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Utilizing All Health System Contacts to Offer Postpartum Family Planning (PPFP) to Pregnant Women and Women within Twelve Months Postpartum in Ethiopia

Study Baseline Report

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The Maternal and Child Survival Program (MCSP) is a global, \$560 million, 5-year cooperative agreement funded by the United States Agency for International Development (USAID) to introduce and support scale-up of high-impact health interventions among USAID's 25 maternal and child health priority countries,* as well as other countries. MCSP is focused on ensuring that all women, newborns and children most in need have equitable access to quality health care services to save lives. MCSP supports programming in maternal, newborn and child health, immunization, family planning and reproductive health, nutrition, health systems strengthening, water/sanitation/hygiene, malaria, prevention of mother-to-child transmission of HIV, and pediatric HIV care and treatment.

* USAID's 25 high-priority countries are Afghanistan, Bangladesh, Burma, Democratic Republic of Congo, Ethiopia, Ghana, Haiti, India, Indonesia, Kenya, Liberia, Madagascar, Malawi, Mali, Mozambique, Nepal, Nigeria, Pakistan, Rwanda, Senegal, South Sudan, Tanzania, Uganda, Yemen and Zambia.

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Background

Inter-pregnancy intervals of at least 24 months (or birth intervals of nearly three years) are recommended due to the association between shorter intervals and higher rates of infant mortality, pre-term and low birth weight newborns, and malnutrition and stunting among children under five.^{1,2,3} Yet 54% of non-first births in Ethiopia occur less than 3 years after the previous birth, with very little improvement between the 2011 and 2016 national Demographic and Health Surveys.^{4,5} Low use of contraception contributes to the high level of short inter-pregnancy intervals: a prospective analysis of 2011 data found 74% of Ethiopian women 0-23 months postpartum have unmet need for family planning while only 19% use a modern method of contraception.⁶ By 2016, use of modern contraception among all women had only modestly increased from 19% to 25%.⁴ Exclusive or predominant breastfeeding offers protection against rapid fertility return during the first 6 months after childbirth, but rates of exclusive breastfeeding drop off sharply in Ethiopia: 74% of newborns (0-1 month) are exclusively breastfed, while only 36% of infants 4-5 months old are exclusively breastfed.⁴ Increasing use of postpartum family planning (PPFP) can reduce the number of short-interval pregnancies and associated risks.

There have been improvements in recent years, but many women in Ethiopia still do not access formal health services as frequently as they should: 62% received antenatal care from a skilled provider, the majority of births (74%) occurred outside a health facility, and only 16.5% of mothers had a postnatal check within two days of birth.⁴ Therefore, facility-based PPFP counseling and services will only reach a small proportion of pregnant and postpartum women who need advice and services. Coverage may be improved by leveraging the Health Extension Program, involving Health Extension Workers (HEWs) and community volunteers (the Health Development Army). Policy already allows HEWs to provide family planning counseling, services, and referrals, but there has not been focus on the postpartum period. Additionally, key informant interviews found challenges to implementing PPFP include lack of tracking postpartum contraceptive use, limited availability of written informational materials on PPFP for clients, and difficulty reaching the large number of women who do not deliver at a health facility.⁷

Study aim

The Maternal Child Survival Program (MCSP) led by Jhpiego is conducting a study, in partnership with the Federal Ministry of Health and Oromia Regional Health Bureau, to test how to improve uptake of family planning among postpartum women up to 12 months after birth. The study is investigating whether PPFP use increases if 1) messages on postpartum family planning (PPFP) are integrated into as many interactions as possible between women/couples and the health system (including antenatal, labor and delivery, postnatal, and child immunization visits), 2) existing community health workers and volunteers (HEWs and HDA) promote uptake of PPFP, and 3) facility and community health workers and volunteers have tools to track women's family planning preferences and needs.

Study setting and design

This study is being conducted in two districts in Arsi Zone, Oromia Region – Hetosa and Lode Hetosa. Oromia is the most populous region in the country and women in Oromia tend to have even less access to health services than the national average – 50% received antenatal care from a skilled provider (compared to 62% nationally), 81% of births occurred outside a facility (compared to 74%), and 9% of mothers had a postnatal check within two days of birth (compared to 16.5%).⁴ The districts were selected because of the absence of other large family planning programs.

In total, there are 8 health centers and 47 health posts in the two districts. In each district, one primary health care unit (PHCU) – a health center with its satellite health posts – was randomly assigned to the intervention arm and one to the comparison arm. PPFP counseling, services, and documentation are being strengthened through training and supervision visits at all health centers in the districts, including both intervention and comparison PHCUs. Only the intervention arm is receiving the community intervention, which involves training HEWs on PPFP with a refresher on implant insertion and giving HEWs and HDA tools to track women's PPFP preferences and pregnancy risk. At endline, the study will use a 'dose-response' analysis to assess the importance of multiple interactions and compare differences between intervention and comparison areas to assess the added value of the community component of the intervention.

A minimum of 750 pregnant women (375 per arm) were needed to detect a 10% difference in the contraceptive prevalence rate between arms with 80% statistical power assuming a 1.5 design effect and 20% loss to follow up or non-response. We aimed to identify women currently 5-9 months pregnant at baseline so we can interview the same women approximately 12-16 months after birth for the endline.

Baseline data collection and analysis

For baseline data collection, all women currently 5-9 months pregnant and living in the catchment areas of the selected study PHCUs were identified from records kept at health posts and by talking to community leaders and other pregnant women. All identified women were approached for study participation. After consent was obtained, a standardized questionnaire was administered. The sample size was not reached in the selected comparison areas during baseline data collection, so adjoining villages were visited to identify and enroll enough women for the comparison arm. Baseline data were collected February 20-March 8, 2017.

Analysis accounted for clustering of variables at kebele (village) level using the Taylor linearization method. Differences between the arms for categorical variables were assessed using the Pearson chi-squared test with the Rao-Scott correction. Differences in continuous variables were assessed using an adjusted t-test.

Baseline Results

In total, 776 pregnant women were enrolled in the study at baseline: 385 in comparison areas and 391 in intervention areas. Table 1 shows sociodemographic characteristics of interviewed women.

Generally, women in intervention areas and comparison areas were similar. The majority of participants are married, Muslim, have primary education or less, and live in households with farming as an income source. A lower proportion of women in intervention areas are in households with income from raising livestock (13% vs 34%, $p=0.046$) or own cattle (77% vs 87%, $p=0.091$). A majority of women are in a household with a cell phone (higher in intervention areas, but not statistically significant) and about half own a radio.

TABLE 1. Sociodemographic characteristics of pregnant women at baseline (2017)

	Comparison (N=385)	Intervention (N=391)	p-value
Age			
Average age in years – mean [§] (range, SE)	26.0 (15-45, 0.35)	26.5 (15-41, 0.24)	0.241
Age unknown - n (%)	6 (1.6)	4 (1.0)	
Marital status – n (%)			
Married	378 (98.2)	384 (98.2)	0.357
Never married	4 (1.0)	1 (0.3)	
Divorced/widowed/separated	3 (0.8)	6 (1.5)	
Religion – n (%)			
Muslim	230 (59.7)	244 (62.4)	0.662
Orthodox	153 (39.7)	140 (35.8)	
Other	2 (0.5)	7 (1.8)	
Education – n (%)			
No education	183 (47.5)	170 (43.5)	0.471
Primary	174 (45.2)	175 (44.8)	
Secondary	25 (6.5)	42 (10.7)	
More than secondary	3 (0.8)	4 (1.0)	
Family sources of income – n (%)†			
Farming	373 (96.9)	357 (91.3)	0.101
Raising livestock	130 (33.8)	50 (12.9)	0.046*
Trade	47 (12.2)	36 (9.2)	0.503
Govt/civil servant	5 (1.3)	9 (2.3)	0.417
Other	6 (1.6)	23 (5.9)	0.060
Technology and Asset Ownership – n (%)†			
Cell phone	273 (70.9)	311 (79.5)	0.089
Radio	182 (47.3)	217 (55.5)	0.122
Television	20 (5.2)	56 (14.3)	0.104
Horse	274 (71.2)	242 (61.9)	0.154
Cattle	335 (87.0)	300 (76.7)	0.091

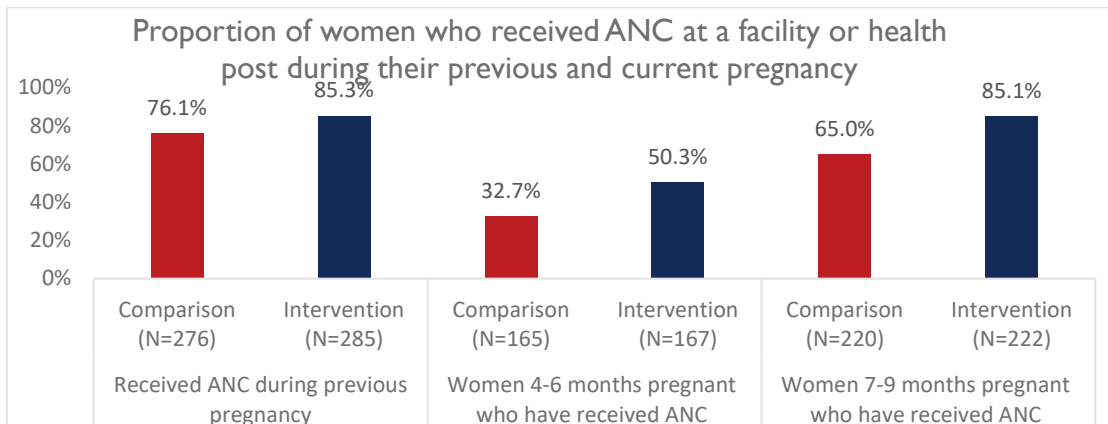
[§]Pearson chi-squared test with Rao-Scott correction were used for categorical variables, adjusted t-test for continuous variables

†>1 response allowed, * $p<0.05$

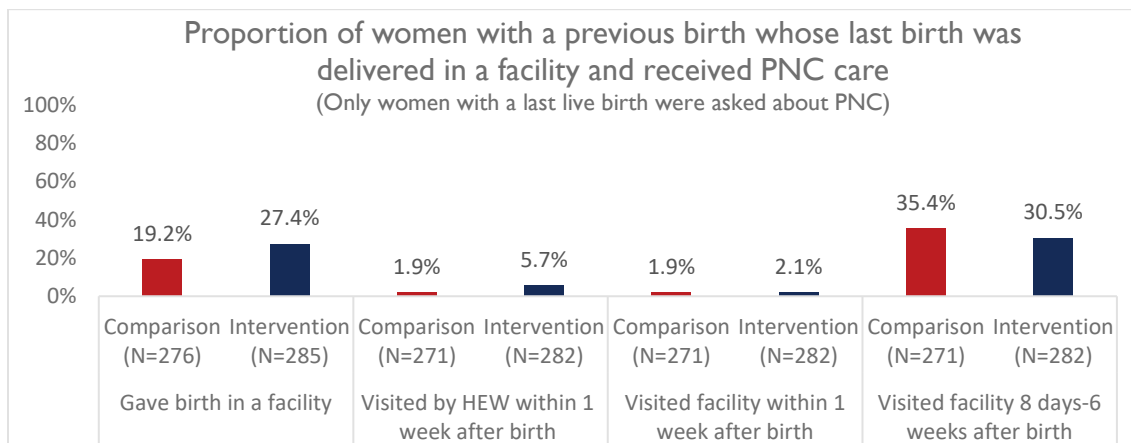
Health system contacts

70% of interviewed pregnant women have had a previous birth (276 in intervention areas, 285 in comparison areas), and a majority received antenatal care at a facility or health post during their last pregnancy. A higher proportion of women received antenatal care for their previous birth in intervention areas versus comparison areas (85% vs 76%, $p=0.036$). Also, more women in intervention areas have received antenatal care for the current pregnancy.

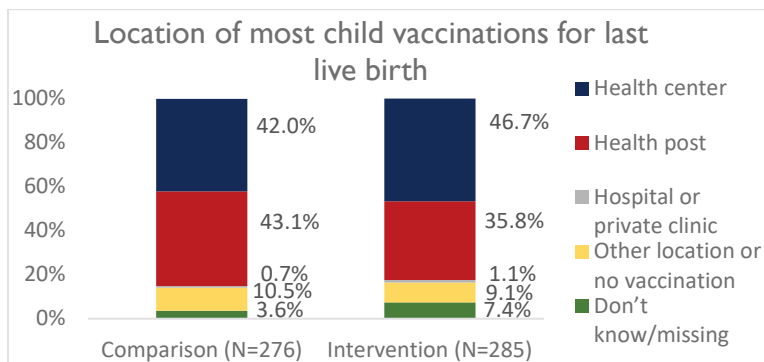
For the current pregnancy, a lower proportion of women in the second trimester have received antenatal care compared to women in the third trimester, **suggesting women start receiving antenatal care late in pregnancy**. Women in comparison areas may tend to start even later, since the proportion of women currently in their third trimester of pregnancy who have received antenatal care is lower than the proportion who received antenatal care at any point during their last pregnancy.



Less than a third of women delivered in a facility for their last birth. Among women whose last pregnancy ended in a live birth, very few received postnatal care within a week after birth and only about a third received postnatal care at a facility within 6 weeks after birth.



A similar proportion of women reported receiving most of their child vaccinations at health center versus health post.

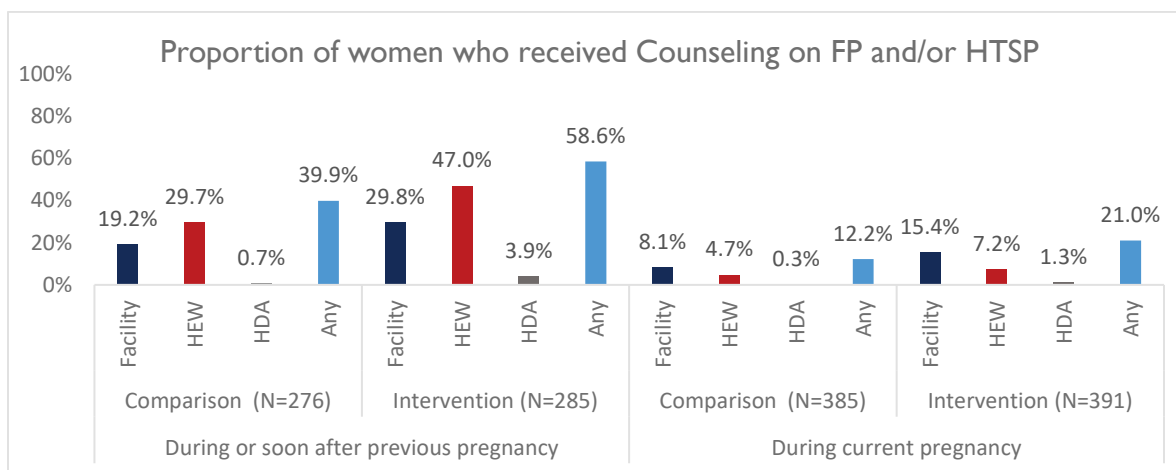


Although this baseline survey found higher coverage of antenatal care compared to the 2016 DHS, it shows **women are still not receiving all recommended health system contacts around the time of birth, therefore justifying the integration of messages on PFP into all interactions** from pregnancy through postnatal care and including interactions in the community, to ensure all women receive information to make an informed choice. Furthermore, the fact that mothers take children to health centers and health posts for vaccination suggests integration of PFP and immunization should be done at both levels of the health system.

Counseling on Family Planning and Healthy Timing & Spacing of Pregnancies

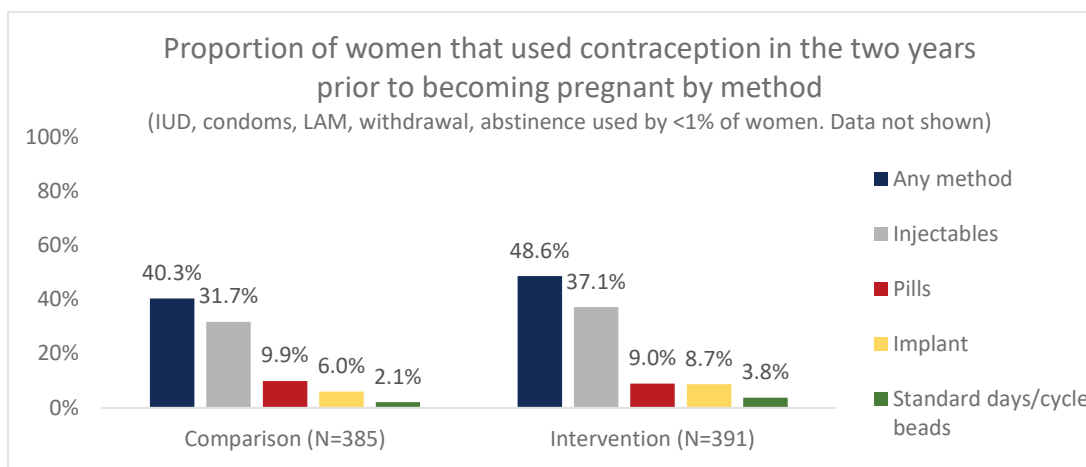
Only about half of women with a prior birth received counseling on family planning and/or healthy timing and spacing during or soon after their last pregnancy. The proportion was higher in intervention areas (59% vs 40%, $p=0.016$). HEWs were the most common source of information.

Few women had received counseling on family planning and/or healthy timing and spacing during their current pregnancy, showing missed opportunities. Again, the proportion was higher in intervention areas (21% vs 12%, $p=0.027$).



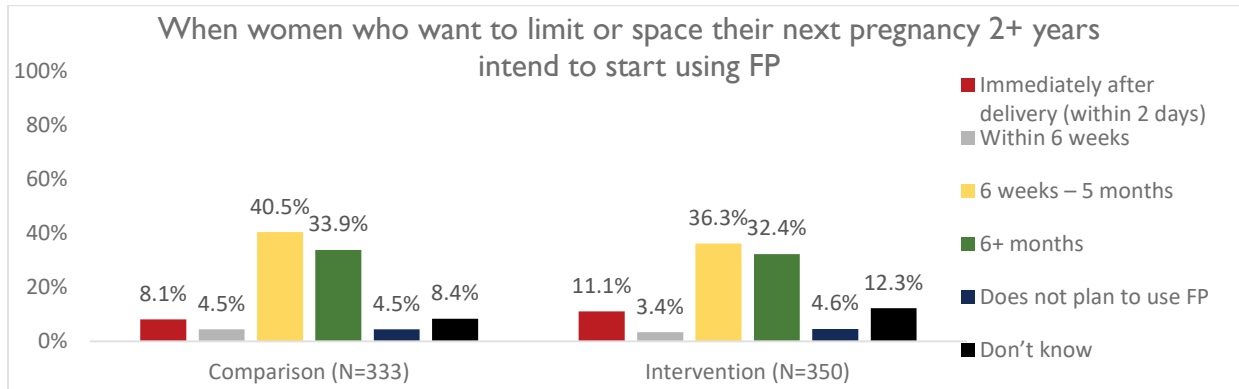
Previous family planning use

Less than half of women used any contraception in the two years prior to the current pregnancy, including women who would have preferred to delay or prevent their current pregnancy. (Table A6) The most popular method used was injectables, followed by pills. Virtually no women reported using IUDs, condoms only, or lactational amenorrhea.

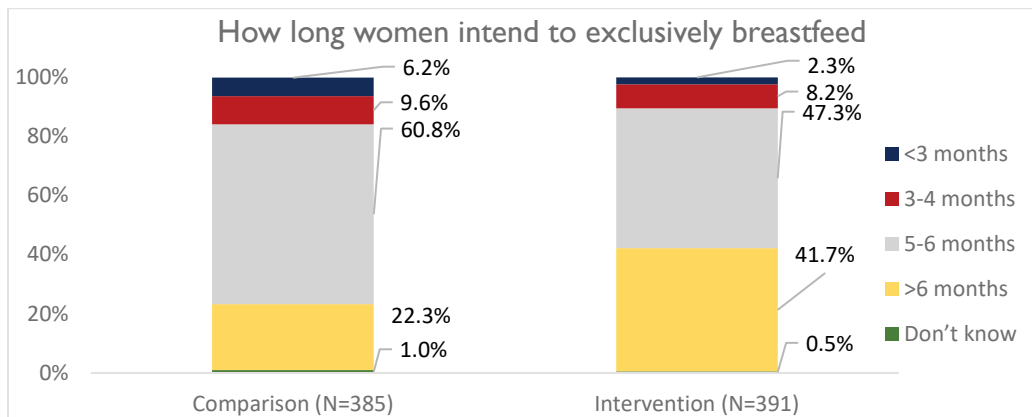


Family planning and breastfeeding intentions

Nearly 90% of women report wanting to avoid a future pregnancy or delay at least 2 years, yet while most intend to use contraception, few intend to start using contraception soon after birth. These women are ideal targets for discussing the return to fertility and methods that can be used soon after birth, so they are not at risk for unwanted or mistimed pregnancies.

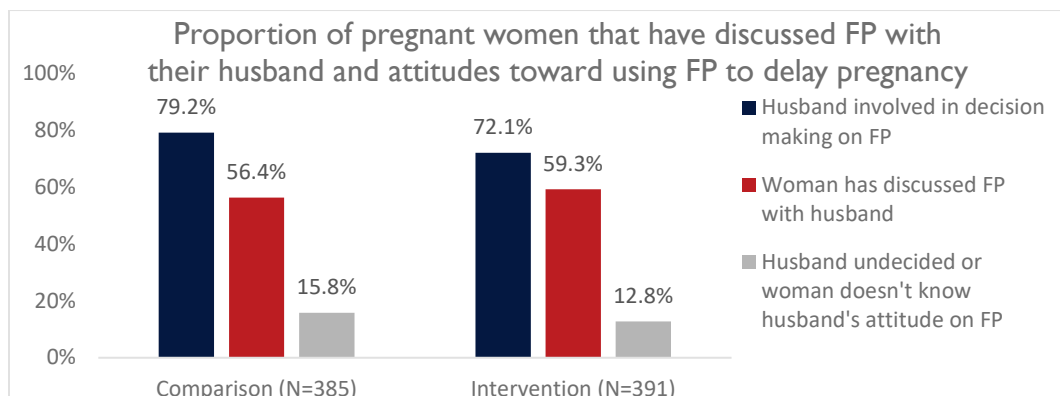


Virtually no women report intending to use LAM as a family planning method after they give birth. (Table A17) Yet most women intend to exclusively breastfeed for at least 5-6 months postpartum. These women could be candidates for using LAM, with assistance to transition from LAM to another modern method of contraception at the appropriate time.



Partner communication and attitudes on family planning

A majority of women report their husbands are involved in decision making on using family planning, yet fewer report having ever discussed family planning with their husbands. Lack of communication may explain why some women do not know if her husband agreed with using family planning to delay a pregnancy.



Additional Results

Pregnancy history and care received for previous pregnancy*

*80 pregnant women in comparison areas and 91 in intervention areas are in their first pregnancy. These women were excluded from this section.

TABLE A1. Pregnancy history of currently pregnant women with at least one prior pregnancy (2017)

	Comparison (N=305)	Intervention (N=300)	p-value
Prior pregnancies – mean ^β (range, SE)	3.5 (1-11, 0.16)	3.5 (1-12, 0.19)	0.858
Prior live births – mean ^β (range, SE)	3.2 (0-10, 0.15)	3.3 (0-10, 0.18)	0.621
Outcome of last pregnancy – n (%)			
Live birth	271 (88.9)	282 (94.0)	0.074
Stillbirth	5 (1.6)	3 (1.0)	
Miscarriage/abortion	25 (8.2)	15 (5.0)	
No response	4 (1.3)	0 (0)	

^βPearson chi-squared test with Rao-Scott correction were used for categorical variables, adjusted t-test for continuous variables

TABLE A2. Pregnancy and delivery care received for last pregnancy by women whose last pregnancy ended in live or stillbirth

	Comparison (N= 276)	Intervention (N=285)	p-value
Received pregnancy care at a facility or health post	210 (76.1)	243 (85.3)	0.036*
Received any pregnancy care	212 (76.8)	246 (86.3)	0.028*
Women who received pregnancy visits – n (%)†			
At health center or hospital	188 (68.1)	229 (80.4)	0.016*
At health post	112 (40.6)	137 (48.1)	0.379
At home by HEW	28 (10.1)	51 (17.9)	0.177
At home by HDA	1 (0.4)	17 (6.0)	0.001*
Place of last birth – n (%)			
Hospital/health center/private clinic	53 (19.2)	78 (27.4)	0.218
Home/on route	220 (79.7)	207 (72.6)	
Other	3 (1.1)	0 (0)	

†>1 response allowed, *p<0.05

TABLE A3. Postnatal care received by women whose last pregnancy ended in live birth

	Comparison (N=271)	Intervention (N=282)	p-value
Baby given breastmilk/colostrum soon after birth – n (%)	196 (72.3)	201 (71.3)	0.911
Postnatal visits – n (%)†			
Home visit by HEW within 1 week after birth	5 (1.9)	16 (5.7)	0.166
Facility visit within 1 week after birth	5 (1.9)	6 (2.1)	0.799
Facility visit 8 days-6 weeks after birth	96 (35.4)	86 (30.5)	0.449

†>1 response allowed

TABLE A4. Counseling or information on family planning/healthy spacing received during or soon after last pregnancy by women whose last pregnancy ended in live or stillbirth

	Comparison (N=276)	Intervention (N=285)	p-value
Women counseled on FP/HTSP received – n (%)†			
At health center or hospital	53 (19.2)	85 (29.8)	0.011*
from HEW (at health post or in home)	82 (29.7)	134 (47.0)	0.034*
from HDA	2 (0.7)	11 (3.9)	0.042*
any of the above	110 (39.9)	167 (58.6)	0.016*
Women receiving facility-based FP counseling – n (%)†			
During ANC visits	38 (13.8)	61 (21.4)	0.049*
During labor	3 (1.1)	10 (3.5)	0.049*
Immediately after delivery	7 (2.5)	24 (8.4)	0.016*
During PNC visits	29 (10.5)	43 (15.1)	0.074
No facility-based counseling	223 (80.8)	200 (70.2)	0.011*

†>1 response allowed, *p<0.05

TABLE A5. Location of most child vaccinations for last live birth

	Comparison (N=276)	Intervention N=(285)	p-value
Location of most child vaccinations – n (%)†			
Health center	116 (42.0)	133 (46.7)	0.480
Health post	119 (43.1)	102 (35.8)	
Hospital or private clinic	2 (0.7)	3 (1.1)	
Other location or no vaccination	29 (10.5)	26 (9.1)	
Don't know/missing	10 (3.6)	21 (7.4)	

Previous family planning use

TABLE A6. Use of family planning in the two years before current pregnancy

	Comparison (N=385)	Intervention (N=391)	p-value
Method used† - n(%)			
Any method	155 (40.3)	190 (48.6)	0.248
Pills	38 (9.9)	35 (9.0)	0.767
Injectables	122 (31.7)	145 (37.1)	0.325
Implant	23 (6.0)	34 (8.7)	0.336
IUD	1 (0.3)	0 (0)	0.335
Condom (male or female)	1 (0.3)	0 (0)	0.243
LAM	2 (0.5)	1 (0.3)	0.544
Standard days/cycle beads	8 (2.1)	15 (3.8)	0.122
Withdrawal or abstinence	4 (1.0)	1 (0.3)	0.213
FP use among women who wanted to delay/prevent current pregnancy	N=161	N=148	
Used FP within the past 2 years – n (%)	68 (42.2)	71 (48.0)	0.500

†>1 response allowed, *p<0.05

TABLE A7. Method accessibility for women who used family planning in the two years before current pregnancy

Family planning accessibility	Comparison N=155	Intervention N=190	TOTAL N=345
Same day access - n(%)			
Received chosen method same day	133 (85.8)	168 (88.4)	301 (87.3)
Did not receive chosen method and immediately used other method	8 (5.2)	8 (4.2)	16 (4.6)
Did not receive chosen method and did not immediately use other method	10 (6.5)	7 (3.7)	17 (4.9)
Don't remember/no response	4 (2.6)	7 (3.7)	11 (3.2)
Reason method of choice not received same day - n†	N=18	N=15	N=33
Not available	9	10	19
Asked to come back during or after menstruation	5	1	6
Provider too busy	4	0	4
Wanted time to think/consult family	0	2	2
Other reason/Don't remember	2	2	4

†>1 response allowed

TABLE A8. Satisfaction with method among women who used family planning in the two years before current pregnancy

	Comparison N=155	Intervention N=190	TOTAL N=345
Family planning users satisfied with method - n(%)	123 (79.4)	154 (81.1)	277 (80.3)
Reasons for dissatisfaction - n†	N=30	N=33	N=63
Side effect/health concern	27	26	53
Cost	0	0	0
Availability	0	1	0
Inconvenient to use	3	5	8
Husband did not like it	1	0	1
Other	0	5	5

†>1 response allowed

Care received during current pregnancy

TABLE A9. Antenatal care received during current pregnancy

	Comparison N=165	Intervention N=167	p-value
Women 4-6 months pregnant – n(%)	N=165	N=167	
Received ANC at facility or health post	54 (32.7)	84 (50.3)	0.048*
Number of ANC visits			
0 visits	111 (67.3)	83 (49.7)	0.037*
1-3 visits	53 (32.1)	77 (46.1)	
4+ visits	1 (0.6)	7 (4.2)	
Don't know	0	0	
Women 7-9 months pregnant – n(%)	N=220	N=222	
Received ANC at facility or health post	143 (65.0)	189 (85.1)	0.018*
Number of ANC visits			
0 visits	77 (35.0)	33 (14.9)	0.022*
1-3 visits	125 (56.8)	152 (68.5)	
4+ visits	18 (8.2)	35 (15.8)	
Don't know	0	2 (0.9)	
Don't know months pregnant - n	0	2	

*p<0.05

TABLE A10. Counseling or information on family planning/healthy spacing received during current pregnancy

	Comparison (N=385)	Intervention (N=391)	p-value
Counseling received – n(%)			
At health center or hospital	31 (8.1)	60 (15.4)	0.029*
from HEW (at health post or in home)	18 (4.7)	28 (7.2)	0.346
from HDA	1 (0.3)	5 (1.3)	0.203
any of the above	47 (12.2)	82 (21.0)	0.027*
Counseling received among women who had ANC – n(%)	N=197	N=274	
At health center or hospital	31 (15.6)	60 (21.9)	0.151
from HEW (at health post or in home)	17 (8.6)	24 (8.8)	0.975
from HDA	1 (0.5)	3 (1.1)	0.592
any of the above	46 (23.4)	78 (28.5)	0.317

*p<0.05

Knowledge and attitudes related to family planning and breastfeeding among currently pregnant women

TABLE A11. Ideal family size among pregnant women and their husbands

	Comparison (N=385)	Intervention (N=391)	p-value
Woman's ideal number of children – n(%)			
1-2	39 (10.1)	41 (10.5)	0.181
3-5	270 (70.1)	276 (70.6)	
6+	60 (15.6)	41 (10.5)	
As God wishes	13 (3.4)	27 (6.9)	
Don't know	3 (0.8)	6 (1.5)	
Husband's ideal number, according to woman – n(%)			
1-2	24 (6.2)	30 (7.7)	0.216
3-5	175 (45.5)	170 (43.5)	
6+	63 (16.4)	44 (11.3)	
As God wishes	11 (2.9)	28 (7.2)	
Don't know	112 (29.1)	119 (30.4)	

TABLE A12. Knowledge of risks with short pregnancy spacing among pregnant women

	Comparison (N=385)	Intervention (N=391)	p-value
Mentioned risks of short spacing – n(%)†			
Mother becomes weak or anemic	253 (65.7)	251 (64.2)	0.814
Mother unable to take care of children	206 (53.5)	222 (56.8)	0.590
Poverty for the family	164 (42.6)	169 (43.2)	0.917
Less breastfeeding	122 (31.7)	190 (48.6)	0.012*
Mother suffers more diseases	102 (26.5)	93 (23.8)	0.516
Child suffers more diseases	92 (23.9)	92 (23.5)	0.931
Child born prematurely or LBW	78 (20.3)	85 (21.7)	0.649
Child death or stillbirth	50 (13.0)	80 (20.5)	0.111
Children less likely to go to school	42 (10.9)	62 (15.9)	0.161
Maternal death	41 (10.7)	54 (13.8)	0.426

†>1 response allowed, *p<0.05

TABLE A13. Knowledge of family planning methods among pregnant women

	Comparison (N=385)	Intervention (N=391)	p-value
Mentioned FP methods – n(%)†			
Any method	359 (93.3)	360 (92.1)	0.516
Injectables	353 (91.7)	350 (89.5)	0.299
Pills	304 (79.0)	284 (72.6)	0.069
Implants	223 (57.9)	229 (58.6)	0.914
IUD	60 (15.6)	46 (11.8)	0.382
Condoms (male or female)	31 (8.1)	29 (7.4)	0.845
LAM	1 (0.3)	5 (1.3)	0.086
Other	51 (13.3)	50 (12.8)	0.859
LAM criteria			
Agrees with statement “If I breastfeed without giving my baby other foods or liquids and I have not gotten my menses, I will not get pregnant”	48 (12.5)	89 (22.8)	0.030*
Source of information on FP – n(%)†	N=359	N=360	
Facility providers	121 (33.7)	155 (43.1)	0.154
HEW	139 (38.7)	196 (54.4)	0.052
HDA	7 (2.0)	8 (2.2)	0.808
Media	93 (25.9)	136 (37.8)	0.087
Friend, family, neighbor	172 (47.9)	95 (26.4)	0.001*

†>1 response allowed, *p<0.05

TABLE A14. Attitudes on using family planning to delay pregnancy among pregnant women and their husbands

	Comparison (N=385)	Intervention (N=391)	p-value
Woman's attitude – n(%)			
Agrees with using FP	350 (90.9)	363 (92.8)	0.584
Disagrees with using FP	18 (4.7)	17 (4.4)	
Don't know/undecided	17 (4.4)	11 (2.8)	
Husband's attitude, according to woman – n(%)			
Agrees with using FP	274 (71.2)	320 (81.8)	0.052
Disagree with using FP	50 (13.0)	50 (12.8)	
Don't know/undecided	61 (15.8)	50 (12.8)	

TABLE A15. Incorrect understanding related to exclusive breastfeeding and complementary feeding among pregnant women

	Comparison (N=385)	Intervention (N=391)	p-value
I cannot get pregnant if I breastfeed even a little – n(%)	55 (14.3)	94 (24.0)	0.035*
Baby should start other liquids <6 months – n(%)	59 (15.3)	42 (10.7)	0.042*
Baby should start solids <6 months – n(%)	5 (1.3)	7 (1.8)	0.592

*p<0.05

Fertility, family planning, and breastfeeding intentions among currently pregnant women

TABLE A16. Desire for children among pregnant women

	Comparison (N=385)	Intervention (N=391)	p-value
Desire for current pregnancy – n(%)			
Desired now	224 (58.2)	242 (61.9)	0.663
Wanted later	132 (34.3)	124 (31.7)	
Did not want more children	29 (7.5)	25 (6.4)	
Desire another child after current pregnancy – n(%)			
No	126 (32.7)	149 (38.1)	0.171
Yes	233 (60.5)	226 (57.8)	
Don't know	26 (6.8)	16 (4.1)	
Ideal time before next pregnancy among women desiring another child – n(%)	N=233	N=226	
<2 years	18 (7.7)	14 (6.2)	0.685
2+ years	207 (88.8)	201 (88.9)	
Don't know or no response	8 (3.4)	11 (4.9)	

TABLE A17. Intentions to use family planning after current pregnancy

	Comparison (N=385)	Intervention (N=391)	p-value
Plans to use FP after current pregnancy – n(%)			
Yes	344 (89.4)	354 (90.5)	0.822
When woman intends to start to use FP –n(%)	N=344	N=354	
Immediately after delivery (within 2 days)	28 (8.1)	40 (11.3)	0.476
Within 6 weeks	17 (4.9)	13 (3.7)	
6 weeks – 5 months	143 (41.6)	137 (38.7)	
6+ months	124 (36.1)	118 (33.3)	
Don't know	32 (9.3)	46 (13.0)	
Intentions to use FP among women wanting to limit or space next birth 2+ years –n(%)	N=333	N=350	
Immediately after delivery (within 2 days)	27 (8.1)	39. (11.1)	0.624
Within 6 weeks	15 (4.5)	12 (3.4)	
6 weeks – 5 months	135 (40.5)	127 (36.3)	
6+ months	113 (33.9)	113 (32.3)	
Does not plan to use FP	15 (4.5)	16 (4.6)	
Don't know when she will start FP	38 (8.4)	43 (12.3)	
Preferred method(s) among women planning to use FP – n(%)†	N=344	N=354	

	Comparison (N=385)	Intervention (N=391)	p-value
Pills (oral contraceptives)	39 (11.3)	12 (3.4)	0.000*
Injectables	199 (57.9)	211 (59.6)	0.639
Implants	89 (25.9)	95 (26.8)	0.878
IUD	4 (1.2)	9 (2.5)	0.234
Condoms	0	0	
LAM	1 (0.3)	3 (0.9)	0.263
Standard days	4 (1.2)	11 (3.1)	0.054
Withdrawal or abstinence	3 (0.9)	1 (0.3)	0.382
Tubal ligation	4 (1.2)	2 (0.6)	0.407
Vasectomy	0	0	
Don't know	26 (7.6)	32 (9.0)	0.583

†>1 response allowed, *p<0.05

TABLE A18. Partner communication on family planning

	Comparison (N=385)	Intervention (N=391)	p-value
Has discussed FP with husband – n(%)	217 (56.4)	232 (59.3)	0.870
Decision makers on FP– n(%)†			
Woman herself	279 (72.5)	318 (81.3)	0.322
Husband	305 (79.2)	282 (72.1)	0.118
Mother	53 (13.8)	3 (0.8)	0.002*
Mother in law	0	0	
Other	9 (2.3)	10 (2.6)	0.901
Don't know or no response	1 (0.3)	7 (1.8)	0.057

†>1 response allowed, *p<0.05

TABLE A19. Intentions to exclusive breastfeed

	Comparison (N=385)	Intervention (N=391)	p-value
How long woman plans to exclusively breastfeed			
<3 months	24 (6.2)	9 (2.3)	0.035*
3-4 months	37 (9.6)	32 (8.2)	
5-6 months	234 (60.8)	185 (47.3)	
>6 months	86 (22.3)	163 (41.7)	
Don't know or no response	4 (1.0)	2 (0.5)	

*p<0.05

SUMMARY

Pregnancy history and care received for previous pregnancy

- A majority of women with a previous pregnancy receiving antenatal care at a facility, though the portion was higher in intervention areas. Less than half received ANC at a health post. Only a small portion of women received home visits from an HEW, and almost none received a visit from an HDA member.
- Few women received postnatal care within a week after birth
- More women in intervention areas receiving counseling or information on healthy timing and spacing of pregnancies and FP (the latter had marginal statistically significant difference between arms).

Previous FP use

- Over half of women had not used any FP in the 2 years before her current pregnancy. Among those that did use FP, injectables were the most common method.
- FP use low among women who reported they had wanted to delay or prevent their current pregnancy.
- Among women who had used FP in the prior 2 years, the majority were satisfied with their chosen method. Among the small number dissatisfied, side effects and health concerns were the biggest complaints.

Care received during current pregnancy

- The majority of women 4-6 months pregnant had not yet received any ANC in the comparison arm (67%), compared to 50% in the intervention arm. Even among women 7-9 months pregnant, 35% in the comparison arm had not yet received any ANC, compared to 14% in the intervention arm.
- Few women have received counseling or information on HTSP or FP during the current pregnancy

Knowledge and attitudes related to family planning and breastfeeding among currently pregnant women

- The majority of women say their ideal number of children is 3-5. Nearly a third of women in both arms don't know their husband's ideal number of children.
- In both arms, the most commonly mentioned risks of short birth spacing was the mother becoming weak or anemic and the mother being unable to take care of her children.
- When asked what FP methods they know, few women mentioned IUDs and almost none mentioned LAM as a method of family planning.
- Nearly all women agree with using FP. The majority reported their husbands do too, though some did not know their husband's opinion.
- Some women believe that breastfeeding even a little can prevent pregnancy (14% in comparison arm, 24% in intervention arm).

Fertility, family planning, and breastfeeding intentions among currently pregnant women

- About a third of women reported they would have preferred to delay their current pregnancy at the time, and a small number didn't want another pregnancy at all.
- About a third of women do not want any more children after their current pregnancy.
- Most women report planning to use FP after this pregnancy. However, few plan to start using FP within 6 weeks after birth, and about a third intend to start using FP more than 6 months after the birth.
- A little over half of women had discussed FP with her husband. Yet the majority of women say her husband is involved in decisions to use FP, even if they have not discussed their options as a couple.

¹ World Health Organization. Report of a WHO Technical Consultation on Birth Spacing. Geneva, Switzerland: World Health Organization, 2005.

² Kozuki N, Lee AC, Silveira MF, et al. The associations of birth intervals with small-for-gestational-age, preterm, and neonatal and infant mortality: a meta-analysis. *BMC Public Health* 2013; **13(Supple 3): S3**.

³ Cleland J, Conde-Agudelo A, Peterson H, Ross J, Tsui A. Contraception and health. *Lancet* 2012; 380: 149-56.

⁴ Central Statistical Agency [Ethiopia] and ICF International. Ethiopia Demographic and Health Survey 2011. Addis Ababa, Ethiopia and Calverton, Maryland, USA: Central Statistical Agency and ICF International, 2012.

⁵ Central Statistical Agency (CSA) [Ethiopia] and ICF. Ethiopia Demographic and Health Survey 2016. Addis Ababa, Ethiopia and Rockville, Maryland, USA: Central Statistical Agency and ICF, 2016.

⁶ Moore Z, Pfitzer A, Gubin R, Charurat E, Elliott L, Croft T. Missed opportunities for family planning: an analysis of pregnancy risk and contraceptive method use among postpartum women in 21 low- and middle-income countries. *Contraception* 2015; 91: 31-39.

⁷ Sonalkar S, Mody S, Phillips S, Gaffield ME. Programmatic aspects of postpartum family planning in developing countries: a qualitative analysis of key informant interviews in Kenya and Ethiopia. *Afr J Reprod Health* 2013; 17(3): 54-56.