAP survey found that perceptions of family planning quality are relatively high. Almost all women who currently use a method or were using one in the last year said that they were satisfied with their last visit to obtain their contraceptive. More than 95 percent of these women said that the method of their choice was available, and 80 percent said they talked with a provider, chemist, or shopkeeper when obtaining their method.

A common family planning quality indicator is the Method Information Index (MII),⁶ which looks at the percent of women who were 1) told they could switch methods, 2) informed about method side effects, and 3) told what to do if side effects present. Only two out of five women received information on all three items included in the MII, suggesting definite room for improvement among providers supplying contraceptives.

Furthermore, we asked women about their quality preferences. Out of a selection of four quality parameters—1) facility has private counseling/exam space, 2) provider talks to you about pros/cons of different methods including side effects, 3) there are multiple methods available from which to choose, and 4) the provider is friendly/respectful – we asked women to select what is most important to them when obtaining their contraceptive. Women’s preferences were spread fairly evenly across these four quality attributes, but the attribute with the most responses was number two: 35 percent of women said that they most valued having a provider who counselled them on pros and cons of various benefits including side effects. This quality attribute closely resembles the indicators in the MII. A focus on counseling about expected side effects and how to manage them (including the option to switch to a different method) could also help address the 10 percent of women who said they discontinued due to side effects and health concerns. That said, women have a variety of quality preferences, indicating that programs cannot solely focus on one quality component but that all are important so that family planning clients receive comprehensive and respectful care.

Family Planning Opportunity, Ability, and Motivation (OAM) Indicators and Recommendations

The KAP survey used the opportunity, ability, and motivation (OAM) behavior change framework (Chapman, 2004) to examine factors that influence and impede family planning uptake and use. The OAM framework was developed within the context of social marketing and focuses on mutable behavioral determinants that social marketing interventions and behavior change communication can influence. SHOPS Plus is encouraging CRS to use the OAM framework as a checklist for behavior change strategies by ensuring that target audiences have the opportunity, ability, and motivation to practice the target behavior.

⁶ Additional resources on the Method Information Index: 1) [MEASURE Evaluation definition of MII](#) and 2) Guttmacher Institute article on [“Examining Progress and Equity in Information Received by Women Using a Modern Method in 25 Developing Countries.”](#)

Table 2. Explanation of the Opportunity, Ability, and Motivation (OAM) categories

Opportunity	Ability	Motivation
The person has to have the conditions for practicing the behavior to be physically available, psychologically accessible, and convenient.	The person has to have the physical ability and/or the knowledge and skills to practice the behavior.	The person has to have the desire or to perceive an important benefit from practicing the behavior

With this analytical framework in mind, SHOPS Plus has analyzed behavioral barriers and factors favorable to adopting the behavior. Below is a review of possible barriers and favorable factors for family planning uptake and use among women in the GGMS and RAI communities.

Opportunity: Stigma from shopkeepers

Barrier: In the GGMS and RAI surveys, we found that negative shopkeeper attitudes may be a barrier to family planning uptake among traditional method or non-users. These women were significantly more likely than current family planning users to report that shopkeepers made them feel badly when buying condoms, pills, or injectables. For example, 61 percent of RAI women who are traditional method or non-users said shopkeepers made them feel badly when purchasing condoms compared to 49 percent of current users ($p < 0.01$). Earlier [research conducted by SHOPS Plus with urban male condom users](#) also reported embarrassment as a barrier to purchasing condoms.

Recommendation: One of the easiest strategies CRS could employ to overcome this barrier is to improve product visibility by ensuring that retailers openly display the product and, ideally, also have some visible promotional material. This tells prospective users that the retailer is comfortable promoting the product, and, from a practical perspective, it allows embarrassed consumers to simply point to the product and ask for “one of those” rather than having to name the product.

RAI programming and GGMS product messaging should empower family planning clients as confident consumers. For example, communication campaigns can portray women purchasing contraceptives from a male shopkeeper with poise and assurance, emphasizing that there is no shame in purchasing contraceptives regardless of shopkeeper attitudes. RAI interpersonal communication activities can reiterate this message, perhaps by having a woman who currently uses and purchases her own method from a shopkeeper talk to the group about her experience and how she handles shopkeeper stigma.

In addition, the RAI program could work with shopkeepers to promote the acceptability of contraceptive use. From a business perspective, shopkeepers will increase their revenue and generate new clientele if they are not biased against contraceptive consumers.

Opportunity: Perceived availability of contraceptives

Barrier: Non-users in GGMS areas are significantly less likely than modern method users to report that pills ($p < 0.01$) and injectables ($p < 0.05$) are always available. Additionally, non-users are significantly less likely than traditional method users to report that condoms are always available ($p < 0.05$). Women in the lower two wealth quintiles

from GGMS households are also significantly less likely to report that condoms, pills, and injectables are always available compared to women from the top two quintiles. For example, 87 percent of the wealthiest women reported pills are always available compared to only 68 percent of the poorest ($p < 0.001$). Lower perceived availability of these key contraceptive methods could be a barrier to uptake among non-users and among poorer women.

Recommendation: CRS should invest in point-of-sale (POS) materials to directly communicate product availability to all women. A previous [SHOPS Plus retail audit survey in GGMS districts](#) found that there were insufficient POS materials to advertise CRS products. For example, only 18 percent of outlets in the GGMS districts selling condoms had any POS material. POS materials are a direct mechanism to let consumers know exactly where products are available and should increase perceived product availability, giving non-users and lower SES women the opportunity to use these products.

Ability: Social norms, gender dynamics, and support for family planning use

Favorable Factor: Very few respondents reported that only the man can determine contraceptive use (12 percent in GGMS and 7 percent in RAI). In addition, just 12 percent of RAI women and 21 percent of GGMS women asserted that male partners are opposed to contraception. These findings are consistent across population segments including current, modern, and traditional users.

Recommendation: Generally, it does not appear that patriarchal decision-making norms or partner opposition are barriers to family planning use. That said, one out of five GGMS women did report that men are often opposed to family planning use, so GGMS product advertising may want to consider gender transformative messaging that promotes partner encouragement of FP use and inter-spousal communication.

Barrier: Nearly one-third of GGMS women and one-fourth of RAI women said that in-laws in their communities are often opposed to contraceptive use. In RAI households, women in the lowest two wealth quintiles were significantly more likely to report this than their wealthier counterparts (31 percent versus 18 percent, respectively; $p < 0.01$).

Recommendation: Again, the majority of women do not report that in-laws discourage family planning use; however, nearly one-third of GGMS women and poorer RAI women do report this. We suggest that GGMS product messaging and RAI programming counter this negative social norm among mothers-in-law. For example, advertisements can show a mother-in-law supporting her daughter-in-law's decision to use contraception. In addition, the RAI program can address this by targeting mothers-in-law themselves, key family planning influencers, perhaps by having a mother-in-law who is supportive of her daughter-in-law's contraceptive use come in to talk with the group about her experience and discussion around this topic.

Ability: Partner social support and locus of control

Barrier: Women with no education have lower internal locus of control (sense of their own ability to control what they do) and social support from their partners related to contraceptive use compared to women with an SLC or above. GGMS women with no education are significantly less likely than their more educated counterparts to report that

1) their partner would purchase condoms or pills for them (51 percent versus 79 percent), 2) their partner would accompany them to a health facility to learn more about family planning (54 percent versus 78 percent), and 3) their partner would use a condom if they asked him to (56 percent versus 88 percent; all have $p < 0.0001$).

In GGMS households, these indicators do not differ significantly between current users and non-users. However, in RAI households, modern users were less likely to report that their partner would use a condom if asked (63 percent) compared to non- and traditional users (72 percent, $p < 0.01$). This pattern is the opposite of what one may expect. This may be explained by the fact that most modern method users are already using a different method (condom use is just 3 percent), so these women do not think that their partner would be willing to use a condom, in addition.

Recommendation: The RAI program should consider messaging related to partner communication and male support for contraceptive use if a woman would like to space or limit births. These messages should be focused on women with low education, in particular.

Motivation: Concern regarding hormonal method side effects and health problems

Barrier: More than 90 percent of respondents in GGMS and RAI areas agreed that people who use oral or injectable contraceptives will end up with health problems. When stratified by type of user, we see that non-users are significantly more likely to hold this belief. For example, 91 percent of non-injectable users report that they could harm your body compared to 69 percent of current injectable users ($p < 0.001$). Notably, a substantial proportion of current injectable users still think they will end up with health problems, but this is evidently not prohibiting their use of the method. Fear of side effects was the reason that 10 percent of method users discontinued their method. All the other reasons for discontinuation are not subject to influence through communications (e.g. husband absent, lack of sex, wanting a child)

Recommendation: GGMS and RAI messaging should communicate that risks of hormonal methods are low and rare. Mitigating these concerns among non-users and messaging the relative benefits of these methods may help increase product uptake. As noted before, RAI activities can take a positive deviant approach and have a long-time injectable or pill user talk about her experience using the method, including managing any experience of side effects or fears of bodily harm.

Social and behavior change messaging can also leverage this pervasive concern to promote non-hormonal modern methods such as condoms or fertility awareness methods such as cycle beads.

Motivation: High perceived risk of unwanted pregnancy

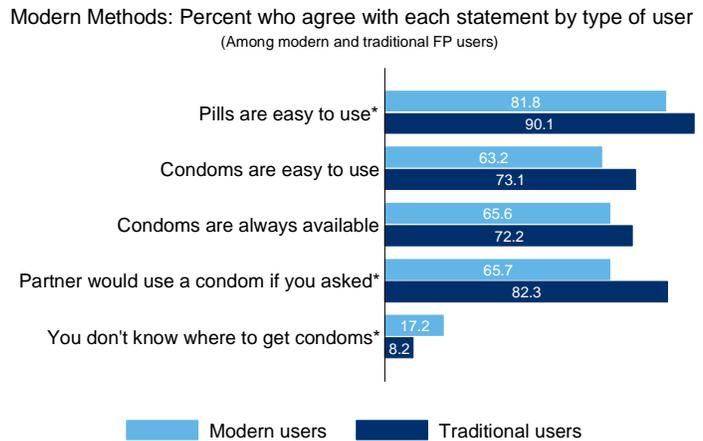
Favorable factor: Across GGMS and RAI households, women have a very high risk perception of becoming pregnant. More than 95 percent of women agreed that 1) she would be very unhappy if she got pregnant at a time that she did not want, 2) if a woman is not careful, she is likely to get pregnant, and 3) if a woman does not take time between births, she will have a problem.

Recommendation: CRS does not need to communicate information about the possible risk of getting pregnant or the potential negative consequences of an unintended pregnancy.

Opportunity, Ability, and Motivation: Positive perceptions of modern contraceptives among traditional method users

Favorable factor: In the GGMS analysis, we found surprising results when we examined some of the OAM statements related to pill and condom use by type of method. We see that traditional method users report equal or higher levels of agreement with these statements compared to modern method users (see Figure 8). These findings suggest that perceived access, ease of use, and partner negotiation are not barriers to condom use, in particular. In general, it suggests that traditional method users are open to change.

Figure 8: Traditional method users have favorable attitudes towards some modern methods



Modern users N=1003; Traditional users N=343
 * Difference is statistically significant (p<0.05)

Recommendation: The RAI program should consider leveraging these positive attitudes to explore if traditional method users would like to use a modern method such as condoms or pills. If these women have full information and access to a suite of modern methods, they may make the decision to switch away from a traditional to a modern method. Some traditional method users may be driven by fear of side effects of hormonal methods, so CRS may have more success in convincing them to use Fertility Awareness Methods such as cycle beads, which still have some appeal as natural while being more reliable than withdrawal. Some traditional method users who also have irregular sex may be encouraged to use EC as a backup if it appears that withdrawal was too late.

Antenatal Care (RAI Only)

We asked women who had given birth in the last three years about their experience with antenatal care (ANC). Receipt of one ANC visit is extremely high in GGMS and RAI districts (95 percent and 92 percent, respectively, p>0.05). However, substantially fewer women who gave birth in the last three years received all four recommended ANC visits (71 percent in RAI and 64 percent in GGMS, p>0.05). Additional ANC information – reported below – was collected only from RAI respondents, where an increase in ANC visits is a programmatic objective.

Among the four RAI districts, there is some variation in the percent of women who received four or more (4+) ANC visits. In Tanahu, just 65 percent of women received 4+ visits. Arghakhanchi and Terhathum are in the middle of the range: 72 percent and 73 percent of women received 4+ visits, respectively. Ramechhap has the highest ANC coverage: 78 percent of women received 4+ visits. Women in the highest two wealth quintiles were much more likely to receive 4+ visits (83 percent) compared to those in the lowest quintiles (61 percent). Urban women were also more likely than rural women to receive 4+ visits (80 percent versus 62 percent, respectively).

The large majority (92 percent) of women who attended ANC saw a skilled health worker. However, slightly fewer rural and lower-income women (88 percent) saw a skilled health worker compared to urban and higher-income women (98 percent). Nearly all women who received ANC (94 percent) went to the public sector for care, which is free in Nepal for ANC visits. Among women who received ANC care, 95 percent were advised to deliver in a facility, and 92 percent were advised to use a skilled birth attendant. However, only 70 percent of women were told to get postnatal check-ups. This is one area for improvement on which the RAI program can focus its educational curriculum, as nearly one-third of women are not receiving information from their ANC provider about the importance of postnatal check-ups.

Antenatal Care OAM and Recommendations

We asked women several OAM questions to better understand possible barriers to obtaining ANC. With one exception, we did not find statistically significant differences in the ANC OAM indicators between women who received 4+ ANC visits compared to those who received fewer visits. Women who received fewer than four visits were more likely to agree with the statement that “ANC is expensive because of the extra medicines prescribed” compared to women who received four visits (71 percent versus 55 percent, respectively; $p < 0.01$). This suggests that there may be financial barriers to accessing ANC. Despite the fact that the care itself is free, some women feel that it becomes too expensive due to the additional medications or vitamins recommended by the provider.

Examining the OAM data by socioeconomic status reveals additional barriers faced by poorer women. Women in the lowest two wealth quintiles were significantly less likely than their wealthier counterparts to report that there is an ANC clinic nearby and that ANC is open at a convenient time ($p < 0.05$).

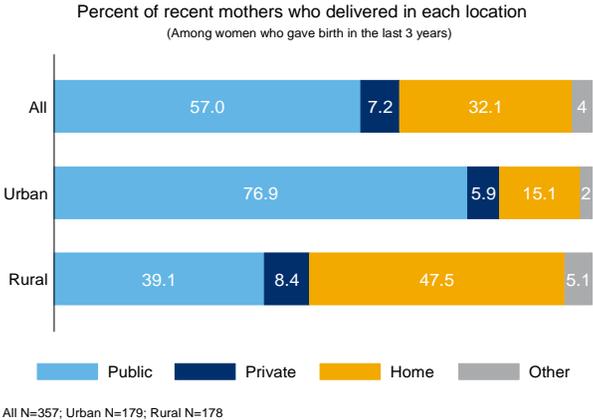
While CRS does not have the ability to open new ANC clinics, the RAI program should nonetheless target lower-income and rural women, as they are the least likely to receive 4+ ANC visits and to see a skilled health worker. The RAI program can focus on communicating the benefits of early initiation of ANC as well as the continuum of care throughout pregnancy. Access to and additional costs associated with ANC are the primary barriers to receiving four ANC visits. The RAI program can work with women to ensure they know where ANC clinics exist, how to get there, and what the clinics’ hours are. If ANC clinic hours are limited in rural RAI areas, perhaps the program can work with providers to 1) hold longer hours on select days, 2) offer mobile ANC clinics that are more convenient in the most remote areas, or 3) facilitate communication between pregnant women and ANC facilities so that women can call ahead and be sure that the clinic is open and a skilled provider is available when they plan to come. Lastly, the RAI program should talk with women to better understand the additional costs associated with ANC care, identify if there are ways to receive recommended medications/vitamins for free or at a subsidized cost, and discuss the benefits of these recommended products for the health of the mother and baby.

Delivery (RAI Only)

We asked women in the RAI sample who had delivered in the last three years about what preparations they had made for their birth and where they delivered. Four out of five women said that they saved money in preparation for delivery. In addition, 68 percent arranged clothing and 54 percent arranged food. Only 15 percent of respondents arranged for transport to the facility.

Nearly one-third (32 percent) of mothers delivered at home. This increases to 48 percent among rural mothers (see Figure 9). There are large variations in the level of home delivery by RAI district. In Terhathum, 53 percent of women delivered at home. Home deliveries are far less common in the other three districts: 24 percent in Ramechhap, 28 percent in Tanahu, and 30 percent in Arghakhanchi. Women from Terhathum are primarily rural (62 percent), which could help explain the higher level of home delivery in this district. That said, even more women from Arghakhanchi live in rural areas (75 percent), and Arghakhanchi had a home delivery level of just 30 percent. The RAI program should focus its efforts on facility delivery promotion in Terhathum to better understand barriers specific to this district.

Figure 9: Nearly one-third of RAI women deliver at home



Among women who delivered at home, four in ten used a clean delivery kit, and just one in ten were assisted by a skilled birth attendant. The majority of women who delivered at home (60 percent) were assisted by their mother-in-law or another relative or friend. One in ten women had no assistance at all. Across both facility and home deliveries, 67 percent of women were assisted by a skilled birth attendant. The majority of facility deliveries occurred in public sector sources (see Figure 9).

Most women who delivered at home did not give birth in a facility because they think it is unnecessary or not customary (53 percent). More than one-third (35 percent) delivered at home because their child was born before reaching the facility. Lack of transport or far distance was the third most cited reason, at 19 percent.

Facility Delivery OAM and Recommendations

We examined a number of OAM indicators between women who delivered in a facility versus those who delivered at home to better understand barriers to facility delivery. We found that women who delivered at home have less social support from their partners and in-laws as well as decreased facility access (see Figure 10). Of particular note is the finding that women who delivered in a facility were nearly twice as likely to report that there is a facility nearby their home that is open 24 hours (57 percent) compared to home delivery women (24 percent). If nearby facilities are not open in the evening when women go into labor, they often have no choice but to deliver at home, particularly if there is not an alternate 24-hour facility that is relatively convenient.

Figure 10: Women who deliver at home report decreased facility access



The RAI program should talk with expectant mothers and their partners about planning for a facility delivery, including ensuring that they know where facilities are located and when they are open. Women who reported that their partner wanted to plan how to get to a facility were, unsurprisingly, more likely to deliver in a facility. The RAI program could work with couples to help them arrange transport. Lastly, the RAI program should re-emphasize the risk of home delivery to pregnant women, their partners, and their mothers-in-law – the latter two being key influencers in the decision about where to give birth. Given that most women who delivered at home said that the facility was either unnecessary or not customary, it will be key to focus on the health benefits of a facility delivery. As aforementioned, RAI facility delivery promotion activities should target rural RAI areas and Terhathum, where home delivery is highest.

Diarrhea Knowledge, Attitudes, and Practices

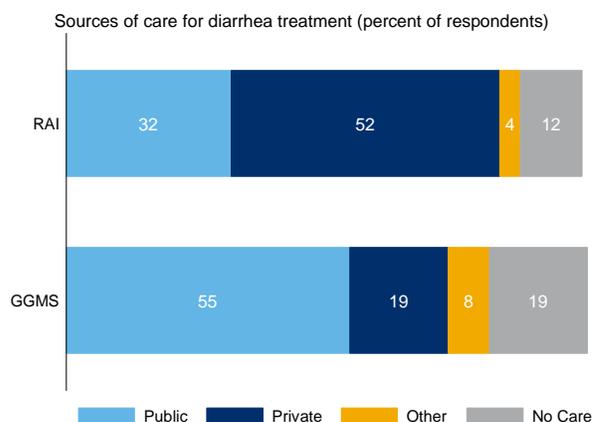
Diarrhea Prevalence and Care-Seeking Level

The GGMS and RAI surveys asked women who had at least one child under five years old about diarrhea. We found that 19 percent of children under five in GGMS areas and 11 percent of children under five in RAI areas experienced diarrhea in the last three months ($p<0.05$). Among caregivers whose children had diarrhea, the large majority sought advice or treatment for their sick children (89 percent in GGMS and 81 percent in RAI; difference is not significant: $p>0.05$).

Diarrhea Sources of Care

Caregivers go to different sources in the GGMS versus the RAI areas (see Figure 11). In the larger GGMS area, 55 percent of women with sick children use public sector sources, 19 percent go to private sources, and 8 percent go to other sources (which includes partner, friend, or relative). In contrast, 32 percent of RAI women go to public sector sources, 52 percent go to private sources, and 4 percent obtain care from their partner, a friend, or a relative. These differences are statistically significant ($p < 0.01$).

Figure 11: RAI women are more likely than GGMS women to seek private sector care



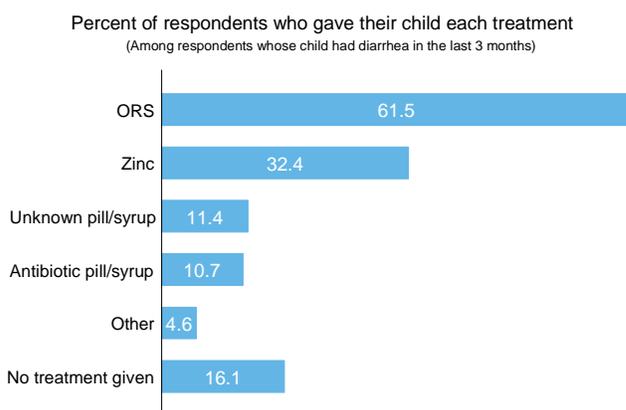
Diarrhea Treatment Requested and Given

We asked mothers who sought care about the treatment they requested, if any. We found that four out of ten mothers did not request a specific treatment, showing that although these women are seeking care, they do not have a predetermined preference for a particular treatment. Approximately one-fourth of women (23 percent of GGMS and 29 percent of RAI) requested ORS. In GGMS areas, 16 percent of women requested both ORS and zinc together, while only 9 percent of RAI women requested both ORS and zinc (difference is not significant likely due to small sample sizes: $p > 0.05$).

Nearly two-thirds of children actually received ORS to treat their diarrhea and nearly one-third received zinc (see Figure 12). In GGMS households, 26 percent of children received ORS and

zinc together compared to 18 percent of children in RAI households. Nearly 90 percent of mothers who gave their child ORS prepared it with boiled tap water. Among women who did not give zinc to their child, approximately half of women said that they did not know about the product, and over one-third said that the provider did not recommend it. Among mothers who did not give ORS, nearly one-third said that this was because the child was not seriously ill. One-fourth noted that the provider did not recommend it. CRS should use these findings to inform ORS and zinc promotion activities and messaging. These recommendations are elaborated on in the next section.

Figure 12: Treatments given to GGMS children with diarrhea



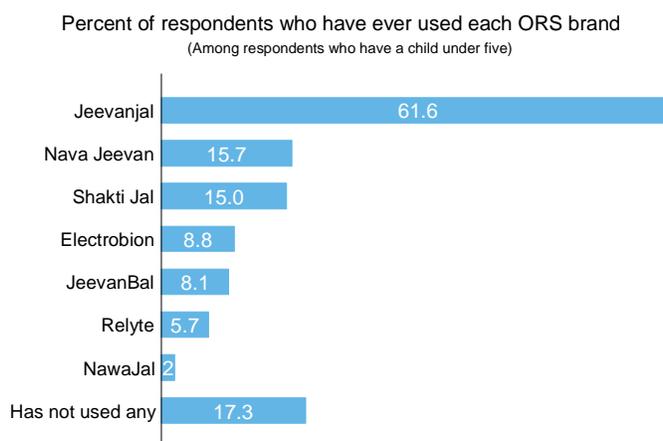
N=159; Treatments reported by less than 3% of respondents are excluded

ORS and Zinc Product and Brand Awareness

Many more women in RAI areas have knowledge of zinc (73 percent) than those in GGMS areas (59 percent, $p < 0.01$). Across both areas, wealthier women have higher zinc awareness. Twenty seven percent of women have ever used zinc. In terms of specific brands, approximately one-third of women were familiar with the government branded zinc. Very few women recalled the Zinc DT or Zinep brands (less than 5 percent).

When asked about ORS brands, three-fourths of mothers reported awareness of Jeevanjal. Less than one-fourth were aware of Nava Jeevan. Knowledge of this CRS brand was somewhat higher among more highly educated women. In line with brand awareness, most women (six out of ten) also reported ever-use of Jeevanjal. Sixteen percent of GGMS mothers and 12 percent of RAI mothers reported having ever used Nava Jeevan (see Figure 13).

Figure 13: Jeevanjal is leading ORS brand



N=1038; Brands are excluded if less than 1% of respondents had used them

Among those who have used Nava Jeevan, more than half cited quality as the reason for selecting this brand. One-third said they selected it based on a provider recommendation. Low cost is another motivation for using the Nava Jeevan brand: nearly 30 percent said they selected it due to low cost, and another 30 percent used it because it was free or given to them.

Nava Jeevan users are primarily from hill areas (79 percent), mostly urban (61 percent), and skewed towards lower wealth quintiles (59 percent are in the bottom two wealth quintiles). Nearly two-thirds (64 percent) of Nava Jeevan users have a secondary education or above.

Diarrhea OAM Indicators and Recommendations

Opportunity: Perceived availability of ORS and zinc is lower among poorer women

Barrier: Women in the lowest two wealth quintiles are significantly less likely than their wealthier counterparts to report that zinc and ORS are always available in their communities ($p < 0.001$). For example, 81 percent of the wealthiest GGMS mothers reported that zinc is always available compared to 59 percent of the poorest.

Recommendation: CRS should work on multiple fronts to increase access to ORS and zinc. First, CRS should ensure adequate supplies since there have been stock constraints from local manufacturers. CRS can also use the upcoming launch of a new ORS/zinc co-pack to convey the message that ORS should always be used with zinc. This product will leverage the overall high awareness of ORS and can also make zinc more accessible by bundling the products together. Lastly, CRS can invest in POS materials to market availability of ORS and zinc in places where they are selling their products. The latter recommendation is particularly important given that the [previous](#)

[retail audit conducted by SHOPS Plus](#) found that CRS has a dearth of POS advertising materials.

Ability: Knowledge of diarrhea and what ORS does is high

Favorable Factor: Women from all population segments reported a high level of understanding of what happens when a child has diarrhea and what ORS does. More than 99 percent of women agreed that a child loses water in his or her body when (s)he has diarrhea and that ORS help to rehydrate children that have diarrhea.

Recommendation: CRS' advertising and programmatic messaging should not spend time or resources reiterating what happens when a child has diarrhea or how ORS works to help a child with diarrheal disease. Instead, more emphasis should be placed on combining ORS with zinc and conveying the advantage that zinc prevents future cases of diarrhea.

Ability: Perceived threat of diarrhea is high

Favorable factor: Nearly all (98 percent) women agreed that a child could die from diarrhea, demonstrating a high perceived threat regarding the severity of the disease.

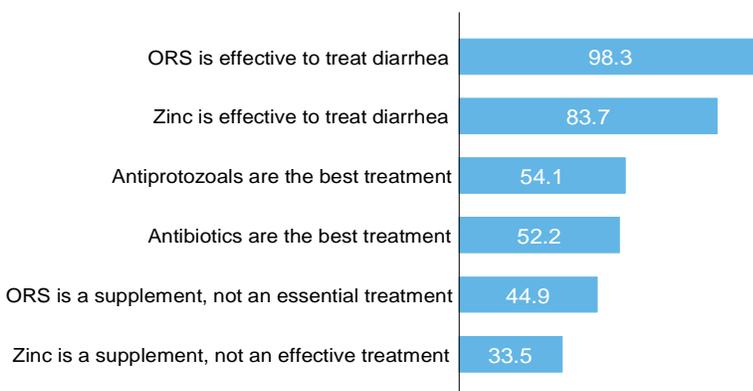
Recommendation: ORS and zinc promotion do not need to focus on the severity and possible negative consequences of diarrhea.

Motivation: Confusion regarding best diarrhea treatments

Barrier: Caregivers appear to be conflicted regarding the best or most effective diarrhea treatment. The large majority of GGMS respondents believe that ORS (98 percent) and zinc (84 percent) are effective to treat diarrhea. However, over half of respondents also said that antiprotozoals (54 percent) and antibiotics (52 percent) are the best treatment for childhood diarrhea. Another 45 percent said that ORS is just a supplement rather than an essential treatment, and one-third reported that zinc is a supplement. Overall, this indicates that women are confused about the pros and cons of various diarrhea treatment options.

Figure 14: Caregivers are conflicted regarding best diarrhea treatment

Product perceptions: Percent of respondents who agree with each statement
(Among all respondents)



N=3293

Recommendation: CRS' programs should take a two pronged approach: 1) learn more from caregivers about why they have these conflicting diarrhea treatment perceptions and 2) message ORS and zinc as the number one recommended treatment.

Strategy 1: In preparation of CRS' new ORS/zinc co-pack, SHOPS Plus is conducting formative qualitative research to learn more about caregivers' diarrhea treatment practices and perception. This research aims to uncover the nuances in caregivers' decision-making process as they seek care for their sick children and understand how mothers have developed their current opinions on specific product types. For example, why do they think that zinc is a supplement? From where did they learn that antibiotics are the best treatment? This information can be incorporated into marketing of CRS' co-pack and in RAI activities.

Strategy 2: GGMS and RAI messaging must promote ORS and zinc as the number one recommended treatment. Further, communications should emphasize that zinc is not merely a nutritional supplement but a key treatment that will not only help stop diarrhea quickly but also prevent future episodes of diarrhea. This messaging can be incorporated into CRS' upcoming ORS/zinc co-pack launch.

Motivation: Zinc never-users have lower outcome expectations for the product

Barrier: Women who have never used zinc have significantly lower outcome expectations for the product's effectiveness compared to women who have ever used zinc. For example, 70 percent of never users agreed that zinc is an effective treatment compared to 97 percent of zinc users ($p < 0.05$).

Recommendation: In line with previous recommendations, CRS should promote zinc as an effective, first-line treatment for childhood diarrhea. Messaging should be specific about what zinc does: cures diarrhea faster, reduces the duration of the episode, and provides protection against future bouts of diarrhea.

Hand Washing (RAI Only)

The KAP survey asked respondents about key times in which it is important to wash one's hands. In response to this open-ended question, nearly all RAI women said handwashing is important after using the toilet (93 percent) and before eating (92 percent). Fewer respondents think handwashing is important after eating (63 percent) and before cooking or preparing food (43 percent). Less than one-fourth of women mentioned hand washing after cleaning a child who has used the toilet or before feeding a child. However, many more women who have a child under five years old reported that hand washing is important before feeding a child (38 percent) and after cleaning a child who used the toilet (44 percent).

Recommendation: Based on these findings, it appears that the RAI program should reiterate the importance of hand washing in relation to childcare and before cooking or preparing food.

Most respondents (83 percent) use a fixed hand washing station. Eighty one percent have water available at their hand washing station, but only 64 percent have both water and soap available.

Recommendation: The RAI program must emphasize the importance of soap and further explore possible barriers to buying and using soap.

Water Treatment (RAI Only)

We asked RAI women about their drinking water source and water treatment products. We found that water sources vary by income level (see Figure 15). Women in the bottom two wealth quintiles typically have water piped into their yard, while wealthier women are much more likely to have water directly piped into their home.

Knowledge of specific water treatment strategies varied by product. Nearly all women are aware of boiling (94 percent), and most are aware of water filters (65 percent). A substantial portion of women (37 percent) also reported straining water through a cloth as a method to make water safer for drinking. Women are not familiar with using chlorine or bleach to treat water, as only 6 percent reported this method. However, 30 percent of women reported familiarity with the Piyush brand, suggesting that women have brand familiarity but do not know what chemicals Piyush includes. This has implications for CRS, which is considering launching an alternative water treatment product using chlorine tablets.

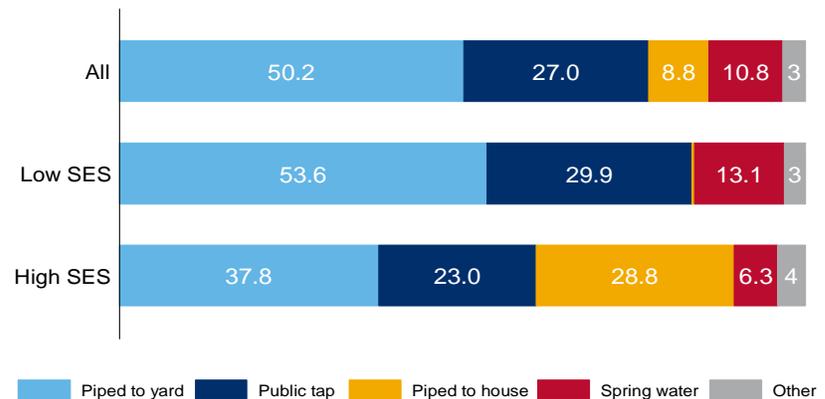
We asked respondents if they had treated their water in the past two weeks, and just over 60 percent had. This varies substantially by district, though: 37 percent of women in Ramechhap treat their water, 53 percent in Tanahu, 68 percent in Terhathum, and 84 percent in Arghakhanchi. In addition, wealthier women are more likely to treat their water compared to poorer women (72 percent versus 54 percent). Overall, most women (54 percent) boil their water, and 11 percent use a water filter.

Recommendation: The RAI program should focus on water treatment behavior change in Ramechhap and on reaching lower-income women with water treatment messaging.

Among women who did not treat their water in the past two weeks, the majority (77 percent) said that they did not treat their water because it is safe for drinking, and 40 percent also said that they are used to the water the way it is. These findings suggest low perceived risk of drinking untreated water. However, contradicting this, we also found that 98 percent of women who did not treat their water agreed that “untreated water can cause health problems like diarrhea.” There appears to be a disconnect between perceived water quality, the risk of health problems like diarrhea, and the effect that water treatment products can have on mitigating those risks.

Figure 15: Water sources vary by SES

Percent of respondents who use each water source for drinking
(Among all respondents and among poorest and wealthiest)



All N=1956; Low SES N=925; High SES N=627

Other includes dug well, tube well, borehole, surface water, bottled water, and stone tap

Recommendation: The RAI curriculum can work to better understand this disconnect and aim to increase uptake of water treatment products as threat perception of drinking untreated water increases.

Women who did not treat their water in the last two weeks were also significantly more likely than women who did treat their water to report that water treatment is time consuming and inconvenient.

Recommendation: In addition to reiterating the known links between untreated water and diarrhea, RAI messaging can emphasize the costs of water treatment (including time) compared to the burden and costs of treating diarrhea.

Menstrual Hygiene

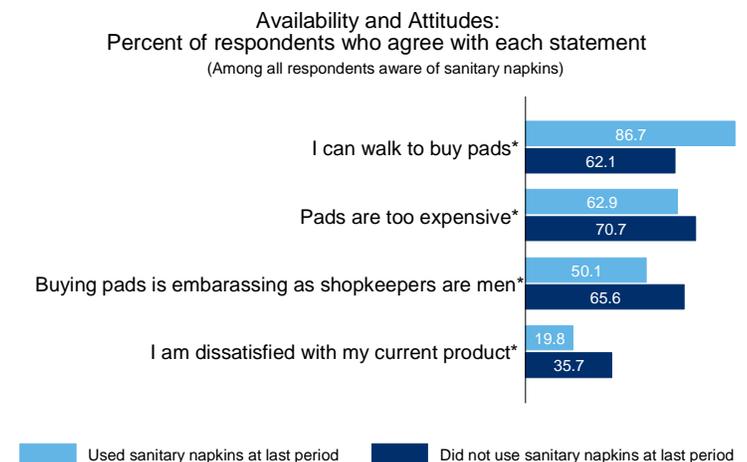
We asked GGMS and RAI women about their awareness and use of sanitary napkins. While awareness of sanitary napkins was higher among RAI than GGMS women (98 percent versus 89 percent; $p < 0.001$), ever use of sanitary napkins was equal at about 70 percent. In both GGMS and RAI areas, younger and more educated women are more likely to have ever used sanitary napkins than older women. Nearly all (approximately 90 percent) women with an SLC or above had ever used a sanitary napkin.

We also asked women where they would prefer to buy a sanitary napkin. Just over half said at a shop or market, while nearly one-third said a pharmacy.

Women who did not use a sanitary napkin at their last period reported less perceived accessibility and affordability of these products compared to women who did use a sanitary napkin at their last period. As Figure 16 demonstrates, non-users were less likely to report that they can walk to buy pads and more likely to report that pads are too expensive. Further, non-users are significantly more likely to think that purchasing sanitary napkins is embarrassing, as most shopkeepers are men.

Nearly twice as many non-users reported dissatisfaction with their current menstrual hygiene product compared to women who used a sanitary napkin at their last period, representing a possible demand for sanitary napkins. However, the majority of non-users (64 percent of GGMS and 85 percent of RAI) reported that they are satisfied with their current menstrual hygiene product, suggesting that there may not be sufficient demand to make this product marketable for CRS.

Figure 16: Differences in OAM indicators between users and non-users



Used sanitary napkins at last period N=1335; Did not use sanitary napkins at last period N=1789
 * Difference is statistically significant ($p < 0.001$)

Recommendation: If CRS were to introduce a new sanitary napkin product, they should consider strategies to convert non users to use by increasing availability in grocery shops where a higher share of sales people are women.

Uterine Prolapse

We asked women in the RAI survey about their knowledge and experiences with uterine prolapse (UP). Nearly all (93 percent) women had heard of UP before, mostly from friends, relatives, or the media. Far fewer RAI women (39 percent) have received messages on preventing UP, and even fewer (10 percent) have actually tried to prevent UP – either by avoiding heavy lifting or delaying intercourse after giving birth.

Only 3 percent of RAI women have experienced UP. This statistic increases to 5 percent among women who have had at least two births and to 7 percent among women who are age 35-49. Among all women who experienced UP, most sought (78 percent) and received (73 percent) treatment. Ring pessaries and traditional treatment were the most common treatments received followed by pelvic floor exercises. Among those who experienced UP, 64 percent said that their treatment was effective.

GGMS Priority Recommendations

1. **Media Strategy:** *Use radio or TV to reach GGMS women*

Radio is the most commonly used media source among GGMS women. However, use is decentralized across many regional FM stations. If it is possible for CRS to spread its media budget across FM stations in the GGMS districts, this would likely be an effective strategy to maximize reach. However, if this is not feasible, CRS should allocate its marketing budget on Nepal TV, which is the most popular TV station watched.

2. **Media Strategy:** *Increase storefront product visibility and point-of-sale marketing*

This low-cost marketing strategy will help increase perceived availability of CRS' priority health products and may help reduce issues around shopkeeper stigma, as explained in the Family Planning OAM Section above.

3. **Family Planning:** *Scale-up Sangini marketing efforts and mitigate concern around side effects*

Injectables are the most commonly used modern method in Nepal and the most commonly reported method that women would consider using in the future, signaling potential demand. However, nearly three-fourths of GGMS women use the public sector Depo Provera brand rather than purchasing Sangini. Given the large percentage of GGMS women who said they would consider using an injectable in the future, CRS should scale-up Sangini marketing efforts throughout the GGMS districts. In its advertising, CRS should communicate that risks of using injectables are low and rare, as this is a pervasive concern among GGMS women.

4. **Family Planning:** *Improve targeting of Nilocon White as a high quality brand for higher-income women*

CRS aims to market its Nilocon White oral contraceptive to higher income women. One-half of brand users are in the lowest two wealth quintiles. CRS should consider mechanisms to elevate the brand and strategies to more specifically target wealthier women. CRS might consider increasing the cost of this brand as a signal of its quality to consumers, combined with more appealing POS materials. Consumers who find the higher price too expensive will still have Sunaulo Gulaf, and the improved targeting will improve CRS' cost recovery and sustainability.

5. **Family Planning:** *Empower contraceptive consumers and promote gender transformative messaging in contraception advertisements*

Data show that perceived bias from shopkeepers is a barrier to uptake and use of contraceptives. CRS' contraception advertisements could show a confident consumer to help overcome this barrier. In addition, advertisements should show partners and mothers-in-law who are supportive of the woman's choice to access and use contraceptive. This messaging may help overcome potential barriers if women have unsupportive partners or mothers-in-law, who are often influencers in the decision to use a contraceptive.

6. **Diarrhea:** *Advertise ORS and zinc as the number one recommended treatment*

Given caregivers' confusion regarding effective treatments for childhood diarrhea, CRS should focus ORS/zinc marketing campaigns on promotion of these two products as the frontline treatment. In addition, advertisements should message zinc as an essential treatment to discourage the perception that it is merely a nutritional supplement. Additional diarrhea messaging recommendations will come out of the upcoming qualitative research.

RAI Priority Recommendations

1. **Media Strategy:** *Use radio and TV to reach RAI women*

TV is the most effective method to reach younger RAI women age 15-24 years, while radio is the most effective method to reach RAI women who are 25 or older. If CRS chooses to advertise on TV, CRS should focus TV advertising on Nepal TV and radio advertising on regional FM stations.

2. **Family Planning:** *Reduce shopkeeper bias and empower contraceptive consumers*

Perceived bias from shopkeepers is a barrier to contraceptive uptake among women who are currently not using any method. The RAI curriculum should prioritize this barrier by talking with RAI women about their experiences with or perceptions of shopkeepers who sell contraceptives. As aforementioned, the RAI program could use a positive deviant approach and have a woman with a positive experience share her story and her tips for overcoming bias from shopkeepers.

The RAI program can also conduct outreach to shopkeepers to sensitize them to contraceptive consumers, which should ultimately help their businesses.

3. **Family Planning:** *Start a dialogue with RAI women about health concerns of hormonal contraceptive methods*

Data show that women believe that hormonal methods will result in health problems or side effects, creating a barrier to use. The RAI curriculum should begin a dialogue with women to better understand health problems about which women are concerned and the root of these concerns. The curriculum can emphasize that risks are low and rare. In addition, SBC messaging can leverage this concern to promote non-hormonal modern methods such as condoms or fertility awareness methods.

4. **Family Planning:** *Share information on modern methods and explore whether traditional method users are interested in using a method other than withdrawal*

The RAI survey found that traditional method users have positive perceptions of modern methods such as condoms and pills. The RAI program should begin a conversation with traditional method users to understand why they use this method and explore if they might be open to other methods. The RAI curriculum can share information about the relative pros and cons of all methods so that these women can make an informed choice based on their individual context.

5. **Antenatal Care:** *Support lower-income and rural women in accessing all four recommended ANC visits*

Lower-income and rural women were the least likely in the RAI areas to obtain four ANC visits. Per recommendations in the ANC section, the RAI program should work with these women to better understand possible financial or access barriers to ANC.

6. **Facility Delivery:** *Help expectant mothers and their partners plan for a facility delivery and emphasize risks of home delivery to pregnant women, partners, and mothers-in-law*

Home births are common in the RAI areas, particularly in rural locations. The RAI curriculum should focus on the rural RAI areas to promote facility delivery. In its approach, it is important for RAI SBC to explain the risks of home delivery and to help women plan for facility delivery. Working not only with the pregnant woman but also with her partner and mother-in-law, who appear to be influencers in the decision about where to deliver, will be critical to success.

7. **Diarrhea:** *Advertise ORS and zinc as the number one recommended treatment and make these products more accessible*

The primary diarrhea treatment recommendation is to communicate the bottom-line message that ORS and zinc, together, are the number-one recommended treatment. CRS is in an ideal position to do this given the launch of its new ORS/zinc co-pack. This launch will make these products more accessible, which is important given that perceived access may be a barrier to use among lower-income women. In addition, the co-pack launch provides CRS with a platform to intensively market this product and assert its value as the most effective diarrhea treatment product.

7. **Diarrhea:** *Incorporate findings from the upcoming qualitative research into RAI messaging on ORS and zinc*

Findings from the KAP study have already been used to inform qualitative formative research that is underway. The qualitative study will use FGDs with mothers of children under five to learn more about their diarrhea care-seeking practices and perceptions. In particular, we aim to learn more about mothers' conflicting reports of which diarrhea

treatment products they believe to be most effective. CRS should use qualitative findings from this study to create ad messaging and interpersonal communications that promote CRS' new ORS/Zinc co-pack.

8. **Handwashing:** *Encourage households to purchase soap*

Less than two-thirds of households have water and soap present at their handwashing station. The RAI program must emphasize the importance of soap in preventing diarrheal disease and talk with caregivers about other possible barriers to buying and using soap.

9. **Water Treatment:** *Focus water treatment promotion efforts in Ramechhap*

Women in Ramechhap had the lowest percentage of households treating their water, at just 37 percent. Findings show that the main barriers to treating water are a perceived lack of risk and the inconvenience of water treatment. The RAI curriculum should explore these barriers further to understand if women identify with these concerns or if there are other barriers that discourage women from treating their water.

Questions for Further Exploration

1. **Family Planning:** Why is the CPR and mCPR so much higher in Ramechhap than in the other three RAI districts?
2. **Family Planning:** Why is withdrawal use so high? What do women who use this method say about why they use it?
3. **Family Planning:** What are women's perceptions related to acceptability of using EC? If acceptability is low, is this a barrier to EC use?
 - a. What are women's experiences of side effects and their potential health concerns?
4. **Family Planning:** How do women with migrant partners navigate and communicate their contraception use?
 - a. Do they know when their partners will return? If so, do they plan for contraceptive use in advance?
 - b. What are their specific needs and preferences for contraception given their migrant partners?
 - c. How can the RAI program best help women with migrant partners to meet their contraceptive needs?
5. **Diarrhea:** What do caregivers think about various diarrhea treatment products? How did they develop their current perceptions regarding effective treatments?
6. **Diarrhea:** Why do sources of care for diarrhea treatment vary substantially between the RAI and GGMS areas? Is this driven by available supply? What effects does this have, if any, on care received and diarrhea incidence?
7. **Handwashing:** Over one-third of households do not have soap present at the handwashing station. Why is this? What are the barriers to purchasing soap?
8. **Water Treatment:** Are there unidentified barriers to using a water treatment product? What underlies women's perceptions about the risk of untreated water and the associated need for water treatment products?

Conclusion

The baseline KAP study provides a wealth of data about women who live in the GGMS and RAI areas. From this evidence base, CRS and SHOPS Plus can make marketing and programmatic decisions that will increase access to and generate demand for priority health products. Use of the OAM behavior change model allows us to focus on mutable drivers of behavior to promote an environment in which women have the opportunity, ability, and motivation to make healthy decisions that will lead to positive health outcomes. The GGMS program's mass media advertising and product distribution coupled with the RAI program's intensive interpersonal activities will facilitate an ideal context for social and behavior change, which we are now prepared to measure with a KAP endline survey in 2019-20. We recommend that CRS, in collaboration with SHOPS Plus, pause to consider the recommendations included in this report and make data-driven decisions in order to maximize the potential of the GGMS and RAI programs.

Annex A: Demographic Characteristics

Table 3. GGMS Demographic Characteristics

	Indicator	All (n=3293)	Married (n=2677)
Marital Status	Married	81%	100%
	Never married	19%	0%
Age	15-24	38%	25%
	25-34	30%	36%
	35-49	32%	39%
Residence ⁷	Urban	50%	49%
	Rural	50%	51%
SES	Q1/Q2	64%	64%
	Q3	15%	16%
	Q4/Q5	21%	20%
Education	None	30%	37%
	Primary	19%	21%
	Some secondary	30%	25%
	SLC and above	21%	16%
TOTAL	100%	100%	100%

Table 4. RAI Demographic Characteristics

	Indicator	All (n=1956)	Married (n=1596)
Marital Status	Married	82%	100%
	Never married	18%	0%
Age	15-24	34%	21%
	25-34	31%	37%
	35-49	35%	42%
Residence ⁸	Urban	54%	54%
	Rural	46%	46%
SES	Q1/Q2	51%	50%
	Q3	21%	21%
	Q4/Q5	28%	29%
Education	None	20%	24%
	Primary	17%	20%
	Some secondary	37%	33%
	SLC and above	26%	23%
TOTAL	100%	100%	100%

⁷ Urban and rural classifications are based on the new Nepali definitions created in 2016.

⁸ Urban and rural classifications are based on the new Nepali definitions created in 2016.

References

Chapman S, Patel D (2004). PSI behavior change framework “bubbles”: proposed revision. Washington DC: PSI Research Division. http://psi.org/sites/default/files/publication_files/behaviorchange.pdf].

Ministry of Health, Nepal; New ERA; and ICF. 2017. Nepal Demographic and Health Survey 2016. Kathmandu, Nepal: Ministry of Health, Nepal.

