

Improving Compliance to Iron and Folic Acid Supplementation Protocols: Experimental Evidence from Rural India

8th February, 2021

Pre-Analysis Plan

1. Introduction

1.1 Abstract

In this randomised controlled trial study, we will evaluate the impact of three communication-based interventions, delivered remotely, on improving the consumption of Iron and Folic Acid (IFA) supplements during pregnancy in rural India. Our interventions aim to make the risks of anemia for both mother and child salient, increase the value perception of IFA supplements amongst pregnant women, and support the habit formation of their daily consumption. We test for these interventions using two experiments; in the first, we randomize pregnant women with access to Whatsapp between control and a treatment, where the treatment group is given simplified counselling over the phone followed by some visual reinforcements over Whatsapp; in our second, we randomize pregnant women without access to Whatsapp between control and two treatments, where one treatment group is given simplified counselling over the phone followed by regular prescriptions of IFA tablets sent through SMS, and the second treatment group is sent catchy and tuneful IVRS reminders for regular tablet consumption. We deploy our experiments in rural Uttar Pradesh, with a sample of 1929 pregnant women.

1.2 Summary

Anemia is a life-threatening condition which impacts a large number of women in India. Particularly significant during pregnancies, it **leads to high rates of maternal and child mortalities** [1], especially in rural areas. A key pathway to address iron-deficiency anemia is by providing iron supplements to woman, especially during their pregnancy given that **50.4%** of pregnant woman, age 15-49 years in India, are anemic [2] and that about **20%** of maternal deaths are directly related to Anemia and another **50%** of maternal deaths are associated with it. [3] CSBC is working with NITI Aayog to support program efforts on anemia amongst pregnant women and will evaluate interventions that can potentially increase their uptake and adherence of IFA supplements.

Indicator of interest: Percentage of pregnant women who consumed iron folic acid supplements for 180 days of their pregnancy

Based on our qualitative diagnosis, we found that the high prevalence of anemia in the community and the preventive framing of the IFA supplementation tablets has resulted in women not considering anemia as a serious health issue. This reduces **risk perception of anemia**, decreases the **value of the IFA tablets** and leads to **low motivation** among pregnant women to consume the tablets daily. This is further compounded by other barriers of **imprecise counseling** and **limited knowledge on tablet effects**. In an attempt to address these different barriers, the three main objectives of the interventions are:

- **Increasing risk perception of Anemia:** making the risks associated with anemia for the mother and the child salient

- **Increasing value perception of IFA Tablets:** framing anemia as a disease rather than a condition and IFA tablets as a readily available cure for it
- **Increasing self-regulation to support habit formation:** providing regular reminders for IFA tablet consumption

This document outlines the analysis plan for remote lab-in-the-field experiments using a randomized controlled methodology to assess the effectiveness of the proposed interventions in increasing knowledge about anemia, intentions to consume IFA tablets and self-reported consumption of IFA tablets.

These experiments comprises three main interventions: Phone-based counselling [4], [5], [6], [7], [8], [9], [10], [11], [12], [13], [14] + **SMS Prescription** [15], Phone-based counselling + **Whatsapp Visual Reinforcement** [16] and **IVRS Reminders** [17], [18], [19], [20], [21], [22], [23]. Along with this, we are also testing the impact of priming pregnant women with health and strength related baby names (during phone counselling) on their intentions to consume and self-reported consumption of IFA tablets. Given the contemporary public health precautions due to the COVID-19 pandemic, we decided to focus on implementing interventions that could be reasonably deployed remotely, eliminating any experiment-related potential exposure to participants from COVID-19.

1.3 Theory of Change

Input/Intervention	Output	Outcome
Intervention 1: Pregnant woman receives counselling on anemia and a visual reinforcement (gif image) to support the risk-framed counseling on anemia	<ol style="list-style-type: none"> 1. Pregnant woman understands anemia is a risky condition 2. Pregnant woman understands IFA pills reduce the risk of anemia 	<p>Attitude:</p> <ol style="list-style-type: none"> 1. Pregnant woman has increased perception of threat to herself and her child 2. Pregnant woman has increased value perception of tablets 3. Pregnant woman has increased motivation to take IFA tablets <p>Practice: Pregnant woman takes IFA pills daily according to guidance</p>
Corresponding Assumptions:		
<ol style="list-style-type: none"> 1. PW has supply of tablets 2. Intervention is delivered fully 	<ol style="list-style-type: none"> 1. PW understands link between anemia and counselling 2. PW believes anemia is 	<ol style="list-style-type: none"> 1. Pregnant woman trusts the source of the pills 2. Pregnant woman believes the benefits of

3. Pregnant woman's past experience does not counter to counselling advice	a condition which can change	<p>IFA pills outweigh the potential risks/ side effects</p> <p>3. Other influencers (like husband or mother-in-law) don't reduce motivation and/or block behaviour change</p> <p>4. Pregnant Woman has agency to make her own decisions</p>
Intervention 2: Pregnant woman receives risk-frame counseling on anemia and a prescription which advises do's and don'ts of IFA tablet consumption	<p>1. PW understands anemia is a risky condition</p> <p>2. PW understands IFA pills can change her anaemia status</p> <p>3. PW understands how/when to take IFA pills - and is not caught off-guard in case of she experiences any side effects</p>	<p>Attitude:</p> <p>4. Pregnant woman has increased perception of threat to herself and her child</p> <p>5. Pregnant woman has increased value perception of tablets</p> <p>6. Pregnant woman has increased motivation to take IFA tablets</p> <p>Practice: Pregnant woman takes IFA pills daily according to guidance</p>
Corresponding Assumptions:		
<p>1. PW has supply of tablets</p> <p>2. Intervention is delivered fully</p> <p>3. Pregnant woman's past experience does not counter to counselling advice</p>	<p>1. Pregnant woman values prescription</p> <p>2. PW can understand instructions on prescription</p>	<p>1. Risk-framed counselling is effective</p> <p>2. PW trusts source of pills and prescription</p> <p>3. PW understands and recalls instructions on prescription</p> <p>4. Pregnant woman believes the benefits of IFA pills outweigh the potential risks/ side effects</p> <p>5. Other influencers (like husband or mother-in-law) don't reduce motivation</p>

		and/or block behaviour change 6. Pregnant Woman has agency to make her own decisions
Intervention 3: Pregnant woman receives reminder messages on consuming IFA tablets delivered via integrated voice-response messages	<ol style="list-style-type: none"> 1. Pregnant woman is reminded about consuming the tablet 2. The reminder increases opportunities to engage in desired behaviour 	<p>Attitude:</p> <ol style="list-style-type: none"> 1. Pregnant woman has increased value perception of tablets 2. Pregnant woman has increased motivation to take IFA tablets <p>Practice: Pregnant woman takes IFA pills daily according to guidance</p>
Corresponding Assumptions:		
PW has supply of tablets	<ol style="list-style-type: none"> 1. Pregnant woman answers the calls 2. Other influencers (like husband and mother-in-law) answer the call and convey the message to Pregnant woman 	<ol style="list-style-type: none"> 1. Calls are motivating 2. PW trusts source of the calls 3. Pregnant woman or her family is not fatigued by number of calls

2. Methods

2.1 Experimental Design Overview

The research design for this randomised control trial required stratifying the sample of pregnant women into the following groups, based on their access to Whatsapp:

1. **Direct Whatsapp users** - These include the pregnant women who use Whatsapp themselves
2. **Vicarious Whatsapp users** - These include the pregnant women who either have their husband or someone else in their household who use Whatsapp
3. **Feature Phone users** - These include the pregnant women who neither use Whatsapp themselves, nor anyone in their household uses Whatsapp

These groups are further **stratified** based on the **geography (blocks** - i.e. the administrative units they belong to) and **gravidity** (i.e. the number of times they have been pregnant), and then **randomised** equally across **2 experiments**:

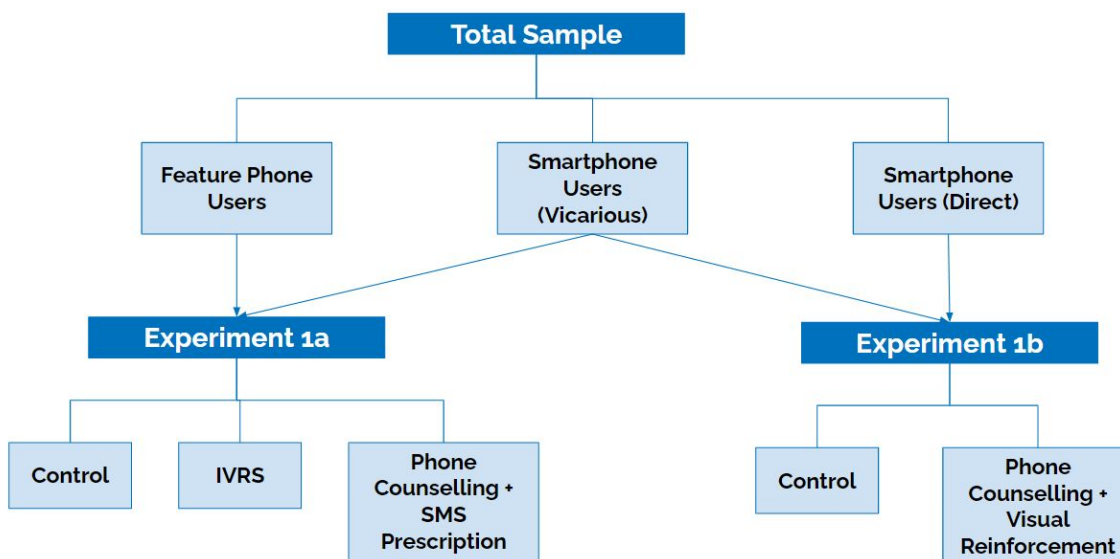


Image 1: Decision Tree for Sample Stratification

2.2 Sample Identification

Our sample consists of pregnant women from the districts of **Bahraich** and **Shravasti** in Uttar Pradesh, who met the following **criteria**:

1. They were between their 4th and 8th month of pregnancy
2. They were 18+ years of age
3. They had a supply of IFA tablets at home (or at least had access to supply to IFA tablets in the area)
4. They had access to phone calling

These districts were selected on the basis of the following factors:

1. Improvement in performance (using Champion of Change Delta Scored between June '18 and November '19)
2. Project implementation feasibility (language, district support, etc)
3. Indicators specific data from NFHS IV & from the ADP programme collected by validation partners

For more details, please refer to the [Appendix](#).

To reach this sample, we partnered with NITI Aayog, the Ministry of Health and Family Welfare and Piramal Swasthya -- who **worked closely with district administration** to collate information on these pregnant women. These pregnant women are registered by

the Auxiliary Nurse Midwife (**ANM**) and Accredited Social Health Activist (**ASHA**) workers, who are responsible for last mile access from the state health machinery to the village level.

The registered details of these pregnant women were collected by Piramal Swasthya, from ANMs and shared with CSBC. The sample was then contacted by trained enumerators for a detailed baseline survey, where in addition to vital eligibility criteria mentioned above, we collected information on IFA consumption and associated outcomes, intentions and attitudes.

2.3 Power Analysis

We estimate our required sample sizes based on three studies (a field experiment undertaken by CSBC in Madhya Pradesh previously, Ahamed et al 2018 [5], and a [lab-in-the-field experiment undertaken by CSBC in Haryana](#)) which evaluate impact of communication-based interventions on the adherence to consumption of IFA supplements by pregnant women in developing contexts.

Table 1: Power Calculations

Power	0.80		
Alpha	0.05		
	Case 1	Case 2	Case 3
Benchmark study used	Field Experiment by CSBC in MP testing the counseling card & calendar interventions Study sample: ~300 pregnant women per arm	Ahamed et al 2018 Study sample: ~200 pregnant women per arm in rural India	Lab in the field experiment by CSBC in Haryana testing multiple interventions Study sample: ~300 pregnant women per arm
Assumption: Effect Size	11 pp Outcome: Binary on current consumption IFA pills Control vs. Treatment: .67 vs .78	9 pp Outcome: Proportion of respondents regularly consuming IFA pills Control vs. Treatment: .604 vs .691	2.61 (SD = 16.84) Outcome: Compliance everyday via missed call
Estimated required sample size	~250 Pregnant Women per treatment arm Total: ~1000 pregnant woman (assuming 4	~450 PW per treatment arm Total: ~1800 pregnant women (assuming 4	~600 PW per treatment arm Total: ~2400 pregnant woman (assuming 4

	treatment arms)	treatment arms)	treatment arms)
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2.4 Intervention Deployment

On completion of the baseline survey, the sample was randomised in different treatment arms, which were deployed in the following manner:

Table 2: Intervention Details

No.	Arm	Treatment Deployment	Delivery
To	Control	<ul style="list-style-type: none"> No treatment 	-
T1	IVRS Reminders	<ul style="list-style-type: none"> Series of 13 behaviorally designed reminders using insights to grab attention and increase recall. They were meant to invoke joy, humor, and excitement about the new baby while reminding individuals to consume IFA tablets daily for ensuring the baby's health. Delivered daily for the first 7 days and then every 2 days for the next 3 weeks. 	IVRS Phone Calls through a communication automation agency
T2 to T5	Phone Counseling	<ul style="list-style-type: none"> Pregnant women were called on the phone (early morning or at night) and counseled on IFA and anemia. The tone of the counseling was joyful and conveyed respect. Script highlighted the risk of anemia. 	Phone Calls made through trained enumerators
T2	SMS prescription	<ul style="list-style-type: none"> Delivered 1 day after the pregnant women received phone counseling. A prescription for IFA tablets with standard government-recommended dosage, along with instructions for avoiding side effects was sent to select pregnant women. Personalized with the woman's name and sent once every week for 4 weeks 	SMS sent through a communication automation agency
T3	Visual risk reinforcement	<ul style="list-style-type: none"> Delivered 1 day after the pregnant women received phone counseling. Smartphone users in this arm received visual information about risks to repeat the key framing. Sent once every week for 4 weeks 	Whatsapp Image sent by trained enumerators
T4	Priming with names representing health / strength	<ul style="list-style-type: none"> Delivered during phone counseling. The tone of the counseling was joyful and conveys respect. This rapport-building included the following primes: <ul style="list-style-type: none"> Girl health/strength name + Boy health/strength name (Hindi: equal in 	Phone Calls made through trained enumerators

		<ul style="list-style-type: none"> length and starting with the same letter) Girl health/strength name + Boy health/strength name (Urdu: equal in length and starting with the same letter) 	
T5	Priming with names not representing health / strength	<ul style="list-style-type: none"> This was delivered during phone counseling. The tone of the counseling was joyful and conveys respect. This rapport-building included the following primes: <ul style="list-style-type: none"> Girl non-health/non-strength name + Boy health/strength name (Hindi: equal in length and starting with the same letter) Girl non-health/non-strength name + Boy health/strength name (Urdu: equal in length and starting with the same letter) 	Phone Calls made through through trained enumerators

For more details on the final randomization numbers, please refer to the [Appendix](#).

For more details on the final intervention prototypes used, please refer to the [Appendix](#).

3. Empirical Analysis

This section presents the strategy and details behind the quantitative analysis conducted to measure the effectiveness of the above-mentioned interventions. First, the variables of interest for the research questions are categorised as input variables, outcome variables (both primary and secondary) and covariates. This is followed by the modeling strategy which will be used to measure the effectiveness.

3.1 Variables

3.1.1 Input Variables

These are the variables which help identify whether the participant was **exposed** to the assigned treatment or not, and if yes, how well did they **understand** it. Given that these variables are very specific to treatment deployment, these are **only collected at Endline**, since the respondents would not have received treatments (if any) before the Baseline.

Summary of the input variables is as follows:

Table 3: Input Variables Description

Input Variables	Treatment	Variable Construction
Treatment Assigned	IVRS Reminders	Based on the stratified randomization
	Phone Counselling + SMS Prescription	Sub-Experiment under the Phone Counselling component of the Intervention: Priming with names representing health / strength vs. Priming with names not representing health / strength - Based on the stratified randomization
	Phone Counselling + Visual Reinforcement	

Treatment Delivered	IVRS Reminders	<p>Total number of IVRS calls successfully delivered (0 to 13):</p> <p>$ivrs_delivered_{EL} = \sum 1$ point for each IVRS call delivered</p> <p>Average duration of exposure from successfully-delivered IVRS calls measured in seconds:</p> $ivrs_duration_{EL} = \frac{\sum_{i=1}^{13} duration_i}{13}$
	Phone Counselling + SMS Prescription	<p>Phone counselling received : pc_delivered_{EL} = 1 Phone counselling not received : pc_delivered_{EL} = 0</p> <p>Total number of SMSs successfully delivered (0 to 4):</p> <p>$sms_delivered_{EL} = \sum 1$ point for each SMS delivered</p>
	Phone Counselling + Visual Reinforcement	<p>Phone counselling received : pc_delivered_{EL} = 1 Phone counselling not received : pc_delivered_{EL} = 0</p> <p>Total number of visual reinforcement Whatsapp messages successfully delivered (0 to 4):</p> <p>$vr_delivered_{EL} = \sum 1$ point for each Visual Reinforcement message delivered (i.e. double-tick on Whatsapp)</p>
Treatment Recall (during Endline)	IVRS Reminders	<p>intervention_check_4_1 - Did you receive automated phone call reminders to take your IFA tablets in the past 4 weeks?</p> <p>intervention_check_4_2 - How many of these automated phone call reminders did YOU personally completely listen to?</p> <p>intervention_check_4_3 - How many of these automated phone call reminders did any of your family members completely listen to and inform you about?</p> <p>intervention_check_8 - What are the main messages covered in the information you received?</p> <p>ivrs_recall_received_{EL} = 1 - If $ivrs_delivered_{EL} \geq 1$ && $intervention_check_4_1 = 1$</p> <p>ivrs_listened_{EL} = intervention_check_4_2 + intervention_check_4_3</p> <p>ivrs_recall_message_{EL} = 1 If $intervention_check_8 = 1$ (one of the IVRS messages)</p>
	Phone Counselling + SMS Prescription	<p>intervention_check_1 - Did someone (other than ANM, ASHA or AWW) call you to have a conversation with you about anemia or the importance of IFA tablets in the past 4 weeks?</p> <p>intervention_check_2 - Were you told? (A) About the risks</p>

		<p>associated with anemia, (B) That anemia is a curable disease</p> <p>intervention_check_3_1 - After your conversation with someone, what other information was sent to you?</p> <p>intervention_check_7 - What are the main messages covered in the information you received?</p> <p>pc_recall_received_{EL} = 1 - If pc_delivered_{EL} = 1 && intervention_check_1 = 1</p> <p>pc_recall_message_{EL} = 1 - If intervention_check_2 = 3 (A and B both)</p> <p>sms_recall_received_{EL} = 1 - If sms_delivered_{EL} >= 1 && intervention_check_3_1 = 2 (A prescription for IFA tablets via SMS)</p> <p>sms_recall_message_{EL} = 1 - If intervention_check_7_a = 1 && intervention_check_7_c = 1</p>
	Phone Counselling + Visual Reinforcement	<p>intervention_check_1 - Did someone (other than ANM, ASHA or AWW) call you to have a conversation with you about anemia or the importance of IFA tablets in the past 4 weeks?</p> <p>intervention_check_2 - Were you told? (A) About the risks associated with anemia, (B) That anemia is a curable disease</p> <p>intervention_check_3_1 - After your conversation with someone, what other information was sent to you?</p> <p>intervention_check_6 - What are the main messages covered in the information you received?</p> <p>pc_recall_received_{EL} = 1 - If pc_delivered_{EL} = 1 && intervention_check_1 = 1</p> <p>pc_recall_message_{EL} = 1 - If intervention_check_2 = 3 (A and B both)</p> <p>vr_recall_received_{EL} = 1 - If vr_delivered_{EL} >= 1 && intervention_check_3_1 = 1 (Photo on on whatsapp about risk of anemia)</p> <p>vr_recall_message_{EL} = 1 - If intervention_check_6_a = 1 && intervention_check_6_c = 1</p>
Treatment Comprehension (during Endline)	IVRS Reminders	intervention_check_5 - How well did you understand what the message was saying?
	Phone Counselling + SMS Prescription	intervention_check_3_2 - Did you end up using the IFA prescription that you received via SMS?
	Phone Counselling + Visual Reinforcement	treatment_understood _{EL} = 1 - If intervention_check_5 = 4 or 5 (Understood very well)

		treatment_understood_{EL} = 0 - If intervention_check_5 = 1 (Did not understand at all), 2, 3 sms_used_{EL} = 1 - If intervention_check_3_2 = 1 (Used)
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3.1.2 Outcome Variables

Based on the Theory of KAP, our research question explores three different kinds of outcome variables:

1. **Practice-related outcome variables:** These include variables directly related to the action of consuming of IFA tablets
2. **Attitude-related variables:** These include variables related to the intention of consuming of IF tablets, their value perception and risk perception of anemia
3. **Knowledge-related variables:** These include variables related to knowledge and awareness about anemia and IFA tablets

In order to develop different measures for these variables, we identified several studies on program evaluations surrounding IFA consumption (particularly in the global south) [5], [7], [11], [13], [24], [25], [26], [27], [28], [29], [30], [31]. After identifying these studies, they were reviewed thoroughly on the outcome variables and measures used by them. Given measuring tablet consumption and adherence have been extremely challenging even before, learnings from these studies were used to develop the below-mentioned measures:

Table 4: Outcome Variables Description - Practice (Survey Data)

Primary Outcomes Variables (Practice)	Outcome Measures (For further details on specific outcome measures, please refer to the IFA codebook)	Variable Construction
Total consumption (before the date of respondent's Baseline and Endline surveys)	number_of_tablets - How many IFA tablets have you received in total since you found out you were pregnant? current_stock - How many IFA tablets do you currently have left?	Total number of tablets consumed till date: $consumption_{BL} = number_of_tablets_{BL} - current_stock_{BL}$ $consumption_{EL} = number_of_tablets_{EL} - current_stock_{EL}$
Adherence to total consumption	number_of_tablets - How many IFA tablets have you received in total since you found out you were pregnant? current_stock - How many	Rate of regular consumption at the Endline = [A] total number of IFA tablets that were actually consumed between endline survey date and date of receiving the tablets ÷ [B] total number of IFA tablets expected to be consumed between endline survey date and date of receiving the tablets based on usual daily consumption

	<p>IFA tablets do you currently have left?</p> <p>required_consumption - How many IFA tablets were you told to consume in a day?</p> <p><i>[Only in EL - When month_of_pregnancy = 4, 5, 6, 7, 8, 9]</i></p> <p>time_of_tablets_received - When did you get these IFA tablets first?</p> <p><i>[Only in EL - When month_of_pregnancy = "delivered" or "miscarried"]</i></p> <p>time_of_tablets_received_2 - When did you stop consuming these tablets?</p> <p>survey_date - date on which the survey was conducted</p>	$A_{EL} = \text{number_of_tablets}_{EL} - \text{current_stock}_{EL}$ <p><i>[When month_of_pregnancy = 4, 5, 6, 7, 8, 9]</i></p> $B_{EL} = \text{daily_consumption}_{EL} \times (\text{survey_date}_{EL} - \text{time_of_tablets_received}_{EL})$ <p><i>[When month_of_pregnancy = "delivered" or "miscarried"]</i></p> $B_{EL} = \text{daily_consumption}_{EL} \times (\text{survey_date}_{EL} - \text{time_of_tablets_received_2}_{EL})$ $\text{total_adherence}_{EL} = \frac{A_{EL}}{B_{EL}}$ <p>Rate of regular consumption over the evaluation period = [A] total number of IFA tablets that were actually consumed between endline survey date and baseline survey date ÷ [B] total number of IFA tablets expected to be consumed between endline survey date and baseline survey date based on usual daily consumption</p> $A_{BL+EL} = \text{consumption}_{EL} - \text{consumption}_{BL}$ $B_{BL+EL} = \text{required_consumption}_{BL} \times (\text{survey_date}_{EL} - \text{survey_date}_{BL})$ $\text{total_adherence}_{EL} = \frac{A_{BL+EL}}{B_{BL+EL}}$
<p>Daily Consumption (for the week before the Baseline and Endline surveys)</p>	<p><i>[When month_of_pregnancy = 4, 5, 6, 7, 8, 9]</i></p> <p>ifa_consumption_past_week - How many IFA tablets did you consume over the last week?</p> <p><i>[When month_of_pregnancy = "delivered" or "miscarried"]</i></p> <p>ifa_consumption_past_week_2 - How many IFA tablets did you consume in a week, the last time you took them?</p>	<p>Average daily tablet consumption in the previous week:</p> $\text{consumption_week}_{BL} = \frac{\text{ifa_consumption_past_week}_{BL}}{7}$ <p><i>[When month_of_pregnancy = 4, 5, 6, 7, 8, 9]</i></p> $\text{consumption_week}_{EL} = \frac{\text{ifa_consumption_past_week}_{EL}}{7}$ <p><i>[When month_of_pregnancy = "delivered" or "miscarried"]</i></p> $\text{consumption_week}_{EL} = \frac{\text{ifa_consumption_past_week_2}_{EL}}{7}$
<p>Adherence in the previous week</p>	<p><i>[When month_of_pregnancy = 4, 5, 6, 7, 8, 9]</i></p> <p>ifa_consumption_past_week - How many IFA tablets did you consume over the last week?</p> <p><i>[Only in EL - When month_of_pregnancy = "delivered" or "miscarried"]</i></p> <p>ifa_consumption_past_week_2 - How many IFA tablets did you consume in a week, the</p>	<p>Rate of regular consumption over a week = total number of tablets consumed in the past week ÷ total number of IFA tablets expected to be consumed in the past week</p> $\text{adherence_week}_{BL} = \frac{\text{ifa_consumption_past_week}_{BL}}{\text{required_consumption}_{BL} \times 7}$ $\text{adherence_week}_{EL} = \frac{\text{ifa_consumption_past_week}_{EL}}{\text{required_consumption}_{EL} \times 7}$

	last time you took them?	
	required_consumption - How many IFA tablets were you told to consume in a day?	

Along with these self-reported measures, we also attempted to collect a revealed preference measure of adherence to consumption of IFA tablets by incentivising participants to send a photo of all their pill packets through Whatsapp at both Baseline and Endline. However, despite the incentive, due to the limited access to Whatsapp, only a small portion of the sample sent these photos. We can conduct a sub-group analysis of this:

Table 5: Outcome Variables Description - Practice (Photo Data)

Primary Outcomes Variables (Practice)	Outcome Measures <i>Data extracted from photos of IFA pill packers sent</i>	Variable Construction
Total consumption <i>(before the date of respondent's Baseline and Endline surveys)</i>	<p>photo_total_ifa_packets - What are the total number of IFA tablet blister packets in the picture?</p> <p>photo_total_ifa_tablets - What are the total number of IFA tablets in the picture? (Count of all the tablet blocks)</p> <p>photo_ifa_tablets_consumed - How many IFA tablets have been consumed? (Count of all the crinkled tablet blocks)</p> <p>photo_ifa_dosage - How many mg of IFA does each tablet contain? - Usually all were Ferrous Sulphate eq. to 100 mg Iron + 0.5 mg Folic Acid</p>	<p>Total number of tablets consumed till date = photo_ifa_tablets_consumed</p> <p>No manipulation needed - use discrete variable as dependent variable</p>

Table 6: Outcome Variables Description - Knowledge (Survey Data)

Secondary Outcomes Variables (Knowledge)	Outcome Measures (For further details on specific outcome measures, please refer to the IFA codebook)	Variable Construction
Awareness	awareness_anemia - Is	No manipulation needed - use dummy variable as dependent

about side effects of IFA tablets	anemia a disease?	variable																														
Knowledge about Symptoms of Anemia	<p>symptoms_of_anemia - According to you, what best describes blood deficiency? What are the symptoms of blood deficiency (anemia)? [Options were not read out]</p> <p><i>[Only in EL]</i></p> <p>symptoms_of_anemia_read_out - According to you, which of the following best describes blood deficiency? What are the symptoms of blood deficiency (anemia)? [Options were read out]</p>	<table border="1"> <thead> <tr> <th><i>Dummy Variable</i></th><th><i>Symptom Description</i></th><th><i>Correct Symptom</i></th></tr> </thead> <tbody> <tr> <td><i>symptoms_of_anemia_1</i></td><td>Having low energy</td><td>1</td></tr> <tr> <td><i>symptoms_of_anemia_2</i></td><td>Lower back pain</td><td>0</td></tr> <tr> <td><i>symptoms_of_anemia_3</i></td><td>Stomach cramps</td><td>0</td></tr> <tr> <td><i>symptoms_of_anemia_4</i></td><td>Dizziness</td><td>1</td></tr> <tr> <td><i>symptoms_of_anemia_5</i></td><td>Having high energy</td><td>0</td></tr> <tr> <td><i>symptoms_of_anemia_6</i></td><td>Low attention span</td><td>1</td></tr> <tr> <td><i>symptoms_of_anemia_7</i></td><td>Fatigue</td><td>1</td></tr> <tr> <td><i>symptoms_of_anemia_8</i></td><td>Can't concentrate</td><td>1</td></tr> <tr> <td><i>symptoms_of_anemia_9</i></td><td>Poor memory</td><td>1</td></tr> </tbody> </table> <p>symptoms_knowledge_score_{BL} (0 to 9) = \sum 1 point for each response matching with the correct symptom</p> <p>symptoms_knowledge_score_{EL} (0 to 9) = \sum 1 point for each response matching with the correct symptom</p> <p>$\Delta \text{symptom_knowledge_score}_{EL} = \text{symptoms_knowledge_score}_{EL} - \text{symptoms_knowledge_score}_{BL}$</p>	<i>Dummy Variable</i>	<i>Symptom Description</i>	<i>Correct Symptom</i>	<i>symptoms_of_anemia_1</i>	Having low energy	1	<i>symptoms_of_anemia_2</i>	Lower back pain	0	<i>symptoms_of_anemia_3</i>	Stomach cramps	0	<i>symptoms_of_anemia_4</i>	Dizziness	1	<i>symptoms_of_anemia_5</i>	Having high energy	0	<i>symptoms_of_anemia_6</i>	Low attention span	1	<i>symptoms_of_anemia_7</i>	Fatigue	1	<i>symptoms_of_anemia_8</i>	Can't concentrate	1	<i>symptoms_of_anemia_9</i>	Poor memory	1
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Awareness about the existence of side-effects	side_effects_yes_no - According to you, does consuming IFA tablets have any side-effects?	No manipulation needed - use dummy variable as dependent variable																											
Knowledge about side-effects of IFA tablets	<p>ifa_side_effects - What according to you are the side-effects of taking IFA tablets? [Options were not read out]</p> <p><i>[Only in EL]</i></p> <p>ifa_side_effects_read_out - From the following options, what according to you are the side-effects of taking IFA tablets? [Options were read out]</p> <p>side_effect_duration - How long do you think these side-effects last?</p>	<table> <tr> <th>Dummy Variable</th><th>Side Effect/ Side Effect Duration and Avoidance Description</th><th>Correct Side Effect</th></tr> <tr> <td><i>ifa_side_effects_1</i></td><td><i>Nausea/Vomiting</i></td><td><i>1</i></td></tr> <tr> <td><i>ifa_side_effects_2</i></td><td><i>Black stools</i></td><td><i>1</i></td></tr> <tr> <td><i>ifa_side_effects_3</i></td><td><i>Dizziness</i></td><td><i>0</i></td></tr> <tr> <td><i>ifa_side_effects_4</i></td><td><i>Low appetite</i></td><td><i>0</i></td></tr> <tr> <td><i>ifa_side_effects_5</i></td><td><i>None</i></td><td><i>0</i></td></tr> <tr> <td><i>side_effect_duration_1</i></td><td><i>1 = 3 - 7 days</i></td><td><i>1</i></td></tr> <tr> <td><i>side_effect_duration_2</i></td><td><i>2 = Over a week</i></td><td><i>0</i></td></tr> <tr> <td><i>side_effect_duration_2</i></td><td><i>3 = Entire duration of consumption</i></td><td><i>0</i></td></tr> </table> <p>side_effects_knowledge_score_{BL} (0 to 6) = \sum 1 point for each response matching with the correct side effect</p>	Dummy Variable	Side Effect/ Side Effect Duration and Avoidance Description	Correct Side Effect	<i>ifa_side_effects_1</i>	<i>Nausea/Vomiting</i>	<i>1</i>	<i>ifa_side_effects_2</i>	<i>Black stools</i>	<i>1</i>	<i>ifa_side_effects_3</i>	<i>Dizziness</i>	<i>0</i>	<i>ifa_side_effects_4</i>	<i>Low appetite</i>	<i>0</i>	<i>ifa_side_effects_5</i>	<i>None</i>	<i>0</i>	<i>side_effect_duration_1</i>	<i>1 = 3 - 7 days</i>	<i>1</i>	<i>side_effect_duration_2</i>	<i>2 = Over a week</i>	<i>0</i>	<i>side_effect_duration_2</i>	<i>3 = Entire duration of consumption</i>	<i>0</i>
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Table 7: Outcome Variables Description - Attitude (Survey Data)

Secondary Outcomes Variables (Attitude)	Outcome Measures (For further details on specific outcome measures, please refer to the JEA codebook)	Variable Construction (Model 1)	Variable Construction (Model 2)
Risk perception of Anemia	anemia_curability - Do you think anemia can be cured?	No manipulation needed - use dummy variable as dependent variable	-
	likelihood_having_anemia - How likely is it that you have anemia now?	No manipulation needed - use ordinal variable as dependent variable 1 = Very unlikely 2 = Somewhat unlikely 3 = Neither likely or unlikely 4 = Somewhat likely 5 = Very likely	Likely (1) - If likelihood_having_anemia = 4 or 5 Unlikely (0) - If likelihood_having_anemia = 1, 2, 3
Threat perception of non-consumption to self	threat_skipping_tablets - How much of a threat do you think skipping IFA tablets is to you, during your pregnancy?	Susceptibility to threat of non-consumption to self: No manipulation needed - use ordinal variable as dependent variable 1 = Not a threat 2 = Low threat 3 = Medium threat 4 = High threat 5 = Very high threat	Likely (1) - If threat_skipping_tablets = 4 or 5 Unlikely (0) - If threat_skipping_tablets = 1, 2, 3
	harm_skipping_tablets - How much harm do you expect to come to you during your pregnancy because you skipped IFA tablets?	Severity to threat of non-consumption to self: No manipulation needed - use ordinal variable as dependent variable 1 = No harm 2 = Low harm 3 = Medium harm 4 = High harm 5 = Very high harm	Likely (1) - If harm_skipping_tablets = 4 or 5 Unlikely (0) - If harm_skipping_tablets = 1, 2, 3
Threat perception of non-consumption to child	threat_skipping_tablets_child - How much of a threat do you think skipping IFA	Susceptibility to threat of non-consumption to child: No manipulation needed -	Likely (1) - If threat_skipping_tablets_child = 4 or 5

n to child	tablets is to your child, during your pregnancy?	use ordinal variable as dependent variable 1 = Not a threat 2 = Low threat 3 = Medium threat 4 = High threat 5 = Very high threat	Unlikely (o) - If threat_skipping_tablets_child = 1, 2, 3
	harm_skipping_tablets_child - How much harm do you expect to come to your child during your pregnancy because you skipped IFA tablets?	Severity to threat of non-consumption to child: No manipulation needed - use ordinal variable as dependent variable 1 = No harm 2 = Low harm 3 = Medium harm 4 = High harm 5 = Very high harm	Likely (1) - If harm_skipping_tablets_child = 4 or 5 Unlikely (o) - If harm_skipping_tablets_child = 1, 2, 3
Intention to consume tablets	one_tablet_one_week - On a scale of 1-5, how likely are you to consume at least one tablet a week, through the course of your pregnancy? four_tablets_one_week - On a scale of 1-5, how likely are you to consume at least four tablets a week, through the course of your pregnancy? <i>[Only in EL]</i> one_tablet_one_day - On a scale of 1-5, how likely are you to consume at least one tablet a day, through the course of your pregnancy?	Likelihood of consuming 1 tablet/week: No manipulation needed - use ordinal variable as dependent variable 1 = Very unlikely 2 = Somewhat unlikely 3 = Neither likely or unlikely 4 = Somewhat likely 5 = Very likely Likelihood of consuming 4 tablets/week: No manipulation needed - use ordinal variable as dependent variable 1 = Very unlikely 2 = Somewhat unlikely 3 = Neither likely or unlikely 4 = Somewhat likely 5 = Very likely Likelihood of consuming 1 tablet/day: No manipulation needed - use ordinal variable as dependent variable 1 = Very unlikely 2 = Somewhat unlikely 3 = Neither likely or unlikely 4 = Somewhat likely 5 = Very likely	Likelihood of consuming 1 tablet/week: Likely (1) - If one_tablet_one_week = 4 or 5 Unlikely (o) - If one_tablet_one_week = 1, 2, 3 Likelihood of consuming 4 tablets/week: Likely (1) - If four_tablets_one_week = 4 or 5 Unlikely (o) - If four_tablets_one_week = 1, 2, 3 Likelihood of consuming 1 tablet/day: Likely (1) - If one_tablet_one_day = 4 or 5 Unlikely (o) - If one_tablet_one_day = 1, 2, 3
Self-efficacy <i>(related to IFA)</i>	On a scale of 1-5, how much do you agree/disagree with	From 2 statements, answered on 5-point Likert scale, count	From 2 statements, answered on 5-point Likert scale, count of

<i>tablet consumption)</i>	the following statements: self_efficacy_1 - If I take my iron tablet daily, I can make sure that I have a safe and healthy delivery. self_efficacy_2 - I am confident I can manage the side-effects that I may experience when I consume IFA tablets.	of statements with Likert-scale response 4 (agree) and 5 (strongly agree)	statements with Likert-scale response 4 (agree) and 5 (strongly agree)
Value perception of IFA tablets	Refer to the decision tree/ question structure below.	Willingness to pay for IFA tablets = largest amount for which the response is Yes (i.e. 1)	

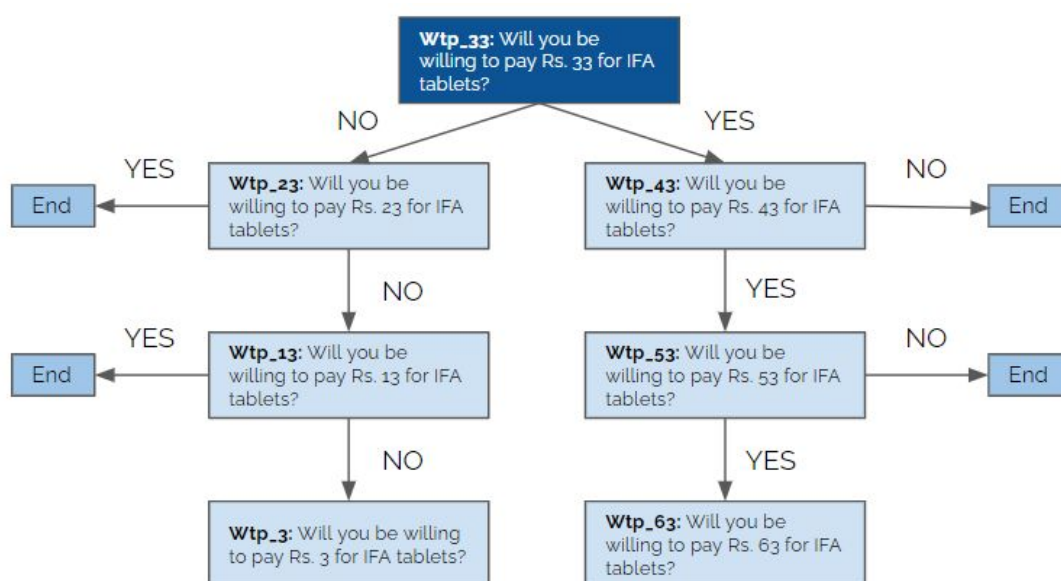


Image 2: Decision Tree/ Question Structure for Willingness to Pay for IFA Tablets

3.1.3 Covariates

Table 8: Covariates Description - Demographics (Survey Data)

Demographic Covariates	Outcome Measures (For further details on specific outcome measures, please refer to the IEA codebook)	Variable Construction
Age	age_again - What is your age?	No manipulation needed - continuous variable
Marital Status	marital_status - What is your marital status?	Married (1) - If marital_status = 2 (Married) Otherwise (0) - If marital_status = 1 (Unmarried),

		3 (Divorced), 4 (Widowed), 5 (Other)
Education	education - What is the highest level of education that you have completed?	<p>Educated (1) - If education = 2 (Secondary School - 5th Standard to 12th Standard), 3 (Undergraduate Degree - Bachelor's/Diploma), 4 (Postgraduate Degree - Masters/PhD), 5 (Did not go to school/ did not complete primary school)</p> <p>Otherwise (0) - If education = 1 (Primary school - completed till the 4th Standard), -88 (Don't know/ Can't say), -99 (Refused to answer)</p>
Number of household members	household_size - How many people live together in your household?	No manipulation needed - discrete variable
Monthly household income	household_income - What was your household income last month?	No manipulation needed - continuous variable
Ration Card	ration_card - What type of ration card do you have?	<p>Above Poverty (1) - If ration_card = 1 (APL)</p> <p>Otherwise (0) - If ration_card = 2 (BPL), 3 (AAY), 4 (No ration card), 5 (Other), -88 (Don't know/ Can't say), -99 (Refused to answer)</p>
Reservation Category	caste - What reservation category do you belong to?	<p>General (1) - If caste = 1 (General)</p> <p>Otherwise (0) - If caste = 2 (OBC), 3 (SC), 4 (ST), 5 (Caste does not apply to me), -88 (Don't know/ Can't say), -99 (Refused to answer)</p>
Time taken to reach the nearest healthcare centre	time_to_healthcare - How long does it take you to travel to the nearest health care centre?	No manipulation needed - categorical variable
Current employment Status	employment_status - Are you currently employed?	<p>Housewife (1) - If employment_status = 0 (Unemployed)</p> <p>Otherwise (0) - If employment_status = 1 (Employed), -88 (Don't know/ Can't say), -99 (Refused to answer)</p>

Table g: Covariates Description - Pregnancy (Survey Data)

Pregnancy-related Covariates	Outcome Measures (For further details on specific outcome measures, please refer to the JEA codebook)	Variable Construction
Gravidity	pregnancy_gravidity - Other than now,	No manipulation needed - discrete variable

	how many times have you been pregnant? Many women miscarry too: INCLUDE every other pregnancy when you answer.	
Parity	<i>[Only in EL]</i> pregnancy_parity - Other than this pregnancy, how many times have you carried a pregnancy beyond 24 weeks (i.e., 6 months) in total?	No manipulation needed - discrete variable
Trimester	<i>[When month_of_pregnancy = 4, 5, 6, 7, 8, 9]</i> trimester_1 - When is your baby due? <i>[Only in EL - When month_of_pregnancy = "delivered" or "miscarried"]</i> trimester_2 - When did you deliver your baby?	<i>[When month_of_pregnancy = 4, 5, 6, 7, 8, 9]</i> Number of days till the baby is due: Total number of days between due date for the baby and the end date of the EL survey <i>[When month_of_pregnancy = "delivered" or "miscarried"]</i> Number of days till the baby is due: 0
Current source of the medical care related to pregnancy	medical_care_source -What is your current source of medical care related to your pregnancy?	Access to Government service (1) - If medical_care_source = 1 (Government) No access to Government service (0) - If medical_care_source = 2 (Private Sector), 3 (Not availed), -88 (Don't know/ Can't say), -99 (Refused to answer)
Medical Care received	medical_care_received -What kind of medical care have you received? (select all that apply)	Anemia-related service received (1) - If medical_care_received = 1 Shot/s), 2 (IFA tablets), 3 (Dietary advice), 4 (Blood tests) Otherwise (0) - If medical_care_received = 5 (Sonograms or X-Rays), 6 (Tonics), -88 (Don't know/ Can't say), -99 (Refused to answer)
Trust in the primary source of pregnancy-related information	infor_source_rank_1, infor_source_rank_2, infor_source_rank_3 What is the primary source of information related to pregnancy?	Government source of Information (1) = If infor_source_rank_1 OR infor_source_rank_2 OR infor_source_rank_3 = 2 (ANMs), 3 (ASHAs), 4 (AWWs) Otherwise (0) - If infor_source_rank_1 OR infor_source_rank_2 OR infor_source_rank_3 = 1 (Doctor), 5 (Mother-in-law), 6 (Other relatives), 7 (Previous experience), 8 (None), -88 (Don't know/ Can't say), -99 (Refused to answer)
	trust_in_info - On a scale of 1-5, how much do you trust the pregnancy-related information received from your primary source?	Trust (1) - If trust_in_info = 4 (trust), 5 (highly trust) Otherwise (0) - If trust_in_info = 1 (highly distrust), 2 (distrust), 3 (neither trust nor distrust)

<p>Family support</p>	<p>mil_support - How much support do you receive from your mother-in-law generally?</p> <p>husband_support - How much support do you receive from your husband generally?</p> <p>helpfulness_of_support - How helpful is their support?</p>	<p>Quantity of the Mother-in-law's support: Support (1) - If mil_support = 2, 3, 4 or 5 (A lot of Support)</p> <p>No Support (0) - If mil_support = 1 (No support)</p> <p>Quantity of the husband's support: Support (1) - If husband_support = 2, 3, 4 or 5 (A lot of Support)</p> <p>Otherwise (0) - If husband_support = 1 (No support)</p> <p>Quality of the support: Helpful (1) - If helpfulness_of_support = 2, 3, 4 or 5 (Very helpful)</p> <p>Not Helpful (0) - If helpfulness_of_support = 1 (Not helpful at all)</p>
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3.2 Quantitative Model Specifications

In order to answer our research question for each intervention, we will be using the following quantitative models:

1. We will use **OLS regression** for the following **continuous** variables:
 - a. Primary outcome variables:
 - i. Total consumption
 - ii. Adherence to total consumption
 - iii. Adherence in the previous week
 - b. Secondary outcome variables:
 - i. Knowledge about symptoms of anemia
 - ii. Knowledge about risk of anemia
 - iii. Knowledge about side effects of the tablet
 - iv. Value perception of IFA tablets
2. We will be testing two models: **Ordered Logistic Regression (Logit) Regression** for the following variables in their **ordinal** and **Probit Regression** for the following variable in their **binary categorical** variables:
 - a. Secondary outcome variables:
 - i. Risk perception of anemia
 - ii. Threat perception of non-consumption to self
 - iii. Threat perception of non-consumption to child
 - iv. Intention to consume IFA tablets

3.3 Treatment Effects

3.3.1 Balance Checks

We will check for **balance between treatment and control groups for baseline measures** that may be correlated with IFA tablet consumption.

X_i will be the baseline measures of interest. We will perform this exercise for all three of our interventions: IVRS Reminders, Phone Counselling + SMS Prescription and Phone Counselling + Visual Reinforcement.

$$X_i = \alpha + \beta * treatment_assigned_i + \gamma * demographic_covariates_i + \zeta * whatsapp_user_strata_i + \omega * administrative_block_i + \delta * pregnancy_gravidity_i + \eta * pregnancy_covariates + \varepsilon$$

Where:

$treatment_assigned_i$ = categorical variable, where 1 = IVRS Reminders, 2 = Phone Counselling + SMS Prescription, 3 = Phone Counselling + Visual Reinforcement, 4 = Priming with a health/strength related name and 5 = Priming with a non- health/strength related name

$whatsapp_user_strata_i$ = categorical variable, where 0 = Feature Phone User, 1 = Direct Whatsapp User and 2 = Vicarious Whatsapp User

$administrative_block_i$ = categorical variable (indicating the administrative block the pregnant woman resides in) - used in stratified randomization

$pregnancy_gravidity_i$ = discrete variable (indicating the number of time the pregnant woman has been pregnant previously) - used in stratified randomization

3.3.2 Model for IVRS Reminders

$$M1 : Y_i = \alpha + \beta * treatment_assigned_i + \zeta * whatsapp_user_strata_i + \omega * administrative_block_i + \delta * pregnancy_gravidity_i + \gamma * demographic_covariates_i + \eta * pregnancy_covariates + \varepsilon$$

$$M2 : Y_i = \alpha + \beta_1 * treatment_assigned_i + \beta_2 * ivrs_delivered_i + \beta_3 * ivrs_duration_i + \zeta * whatsapp_user_strata_i + \omega * administrative_block_i + \delta * pregnancy_gravidity_i + \gamma * demographic_covariates_i + \eta * pregnancy_covariates + \kappa * baseline_measures_i + \varepsilon$$

$$M3 : Y_i = \alpha + \beta_1 * treatment_assigned_i + \beta_2 * ivrs_delivered_i + \beta_3 * ivrs_duration_i + \theta_1 * ivrs_listened_i + \theta_2 * ivrs_recall_received_i + \theta_3 * ivrs_recall_message_i + \theta_4 * treatment_understood_i + \zeta * whatsapp_user_strata_i + \omega * administrative_block_i + \delta * pregnancy_gravidity_i + \gamma * demographic_covariates_i + \eta * pregnancy_covariates + \kappa * baseline_measures_i + \varepsilon$$

Y_i are the outcome measures, as indicated in Table 4, 5, 6, 7 - *It will be a sub-group analysis for Table 5, due to limited photo data*

$treatment_assigned_i$ is a dummy variable based on whether the subject was assigned to IVRS reminders (1) or control (0)

$demographic_covariates_i$ and $pregnancy_covariates_i$ are demographic and pregnancy-related control variables.

As mentioned in the previous section, we expect that any improvement in individual behaviour will depend on baseline measurement of the respective behavior, and we control for baseline measurement of the outcome of interest in Model 2 and 3.

In Model 2, we also control for treatment delivery, along with treatment assigned.

In Model 3, we also control for treatment recall and comprehension along with treatment assigned and treatment delivery.

Note:

1. For the Knowledge of Side-effects outcome variable, we will also control for consumption of IFA tablets.
2. For Attitude outcome variables, we have two Models and two corresponding ways to construct the variables. We will be running both the models and running a chi-square test to see if the two distributions are equal.

3.3.3 Models for Phone Counselling + SMS Prescription

$$M1 : Y_i = \alpha + \beta * treatment_assigned_i + \zeta * whatsapp_user_strata_i + \omega * administrative_block_i + \delta * pregnancy_gravidity_i + \gamma * demographic_covariates_i + \eta * pregnancy_covariates_i + \varepsilon$$

$$M2 : Y_i = \alpha + \beta_1 * treatment_assigned_i + \beta_2 * pc_delivered_i + \beta_3 * sms_delivered_i + \zeta * whatsapp_user_strata_i + \omega * administrative_block_i + \delta * pregnancy_gravidity_i + \gamma * demographic_covariates_i + \eta * pregnancy_covariates_i + \kappa * baseline_measures_i + \varepsilon$$

$$M3 : Y_i = \alpha + \beta_1 * treatment_assigned_i + \beta_2 * pc_delivered_i + \beta_3 * sms_delivered_i + \theta_1 * pc_recall_received_i + \theta_2 * pc_recall_message_i + \theta_3 * sms_recall_received_i + \theta_4 * sms_recall_message_i + \theta_5 * treatment_understood_i + \theta_6 * sms_used_i + \zeta * whatsapp_user_strata_i + \omega * administrative_block_i + \delta * pregnancy_gravidity_i + \gamma * demographic_covariates_i + \eta * pregnancy_covariates_i + \kappa * baseline_measures_i + \varepsilon$$

Y_i are the outcome measures, as indicated in Table 4, 5, 6, 7 - *It will be a sub-group analysis for Table 5, due to limited photo data*

$treatment_assigned_i$ is a dummy variable based on whether the subject was assigned to Phone Counselling + SMS Prescription (1) or control (0)

$demographic_covariates_i$ and $pregnancy_covariates_i$ are demographic and pregnancy-related control variables.

As mentioned in the previous section, we expect that any improvement in individual behaviour will depend on baseline measurement of the respective behavior, and we control for baseline measurement of the outcome of interest in Model 2 and 3.

In Model 2, we also control for treatment delivery, along with treatment assigned.

In Model 3, we also control for treatment recall and comprehension along with treatment assigned and treatment delivery.

Note:

1. *For the Knowledge of Side-effects outcome variable, we will also control for consumption of IFA tablets.*
2. *For Attitude outcome variables, we have two Models and two corresponding ways to construct the variables. We will be running both the models and running a chi-square test to see if the two distributions are equal.*

3.3.4 Models for Phone Counselling and Visual Reinforcement

$$M1 : Y_i = \alpha + \beta * treatment_assigned_i + \zeta * whatsapp_user_strata_i + \omega * administrative_block_i + \delta * pregnancy_gravidity_i + \gamma * demographic_covariates_i + \eta * pregnancy_covariates_i + \varepsilon$$

$$M2 : Y_i = \alpha + \beta_1 * treatment_assigned_i + \beta_2 * pc_delivered_i + \beta_3 * vr_delivered_i + \zeta * whatsapp_user_strata_i + \omega * administrative_block_i + \delta * pregnancy_gravidity_i + \gamma * demographic_covariates_i + \eta * pregnancy_covariates_i + \kappa * baseline_measures_i + \varepsilon$$

$$M3 : Y_i = \alpha + \beta_1 * treatment_assigned_i + \beta_2 * pc_delivered_i + \beta_3 * vr_delivered_i + \theta_1 * pc_recall_received_i + \theta_2 * pc_recall_message_i + \theta_3 * vr_recall_received_i + \theta_4 * vr_recall_message_i + \theta_5 * treatment_understood_i + \zeta * whatsapp_user_strata_i + \omega * administrative_block_i + \delta * pregnancy_gravidity_i + \gamma * demographic_covariates_i + \eta * pregnancy_covariates_i + \kappa * baseline_measures_i + \varepsilon$$

Y_i are the outcome measures, as indicated in Table 4, 5, 6, 7 - *It will be a sub-group analysis for Table 5, due to limited photo data*

$treatment_assigned_i$ is a dummy variable based on whether the subject was assigned to Phone Counselling + Visual Reinforcement (1) or control (0)

$demographic_covariates_i$ and $pregnancy_covariates_i$ are demographic and pregnancy-related control variables.

As mentioned in the previous section, we expect that any improvement in individual behaviour will depend on baseline measurement of the respective behavior, and we control for baseline measurement of the outcome of interest in Model 2 and 3.

In Model 2, we also control for treatment delivery, along with treatment assigned.

In Model 3, we also control for treatment recall and comprehension along with treatment assigned and treatment delivery.

Note:

1. *For the Knowledge of Side-effects outcome variable, we will also control for consumption of IFA tablets.*
2. *For Attitude outcome variables, we have two Models and two corresponding ways to construct the variables. We will be running both the models and running a chi-square test to see if the two distributions are equal.*

3.3.5 Models for Name Priming Sub-Experiment

$$M1: Y_i = \alpha + \beta_1 * treatment_assigned_i + \beta_2 * pc_delivered_i \\ + \zeta * whatsapp_user_strata_i + \omega * administrative_block_i + \delta * pregnancy_gravidity_i \\ + \gamma * demographic_covariates_i + \eta * pregnancy_covariates + \varepsilon$$

$$M2: Y_i = \alpha + \beta_1 * treatment_assigned_i + \beta_2 * pc_delivered_i \\ + \zeta * whatsapp_user_strata_i + \omega * administrative_block_i + \delta * pregnancy_gravidity_i \\ + \gamma * demographic_covariates_i + \eta * pregnancy_covariates + \kappa * baseline_measures_i + \varepsilon$$

$$M3: Y_i = \alpha + \beta_1 * treatment_assigned_i + \beta_2 * pc_delivered_i + \theta_1 * pc_recall_received_i \\ + \theta_2 * pc_recall_message + \theta_3 * treatment_understood_i \\ + \zeta * whatsapp_user_strata_i + \omega * administrative_block_i + \delta * pregnancy_gravidity_i \\ + \gamma * demographic_covariates_i + \eta * pregnancy_covariates + \kappa * baseline_measures_i + \varepsilon$$

Y_i are the outcome measures, as indicated in Table 4, 5, 6, 7

$treatment_assigned_i$ is a dummy variable based on whether the subject was primed with a health/strength related names (1) or whether the subject was primed with a non-health/strength related names (0)

In Model 2, we also control for the delivery of phone counselling.

In Model 3, we also control for recall and comprehension of phone counselling. along with its delivery.

3.4 Attrition

To check if respondents who have dropped out of the study sample are balanced by treatment arms, we will run the balance check using 'individuals attrited from sample' as our outcome measure. This model should tell us if any of our baseline outcome variables, or the treatment assignment, or randomization strata can predict whether a participant has dropped out between baseline and endline. We intend to use the $ifa_consumption_past_week$ from our baseline.

$$Z_i = \alpha + \beta * treatment_assigned_i + \kappa * bl_ifa_consumption_past_week_i \\ + \zeta * whatsapp_user_strata_i + \omega * administrative_block_i + \delta * pregnancy_gravidity_i + \varepsilon$$

Z_i is a binary variable indicating if respondent i has left the sample by Endline

5. References

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6. Appendix

6.1 Randomization

Actual Sample Distribution (after Randomization)						
	Whatsapp Users (Direct) (1)	Whatsapp Users (Vicarious) (2)		Feature phone Users (0)	Total	
Total	255	197	583	894	1929	
Treatment Arms	Experiment 1a		Experiment 1b		Total	
	Smartphone Users			Feature phone Users		
	Whatsapp Users (Direct)	Whatsapp Users (Vicarious)	Whatsapp Users (Vicarious)		Experiment t 1b	Experiment t 1a
Control (To)	130	194		298	324	492

IVRS Reminders (T1)	-	-	195	297	-	492
Phone Counselling (Risk) + SMS Prescription (T2)	-	-	194	299	-	493
Phone Counselling (Risk) + Visual Reinforcement (T3)	125	197	-	-	322	-
Total					646	1477
Names representing Health / Strength (T4)	62	195	150	407		
Names not representing Health / Strength (T5)	63	196	149	408		

6.2 Intervention Prototypes

6.2.1 Phone Counselling Script

Headings	Script	Answers
Greetings	नमस्ते। Hello!	
	<p>अगर गर्भवती के अलावा कोई और घर का सदस्य फ़ोन उठाये:</p> <p>मैं सेंटर फॉर सोशल बेहेवियर एंड चेंज से बात कर रही हूँ। हम ज़िला स्वास्थ्य विभाग के साथ स्वास्थ्य सम्बन्धी विषय पर काम करते हैं। आपके घर में जो गर्भवती महिला हैं, मैं उनसे उनकी गर्भावस्था में उनके और उनके होने वाले बच्चे के स्वस्थ-सम्बंधित कुछ बात करना चाहती हूँ। क्या वह फ़ोन पर आ सकती हैं?</p> <p>I am calling from the Center for Social and Behavior Change, we are a research center working on health related issues with the District Health Department. I am calling to talk to the pregnant woman in your household about her and her child's health. Is she available to talk now?</p> <p>→ If the answer is 1, go to introduction</p> <p>→ If the answer is 2, "आपको परेशान करने के लिए क्षमा चाहते हैं।"</p>	<ol style="list-style-type: none"> 1. Yes 2. No, wrong number 3. No, the required participant is not available right now

	<p>अपना समय देने के लिए धन्यवाद।"</p> <p>→ If the answer is 3, "क्या कोई अन्य समय है जब हम फ़ोन कर सकते हैं?" उनसे बात करने के लिए सबसे सुविधाजनक समय क्या होगा?"</p>	
START CODING FROM HERE		
<p>Introduction</p> <p>परिचय</p>	<p>अगर गर्भवती फ़ोन उठाये:</p> <p>मैं सेंटर फॉर सोशल एंड बेहवियर चेंज से बात कर रही हूँ। हम ज़िला स्वास्थ्य विभाग के साथ स्वास्थ्य सम्बन्धी विषय पर काम करते हैं। सबसे पहले, इस खुशी के अवसर पर आपको मेरी तरफ से बधाई। मैं आपसे आपकी गर्भावस्था में आपकी और आपके होने वाले बच्चे के स्वस्थ-सम्बंधित कुछ बात करना चाहती हूँ</p> <p>I am calling from the Center for Social and Behavior Change, we are a research center working on health related issues with the District Health Department. First of all, congratulations from side on your pregnancy! We wanted to ask you a few questions about your pregnancy.</p>	
<p>Informed Consent</p> <p>सूचित सहमति</p>	<p>यह एक छोटा सा सर्वेक्षण है जिस में आपकी भागीदारी काफी मददगार होगी। आपके उत्तर गोपनिये रखे जायेंगे और किसी को बताये नहीं जायेंगे। इस सर्वेक्षण में भाग लेने से आपको अपने और आपके होने वाले बच्चे के स्वास्थ्य के बारे में ज़रूरी जानकारी मिलेगी। आप बिना किसी झिझक के, किसी भी समय, इस चर्चा से अपनी भागीदारी वापस ले सकती हैं। तो क्या आप मुझसे बात करना चाहेंगी?</p> <p>This is a small survey for which your help will be very useful. To note all your responses would be kept confidential and not shared with anyone. Taking part in this survey will provide important information for you and your child. You can withdraw your participation from the study at any given time without any form of penalty. Do you consent to participate in the discussion?</p> <p>→ If the answer is 1, go to participant_name_1</p> <p>→ If the answer is 2, go to thank_you</p>	<p>1. Yes</p> <p>2. No</p>
<p>participant_name_1</p>	<p>मेरा नाम (____) है। क्या मैं आपका नाम जान सकती हूँ?</p> <p>My name is (____). Can I please know your name?</p> <p>→ If the answer is 1, go to participant_name_2</p> <p>→ If the answer is 2, go to participant_name_3</p>	<p>1. Name: _____</p> <p>2. Does not answer</p>
<p>participant_name_2</p>	<p>अगर वह अपना नाम बताती हैं:</p> <p>If they say their own name.</p> <p>यह तो काफी अच्छा/अलग नाम है।</p> <p>This name is quite unique/good.</p>	

participant_name_3	<p>अगर वह अपना नाम नहीं बताती है:</p> <p>मैं आपको क्या बुला सकती हूँ? How may I refer to you?</p>	Name: _____
participant_name_meaning	<p>इसका मतलब क्या है? आपके गाँव में यह आम है? रोज़ाना चर्चा का विषय है?</p> <p>What does this name mean? Is this name common in your village?</p> <p>→ Randomly assign, to baby_name_question_health or baby_name_question_nonhealth</p>	
baby_name_question_health	<p>आपके गाँव में और कौन से नाम होते हैं? खास कर के बच्चों के लिए? बच्चों को किस किस्म के नाम दिए जाते हैं?</p> <p>What names do you have in your village? Especially, for children?</p> <p>अच्छा, आपके गाँव में बच्चों के नाम अक्सर कैसे होते हैं?</p> <p>What are the children in your village usually called?</p> <p>→ If the answer is 1, go to baby_name_choice_healthhindi → If the answer is 2, go to baby_name_choice_healthurdu</p>	<p>Select Names:</p> <ol style="list-style-type: none"> 1. Hindi 2. Urdu
baby_name_choice_healthhindi	<p>बहुत जल्द आपको भी अपने आने वाले बच्चे के लिए एक नाम सोचना होगा। You'll soon have to pick a name for your new son or daughter.</p> <p>लड़की के लिए, आपने (आयुषी) नाम सुना है? इसका मतलब होता है (स्वस्थ लम्बी उम्र)। Have you considered Ayushi? It means _____. That's a good thing for people to be these days!</p> <p>लड़के के लिए, आपने (आयुष) नाम सुना है? इसका मतलब होता है (स्वस्थ लम्बी उम्र)। Have you considered Ayush? It means _____. That's a good thing for people to be these days!</p> <p>आजकल यह नाम काफी फैशन में है।</p>	
baby_name_choice_healthurdu	<p>बहुत जल्द आपको भी अपने आने वाले बच्चे के लिए एक नाम सोचना होगा। You'll soon have to pick a name for your new son or daughter.</p> <p>लड़की के लिए, आपने (सलीमा) नाम सुना है? इसका मतलब होता है (सलामत / स्वस्थ)। Have you considered Saleema? It means _____. That's a good thing for people to be these days!</p>	

	<p>लड़के के लिए, आपने (सलीम) नाम सुना है? इसका मतलब होता है (सलामत / स्वस्थ)। Have you considered Saleem? It means _____. That's a good thing for people to be these days!</p> <p>आजकल यह नाम काफी फैशन में है।</p>	
baby_name_question_nonhealth	<p>आपके गाँव में और कौन से नाम होते हैं? खास कर के बच्चों के लिए? बच्चों को किस किस नाम दिए जाते हैं? What names do you have in your village? Especially, for children? What kind of name is given to children?</p> <p>अच्छा, आपके गाँव में बच्चों के नाम अक्सर कैसे होते हैं? What are the children in your village usually called?</p> <p>→ If the answer is 1, go to baby_name_choice_nonhealthhindi → If the answer is 2, go to baby_name_choice_nonhealthurdu</p>	<p>Select Names:</p> <ol style="list-style-type: none"> 1. Hindi 2. Urdu
baby_name_choice_nonhealth_hindi	<p>बहुत जल्द आपको भी अपने आने वाले बच्चे के लिए एक नाम सोचना होगा। You'll soon have to pick a name for your new son or daughter.</p> <p>लड़की के लिए, आपने (अदिति) नाम सुना है? इसका मतलब होता है (असीम)। Have you considered Aditi? It means _____. That's a good thing for people to be these days!</p> <p>लड़के के लिए, आपने (आदित्य) नाम सुना है? इसका मतलब होता है (उज्ज्वल)। Have you considered Aditya? It means _____. That's a good thing for people to be these days!</p> <p>आजकल यह नाम काफी फैशन में है।</p>	
baby_name_choice_nonhealth_urdu	<p>बहुत जल्द आपको भी अपने आने वाले बच्चे के लिए एक नाम सोचना होगा। You'll soon have to pick a name for your new son or daughter.</p> <p>लड़की के लिए, आपने (अलीना) नाम सुना है? इसका मतलब होता है (सुन्दर)। Have you considered Alina? It means _____. That's a good thing for people to be these days!</p> <p>लड़के के लिए, आपने (आदिल) नाम सुना है? इसका मतलब होता है (नेक)। Have you considered Adil? It means _____. That's a good</p>	

	<p>thing for people to be these days!</p> <p>आजकल यह नाम काफी फैशन में है।</p>	
feeling	<p>अच्छा यह बताइए आप पिछले कुछ दिनों से कैसा महसूस कर रही हैं?</p> <p>Okay tell me, how have you been feeling for the past few days?</p>	
preg_change	<p>और हाल ही में आपने अपनी गर्भावस्था में क्या नए बदलाव आते देखे हैं?</p> <p>In the meantime, have you seen a change come in your pregnancy?</p>	
preg_change_pos	<p>इन में कौन से बदलाव अच्छे हैं?</p> <p>What out of these outcomes were good?</p> <p>इन में कौन से बदलाव फायदेमंद रहे आपके लिए?</p> <p>What out of these outcomes were helpful?</p>	
preg_change_neg	<p>क्या इन बदलावों से आपको कोई दिक्कत भी आयी है?</p> <p>Have these outcomes also had some problems associated with them?</p>	
anemia_risk_intro_1 अनीमिया का परिचय	<p>अच्छा देखिये, मैं आपको अनीमिया के बारे में थोड़ी जानकारी देना चाहती हूँ।</p> <p>Okay now, let me give you some information about anemia,</p>	
anemia_risk_intro_2 अनीमिया की जोखिम आधारित निर्धारण	<p>अनीमिया एक ऐसी शारीरिक अवस्था है जिससे आपको और आपके होने वाले बच्चे को खतरा हो सकता है। यह आपकी गर्भावस्था के दौरान कई परेशानियाँ खड़ी कर सकता है। यह आपके होने वाले बच्चे के स्वास्थ्य को प्रभावित कर सकता है। और यह आपके प्रसव (आपकी डिलीवरी) के दौरान परेशानी खड़ी कर सकता है।</p> <p>Anemia is a condition that you are at risk of. It can lead to very severe complications during your pregnancy - it can affect the health of your unborn child and also leads to possible complications during your delivery.</p>	
anemia_risk_intro_3 अनीमिया की व्याख्या	<p>दरअसल, अनीमिया शरीर में आयरन और हीमोग्लोबिन कि कमी के कारण होता है। इससे आपके शरीर में ऑक्सीजन कि कमी होती है जो आपके लिए और अधिक समस्याएं पैदा कर सकती है - क्योंकि प्रेगनेंसी के समय आपके शरीर को दो जानों के लिए ऑक्सीजन की ज़रूरत होती है।</p> <p>Anemia is caused by a depletion of iron and hemoglobin in the body. This leads to low oxygen in your body which can create more problems for you - as during your pregnancy, your body is providing oxygen to two lives.</p>	
anemia_knowledge_1	<p>क्या आपने वैसे अनीमिया के बारे में सुना है?</p> <p>Have you heard of anemia?</p> <p>→ If answer is 1, go to anemia_knowledge_2</p> <p>→ If answer is 2, go to consequences</p>	<p>1. Yes</p> <p>2. No</p>

<p>anemia_knowledge_2</p>	<p>और क्या आपको मालूम है यह आपकी गर्भावस्था पर कैसे असर डालता है? Do you know how it can affect your pregnancy?</p> <p>Note to the enumerator: List the other effects mentioned by the participant.</p>	<ol style="list-style-type: none"> 1. Miscarriage (गर्भपात) 2. Low birth weight (जन्म के वक्त, शिशु के वजन में कमी होना) 1. Physically weak child (शारीरिक रूप से कमजोर बच्चा) 2. Slow mental growth of child (बच्चे की धीमी मानसिक वृद्धि) 3. Birth deformities (जन्म विकृतियाँ) 4. Death of mother during childbirth (प्रसव के दौरान माँ की मृत्यु) 5. Early delivery (शीघ्र प्रसव) 6. Hemorrhage/excessive bleeding (अत्यधिक रक्तस्राव) 7. Others: _____ 88. Don't know
<p>consequences</p> <p>परिणाम</p>	<p>अनीमिया से शरीर को ऑक्सीजन मिलने में देरी हो सकती है जो आपके बच्चे के मानसिक और शारीरिक विकास पर असर डालती है। यह आपके स्वास्थ्य को भी प्रभावित करता है और गर्भावस्था के दौरान आपको खून की कमी हो सकती है। इलाज आसान है, खाने में विभिन्न प्रकार के लौह से भरपूर खाद्य पदार्थों का सेवन करें जैसे आसानी से मिलने वाली हरी पत्तेदार सब्जी, दाल, विटामिन सी से भरपूर फल जैसे आमला, अमरुद, निम्बू, इत्यादि। अगर आप मांसाहारी हैं तो मांस जैसे चिकन, अंडे, मछली इत्यादि का सेवन जरूर करें। सबसे जरूरी सरकार द्वारा प्रबंधित आयरन फोलिक एसिड की गोली का सेवन करें जिससे अनीमिया से छुटकारा मिल सकता है।</p> <p>Anemia could cause oxygen delays which could affect your child's mental and physical development. It also affects your health and can cause you to have excessive blood loss during pregnancy.</p>	
<p>IFA_reasoning</p> <p>IFA का सेवन</p>	<p>आयरन और फोलिक एसिड की गोलियों के नियमित सेवन से आप इन जोखिमों से खुद को बचा सकती हैं, सुरक्षित गर्भावस्था पा सकती हैं और स्वस्थ बच्चे को जन्म दे सकते हैं।</p> <p>Through regular consumption of Iron & Folic Acid tablets, you can save yourself from these risks and have a safe</p>	

	pregnancy and give birth to a healthy child.	
cure_ifa_reason IFA टैब्लेट क्यों लें?	<p>आयरन की गोलियां आपको सही हीमोग्लोबिन स्तर बनाये रखने में मदद करती हैं और फोलिक एसिड आपके बच्चे के मानसिक विकास में मदद करता है।</p> <p>Iron tablets help you have the right Hb level and folic acid helps your child's mental development</p>	
ifa_instructions IFA टैब्लेट के सेवन हेतु निर्देश	<p>आप आई एफ ए , यानी आयरन और फोलिक एसिड की टैब्लेट, रात का खाने के दो घंटे बाद, सोने से पहले सादे पानी या निम्बू पानी के साथ ले सकती हैं। जब आप टैब्लेट लेना शुरू करेंगी, तो आपको कुछ असर महसूस होंगे, जैसे पेट में मरोड़े पड़ना या उबकाई आना। ऐसा होना आम है और ३ - ७ दिन तक गोली लेते रहने के बाद आप की तबियत वापस नार्मल हो जाएगी।</p> <p>गोली लेने के बाद लैट्रिन का रंग काला हो सकता है। डरिये नहीं: इसका मतलब है की आपकी टैब्लेट असर कर रही है और उस में आयरन की अच्छी मात्रा है। चिंता की कोई बात नहीं है।</p> <p>You can consume your IFA tablets 2 hours after dinner before going to bed at night with a glass of water or lime water. When you start taking your IFA tablets you may experience a few side-effects such as stomach cramps or nausea. These are normal effects of the tablet and go away after 3-7 days of regular consumption.</p> <p>You may pass black stool after consuming the tablets. This means that your tablets are genuine and there was a good amount of iron in the tablets. None of these are things to worry about.</p>	
other_questiosn	<p>क्या आपके पास मेरे लिए कोई प्रश्न है? क्या आप इस बारे में कुछ पूछना चाहेंगी?</p> <p>Do you have any questions for me?</p>	
thank_you	<p>आज हमसे बात करने के लिए अपना समय निकालने के लिए आपका धन्यवाद।</p> <p>Thank you for taking the time to speak to us today.</p>	

6.2.2 SMS Prescription

Sent for 4 days (1st - 1 day after phone counselling, others - every 7 days after)

Hi, please find here a copy of your prescription based on your phone consultation today

Name:

Age:

Month of pregnancy:

Elemental Iron + Folic Acid, sugar-coated, red colour

Two hours after eating dinner, consume a tablet daily with a glass of water or lime water.

When you start taking your IFA tablets you may experience a few side-effects such as stomach cramps or nausea or the passing of black stools.

This means that your tablets are working and there was a good amount of iron in the tablets.

These are normal effects of the tablet and go away after 3-7 days of regular consumption.

Please check your Hb level from your MCP card and refer below

Hb 11 and above: Please consume tablet daily

Hb 11 and below: Speak to your ASHA worker / ANM to get your dosage confirmed

Please reach out to your local FLHW for any additional information on your pregnancy

आपके दवा पर्चे की कॉपी:

नाम:

उम्र:

गर्भावस्था का महीना:

एलिमेंटल आयरन + फोलिक एसिड, लाल रंग

रात के खाने के दो घंटे बाद आयरन और फोलिक एसिड की गोली का, सादे पानी या नीम्बू पानी के साथ, रोज़ सेवन करें।

जब आप IFA गोली लेना शुरू करती हैं तो कुछ साइड-इफेक्ट्स जैसे पेट में मरोड़े, घबराहट, काला मल का अनुभव हो सकता है, इसका मतलब है की आपकी गोली असर कर रही है और उस में आयरन की अच्छी मात्रा है। यह इस गोली के सामान्य प्रभाव हैं और नियमित सेवन के 3-7 दिनों के बाद चले जाते हैं।

कृपया अपने मातृ एवं बाल सुरक्षा कार्ड से अपना हीमोग्लोबिन स्तर जांचें:

एच बी 11 या ज़्यादा: प्रतिदिन गोली का सेवन करें।

एच बी 11 या कम: अपनी आशा कार्यकर्ता/ एएनएम से अपनी खुराक की पुष्टि करें।

गर्भावस्था से जुड़ी किसी भी जानकारी के लिए अपने स्थानीय स्वास्थ्य कार्यकर्ता से संपर्क करें।

6.2.3 Visual Reinforcement

Sent for 4 days (1st - 1 day after phone counselling, others - every 7 days after)

WhatsApp Message 1: [Risk Framing Video](#)

WhatsApp Message 2: अनीमिया एक ऐसी शारीरिक अवस्था है जिससे आपको और आपके होने वाले बच्चे को खतरा हो सकता है। यह आपकी गर्भावस्था के दौरान कई परेशानियाँ खड़ी कर सकता है - आपके होने वाले बच्चे के स्वास्थ्य को प्रभावित कर सकता है और आपके प्रसव (आपकी डिलीवरी) के दौरान परेशानी खड़ी कर सकता है। सरकार द्वारा प्रबंधित आयरन फोलिक एसिड की गोली का सेवन करें जिससे अनीमिया से छुटकारा मिल सकता है।

Anemia is a condition that you are at risk of. It can lead to very severe complications during your pregnancy - it can affect the health of your unborn child and also leads to possible complications during your delivery. Consume the government provided Iron & Folic Acid tablets, to rid yourself of anemia.

WhatsApp Message 3: आयरन और फोलिक एसिड की गोलियों के नियमित सेवन से आप इन जोखिमों से खुद को बचा सकती हैं, सुरक्षित गर्भावस्था पा सकती हैं और स्वस्थ बच्चे को जन्म दे सकते हैं। आयरन की गोलियाँ आपको सही हीमोग्लोबिन स्तर बनाए रखने में मदद करती हैं और फोलिक एसिड आपके बच्चे के मानसिक विकास में मदद करता है।

Through regular consumption of Iron & Folic Acid tablets, you can save yourself from these risks and have a safe pregnancy and give birth to a healthy child. Iron tablets help you have the right Hb level and folic acid helps your child's mental development

WhatsApp Message 4: आप आयरन और फोलिक एसिड की टैब्लेट, रात के खाने के दो घंटे बाद, सोने से पहले सादे पानी या निम्बू पानी के साथ ले सकती हैं। जब आप टैब्लेट लेना शुरू करेंगी, तो आपको कुछ असर महसूस होंगे, जैसे पेट में मरोड़े पड़ना या उबकाई आना। ऐसा होना आम है और 3-7 दिन तक गोली लेते रहने के बाद आप की तबियत वापस नार्मल हो जाएगी। गोली लेने के बाद लैट्रिन का रंग काला हो सकता है। डरिये नहीं: इसका मतलब है की आपकी टैब्लेट असर कर रही है और उस में आयरन की अच्छी मात्रा है। चिंता की कोई बात नहीं है।

You can consume your IFA tablets 2 hours after dinner before going to bed at night with a glass of water or lime water. When you start taking your IFA tablets you may experience a few side-effects such as stomach cramps or nausea. These are normal effects of the tablet and go away after 3-7 days of regular consumption. You may pass black stool after consuming the tablets. This means that your tablets are genuine and there was a good amount of iron in the tablets. None of these are things to worry about.

6.2.4 IVRS Reminders

Sent for 13 days (first week continuously for 7 days and thereafter twice a week)

Introductory message (Differs daily)	
Message 1:	

इचक दाना बीचक दाना, आयरन की गोली भूल न जाना

Ichak Daana Beechak Daana, don't forget your iron pill

Message 2:

लल्ला लल्ला लोरी, आयरन की गोली

होने वाले बच्चे का है कहना

"माँ, सोने से पहले ज़रूर गोली लेना"

Little child's lullaby, iron pill

Child to be born says

"Mom, you must take the pill before you sleep"

Message 3:

फूलों का तारों का

सबका कहना है

आयरन की गोली को

रोज़ ज़रूर से लेना है

Flowers and stars

They all say

Iron tablets

Daily you must take

Message 4:

लकड़ी की काठी

काठी पे घोड़ा

शरीर में आयरन

ना पड़ जाये थोड़ा!

Frame made of wood

Horse on the frame

Iron in your body

Should never be low

Message 5:

छुक छुक छुक छुक रेल गाड़ी

आयरन की गोली रोज़ खानी

Chuk chuk chuk chuk goes the train

Iron tablets you must take

Message 6:

अक्कड़ बक्कड़ बम्बे बो
अस्सी नब्बे पूरे सौ
गर्भवती की खुराक में
आयरन की गोली ज़रूर हो

*Akkad Bakkad Bambay Bo
Assi nabbey Poore Sau
Pregnant woman's diet
Must consist of the iron pill*

Message 7:

एक चतुर नार
बड़ी होशियार
आयरन की गोली
जो लेती हर बार

*A clever woman
She is very smart
She takes her iron pill
Everytime*

Message 8:

सर जो तेरा चकराए?
या दिल डूबा जाये?
अरे! कहीं आयरन की गोली लेना भूल तो नहीं गयी?

*Feel your head is spinning?
Or your heart is sinking?
Oh, did you miss your iron pill?*

Message 9:

ना माँगूँ सोना चांदी
ना माँगूँ हीरा मोती
क्योंकि इन से ज़्यादा लाभ दायक है
आपकी रोज़ाना आयरन की गोली!

*I don't ask for silver and gold
I don't ask for diamonds and pearls
Because more beneficial than these
Is your daily iron pill!*

<p>Message 10:</p> <p>कभी कभी मेरे दिल में ख्याल आता है क्या मैं कुछ भूल रही हूँ? अरे! मेरी आयरन की गोली!</p> <p><i>Sometimes I wonder, Am i forgetting something? Oh! My iron pill!</i></p>
<p>Message 11:</p> <p>पोशम्पा भाई पोशम्पा आशा दीदी ने क्या कहा? गर्भवती को खबर है लाई क्या आपने आज आयरन की गोली खायी?</p> <p><i>Poshampa bhai poshampa What did Asha say? She has a message for the pregnant woman Did you take your iron pill today?</i></p>
<p>Message 12:</p> <p>गर्भवती माँ जब आयरन की गोली खाए, स्वस्थ जन्म को सफल बनाए। शरीर में खून की कमी होने के खतरे से अपने और अपने बच्चे को बचाये।</p> <p><i>When a pregnant mother consumes the iron pill, she ensures a healthy birth</i></p>
<p>Message 13:</p> <p>दादी - नानी ने भी मानी आयरन की गोली ज़रूरी से खानी।</p> <p><i>Mother-in-laws today are advising their pregnant daughters/daughters-in-law to take the IFA tablet daily during your pregnancy</i></p>

Base Message (Standard across all days)	Ladder message
<p>नमस्ते। यह सन्देश आपके परिवार की गर्भवती महिला के लिए है। जच्चा और बच्चा के स्वास्थ्य और स्वस्थ प्रसव के लिए आयरन की गोली रोज़ लें। हमें भरोसा है की आप अपना और अपने आने वाले बच्चे का पूरा ख्याल रख रही हैं। अगर आपने आज आयरन की गोली ले ली है तो कृपया एक दबाएं। अगर गोली अभी तक नहीं ली, तो दो दबाएं।</p> <p>"Namaste. This alert message is to remind the</p>	<p>IF they press 1</p> <p>बहुत खूब! सही समय पर आयरन की गोली खा कर अपने सही कदम उठाया है। गर्भावस्था में आयरन टेबलेट खाएं, जच्चा और बच्चा के स्वास्थ्य को सुरक्षित बनाएं।</p> <p>Well done, you took the right step today by taking the iron pill! Take this step daily in pregnancy, make your and your child's health safe. (The last</p>

<p>pregnant woman in your household to take her daily iron pill. We hope the expecting mother is taking full care of herself and her future child. If you have consumed the pill today to ensure a healthy delivery, press one, If not, press two.</p>	line is a couplet in Hindi)
	IF they press 2
	<p>खाने के दो घंटे बाद, आज सोने से पहले आयरन की गोली जरूर खाना! गर्भावस्था में आयरन टेबलेट खाएं, जच्चा और बच्चा के स्वास्थ्य को सुरक्षित बनाएं।</p> <p>Do eat the iron pill today before sleeping! Take this step daily in pregnancy, make your and your child's health safe. (The last line is a couplet in Hindi)</p>

6.3 Process for Study Area Selection

Step 1

Selection of 20 high-performing districts out of the total of 112 ADs

Source: Champions of Change data

Process: Calculating Sectoral (H&N) score improvement between June 18' to Nov'19 and selecting the top 20 districts that have shown the highest improvement

Output: UP (7 districts), MP (3 districts), Assam, Jharkhand, Chattisgarh & Punjab (1 district each), Odisha (4 district), Bihar (2 districts)

Step 2

Selection of 5 districts out of 20 from Step 1 for Lab-in-the-field or Field Evaluation

Source: Project implementation feasibility

Process:

1. Filtering on language: limiting to Hindi speaking states
2. Filtering on performance: removing districts which are close to saturation on identified indicators
3. Preference to NITI districts (as possible) - which allows for greater support from districts and availability of development partners

Output: MP: Barwani, Vidisha and Rajgarh, UP: Bahraich, Shravasti

Step 3

Shortlisting districts for the focus areas IFA supplementation

Source: NFHS IV (2015-16) data

Process: Shortlisting 2 out of 5 districts for the evaluation stage of the IFA supplementation pilot project, based on coverage performance of programs across specific indicators (data listed ahead).

State	District	Percentage of Mothers who consumed iron folic acid for 100 days or more when they were pregnant (NFHS, 2016)	Percentage of Pregnant women age 15-49 years who are anaemic (NFHS, 2016)
Uttar Pradesh	Bahraich	5.6%	50.3%
	Shrawasti	2.6%	39.9%
Madhya Pradesh	Barwani	20%	68.9%
	Vidisha	15.2%	55.5%
	Rajgarh	17.2%	62.5%
National average		30.3%	50.4%

**Validated survey data from ID Insight & Tata Trust - do not report on IFA pill consumption and incidence of anemia.*