Endline Survey – Methods Report
The Reduction in Anemia through Normative Innovations (RANI) Project

Background

The Reduction in Anemia through Normative Innovations (RANI) project is a norms-based intervention to reduce anemia among women of reproductive age in Odisha, India. The project was implemented in two blocks (Athamalik and Kishorenagar) in the Angul district of Odisha. We evaluated the RANI Project using a cluster randomized controlled trial (RCT) and longitudinal study design. In this design, villages were randomized on a 1:1 ratio to receive the treatment or continue with usual care (defined as the currently existing and ongoing efforts to reduce anemia in Odisha). Treatment is defined as exposure to one or more components of the RANI project. As this was a community-level intervention, we used a cluster design to prevent contamination across communities. Data collection occurred at three-time points: baseline, midline, and end line. The overall schema of the study design is depicted in Figure 1.

As per the study design, the baseline survey was conducted in 30 out of 89 clusters (i.e. 15 out of 50 intervention clusters and 15 out of 39 control clusters) during the month 13th July to 8th September 2019 (i.e. just before the implementation of the RANI project started). A list of these villages has been provided in Annexure 1. A total of 4,110 women between the ages of 15 and 49 residing in the treatment and control clusters were interviewed in the baseline. Of those who participated in the interview, the hemoglobin test and anthropometry (height and weight) measurements of 4,088 (excluding the refusals) and 3,895 (excluding the refusals and pregnant women) participants were conducted respectively. Besides, the baseline survey also conducted the work capacity assessment (Queens College Step Test); assessment of cognitive functioning (viz. Simon Task, SRT, Corsi Block Tapping test and Word Span test); and physical activity assessment (ActivPAL test) in the sub-cohort of 376 participants.

The implementation of the RANI project interventions was started soon after the baseline survey was over. The 1st follow-up round after the baseline survey also named as a midline survey, was carried out after 6 months of the project implementation. The midline survey data were collected over six weeks from January to March 2020. Out of a total of 4,110 women between the ages of 15 and 49 residing in the treatment and control clusters interviewed in the baseline, 3,995 participants could be interviewed. Of those who participated in the interview in the midline, the hemoglobin test and anthropometry (height and weight) measurements of 3,934 (excluding the refusals) and 3,791 (excluding the refusals and pregnant women) participants were conducted respectively. Like the baseline survey, the midline survey conducted work capacity assessment (Queens College Step Test); assessment of cognitive functioning (viz. Simon Task, SRT, Corsi Block Tapping test and Word Span test); and physical activity assessment (ActivPAL test) in the sub-cohort of 330 out of 376 participants covered in the baseline.

As per the plan, the 2nd follow-up round survey also named here as an endline survey was supposed to be conducted in a six months gap from the midline survey. But, due to COVID-19 pandemic, the endline survey was delayed by six months from the time when it was planned. The endline survey was carried-out exactly after one year from the midline survey. Like the midline survey, the endline survey data were

collected over six weeks from January to March 2021. Since this was another round of follow-up survey, we adopted the same methods and processes applied for conducting the baseline survey. This report presents the step-by-step processes and methods adopted for conducting the endline survey; and also presents the details about the coverage of study participants; and the challenges encountered by the survey team while conducting the endline survey.

Endline Survey: Steps and Procedures

Recruitment of Staff and Training: We engaged a team of 56 female data collectors, 8 female supervisors cum data quality assurance persons, and 8 male support staff for the endline survey. The 56 data collectors comprised 40 interviewers, 8 Lab Technicians, and 8 Physical test members. This entire team of these data collectors, quality assurance persons, and male support staff were divided into 8 sub-teams for the data collection.

Additionally, we engaged 4 Survey Coordinators for day-to-day monitoring and supervision of the survey. Apart from the above teams, the entire survey was managed and supervised by a core team consisted of 5 persons from DCOR. We also engaged exclusively 4 support staff for managing the field logistics and team movements.

Including the core team members of DCOR, a team of 85 persons was engaged in conducting the endline survey. Out of them, 37 were involved in the baseline and/or midline. The remaining 56 i.e. 63.6% had to be recruited afresh for the endline survey. Further to mention that, out of the 40 interviewers, 8 Lab Technicians, and 8 Physical test members engaged for the endline data collection, there were 14 interviewers, 1 Lab Technician, and 1 Physical test members engaged in the same position as they were in the baseline and/or midline.

The training of the endline survey team was conducted from January 24 to February 12, 2021. We conducted four-day training of the physical & cognitive test team (from January 24 to 27, 2021); six-day classroom training of the interviewers (from January 28 to February 02, 2020); and nine-day field testing cum practice and de-briefing (from February 04 to 12, 2019). Since many of them were new to the project, we conducted similar rigorous training of the endline survey team like baseline and midline.

COVID-19 Protocol followed during the training: The entire data collection team underwent antigen test facilitated by DCOR and were provided COVID-19 test certificate prior to the training started on January 24. None of them was found to be COVID positive, hence allowed to attend the in-person training. As per the protocol, temperature and oxygen level of all the team members were measured on daily basis throughout the training period. Each individual was provided a COVID-19 report card. Antigen test result and daily temperature and oxygen level were recorded in the report card. In order to prevent any intra team contamination, we conducted the training in a large conference hall with good ventilation. Wearing of masks, frequent hand washing and sanitization, and social distancing was ensured throughout the training.

Preparation of the List of Study Participants: As per the study design, the same 4,110 households covered in the baseline had to be revisited for their interviews, hemoglobin tests and anthropometric measurements at the endline survey. The physical and cognitive tests conducted in a sub-cohort of 376 women in baseline had to be also re-administered the same at the endline. Hence, prior to the start of the endline data collection, we prepared the list of all the 4,110 participants with their identification information from the baseline database. The list included identification details of the participants viz. names of the participants; head of the household names; cluster codes; village names & codes; hamlet names; and telephone numbers to enable the survey team to correctly locate and identify the same respondents who were interviewed during the baseline. A similar list of 376 women, who participated in the physical and cognitive tests conducted in the baseline, was also prepared.

Confirmation of the Study Participants: The Supervisor cum Data Quality Assurance persons of the 8 field teams were engaged to correctly locate and identify the participants given in the list. The same list was also provided to all the team members to assist the supervisors for correct identification and confirmation of the participants. The following step by step processes was adopted for doing this.

i) First, we checked and confirmed the names; head of the household names; village names & codes; hamlet names; and telephone numbers given in the list by verifying with the concerned participants.
ii) Aadhaar card[1] of the respondents was verified to know that the person we identified for the interview bears the same name and other identification details given in the list.
iii) We also checked with the respondents that they had participated in the interview; hemoglobin tests; height & weight measurements held with them in the baseline (i.e. in the month August and September, 2019) and midline (i.e. in the month February and March, 2020)
iv) Apart from these steps, we also asked the participants to show the signed consent form provided to them during the baseline and midline, which was also used as another step for the confirmation of the study participants. The survey team found that most of the study participants, even after one and half year of completion of baseline could show the consent form to the interviewers. Those who could not show, the interviewers confirmed that they received the same during the baseline and midline.

COVID-19 Protocol followed during the data collection: COVID-19 Awareness Pamphlet, Mask, Sanitizer

1. Prior to the data collection under COVID 19 guidelines the respective coordinator monitored the oxygen level and body temperature of each research investigators, which was recorded in the Health screening report carried by each individual investigator.
2. The whole field investigation team were wearing the mask all the time and carried a hand sanitizer and used it in a regular interval.

[1] Aadhaar is a verifiable 12-digit identification number issued by Unique Identification Authority of India (UIDAI) to the resident of India for free of cost. Aadhaar is for every Resident of India. From a newborn to a senior citizen, everyone is enrolled under Aadhaar. Apart from identification number, Aadhaar card provides photo identity, date of birth and gender of a person.

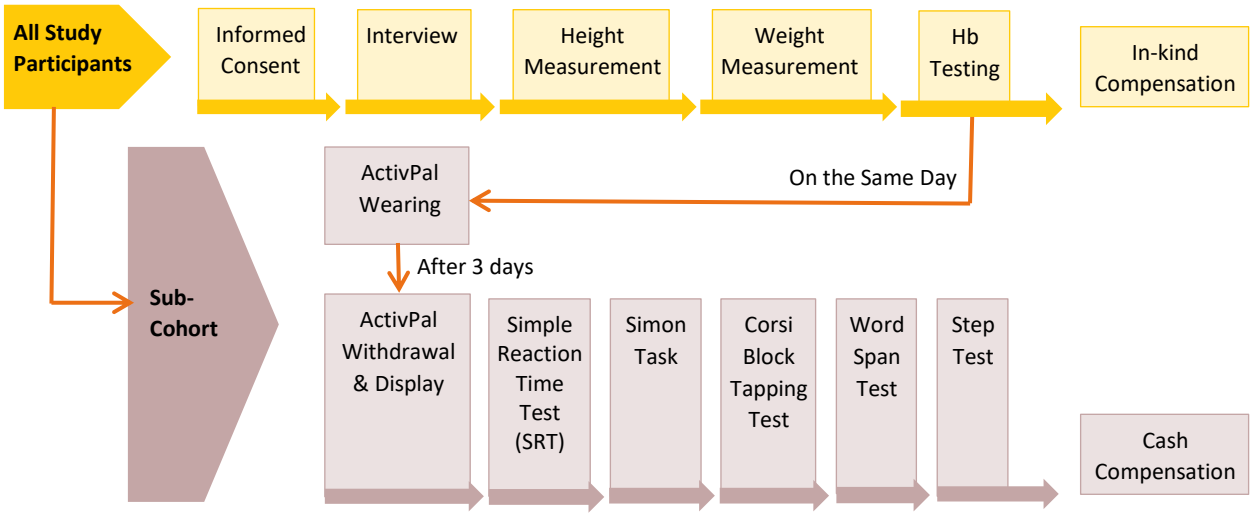
3. During traveling to/from the field the investigators including the driver wore mask and maintained a safe distance from each other while sitting in the vehicle.
4. After arriving at the community the investigators showed their Health screening report to the AWW and got a confirmation from them to continue with their data collection.
5. While travelling through the community a safer distance was maintained from the members of the community.
6. The body temperature of the participants was monitored using an Infrared Thermometer and the participants with normal body temperature were selected for the interview.
7. The field investigators carried extra masks with them and gave it to the respondent and instructed them to wear it throughout the interviews.
8. Following the protocols, the investigators were avoiding unnecessary gathering during the interview.
9. The investigators were conducting the interviews in outdoors/a well-ventilated space.
10. While interviewing, the investigators were also avoiding any physical contact with the respondent or any other family members of the respondent like; small kids or elders and also took other necessary precautionary measures to minimize the risk of exposure to COVID 19 virus.
11. After returning from the field, the field investigators took a shower and washed their cloths and sanitized all their belongings which they carried to the field.
12. The investigators were also living in separate rooms and during any group discussion or meeting they wore masks and obeyed social distancing norms.

Participant Consent and Confidentiality: Like the baseline and midline, prior informed consent was again obtained in Odia by the data collectors for the endline data collection. In the case of participants under the age of 18 years, written permission of one parent or legal guardian and assent of the participants were obtained. All data from participants were de-identified by the local principal investigator and stored in secure, password-protected computers that only the study team and its affiliates have access to.

Data Collection Methods and Coverage of the Study Participants: The methods used for the endline data collection remained the same as the baseline and midline, which are as follows:

- Structured interview
- Hemoglobin test using HemoCue
- Anthropometry (height and weight) measurements
- Work capacity assessment adapting Queens College Step Test
- Computerized (viz. Simon Task and SRT) and non-computerized tests for the assessment of cognitive functioning (viz. Corsi Block Tapping test and Word Span test)
- Assessment of physical activity using ActivPAL test

The sequential order in which these methods were administered to the study participants is presented below in the flow-chart.



Specific details about the data collection processes and methods adopted in the endline survey are presented hereunder:

Interview: The endline survey team visited all the 4,110 participants for conducting the interviews with them. Out of the 4,110 participants approached, 3,789 participated in the interview. The response rate for participation in the interview was 92.2%. The remaining 321 did not participate, resulted in 7.8% attrition. The majority of these i.e. 304 could not be interviewed as they were absent at the time when the survey team visited their homes in the village. We declared them as non-response after taking three visits to their homes for conducting the interviews.

Even though all the 4,110 participants consented to be part of the 3 rounds of the survey at the baseline, 8 of them refused to participate in the endline survey. The various reasons cited by them for not participating in the survey are as follows:

1. Maximum of them denied to participate in the survey because of the restrictions by their family members. They felt that the survey does not carry any value and benefit to them, despite the interviewers repeatedly explained to them the objectives & purpose of the survey; and the in-kind compensation to be provided for sparing their time for the survey.
2. Because of the busy job schedules, few of them expressed their inability to participate in the survey. They did not even agree to the interviewer's request to visit them at a later date and/or time suitable to participate in the survey.
3. Some participants did not give time as they had to go to their relative's house to attend the marriage ceremony. Normally, any marriage ceremony in rural Odisha continues for 7 consecutive days.
4. Few of them mentioned, they need not have to participate in the survey as they are economically and health-wise sound and do not have any problem. They remained quite persistent with such views even after explaining the need of participating in the survey.
5. Two participants refused to participate in the survey due to their feeling of caste discrimination with the survey team.

- There were 2 respondents who refused to give their consent were found to be intolerant of the menial caste families lived in the village. As our interviewers went to their houses to conduct interviews they were restricted to set foot in the peripheral, upon asking the reason they were told that they have made contact with the untouchables hence they are prohibited to enter in to their homes.
- After being unheard the interviewers contacted their respective coordinators/supervisors who insisted an alternative to interview the respondents outdoors or in a space of the respondent's liking, but still were refused because the respondents believed that any physical or verbal association with the lower caste groups is unacceptable in their culture and rejected to give consent.
- With a hopeful gesture the coordinators tried to convince their husbands and elders of the family but the result was still the same.

6. One participant refused and cited that she is a doctor and she need not require to participate in the survey. Although, after a lot of persuasions, she gave consent to participate during the baseline survey, she refused to participate this time in the endline survey.
7. And a few of them didn't participate in fear of Corona spread due to gathering or physical contact

Apart from these above reasons of non-participation, 6 participants could not be surveyed due to their deaths and 3 were excluded because of health problems like mental illness, hearing problem and paralysis.

Like the midline survey, the endline survey administered a full-set of the questionnaire to all the 3,789 participants Out of 4110 households covered in Baseline, 3,789 participated in the interview, 286 participants were found to be permanently absent, only 18 were found to be temporarily absent, 8 of them refused to participate in the survey, 3 participants were found to be having different kind of health problems and 6 participants passed away. Before the data collection, the full questionnaire was field-tested, and modified to take a maximum of 1hr 15 minutes interview time of the participants.

The changes made in the questionnaire were also incorporated in the Computer Assisted Personal Interview (CAPI) application developed (using the android software known as Open Data Kit - ODK) for the data collection, which was thoroughly tested and installed on android operating system-based tablets for conducting the interviews. To make the data collection error-free, we incorporated appropriate consistency checks, and programmed acceptable data value ranges, skips, and error messages into the data collection form.

The CAPI application used for the data collection was protected using passwords. Interviewers had to log in to the system to access the surveys and to upload the data. All uploaded data were stored under password protection and only authorized team members had access to the password(s). All data were transmitted electronically from the mobile ODK application via a secured SSL connection to the server. The data were extracted in CSV. files for ensuring data quality in real-time and for the data analysis.

On an average, an interview in the endline took 1hr 20 minutes time ranging from a minimum of 28 minutes to maximum of 2hr 29 minutes. The median time taken for completing an interview was 1hr 19 minutes. Some interviews took more than the expected time as the interviewees were taking shorter breaks during the interviews for taking care of their children, managing domestic chores, etc. But also, there were interviews, which took lesser time than expected as the interviewees were quite prompt in responding to the questions.

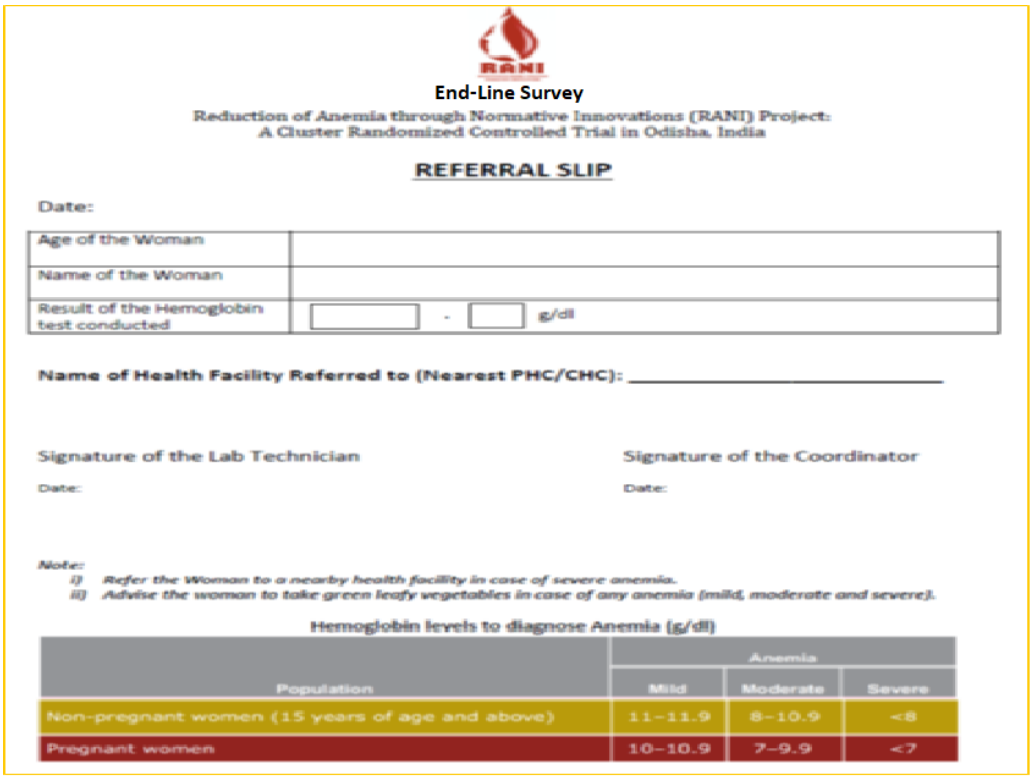
Hemoglobin measurement: We obtained hemoglobin levels from 3,787 out of 3,789 participants, through point-of-care hemoglobin tests, using a HemoCue photometer. The remaining 2 participants refused to participate in the hemoglobin test, though they participated in the interview. The reasons for refusing to undergo the hemoglobin test are given hereunder.

1. Despite explaining the participants about the hemoglobin test procedures, the instruments used and the safety protocol maintained during the test, maximum did not agree and suspected the intention of conducting the test. Some believed that poison will be injected whereas some others felt that infected blood will be transferred to their bodies through the needle.
2. Towards the last phase of the survey, two participants from two different clusters suspected that the blood test would spread Corona Virus.
3. One participant did not consent as her husband denied her to conduct the hemoglobin test, again because of suspicion.
4. Some of the beneficiaries had swollen arm so they refused to participate in the hemoglobin test.

Soon after the hemoglobin test of the participants was conducted, they were verbally communicated their hemoglobin levels. They were also informed about their anemia status:

1. Non-pregnant women: Normal (>=12gdl) or Mild (11-11.9gdl) or Moderate (8-10.9gdl) or Severe Anemia (<8gdl).
2. Pregnant women: Normal (>=11gdl) or Mild (10-10.9gdl) or Moderate (7-9.9gdl) or Severe Anemia (<7gdl).

Further, all the participants, regardless of their anemia status (including the normal ones), were uniformly communicated and advised verbally to consume iron-rich foods like green leafy vegetables to overcome or avoid becoming anemic. Particularly, the participants identified with Severe Anemia, were provided the referral slip and were advised to visit the nearest health facilities for treatment. A sample copy of the referral slip is given below.



End-Line Survey

Reduction of Anemia through Normative Innovations (RANI) Project:
A Cluster Randomized Controlled Trial in Odisha, India

REFERRAL SLIP

Date:

Age of the Woman	
Name of the Woman	
Result of the Hemoglobin test conducted	____ . ____ g/dl

Name of Health Facility Referred to (Nearest PHC/CHC): _____

Signature of the Lab Technician

Date:

Signature of the Coordinator

Date:

Note:
i) Refer the Woman to a nearby health facility in case of severe anemia.
ii) Advise the woman to take green leafy vegetables in case of any anemia (mild, moderate and severe).

Hemoglobin levels to diagnose Anemia (g/dl)

Population	Anemia		
	Mild	Moderate	Severe
Non-pregnant women (15 years of age and above)	11–11.9	8–10.9	<8
Pregnant women	10–10.9	7–9.9	<7

Anthropometry measurements: Like the baseline and midline, the anthropometry (height and weight) measurements of only non-pregnant women were taken. So, excluding the 111 pregnant women identified during the survey, we approached the rest 3,678 participants for taking their height and weight measurements. Of them, 3 refused to participate in the anthropometry measurements. The remaining 3,675 were administered anthropometry measurements.

Work capacity, cognitive functioning, and physical activity assessments: The sub-cohort of all the 376 women covered at the baseline was approached for participating in the work capacity, cognitive functioning, and physical activity assessments. Same as the baseline and midline, we used the adapted version of the Queens College Step Test for conducting the work capacity assessment at the endline. The assessment of the cognitive functioning was done applying the same 2 computerized tests (viz. Simon Task and Simple Reaction Time - SRT) and 2 non-computerized tests (viz. Corsi Block Tapping test and Word Span test). The physical activity assessment was carried out using the ActivPAL (PAL Technologies, LTD; Glasgow, UK), which the participants wore for three consecutive days to measure their daily reclining, sitting, standing, and walking activities.

Out of the 376 women approached, 311 participated in all the three above-mentioned assessments; and another one person participated only in two out of the three assessments viz. cognitive functioning (viz. Simon Task, SRT, Corsi Block Tapping test and Word Span test); and physical activity (ActivPAL test) assessments. A total of 65 participants did not participate in all three assessments. Of them, 25 refused to participate; 10 did not participate due to their pregnancies; 25 were absent at their homes when the survey team visited them; 2 persons complained of having heart problem and one person complained

having Asthma problem. There were 2 death cases recorded by the survey team. Apart from these 65 cases, there was one participant who underwent cognitive and physical activity assessment but withdrew from the work capacity assessment (step test) complaining back pain. We recorded around 82.7% response rate, resulting in about 17.3% attrition of participants participating in these assessments.

The various reasons for which the 25 participants refused to participate in the physical and cognitive tests are compiled below.

1. Based on the baseline experience, most of these participants refused to wear ActivPal citing the problems of itching and red rashes. One participant even took out after wearing the same for a day. They also denied and refused to give time, when they were requested to participate in the other physical and cognitive tests.
2. The family members of few participants suspected the intention of wearing the ActivPal. Hence, they stopped the participant to participate not only in the ActivPal test but also in the other physical and cognitive tests.
3. A few of the participants refused to participate because wearing the Activpal restricted some of their physical activities like; climbing ladders, climbing stairs and thet women were mostly uncomfortable while walking and sitting.
4. Some of the participants also refused to wear Activpal because of some health conditions like; Asthma, knee pain and paralysis.

Except for the one participant, who denied to participate in the step test complaining her back pain, the remaining 310 participated in all the physical and cognitive tests conducted in the survey, whether it was the paper-based or computer-based cognitive tests conducted. Although some participants were uncomfortable in handling the computer at the baseline, the survey team did not come across with such issue during the endline survey.

Compensation to the participants: Each of the 3,789 participants after their participation in the interview, anthropometry measurements and hemoglobin tests in the midline survey were provided in-kind compensation for sparing their valuable time for participating in the same. As a compensation, they were provided a set of steel Tiffin Career. Additionally, the sub-cohort of 311 participants were provided the same INR 200 like the baseline and midline for participating in the physical and cognitive tests.

Data entry, storage, and security: Similar to capturing the responses during the interviews, we developed separate CAPI applications for the data entry of the results of the followings:

1. Hemoglobin test and Anthropometry (Height and weight) measurements
2. Step Test
3. Corsi Block Tapping test
4. Word Span test

The results of all the above tests were first entered in paper forms in the field by the survey team. Later after returning from the field, the survey team entered the same from the paper forms into the CAPI applications; and were uploaded to the server daily for real-time access of the data. Since there were errors made by the survey team in the data entry of Corsi Block Tapping test and Word Span test results at the baseline, the IT Expert of DCOR double checked the data entry while cleaning these databases. Our IT Expert also manually matched the paper forms hemoglobin test, anthropometry measurements, and step test results with the databases; and cleaned the same making the necessary corrections.

The results of the remaining tests viz. Simon Task, SRT, and ActivPal were autogenerated by the computer. After returning from the field, all the computer-generated files of these tests were copied from the field laptops and were manually uploaded on the server daily.

Data quality assurance: The following key measures were taken to ensure data quality during the midline survey.

i) We used technology-enabled data collection methods, which helped to access and review the quality of data and enable providing feedback in real-time.
ii) We recruited and engaged the data collection team having experience and record of collecting quality data. After their recruitment, we imparted rigorous training (both classroom and field training) to build their capacity for ensuring quality in data collection.
iii) During the data collection, we conducted 419 spot-checks for monitoring the data quality. Every day, after returning from the field, the data collectors were provided with feedback and were motivated to ensure quality in data collection.

Data collection challenges:

i) Due to the lean season, the study participants in most villages had left their villages for working in brick kilns and other economic ventures. Hence, the data collectors, in most of the cases, had to take 2 to 3 visits to conduct the interviews with them.
ii) Some participants were found to be staying outside of the village due to their jobs and their husband's jobs.
iii) Some participants got married and went to stay in their in-law's house.
iv) Due to caste discrimination with the interviewers, two participants refused to give consent for the interview and denied for the hemoglobin test and anthropometry measurements.
v) Some participants refused to participate in the interview as they had to go to their relative's house to attend the marriage ceremony. Traditionally, the rituals during a marriage ceremony in rural Odisha are performed consecutively for 7 days.
vi) In fear of the spread of COVID-19, two participants from two different clusters, towards the last part of the survey, refused to participate in the Hemoglobin test.
vii) Lack of concrete or plain surface in some villages created difficulty for the Lab Technicians to administer the height and weight measurements.
viii) Due to a lack of proper space or public infrastructures, setting-up work stations to conduct the physical and cognitive tests was difficult in some of the villages. Hence, the participants from one village had to be taken to the other village in the cluster for conducting such tests.

ix) Some participants complained of red rashes on their bodies because of wearing the ActivPal consecutively for 3 days.

x) 11 participants had removed the ActivPal before the due date, hence the test had to be discarded. In 3 cases, the survey team had to again visit and administer the ActivPal to the participant.

xi) Some participants refused to participate in physical and cognitive assessments due to suspecting the intention of data collection, though they participated in the same during the baseline. They were worried suspecting misuse of that against them.

xii) Some of our researchers were ill-treated by the husbands of the respondents and were rudely denied of the interview.

xiii) There was a village near a water dam which flooded on the day of the interview so the villagers got relocated to another area. And even after reaching the relocated area the villagers were nowhere to be found so our researchers failed to conduct the interview.

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Annexure 1 – List of Villages

Block Name	Block Code	Cluster Code	Village Code	Village Name
Kishorenagar	2	03	007	Badibahal
			008	Khandabara
			009	Nagajharan
			010	Jamunali
Kishorenagar	2	04	011	Takaba
			012	Balikhaman
Kishorenagar	2	06	016	Luhamunda
Athmallik	1	07	017	Badahulla
			018	Gobindpur (Sana)
			019	Dhundi
Kishorenagar	2	14	036	Ambamunda
			037	Krushnapur
			038	Kuajhari
Kishorenagar	2	15	039	Badadangiani
			040	Kandhal
			041	Ranibhuin
Kishorenagar	2	19	049	Bairagipali
			050	Rangamatia
			051	Dangapal
Kishorenagar	2	22	059	Nakatinali
			060	Manikapur
			061	Rengalabeda
Kishorenagar	2	24	064	Tentulikhandahata
			065	Pipalabahal
			066	Dimirimunda
Kishorenagar	2	26	069	Gadaghumura

Block Name	Block Code	Cluster Code	Village Code	Village Name
			070	Rasunapal
			071	Khaudarh
Kishorenagar	2	29	076	Kurumtap
			077	Turuda
Kishorenagar	2	30	078	Parsumal
			079	Urukula
			080	Serenda
Kishorenagar	2	38	101	Phuljhari
Kishorenagar	2	40	104	Banaranali
			105	Batimunda
Kishorenagar	2	43	111	Guapada
			112	Bajapur
Kishorenagar	2	45	115	Budiabahal
			116	Mundabeda
Kishorenagar	2	46	117	Raniakata
			118	Kumurusinga
			119	Goratopa
Athmallik	1	48	122	Kumbharmunda
			123	Brahmanidei
			124	Gambharimaliha
Athmallik	1	49	125	Bhogara
			126	Ambasaramunda
			127	Talamaliha
Athmallik	1	53	139	Anandapur
			140	Arakhakuda
			141	Jogibandha
Athmallik	1	56	147	Muraripur

Block Name	Block Code	Cluster Code	Village Code	Village Name
			148	Kenchuanali
			149	Raida
Athmallik	1	59	156	Jamudoli
			157	Malisahi
			158	Dudhianali(Bada)
Athmallik	1	60	159	Rathipur
			160	Naleswar
			161	Kutulusingh
Athmallik	1	61	162	Luhasinga
			163	Tentulipadar
Athmallik	1	66	174	Kamalapur
			175	Hariharapur
			176	Rangapur
Athmallik	1	70	186	Malipadar
			187	Odasinga
Athmallik	1	81	212	Belpunji
			213	Deberapali
			214	Deuli
Athmallik	1	82	215	Singarimunda
			216	Bhoipada
			217	Fakirpur
Athmallik	1	83	218	Kadapada
			219	Mundapada
			220	Buraghat
Athmallik	1	87	230	Naikpada
			231	Dhuliapada
			232	Helei

Block Name	Block Code	Cluster Code	Village Code	Village Name
			233	Tasarabeda

Figure 1. Cluster Randomized Control Trial Schema