

# **HEALTHY MOTHERS MAKE HEALTHY COMMUNITIES**

# Research Brief

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### **Aikyatan Development Society (ADS)**

Aikyatan Development Society is a non-profit development organization engaged in the self-help group (SHG) movement, health care and livelihoods to address the poverty of poor families in the district of Burdwan in West Bengal, India. ADS's sanitation program with the state government is the largest program of ADS and it is well known for effective linkages with the public health system and SHG strengthening. It was conceived in 1999 with active support of CARE India and became a partner of Freedom from Hunger and Freedom from Hunger India Trust in 2014. Through this partnership, ADS has reached 2,000 SHGs (women's savings and credit groups) with health education in WASH, Nutrition and Anemia prevention.

#### **Grameen Foundation**

Grameen Foundation is a global nonprofit organization that helps the world's poorest people achieve their full potential by providing access to essential financial services and information on health and agriculture that can transform their lives. In 2016, Grameen Foundation and the global nonprofit Freedom from Hunger decided to join forces under the banner of Grameen Foundation. The integration of the two organizations brings together Grameen Foundation's expertise in digital innovation to end poverty and Freedom from Hunger's focus on providing the world's poorest women with self-help tools to reduce hunger and poverty. Grameen Foundation is headquartered in Washington, D.C., with offices in the U.S., Asia, Africa, and Latin America. For more information, please visit www.grameenfoundation.org or follow us on Twitter: @GrameenFdn.

### **Freedom from Hunger India Trust**

Established in 2012, Freedom from Hunger India Trust (FFHIT) is an independent Indian non-profit organization based in New Delhi with an office in West Bengal. The technical staff of FFHIT oversee health, nutrition, financial inclusion, vulnerable youth and savings group methodologies, and provide expert advice on learner-centered curriculum design. FFHIT's goal is to achieve nutrition and food security, reduce poverty and improve economic and social status of poor and marginalized women and their families through increased integration of financial services with other essential services such as health, nutrition and livelihood opportunities. FFHIT is also an active member of National Coalition of Food and Nutrition Security.

### **RESULTS Educational Fund**

RESULTS Educational Fund (a US-based nonprofit 501(c)(3)) is an advocacy organization working in the United States and around the world on projects focused on three key pillars in the fight to end poverty: 1) health, 2) education, and 3) economic opportunity. RESULTS Educational Fund performs cutting-edge research and oversight in these three areas; educates and mobilizes the public, policymakers, and the media; and supports powerful citizenship by training volunteers in public speaking, generating media, and educating their communities and elected officials on issues of poverty. In May 2016, the Microcredit Summit Campaign merged its structure and operations with those of its parent organization, RESULTS Educational Fund. For more information, please see www.results.org.

### **Community of Practice for Health and Microfinance**

The Community of Practice for Health and Microfinance (COPHAM) in India is an experiment to bring together stakeholders in the health and microfinance sectors to promote universal healthcare coverage. COPHAM members learn from each others' experience and create strategic partnerships to leverage their complementary strengths. The COPHAM is facilitated in collaboration by RESULTS Educational Fund, the ACTION global health advocacy partnership, Freedom from Hunger India Trust, and Grameen Foundation. Aikyatan Development Society (ADS) and Bandhan, whose data is presented in this report, are both active members of the COPHAM. For more information, please see https://sites.google.com/view/cop-india/home.



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## Introduction

### Maa aur Shishu Swasthya: Healthy Mothers Make Healthy Communities

In 2017, the Maa aur Shishu Swasthya (Mother and Child Health) Program, implemented

across West Bengal with a key financial service partner, Aikyatan Development Society (ADS), focused on improving knowledge and behaviors related to pregnancy and childbirth. As of June 2017, 11,345 women had participated in the Pictorial Learning Conversations (PLCs). Given ADS' encourages its members to share their learnings with at least three other women, the potential outreach of the PLCs was approximately 34,000 women.

The "Healthy Mothers Make Healthy Communities" (hereafter: "Healthy Mothers") PLC consists of eight 15-20 minute sessions.



ADS SHG participating in education session. Photo: Bobbi Gray, Grameen Foundation 2017

Sessions are delivered consecutively, typically fortnightly, during the women's self-help groups' regularly planned meetings and engages women and community members in participatory dialogue. The PLC methodology is designed for trained facilitators with very low literacy. Each session focuses on a key concept and consists of 4 steps to engage the learners in the session topic: 1) participants are encouraged to share what they know about the session topic; 2) participants receive new information; 3) participants ask questions about the new information; 4) participants apply the new information. The Healthy Mothers PLC was an adaptation of the *Healthy Mothers Healthy Babies* education originally designed for the Philippines by Freedom from Hunger. This adapted module then went through a field-testing process which included feedback from facilitators and the target population. A Trainer's Guide and Facilitator's Guide enable cascade training which encourages replication, quality of delivery, and scale of the PLC.

The following points are covered in the Healthy Mothers PLC:

- Why keeping mothers healthy means healthier communities
- Nutrition and supplements for pregnant and young women
- The importance of delivering in a health facility
- Awareness of local health care providers who can provide prenatal checkups and/or perform deliveries
- Making a birth plan
- Danger signs during pregnancy and birth that require immediate medical attention
- Becoming a maternal health "mentor"

This research brief will outline the key findings from a pre- and post-test assessment that was conducted with ADS members to determine the effectiveness of the PLCs in improving knowledge and behaviors related to pregnancy and childbirth.

### **Methods**

### Sampling, Data Collection and Analysis

Freedom from Hunger (now Grameen Foundation) and Freedom from Hunger India Trust (FFHIT) designed a mini-survey that ADS staff members implemented for the pre- and post-test. This survey instrument touched on each of the key messages previously outlined. The research team utilized Lot Quality Assurance Sampling (LQAS) to establish the random sampling strategy, interviewing 19 women from each of the 7 Gram Panchayats in Ausgram I and Ausgram II where ADS works.

Approximately 266 women participated among ADS's clients: 133 in Ausgram I (a community development block) and 133 in Ausgram II. The baseline was completed in May 2017 and the end line was completed in July 2017 after completion of the Healthy Mothers education sessions with all ADS SHGs.

Staff from ADS participated in data entry. Grameen Foundation and FFHIT collaborated on the data analysis and reporting. The research team compared basic averages for each question posed to ascertain the pre- and post-test averages.

#### Measures

The International Poverty Line (IPL) \$1.90/day, IPL \$3.10/day, IPL \$3.80 and IPL \$4.00 indices were constructed using values from the *India Progress out of Poverty Index (PPI): Scorecard.* Raw values were generated based on responses, summed, and then matched with probability ranges using PPI® documentation.

Food security, specifically, was measured by asking the respondent to reflect on the prior twelve months, and choose among four statements that would best describe their household which were then categorized into food security categories as depicted in

Table 1: Food Security Measures and Classifications

Statement	Food Security Category
have enough food and of the kinds of nutritious foods we want to eat	Food Secure
have enough food but not always nutritious food	Food insecure without hunger
sometimes not enough food to eat and was sometimes hungry	Food insecure with moderate hunger
often not enough food to eat, was often hungry	Food insecure with severe hunger

For analysis purposes, clients were described as either food secure or food insecure, whereas food secure households were those who answered "had enough food and of the kinds of nutritious foods we want to eat" and food insecure households combined the food insecure with no hunger, with moderate hunger, and with severe hunger categories into one category. Similarly, participants were asked to answer the same question in regards to their children, resulting in a child-level food security measure.

### Results

For all the specific results summarized in this section, please see the table in the annex at the end of this report.

### **Poverty Probability Index**

A little over half of ADS' clients live below the \$4.00/day international poverty line (IPL). This is very similar to the poverty rate for West Bengal for those that live below the \$4.00/day IPL: 58.6 percent live below \$4.00 per day (with 65 percent in the rural areas and 42 percent in the urban areas). Very few of ADS' clients live below the \$1.90/day international poverty line (as with the \$4.00/day IPL, very few in West Bengal live below \$1.90 with less than 5 percent.) This suggests the poverty outreach of ADS is similar to the poverty rates of the state of West Bengal.



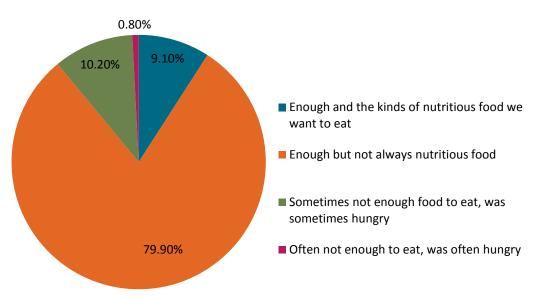
Figure 1. Poverty Rates

### **Food Security**

At baseline, approximately 91 percent of ADS clients were food insecure, with the majority being food insecure without hunger (80 percent). While food security was measured at endline as well, the data was not analyzed due to too many missing values for this particular question (not enough people were coded to have answered this question).

In June/July 2016, when ADS conducted a baseline assessment to evaluate the effectiveness of the anemia education they had delivered, approximately 82 percent of clients were classified as food insecure (18 percent of their clients scored as food secure, 67 percent as food insecure without hunger, 12 percent food insecure with moderate hunger, and 3 percent as food insecure with severe hunger). The time period of the Healthy Mothers baseline and endline were very similar to the baseline for the anemia study. This suggests that on the whole, ADS clients were slightly more food insecure in 2017 compared to 2016 when assessing food security during the same time period, different year. The reason behind this jump in food insecurity is not altogether clear.

Figure 2: Food Security



### Maternal Health Knowledge

**Nutrition Supplements for** pregnant women: Pregnant women should be eating a well-balanced diet such as fish, fresh fruits and vegetables, milk, eggs, meats and other proteins. These nutritious food items will help the mother remain healthy and also help the baby to grow well. At baseline, 47.6 percent could mention Folic Acid and 44.1 percent of the clients mentioned Iron/Ferrous Sulfate as important nutrition supplements for pregnant women and girls of



Antenatal clinic. Photo: Bobbi Gray, Grameen Foundation 2017

reproductive age. There was an increase in knowledge as to what should be taken as supplements during pregnancy at endline compared to the baseline; 59.6 percent could mention Folic Acid and 75.5 percent could mention Iron/Ferrous Sulfate. **This represents a 12** 

percentage-point improvement in awareness of folic acid and a 31 percentage-point improvement in knowledge of Iron/Ferrous Sulfate.

Prenatal visits: It is recommended that pregnant women have at least 4 antenatal visits (at least one per trimester with two in the third trimester). At baseline, 48.3 percent of clients mentioned that a pregnant woman needed at least 4 antenatal visits; at endline, 96.6 percent were able to mention a minimum of 4 visits, representing a 48 percentage-point increase.

When clients were asked to state where one could go to receive free prenatal checkup, large percentages both at baseline and endline, 72.3 percent and 86.4 percent respectively, reported sub-centers. There was an increase of 12 percentage points in those who mentioned Village Health and Nutrition Days and a 17 percentage-point increase in those who mentioned Primary Health Centers (PHCs) at endline.

Making a birth plan: It is important to plan for a child's birth early in the pregnancy since this can give a pregnant woman peace of mind and ensure that there are no last minute preparations or emergencies that can be avoided. It also allows her the opportunity to save a little money to prepare for the delivery. She can use the time to decide where to deliver and make a transportation agreement, if needed. The Healthy Mothers education promoted that a delivery plan should include: preparing a bag of items needed for mother and child after the delivery of her child, a decision on which health facility to deliver at, transportation means, and cost for both delivery and transportation.

- *Transportation:* At baseline, 60 percent reported that transportation was part of a delivery plan; at endline, 90.2 percent mentioned transportation. This represents a 30 percentage-point increase in the mention of transportation.
- Health Facility: At baseline, baseline 57.4 percent, reported that knowing which health facility they would give birth at was part of a delivery plan; at endline, 84.2 percent mentioned the health facility. This also represents a 27 percentage-point increase in the mention of the health facility.
- Delivery Costs: At baseline, 48.3 percent mentioned that a woman should know the estimated costs she might incur in giving birth; at endline 78.5 percent did; representing a 30 percentage-point increase.
- Delivery Bag: At baseline, 6.8 percent mentioned that a pregnant mother should have a delivery bag packed; at endline, 40.4 percent did, representing a 34 percentage-point increase.

Danger signs: There are some danger signs that can happen at any time of the pregnancy. Danger signs to watch for include: swelling in the arms or legs, vaginal bleeding, headaches, difficulty breathing, fever, and abdominal pain. Overall, swelling of legs was the most commonly recognized danger sign represented by 81.7 percent at baseline and 88.3 percent at endline. There were larger increases among the other danger signs between baseline and endline among the following: a 31 percentage-point increase for awareness regarding vaginal bleeding; a 23 percentage-point increase for abdominal pain, a 5 percent percentage-point increase for headaches, and a 14 percentage-point increase for difficulty breathing, and a 22 percentage-point increase for fever.

Further results of the survey assessed clients' knowledge on what a pregnant woman would do if she experienced any of the danger signs at any time during her pregnancy. Over 95 percent

of the clients at both points of the survey agree that a pregnant woman should go immediately to a health facility in case of any difficulty during pregnancy.

### **Maternal Health Behaviors**

**Likelihood to deliver in a health facility**: At baseline, 64 percent of clients compared to 88 percent of the clients at endline reported a very high likelihood of delivering in the hospital if they were to become pregnant today; representing a 24 percentage-point improvement.

Primary reason women wouldn't deliver from a healthy facility: Clients were then asked to state a primary reason as to why women would not deliver in a healthy facility. At baseline, 52 percent of the clients mentioned cost as the main reason; at endline 39.5 percent did, representing a 13 percentage-point decrease. At baseline, 27 percent reported the lack of a nearby healthy facility as a barrier; at endline, 43.8 percent did, representing a 17 percentage-point increase. Very few reported preferring to give birth at home at both points of time; but approximately 20 percent at both baseline and endline reported not trusting the health facility.

Previous antenatal practices by the clients: Only two clients at both survey points reported being pregnant; only a few clients, 5.7 percent at baseline and 5.3 percent at endline, plan to get pregnant in the next year. Additional guestions required the clients to state the age of their youngest children, if they received antenatal care with their youngest child and who assisted them during the birth of that child. On average, clients' youngest born was 12 years at both times of the survey. The majority at baseline, 93.6 percent, reported receiving antenatal care with their youngest child; at endline, there was 8.7 percentage-point decrease in those reporting to have received antenatal care with their youngest child. It is possible that after receiving the education, women's answers were more likely to reflect the truth if they considered the amount of antenatal care they had received. Of those who received antenatal care, the majority both at baseline and endline attended two to three times; there was a decrease in those who reported that they didn't remember at endline, which may support the hypothesis that led to women reflecting more on the care they had received in the past as a result of participating in the education. This may be likely given there was only a month between the baseline and endline survey and very few were pregnant at either point to influence these answers in that short period of time.

Over 50 percent of the clients both at endline and baseline were assisted by the doctor despite the 4.7 percent decrease at endline. None of the clients reported a midwife assisting during birth at baseline; at endline, 14 percent for the clients mentioned midwives at endline. There are still instances of traditional birth attendants supporting during delivery which is represented by 20.7 percent at baseline and 19 percent at endline. Given the short time period between baseline and endline, as with the previous result regarding antenatal care, women may simply be more accurate in their reporting at endline after reflecting on the birth of their youngest child.

Sharing maternal health information: Clients for the prenatal education and those that participated in the project are encouraged to share with family and friends what they learn regarding maternal health. As was stated in the introduction, ADS encourages its members to share the messages with at least three other women, possibly tripling the outreach of the education messages. Only one client acknowledged to have shared maternal health related information at baseline. This improved at endline where 46.6 percent of the clients had shared maternal-related information with pregnant mothers, lactating mothers, their relatives (sisters, in-laws), neighbors, mothers at large and SHG members. They shared information such as; rest and food habits during pregnancy, tetanus infections, folic acid, birth planning, institutional delivery and child care.

## **Discussion and Conclusion**

Overall, there were strong improvements in healthy pregnancy knowledge. Behavior change was more limited due to the short time period of the assessment that allowed only two months between the baseline and endline assessment. Where there were declines in answers, such as the reports on pre-natal care of the youngest child, the answers at endline may be more accurate given the role that the education may have played in encouraging women to reflect on their prior pregnancy.

Some knowledge change could be much better. Overall, it is generally expected that, at end line, 80 percent of people will "know" what is being taught if it is a knowledge indicator. The following indicators fell below this threshold:

- Knowledge of folic acid as key pre-natal vitamin (59.6 percent could state folic acid at endline)
- Knowledge of delivery costs and delivery bag as part of a plan for giving birth (78.5 percent were able to remember delivery costs; only 40.4 percent remembered delivery bag.)
- Danger signs during pregnancy. These knowledge indicators are the most concerning.
   At endline, 64 percent mentioned vaginal bleeding, 42 percent mentioned headaches,
   25 percent mentioned breathing, 28 percent mentioned fever, 62 percent mentioned abdominal pain.

When the Healthy Mothers, Health Babies education was first delivered in the Philippines, knowledge of folic acid as well as pregnancy danger signs equally were challenged to meet the 80 percent knowledge threshold. While in the Philippines it was posited that those who were delivering the education used brand/product names to reference folic acid and not the generic name of "folic acid", it may be that in India, given the message about nutritional supplements was delivered during the same session as the messages on a balanced diet, that messages regarding the importance of folic acid where minimized or diluted. Also, it has been noted that folic acid and iron are often provided in one tablet to women; however, the education promoted women consuming iron and folic acid, as if they are separate tablets. Grameen, FFHIT, and ADS should consider revising this session to 1). Focus exclusively on the importance of these vitamins and how to overcome side effects and 2). Reflect in the education that women can increase their consumption of iron and folic acid by consuming an iron-folic acid table (IFA). If medical personnel promote and provide iron and folic acid in one tablet, the education should be consistent with this message. Also, this message may be more critical than descriptions of a healthy diet that lead the session message and might require their own attention.

Given some of the knowledge questions regarding danger signs were not only less than 80 percent but less than 50 percent, the Freedom from Hunger India Trust and ADS teams should consider whether the sessions should be re-designed or re-emphasized with the clients. Also, feedback from ADS staff indicates that local medical staff do not

<sup>&</sup>lt;sup>3</sup> Gray B, Sarmiento M, Chandler C, Rogers S. (2016). Kalinga kay Inay: Healthy Mothers, Healthy Babies. Program Evaluation. Freedom from Hunger, RESULTS Educational Fund, and CARD MRI. Davis, CA USA; Washington, DC USA; San Pablo City, Laguna Philippines. Available at: https://www.freedomfromhunger.org/kalinga-kay-inay-healthy-mothers-healthy-babies-program-evaluation

communicate with women that headache is a danger sign; education shared with women by local medical staff should be consistent with the messages in the education session. In the Philippines, it was argued that headaches and abdominal pain were common outside of pregnancy. The India teams should equally consider how these messages on danger signs interlink with messages being shared by the local health facilities to ensure that women understand why these are considered danger signs during pregnancy so as not to minimize the criticality of these messages. In addition, a recent study also shows that in addition to recognizing danger signs, women in West Bengal often misreport the onset of true labor pain, because the do not recognize that they are in labor until too late, which delays transporting the mother to the facility in time and forcing her to give birth at home. Any revision to the Healthy Mothers curriculum may want to take this risk into consideration for developing a new session.

An important limitation of this study is that ADS reported that women often did not fully understand the questions being posed to them. Any repetition of study should ensure that the field staff implementing the survey are well-versed in the purpose of the question and agree on a common translation since the survey instrument was developed in English but implemented in local language.

In conclusion, ADS has effectively leveraged a simple pictorial-based education intervention on healthy pregnancies to equip mothers and other care-takers with information that is not only going to help them improve their own practices but those of pregnant women in their families and social circles. With some slight improvements in the education design or delivery, it could be more impactful for mothers and family members who can support women through a healthy pregnancy.

# **Annex: Data Table ADS Client Responses**

	Baseline			Endline		
		1	1			
Average time with ADS	10.6 years	10.1 years				
What two nutrition supplements are important for pregnant women and women and girls of reproductive age?						
	Ausgram 1	Ausgram 2	Total	Ausgram 1	Ausgram 2	Total
Folic acid	47.1%	48.1%	47.6%	67.7%	51.5%	59.6%
	(n=57)	(n=64)	(n=121)	(n=90)	(n=68)	(n=158)
Iron/Ferous Sulfate	35.5%	51.9%	44.1%	70.7%	80.3%	75.5%
	(n=43)	(n=69)	(n=112)	(n=94)	(n=106)	(n=200)
Others	7.4%	27.1%	17.7%	52.6%	40.9%	46.8%
	(n=9)	(n=36)	(n=45)	(n=70)	(n=54)	(n=124)
Others	1.7%	0%	0.8%	12%	1.5%	6.8%
	(n=2)		(n=2)	(n=16)	(n=2)	(n=18)
Don't know	24.8%	23.3%	24%	0%	0%	0%
	(n=30)	(n=31)	(n=61)			
What is the minimum number of prenatal visits a woman	should make during	her pregnancy?				
	Ausgram 1	Ausgram 2	Total	Ausgram 1	Ausgram 2	Total
4 visits	49.6%	46.9%	48.3	98.5%	94.7%	96.6%
	(n=66)	(n=61)	(n=127)	(n=131)	(n=125)	(n=256)
others	50.4%	53.1%	51.7%	1.5%	5.3%	3.4%
	(n=67)	(n=69)	(n=136)	(n=2)	(n=7)	(n=9)
Where can you go to receive a free prenatal checkup?						
	Ausgram 1	Ausgram 2	Total	Ausgram 1	Ausgram 2	Total
Sub-centers	75.6%	69.2%	72.3%	85.7%	87.1%	86.4%
	(n=96)	(n=92)	(n=188)	(n=114)	(n=115)	(n=229)
VHND	8.7%	9.8%	9.2%	10.5%	31.8%	21.1%
	(n=11)	(n=13)	(n=24)	(n=14)	(n=42)	(n=56)
PHC	14.2%	30.1%	22.3%	35.3%	42.4%	38.9%
	(n=18)	(n=40)	(n=58)	(n=47)	(n=56)	(n=103)
OTHER	7.9%	14.3%	11.2%	0.8%	0.8%	0.8%
	(n=10)	(n=19)	(n=29)	(n=1)	(n=1)	(n=2)
What are at least two things a pregnant woman should of	What are at least two things a pregnant woman should consider when planning for the birth of her child/developing a birth plan?					
<u> </u>	Ausgram 1	Ausgram 2	Total	Ausgram 1	Ausgram 2	Total
Health facility (where to give birth)	53%	61.7%	57.4%	78.2%	90.2%	84.2%
, ,	(n=70)	(n=82)	(n=152)	(n=104)	(n=119)	(n=223)

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Transportation (How will she reach the health facility)	53%	66.9%	60%	90.2%	90.2%	90.2%
	(n=70)	(n=89)	(n=159)	(n=120)	(n=119)	(n=239)
Money needed (How will she pay for the birth?)	41.7%(n=55)	54.9%	48.3%	78.9%	78%	78.5%
		(n=73)	(n=128)	(n=105)	(n=103)	(n=208)
Delivery bag (what will she bring with her to the health	8.3%	5.3%	6.8%	43.6%	37.1%	40.4%
facility)	(n=11)	(n=7)	(n=18)	(n=58)	(n=49)	(n=107)
Others	3.8%	0.8%	2.3%	0.8%	0	0.4%
	(n=5)	(n=1)	(n=6)	(n=1)		(n=1)
Don't know	4.5%	8.3%	6.4%	0	0	0
	(n=6)	(n=11)	(n=17)			
What are at least 3 danger signs or symptoms that a pre-	gnant mother should	watch for during h	er pregnancy?			
	Ausgram 1	Ausgram 2	Total	Ausgram 1	Ausgram 2	Total
Swelling of arms or legs	78.3%	85%	81.7% (n=214)	88%(n=117)	88.6%	88.3%
	(n=101)	(n=113)	,	,	(n=117)	(n=234)
Vaginal bleeding	38%	27.1%	32.4%	74.4%	53%	63.8%
	(n=49)	(n=36)	(n=85)	(n=99)	(n=70)	(n=169)
Headaches	17.8%	53.4%	35.9%	30.1%	53%	41.5%
	(n=23)	(n=71)	(n=94)	(n=40)	(n=70)	(n=110)
Difficulty breathing	14.7%	6.8%	10.7%	28.6%	21.2%	24.9%
, ,	(n=19)	(n=9)	(n=28)	(n=38)	(n=28)	(n=66)
Fever	11.6%	0.8%	6.1%	21.1%	34.8%	27.9%
	(n=15)	(n=1)	(n=16)	(n=28)	(n=46)	(n=74)
Abdominal pain	27.9%	47.7%	37.8%	56.4%	65.9%	61.1%
'	(n=36)	(n=63)	(n=99)	(n=75)	(n=87)	(n=162)
Others				0	0.8%	0.4%
					(n=1)	(n=1)
Don't know	6.2%	1.5%	3.8%			
	(n=8)	(n=2)	(n=10)			
If a pregnant woman experiences any of the danger sign	s at any time during h	er pregnancy, wha				
	Ausgram 1	Ausgram 2	Total	Ausgram 1	Ausgram 2	Total
Go to a healthy facility immediately	91%	100%	95.5%	97.7%	97%	97.4%
,,	(n=121)	(n=132)	(n=253)	(n=130)	(n=128)	(n=258)
Other	9%	0	2.6%	2.3%	3%	2.6%
	(n=12)		(n=12)	(n=3)	(n=4)	(n=7)
If you were to become pregnant today, how likely is it th		our child in a heal		( /	(***	
	Ausgram 1	Ausgram 2	Total	Ausgram 1	Ausgram 2	Total
Very Likely	59.1%	68.9%	64.0%	88.6%	87.1%	87.9%
1 Sty Emoly	(n=78)	(n=91)	(n=169)	(n=117)	(n=115)	(n=232)
Somewhat likely	28.8%	22.7%	25.8%	9.1%	10.6%	9.8%
Something mony	(n=38)	(n=30)	(n=68)	(n=12)	(n=14)	(n=26)
Not very likely	11.4%	8.3%	9.8%	1.5%	0.8%	1.1%
.tot vory intory	(n=15)	(n=11)	(n=26)	(n=2)	(n=1)	(n=3)
Would not deliver in a healthy facility	0.8%	0	0.4%	0.8%	1.5%	1.1%
Trodia not dontor in a noaltry lability	0.070		0.170	0.070	1.070	1.170

	(n=1)		(n=1)	(n=1)	(n=2)	(n=3)	
What is the primary reason you (or other family) would choose not to deliver in a health facility?							
•	Ausgram 1	Ausgram 2	Total	Ausgram 1	Ausgram 2	Total	
Cost	55.1%	48.9%	52.1%	36.3%	42%	39.5%	
	(n=54)	(n=44)	(n=98)	(n=33)	(n=50)	(n=83)	
Prefer home delivery	4.1%(n=4)	0	2.1%	4.4%	1.7%	2.9%	
			(n=4)	(n=4)	(n=2)	(n=6)	
No health facility nearby	24.5%	30%	27.1%	38.5%	47.9%	43.8%	
	(n=24)	(n=27)	(n=51)	(n=35)	(n=57)	(n=92)	
Do not trust health facilities	12.2%	21.1%	16.5%	20.9%	19.3%	20%	
	(n=12)	(n=19)	(n=31)	(n=19)	(n=23)	(n=42)	
Other	4.1%	0	2.1%	3.3%	0.8%(n=1)	1.9%	
	(n=4)		(n=4)	(n=3)		(n=4)	
Are you pregnant now?							
	Ausgram 1	Ausgram 2	Total	Ausgram 1	Ausgram 2	Total	
Yes	0%	1.5%	0.8%	0.8%	0.8%	0.8%(n=2)	
		(n=2)	(n=2)	(n=1)	(n=1)		
No	100%	98.5%	99.2%	99.2%	99.2%	99.2%	
	(n=133)	(n=131)	(n=264)	(n=132)	(n=131)	(n=263)	
Do you intend to become pregnant in the next year?							
	Ausgram 1	Ausgram 2	Total	Ausgram 1	Ausgram 2	Total	
Yes	0.8%	10.5%	5.7%	3%(n=4)	7.6%	5.3%	
	(n=1)	(n=14)	(n=15)		(n=10)	(n=14)	
No	99.2%	89.5%	94.3%	97%	92.4%	94.7%	
	(n=131)	(n=119)	(n=250)	(n=129)	(n=122)	(n=251)	
Did you receive any antenatal care with the pregnancy of							
	Ausgram 1	Ausgram 2	Total	Ausgram 1	Ausgram 2	Total	
Yes	97%	90.2%	93.6%	82.6%	87.2%	84.9%	
	(n=129)	(n=120)	(n=249)	(n=109)	(n=116)	(n=225)	
No	3%	9.8%	6.4%	17.4%	12.8%	15.1%	
	(n=4)	(n=13)	(n=17)	(n=23)	(n=17)	(n=40)	
How many times did you receive antenatal care for the p							
	Ausgram 1	Ausgram 2	Total	Ausgram 1	Ausgram 2	Total	
One	8.5%	6.8%(n=8)	7.7%	57.9%	42.1%	8.5%	
	(n=11)		(n=19)	(n=11)	(n=8)	(n=19)	
Two	29.5%	25.4%	27.5%	54.5%	45.5%	29.6%	
	(n=38)	(n=30)	(n=68)	(n=36)	(n=30)	(n=66)	
Three	23.3%	29.7%	26.3%	44.1%	55.9%	26.5%	
	(n=30)	(n=35)	(n=65)	(n=26)	(n=33)	(n=59)	
Four	9.3%	18.6%	13.8%	33.3%	66.7%	14.8%	
	(n=12)	(n=22)	(n=34)	(n=11)	(n=22)	(n=33)	
More than four	1.6%	0	0.8%	100%	0	0.9%	

	(n=2)		(n=2)	(n=2)		(n=2)		
Don't remember	27.9%	19.5%	23.9%	52.3%	47.7%	19.7%		
	(n=36)	(n=23)	(n=59)	(n=23)	(n=21)	(n=44)		
Who assisted in the birth of your youngest child?								
	Ausgram 1	Ausgram 2	Total	Ausgram 1	Ausgram 2	Total		
Doctor	52%	60.2%	56%	48.1%	54.6%	51.3%		
	(n=64)	(n=71)	(n=135)	(n=64)	(n=71)	(n=135)		
Nurse	36.6%	27.1%	32%	33.8%	24.6%	29.3%		
	(n=45)	(n=32)	(n=77)	(n=45)	(n=32)	(n=77)		
Midwife	0	0	0	12.8%	15.4%	14.1%		
				(n=17)	(n=20)	(n=37)		
Traditional birth attendant	17.9%	23.7%	20.7%	6.5%	21.5%	19%		
	(n=22)	(n=28)	(n=50)	(n=22)	(n=28)	(n=50)		
Relative/friend	7.3%	21.2%	14.1%	6.8%	19.2%	12.9%		
	(n=9)	(n=25)	(n=34)	(n=9)	(n=25)	(n=34)		
Other	0.8%	0.8%	0.8%	0	0.8%	0.4%		
	(n=1)	(n=1)	(n=2)		(n=1)	(n=1)		
No one	1.6%(n=2)	0	0.8%	1.5%(n=2)	0	0.8%		
			(n=2)			(n=2)		
In the last three months, have you shared any information with others about maternal health and information related to healthy pregnancies?								
	Ausgram 1	Ausgram 2	Total	Ausgram 1	Ausgram 2	Total		
Yes	0	0.8%	0.4%	54.9%	38.2%	46.6%		
		(n=1)	(n=1)	(n=73)	(n=50)	(n=123)		
No	100%	99.2%	99.6%	45.1%	61.8%	53.4%		
	(n=132)	(n=129)	(n=261)	(n=60)	(n=81)	(n=141)		

<sup>&</sup>quot;India Progress out of Poverty Index." The Progress out of Poverty Index is now known as the Poverty Probability Index and still known by its same acronym: PPI.

Gorain A, Barik A, Chowdhury A, Rai RK. 2017. Preference in place of delivery among rural Indian women. *PLoS ONE* 12(12): e0190117. https://doi.org/10.1371/journal.pone.0190117