

BASELINE REPORT

SPREAD-Collective Action for Nutrition

Technical partner- Institute of Development Studies (IDS), UK



Summary

This report introduces the mixed-methods impact evaluation of the SPREAD's model of social audits in nutrition in Odisha, India. It describes the social audit, evaluation design and selected findings from the quantitative baseline data collection that occurred in January 2018. The endline data collection will be undertaken in April 2018 and both the baseline and endline data will be used to measure the impact of social audits. The impact evaluation will be composed of the estimates from this quantitative impact component, along with analyses drawn from qualitative and process tracing analyses, which will be conducted in July 2018. Given these timelines, this baseline reports describes the quantitative component and focuses on analysing the quantitative baseline data.

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1. Background

1.1. Context of this report

Azim Premji Philanthropic Initiatives (APPI) has commissioned the Institute of Development Studies (IDS) to act as the lead technical partner in the design and implementation of an evaluation of a social audit programme entitled 'Collective Action for Nutrition' (CAN) being implemented Society for Promoting Rural Education and Development (SPREAD).

This baseline reports provides a summary of quantitative evaluation design and an analysis of the quantitative baseline data. Final results from the evaluation will be presented in the Final Report anticipated for completion by October 2018.

1.2. The 'Collective Action For Nutrition' Social Audit Programme

APPI has identified fighting malnutrition in India as one of their strategic focal areas of work and is partnering with the Government of Odisha to roll out a large-scale programme to reduce malnutrition in the state. Their primary long-term goal is stunting reduction, specifically that of adolescent girls, pregnant women and children under 5 years. APPI is working closely with a number of existing public service delivery platforms such as the Integrated Child Delivery Services (ICDS) as well as various networks of civil society organisations, private sector stakeholders, and community actors.

As part of this effort APPI is partnering with the Society for Promoting Rural Education and Development (SPREAD), an Odisha- based NGO that works to empower marginalized communities and combat malnutrition. As well as addressing the immediate needs of these communities (such as provision of medical emergencies, health checks etc.), SPREAD uses a participatory development process to build the capacity of community-based organizations (e.g. Self-help groups, Village Development Committees).

The SPREAD programme APPI is supporting over the next 3 years is entitled 'Collective Action for Nutrition' (CAN). The CAN programme goal is 'Reducing malnutrition among children and women by facilitating efficient implementation of food and nutrition programmes, ensuring transparency, downward accountability and community participation' (SPREAD 2017¹). The primary aim of the programme is to sensitise communities to their entitlements under the four primary schemes implemented by the government that are covered by the National Food Security Act (NFSA). These schemes are:

- **Integrated Child Development Services (ICDS)** – a community nutrition and child development programme delivering services to children aged 0-6 years
- **The Mid-Day Meals (MDM) programme** – a school feeding programme
- **The Targeted Public Distribution System (TPDS)** – a food and essential items distribution scheme
- **Mamata** – a maternity entitlements scheme.

SPREAD list the following objectives for the CAN programme:

- Build knowledge of the community on National Food Security Act (NFSA) to improve accessibility
- Promote participation of the community and Community Based Organisations in decision making on access and entitlements to food and nutrition programmes
- Effective implementation of NFSA & health services (VHND, NRC, GKS etc.)

¹ SPREAD (2017) APPI Visit, Collective Action for Nutrition. PowerPoint presentation. 25th July 2017.

- Build capacities and strengthen community-based institutions
- Working towards Panchayat Raj Institutions (PRIs) as nutrition champions
- Institutionalization of social audit process and grievance redressal mechanism

There are a range of activities being undertaken as part of the programme (see below) but the main downward accountability mechanism (the primary focus of the evaluation) is a **social audit** process.

Box 1 Defining a 'social audit'

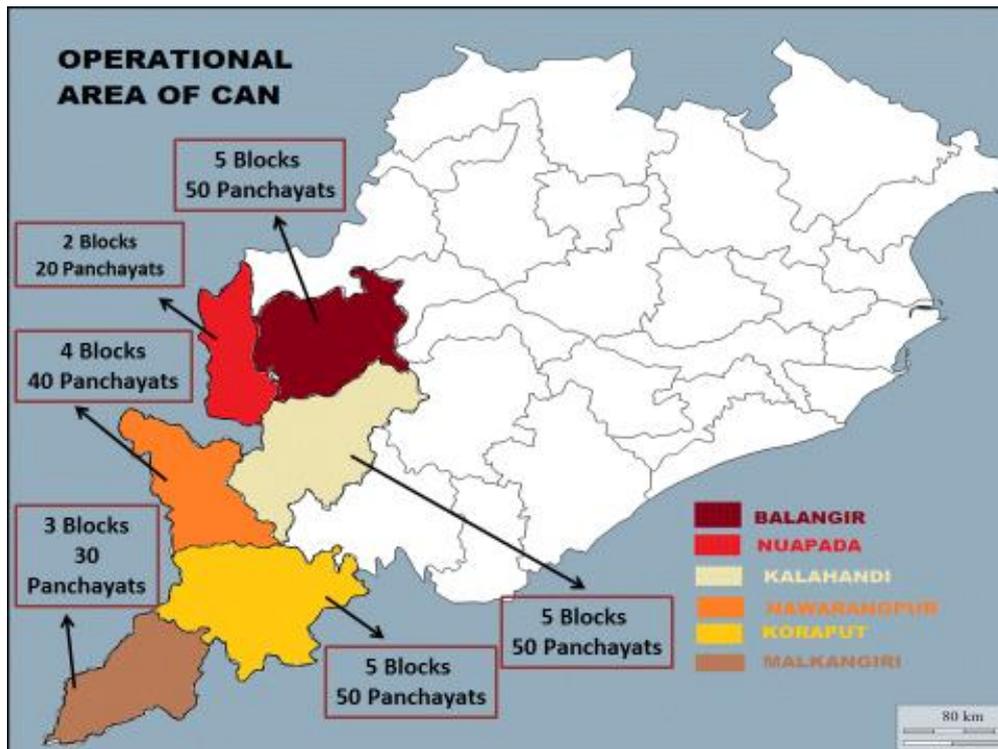
A social audit process enlists the community in auditing the provision of and quality of their entitlements under particular government schemes. Facilitators work with the community, first to raise awareness of the social audit process and their entitlements and then to review whether the community has actually received the services they were entitled to. This is undertaken by document reviews (i.e. both of beneficiary documents and documents available at service facilities) and by discussions with community members. Results of the process are made available to the wider community and local frontline officials and community members and further action is undertaken as part of a process of 'grievance redressal', in which systemic issues aggregated from multiple village level social audits are brought to the attention of more senior officials, at district and state level. Throughout the process, effort is made to involve local elected representatives. In India, these are known collectively as members of Panchayat Raj Institutions (PRIs).

SPREAD defines social audit as 'a process in which people collectively monitor and evaluate the planning and implementation of government schemes, programmes or policies' (SPREAD 2017¹). It is considered 'a process of deepening democracy, where the right holders obtain information on all such schemes, programmes, systems impacting their lives; validate their truthfulness and work towards bringing a positive and reformative change. It is a participatory process which empowers citizens. Social Audit adds value to the whole idea of decentralization and establishes the Community's capacity for Planning,

APPI will be working alongside SPREAD to scale up and mainstreaming the use of social audits within the Department of Women & Child Development (Govt. of Odisha) as an effective tool to improve government service delivery and accountability. They hope this will in turn lead to improved nutrition in particular for women and children.

240 Gram Panchayats (GPs) in 6 districts of Odisha (Balangir, Nuapada, Kalahandi, Nabarangpur, Koraput and Malkangiri) have been selected for inclusion in the programme. The programme is being implemented in 40% of the blocks in each district, and 50% of the GPs in each selected block

Figure 1 Map of Operational Area of the CAN programme



In the CAN programme, resource pools of volunteers from *Samikhya Sathis* will be trained to lead a first round of social audits during the first year of implementation with a second community-led audit planned for year 2.

APPI and SPREAD anticipate the following outcomes to be realised as a result of the programme activities (see SPREAD Evaluation Design ToR v3 18.7.17):

Household specific project outcomes

- Increased knowledge of households (especially eligible women) on NFSA (National Food Security Act) entitlements (especially TPDS), and on the MAMATA scheme
- Improved uptake of nutritional entitlements from ICDS for target groups (pregnant & lactating women; women of children under the age of 3 years; and adolescent girls)
- Improved uptake of antenatal and postnatal services, and knowledge of IYCF practices by eligible women (with a specific focus on pregnant & lactating women; and mothers of children under the age of 5 years)
- Behavioural change in adolescent girls (with respect to IFA supplementation)
- Increased immunization coverage of children under the age of 3 years
- Improved participation of households (and especially women) in community level governance activities (with specific reference to Gram Sabhas, Palli Sabhas, and Social Audits)
- Improvement in intra household decision making for women on issues related to food security and nutrition

Community specific project outcomes:

- Emergence of empowered communities with more accountable ICDS centres
- Improved institutional delivery of nutrition services and entitlements in Gram Panchayats
- Increased community level demand for improved nutrition services and entitlements; and improved community participation in decision making related to food and nutrition programmes

- Establishment of (mal) nutrition as a critical agenda for the Gram Sabha and making ‘malnutrition free villages’ a goal for PRIs (Panchayati Raj institutions)

An important consideration for the evaluation is that the social audits will come on the back of previous interventions which are aimed at community mobilization, sensitization of PRI members and strengthening of community platforms.

1.3. Social audits

SPREAD defines the ‘social audit’ as **“a process of deepening democracy, where the right holders obtain information on all such schemes, programmes, systems impacting their lives; validate their truthfulness and work towards bringing a positive and reformative change. It is a participatory process which empowers citizens. Social Audit adds value to the whole idea of decentralization and establishes the Community’s capacity for Planning, Monitoring and Course Correction.”**

A social audit process involves the community in auditing the provision of entitlements under a given government scheme, namely in this case the National Food Security Act. By raising awareness of the social audit as a participatory process, effort is made to engage local community members as active participants in the social audit team, under the guidance of facilitators. Social auditors work with the community to share information on entitlements under NFSA programmes, including the legal mandate for social audits, to verify whether the community is receiving the services they are entitled to. The findings from document reviews and stakeholders’ testimonies are made available through a public hearing and further action is undertaken to address any implementation gaps.

More specifically, the social audit process is divided into three phases: the pre-social audit, the social audit, and the post-social audit.

The pre-social audit campaign entails the mobilisation of community members and forming of the social audit team. Social auditors participate in the planning of social audit activities, gather information on the implementation of services under the NFSA in the local community, and notify community members, monitoring committees, service providers and public officials of the proceedings throughout the social audit process.

The social audit process, conducted over seven days, involves an entry meeting at village level, the observation of implementation procedures and records for identifying and addressing implementation irregularities. Records of available evidence are made during the verification of beneficiary documents pertaining to NFSA service provision, and the verification of registers available at service facilities. Verification is also carried out through the collection of testimonies, interviews and focus group discussion. Data is collated to inform the compilation of preliminary reports. These are shared and discussed with service providers, who are given the opportunity to highlight any difficulties encountered in the delivery of NFSA services. They are then disclosed and discussed among all stakeholders at the public hearing, which takes place at Gram Panchayat level on the last day of the social audit.

The post-social audit phase is concerned primarily with grievance redressal, whereby demands and complaints filed during the social audit are followed up with more senior officials. A report is produced following the public hearing. Action is taken to ensure that grievances filed through the social audit are acted upon by service providers and government representatives responsible for the monitoring of NFSA service delivery.

1.4. National Food Security Act (NFSA)

The **NFSA** combines entitlements from four core programs:

- **The Targeted Public Distribution System (TPDS)** – a food and essential items distribution scheme which targets food-insecure households
- **The Mid-Day Meals (MDM) programme** – a school-based feeding program targeting children ages 6–14 years
- **Integrated Child Development Services (ICDS)** – a supplementary feeding program targeting children between 6 months and 6 years and pregnant and lactating women.
- **Mamata** – a state maternity entitlements scheme.

1.4.1. Targeted Public Distribution System (TPDS):

The targeted public distribution system (TPDS) is the largest social protection program in India, in terms of both government expenditures and number of beneficiary households. The NFSA entitles 50 percent of the urban population and 75 percent of the rural population to receive food benefits under the TPDS.

The previously universal public distribution system (PDS) was converted into a targeted PDS in 1997. Following this shift, beneficiaries were identified and divided in two categories as either below the poverty line (BPL) or above the poverty line (APL). People in each category were entitled to a set of food grains at differing quantities and prices. In 2000, an additional classification of Antyodaya Anna Yojna (AAY, poorest of the poor) was introduced to provide the abject poor with dedicated food grain allocations at highly subsidised prices. In 2013, the scope and mandate of the TPDS expanded significantly through its incorporation with other programmes under the National Food Security Act (NFSA).

The distribution of subsidised cereals through the TPDS is a major instrument for ensuring the availability of affordable food grain to the public, especially the poor. The quantity and price of food grain available to households depend on the type of ration card assigned to them. Before 2013, most households had one of three types of ration cards: above poverty line, below poverty line, and Antyodaya Anna Yojna. Now there are only two categories, namely Priority Household (PHH) and Antyodaya Anna Yojna (AAY). Persons belonging to PHH are entitled to receive 5 kilograms of food grains (rice, wheat, and coarse grains) per person per month at subsidised prices of Rs. 3/2/1 per kilogram. AAY households are entitled to 35 kilograms per month at a rate of one rupee per kilogram.

The TPDS provides subsidized food grain through a large network of government-licensed fair price shops. The government purchases food grain from farmers based on a predetermined price floor, at a minimum support price (MSP). Then it provides highly subsidised food grain to low-income and vulnerable households. State governments are responsible for identifying beneficiaries and selecting fair price shops. The district food office provides beneficiary households with a ration card that serves as identification for accessing the TPDS. Once a household receives its ration card, its members can visit their FPS (all households are assigned to a particular FPS) to buy their food grain every month. Information on eligibility and purchases made from the TPDS are recorded on the card.

Recent technological advances have improved delivery through the TPDS. Beneficiaries are enrolled biometrically by the Unique Identification Authority of India, which assigns each resident a unique Aadhaar identification number. The use of Aadhaar for the distribution of TPDS rations has sometimes been problematic due to technological failures and identification errors. Both exclusion and inclusion errors were recorded, i.e. people who should be included in the TPDS as eligible cardholders but who are excluded in reality, and people who are not eligible to be covered by the TPDS but who are included by mistake or through inefficiency in implementation.

1.4.2. Mid-Day Meal (MDM):

Under this school-based feeding programme, children up to 14 years of age are entitled to nutritious meals, served according to prescribed age-appropriate nutritional standards. In case of non-supply of entitled meals, the right holders are eligible to receive a food security allowance.

The MDM is not part of the quantitative evaluation design as the latter focuses on children below 24 months, pregnant women and adolescent girls who are not concerned by the MDM scheme.

1.4.3. Integrated Child Development Services (ICDS):

The ICDS scheme provides a package of six services to children below six years of age, pregnant women and nursing mothers. These are Supplementary Nutrition, Immunisation, Health Check-up, Growth monitoring & Referral Services, Non-formal Pre-school Education and Nutrition & Health Education.

The ICDS scheme provides specific guidance on the weighing and growth monitoring of children, and counselling for mothers/caregivers by AWWs. Each child in the age group of 0-3 years must be weighed at least once every month and assessed against the WHO New Growth Standards register. If the growth trajectory is deemed to be normal, the AWW advises the mother/caregiver to maintain the feeding and hygienic practices that she has been following. If the growth trajectory is observed to be below expected parameters, mothers/caregivers are advised on age-appropriate feeding, food preparation and hygiene practices. Severely malnourished children are referred for further medical check-ups.

Supplementary Nutrition includes Take Home Ration (THR) and Hot Cooked Meal. THR or *chhatua* (a wheat-based preparation) and two eggs per week are given to pregnant and lactating mothers, and children from 6 months to 3 years. As they do not attend the AWC on a daily basis, they do not benefit from the Hot Cooked Meal provided to children between 3 and 6 years of age. Those children between 3 and 6 years who are found to be severely malnourished are also given THR, as well as the Hot Cooked Meal. THR packets are colour-coded (Yellow/Sky Blue/Red), to ensure that the nutritional supplements are consumed by the intended beneficiary rather than by other family members.

- a. Yellow colour for pregnant and lactating mothers THR packets.
- b. Sky blue colour for 6 months to 3 years children THR packets.
- c. Red colour for severely malnourished children THR packets.

1.4.4. MAMATA

The MAMATA conditional cash transfer scheme, launched by the state of Odisha to alleviate maternal and infant undernutrition, provides monetary support to pregnant and lactating women for the first two live births, to enable them to seek improved nutrition and promote health seeking behaviour.

The intermediate objectives identified by the Odisha government are as follows:

- To provide partial wage compensation for pregnant and nursing mothers so that they are able to rest adequately during their pregnancy and after delivery.
- To increase utilisation of maternal and child health services, especially antenatal care, postnatal care and immunisation.
- To improve mother and child care practices, especially exclusive breastfeeding and complementary feeding of infants.

The specific target group for this scheme are pregnant and lactating women of 19 years of age and above, except those who already avail of the maternity benefit (i.e. who are themselves employees or wives of employees of State Government/Central Government/PSUs). The payable amount is transferred directly to the account of the right holder. This was originally allocated in four instalments. From April 2017 onwards, the money is transferred in two instalments, dependent on their meeting the desired conditions, as specified below.

Allocation rules prior to April 2017 set the total monetary support at Rs.5000/- to be allocated as follows:

- First Instalment: At the end of the 2nd trimester of pregnancy. Rs 1,500/-
- Second Instalment: After completion of 3 months after delivery. Rs 1,500
- Third Instalment: After the infant completes 6 months of age. Rs 1,000/-
- Fourth Instalment: After the infant completes 9 months of age. Rs.1,000/-

Allocation rules after April 2017 set the total monetary support at Rs. 5000/- to be allocated as follows:

- First Instalment: At the end of six months of pregnancy. Rs 3000/
- Second Instalment: After the infant completes 9 months of age. Rs 2000/-

Conditionalities for the first instalments include the registration of pregnancy within six months, the receipt of at least one antenatal check-up, IFA tablets, one TT vaccination, and at least one counselling session. Conditionalities for the second instalment include the registration of childbirth, child vaccination requirements, weighing of the child at least two times after birth and at least two IYCF counselling sessions.

2. Quantitative Evaluation Design

In line with the evaluation ToRs shared with IDS in June 2017 by APPI, the evaluation addresses the following three overarching objectives:

1. *Determine the impact of the SPREAD model of social audits on improving the delivery of the services and entitlements related to the National Food Security Act, as well as the awareness and uptake of these services by target groups*

2. *Understand how the social audit process leads to:*
 - a. *Changes in knowledge, behaviour and practice at the household level*
 - b. *Community level changes and outcomes*

The evaluation design combines both quantitative and qualitative methodologies within a strong mixed methods theory-based design. The three main methodological components are designed to complement and build on each other at every stage of the evaluation process including planning, tool design, data analysis and synthesis. Evaluation questions, protocols and data collection instruments component will draw heavily on the social audit model's hypothesised theory of change as well as evidence from recent literature published on other similar downward accountability programme models in India and globally.

This baseline focuses on the quantitative evaluation design. The objective of the quantitative evaluation component is to measure the impact of the social audits on a range of outcomes of interest, and to assess if this impact is statistically different from zero.

The quantitative evaluation is based on an ***experimental design in which the timing of the social audits is randomly assigned to the Gram Panchayats (GP)***. Randomly assigning the timing of social audits generates exogenous differences in the length of time since the social audit among otherwise similar GPs which enables us to estimate the impact of the social audit.

This differs from the classic "phased-in" experimental design in two stages in which communities in the control group would not receive social audits in phase 1, enabling a comparison with treatment group at this stage, and would eventually receive social audits in a second phase. This classic design was not deemed feasible in the SPREAD' social audits evaluation as the schedule of implementation of social audits was already fixed and would allow very little time for phase 1, and thus for social audits to generate meaningful effects.

Treatment assignment was done at the Gram Panchayat level. The unit of intervention is the ICDS centre, and all ICDS centres are covered by the intervention within treated GPs.

We randomly assigned Gram Panchayats into an "Early" group (E) and a "Late" group (L). GPs in the E group had their social audits occur between 4 January and 8 February 2018 whereas GPs in the L group will have their social audits occur between 13 March and 6 April 2018. The baseline data collection was undertaken in January 2018, just before the social audits were scheduled to be implemented whereas the endline data collection will happen in April 2018, within two weeks since the GPs in the L group had their social audits organised.

We opted for creating two experimental groups. Based on existing evidence, we believe that the strongest design is to implement all the social audits in the treatment GPs within a short period of time at the beginning of the implementation window and, similarly, to implement all the social audits in the control group in a short period of time as late as possible. This maximizes the difference in exposure between treatment and control group and minimizes internal heterogeneity within each group, thus increasing statistical power.

Given the overall implementation timeframe of the social audits, GPs in the E group will have had about 3 months of exposure to social audits at the time of the endline data collection. The evaluation design proposes to exploit relatively small differences in exposure to the social audits to measure impact. As a result, we expect these small differences in exposure to exert an effect on short-term outcomes, but not necessarily on longer-term outcomes. **The focus of the evaluation design is therefore on the more immediate outcomes of the projects.**

The underlying assumption of this design is twofold²:

- A) *The effects of the social audit will manifest within a short time after implementation*
- B) *Within a 3-month period, the effects of social audits will increase as time passes once the social audits have been implemented*

Whereas A) and B) seem contradictory, they do not have to. A) refers to the fact that (some) outcomes of interest will be quickly influenced by the social audits so that measuring impact on these outcomes relatively quickly after implementation is meaningful. On the other hand, B) refers to the fact that the full effects of the social audits will need a bit of time to manifest themselves after the social audits take place. In other words, we expect the bulk of the impact to derive from post-audits activities and not from the 6-7 days in which the social audit itself takes place. This means that we expect to see more effects of the social audits among the L group than the E group. It is possible, however, that the effects of social audits will in fact only be immediate and disappear quickly. If that were the case, then the impact of social audits will be larger in the L group than in the E group.

Another feature of the evaluation design is that the “before and after” comparisons of outcomes of interest will be meaningful. Given that the gap will be small between the baseline and endline data (about 3 months), substantial changes in the outcomes of interest can be credibly put down to the social audits. This is especially true for outcomes such as knowledge of entitlements, attitudes to civic life...which are unlikely to vary over such a short period of time in the absence of social audits.

Impact will be measured through i) a household-level baseline survey conducted prior to the implementation of audits, plus an endline survey within 2 months after the end of the implementation window of 4-6 months, and ii) internal monitoring data.

Outcomes that will be measured through this approach include:

- Knowledge of households of NFSA entitlements and optimal IYCF practices
- Access to and uptake of nutritional entitlements
- Participation in community-level governance
- Level of community-level demand for nutrition services
- Attitudes (agency, empowerment)

Sample size and sampling design

We set the total number of GPs for the evaluation at 116 (58 in each treatment arm). Given 20 observations per GP and an intracluster correlation coefficient³ of 10%, 116 GPs allows us to detect an effect size of 0.2 standard deviations with a statistical power of 80%. We eventually increased the

² Whereas A) and B) seem contradictory, they do not have to. A) refers to the fact that (some) outcomes of interest will be quickly influenced by the social audits meaning that measuring impact relatively quickly after implementation is meaningful. Conversely, the impact of a few month differences in exposure after one year may not be noticeable. On the other hand, B) refers to the fact that the full effects of the social audits will need a bit of time to manifest themselves after the social audits take place. In other words, we expect the bulk of the impact to derive from post-audits activities and not from the 6-7 days in which the social audit itself takes place.

³ In a cluster randomised trial, the intracluster correlation coefficient (ICC) measures the degree of similarity of observations within each cluster (i.e. GP). The higher this coefficient, the less each additional household interview brings in new information (as households tend to be the same) and so the lower the effective sample size. With an ICC of 15% instead of 10%, the statistical power of the valuation would fall to 70% (i.e. we would face a 30% risk of wrongly declaring the intervention to have no impact when it does have one).

number households to 24 per GP, thus raising the statistical power of the quantitative evaluation at 82%. For GP-level outcomes, for which we will only have 1 observation per GP, we will be able to detect an effect size of 0.5 standard deviation with a statistical power of 80%.

We first randomly selected the 116 GPs to take part in the evaluation out of the 240 GPs in which SPREAD operate. We then randomly assigned these GPs into Early or Late groups using implicit stratification. Specifically, we ordered observations by district and by block prior to the randomization to minimize sampling variability across the two treatment arms.

We then randomly chose 1 village with probability proportional to size (PPS) in each GP to carry out the baseline survey. In a number of cases, the selected villages were small, and the field team was not able to find the required number of eligible households to interview. In this case, the team was instructed to add the closest village to the sampling frame, and to conduct a household listing in the additional village. If the target number of 25 was still not achieved, the team would add a third village and so on. The map of sample villages is in annex A.

In the selected villages, the field team conducted a household listing of A: households with a primary caregiver of a child below 2 years of age, and B: households with a pregnant woman. The team then randomly selected households from these lists for the interviews. The team also selected 1 AWWs and 1 ASHA worker per GP for interview (based on presence of health workers in the village during survey time). The team also aimed to interview the Sarpanch in each of the 116 GPs.

3. Baseline data collection

With regards to the quantitative survey element of the evaluation, the following tasks were completed for the baseline phase of data collection carried out in December 2017/January 2018.

3.1. Questionnaires

The design of questionnaires and sample selection of GPs and villages as per the evaluation design were carried out by IDS. DCOR reviewed draft versions of the questionnaires, pre-tested them and provided feedback before and during the survey team training. The testing and roll-out of the ODK application was carried out by DCOR's IT expert in charge of data management.

Questionnaires were administered to 3 main target groups, namely household members, health workers and elected officials.

3.1.1. Household questionnaires

The household questionnaires were administered to household members (primary caregiver/pregnant woman/adolescent girl/male respondent) who are direct beneficiaries of nutrition and health programmes under the National Food Security Act (NFSA). The NFSA services which are object of this evaluation are those targeted by social audits, namely Targeted Public

Distribution System (TPDS), Integrated Child Development Services (ICDS), and Maternity Entitlement (MAMATA).

The questionnaire was built up around a varying number of modules for different respondents, depending on entitlements under the NFSA, and according to the outcomes of interest spelled out in the evaluation design. These included questions on:

- Household Composition
- Socio-economic conditions and employment
- Food security and dietary diversity
- Access to services: Anganwadi Centre, TPDS, ICDS, MAMATA
- Knowledge of feeding practices
- Nutrition practices
- Sanitation and Hygiene practices
- Women's empowerment
- Civic life participation and attitudes

3.1.2. Health workers' questionnaires

The health workers' questionnaires were administered to Anganwadi workers (AWW) and Accredited Social Health Activists (ASHA). Given the different tasks and responsibilities covered by AWWs and ASHAs at the Anganwadi Centre (AWC) in their community, two distinct questionnaires were developed. The modules administered included questions on:

- Infrastructure of AWC
- Workload of AWW and ASHA
- Services provided through the AWC: namely ICDS, MAMATA
- Coordination and Monitoring
- Training
- Challenges, incentives and job motivation

3.1.3. Elected official questionnaire

The Sarpanch questionnaire was administered to elected officials responsible for monitoring and ensuring the effective delivery of services under the NFSA. The modules administered included questions on:

- Gram Sabha meetings
- Awareness and knowledge of NFSA services, including TPDS, ICDS and MAMATA
- Participation and monitoring of services
- Grievance redressal mechanisms for the effective delivery of NFSA services

3.2. Ethical approval

Ethical approval was granted by the Institutional Ethics Committee (IEC) in Odisha. The IEC meeting took place at Sun Green Hotel's Conference Hall in Bhubaneswar and was chaired by Justice Hruday Ballav Das. The applicant organisations included IDS, APPI and DCOR Consulting. Relevant documentation had been submitted to the board prior to the meeting. Following a discussion of

ethical implications of the evaluation design by the ethics panel with IDS, DCOR and SPREAD representatives, the IEC granted ethical clearance on 11th December 2017.

3.3. Baseline survey

3.3.1. Recruitment, training and supervision

Recruitment, training and supervision of household listing and survey teams required for completing the assigned data collection was conducted by DCOR. The DCOR team dedicated staff to field coordination and supervision throughout the data collection period. Selection of field staff was made in consultation with IDS with regards to qualification or suitability of staff hires. IDS provided DCOR with support and guidance for the enumerator training, pre-testing, piloting and data collection processes.

The household listing team training took place at Sambadika Bhaban, Patanagada Road in Balangir between December 12th to 13th (2 days), with an additional day of field training and mapping exercise. The team comprised of the team leader, 1 household listing coordinator, 6 HH listing supervisors, 24 HH listing enumerators, 4 HH listing back-up team members and 1 support staff member. Training methods used included lecture methods, PowerPoint presentations, and interactive sessions, as well as map preparation and household listing exercises during field training.

The survey team training took place at Paradise Hotel in Balangir between December 15th to 24th (10 days), including two days of field training. The team comprised of the team leader, 6 survey managers/coordinators, 12 field supervisors, 48 field investigators, 1 IT expert, 10 data collection back-up team members, and 1 support staff member. Training methods used included lecture methods, PowerPoint presentations, interactive sessions, mock practice in groups and pairs, demonstration of CAPI tools and use of tablet and application for data collection, entry and storage.

3.3.2. Piloting

The piloting of questionnaires was conducted in 2 villages (Jhanvarpali and Khuntpali). Feedback from enumerators and supervisors on timing, visualisation on tablets, coding and translation was taken on board by the team and necessary changes were made jointly by DCOR and IDS staff.

3.3.3. Household listing

Household listing was carried out in 116 villages across 6 districts to screen the eligible households and respondents for the interview. The completion of the household listing required a team of 24 Household Listing Surveyors (12 pairs) for a period of 30 days (including transit). 6 Household Listing Supervisors were engaged to do the spot- and back-checking of the household listing work in 116 villages. Each Household Listing Supervisor led a team of 4 Household Listing Surveyors.

Eligible households targeted by this evaluation were those with either A) a child <24months or B) a pregnant woman. In each eligible household, respondents included primary caregiver of <24 months

child, pregnant woman, adolescent girl and male respondent when present. However, household listing was only carried out based on A) and B) categories.

3.3.4. Data collection

Survey data collection was conducted in the abovementioned 116 GPs. In total, we covered 1884 households with a primary caregiver of a child below 2 years of age and 510 households with a pregnant woman.

As explained above, we aimed to interview one male respondent (typically the husband/partner of the caregiver or pregnant woman) and one adolescent girl (if they live in the household) in each of these households. In total, we thus interviewed 1645 male respondents and 210 adolescent girls, for a grand total of 4249 interviews.

In addition to household data, we also collected information from health workers and local Panchayat officials. We aimed to interview 1 Anganwadi worker (AWW), 1 ASHA worker and 1 Sarpanch (or other elected officials) in each GP. We successfully interviewed 115 AWWs, 114 ASHA workers and 113 Sarpanches.

Household-level data collection took on average 1.5/2 hours per household. All pilot and survey data were uploaded every few days to a centralised database and were shared with IDS. IDS monitored data quality and communicated any data quality issues to DCOR. Both organisations coordinated to make adjustments to the fieldwork as needed, including scheduling revisits to households, health workers and public officials when deemed necessary.

The baseline quantitative survey was led by an experienced Team Leader. In order to complete interviews with 6,960 respondents in 2,320 households in 116 GPs in 6 districts as scheduled, 3 Survey Coordinators were required. Each was responsible for field plan preparation, random selection of eligible households from the listing data and data collection in 2 districts and for overseeing the work of 2 Household Listing Supervisors and 4 Field Supervisors for the household survey. Their responsibilities also included quality assurance in data collection, timely completion of survey, database management and data cleaning.

A total of 12 Field Supervisors and 48 Field Investigators/Enumerators were involved in baseline quantitative data collection. Each Supervisor led a team of 4 Field Investigators/Enumerators and covered approximately 10 villages. A team of 1 Field Supervisor and 4 Field Investigators/Enumerators completed the data collection in a sampled village in 2.5 to 3 days of time (40 respondents in 20 households), needing 25 days of time to complete data collection in 10 villages, including transit time.

The main responsibilities of the Field Supervisor were to prepare a route plan for data collection, community entry point activities, allocating sampled households to the Field Investigators/Enumerators and conducting interviews with health workers and public officials. Additionally, they were responsible for providing regular data quality feedback to Investigators/Enumerators and the timely completion of the survey. The Field Investigator/Enumerator was responsible for obtaining informed consent, conducting interviews

with the targeted respondents, ensuring accuracy during the interviews, compliance with the quality requirements defined by the field supervisors and the timely completion of the survey.

3.3.5. Data monitoring

Spot-checking and back-checking tools were designed by IDS in order to ensure the quality, accuracy and robustness of data, in accordance with research plans and ethical procedures. Field Supervisors were responsible for 10% spot-checking and 10% back-checking of interviews to be carried out at all field sites, which informed data quality feedback to Investigators/Enumerators and Survey Coordinators. In-depth quality checks were also carried out by IDS for incoming data, in liaison with DCOR staff responsible for data transfer, data quality checks and feedback to Survey Coordinators, data cleaning and preparation of database in SPSS/STATA for data analysis.

4. Findings

The baseline data collection generated an enormous amount of information from primary caregivers, pregnant women, male respondents, adolescent girls, AWWs, ASHAs and Sarpanches. In this baseline report we do not aim to describe all this information or to conduct detailed analyses of key evaluation outcomes. Instead, we report on a few selected indicators for each target group to provide a description of the respondents and of some key outcomes.

4.1. Primary caregivers

The baseline survey includes answers from 1884 primary caregivers. The number of interviewed caregivers per GP ranges from 11 to 23, with a mean of 16.6. As explained above, the target number of female interviews per GP was 24, with interviews being split between caregivers and pregnant women. The number of caregivers and pregnant women interviewed in each GP depends on the number of households listed as having A) a child below 24 months and B) a pregnant woman.

4.1.2. Demographic characteristics of primary caregivers (PCs)

PCs are 25 years old on average (three-quarter of caregivers are below 29, and the oldest respondent is 60), and are overwhelmingly female (only 1.3% of primary caregivers are male). 80% of primary caregivers are the spouse of the household head, 16% are the daughter/daughter-in-law of the household head and less than 3% (2.6%) are household heads themselves.

98% of primary caregivers have just 1 child below 24 months. Households have 3.8 members on average, with 25% of them having more than 5 members.

97.7% of respondents belong to Hindu households (defined as the religion of the head), 2.2% to Christian households and 0.1% to Muslim households. This religion breakdown very closely mirrors the figures from the Census in Odisha in 2011 for each single district in the sample.

Table 1 Religion composition (in %) in the sample and in the Census

District	Balangir	Kalahandi	Koraput	Malkangiri	Nabarangpur	Nuapada
Panel A: Baseline data						
Hindu	99.2	99.5	93.8	99.1	96.5	100.0
Christian	0.8	0.5	6.0	0.9	3.2	0.0
Muslim	0.0	0.0	0.3	0.0	0.3	0.0
Panel B: 2011 Census data						
Hindu	98.1	98.6	93.8	97.9	96.5	98.5
Christian	1.0	0.7	5.0	1.6	2.6	0.3
Muslim	0.5	0.3	0.6	0.3	0.6	0.8

51% of respondents are Scheduled Tribes, 25% belong to Other Backward Castes (OBC), 22% are Scheduled Castes and just 3% are in the “general” category. This caste composition is quite different from that of the Census for most districts. Our survey tends to over-sample the SC (except in Malkangiri where it is the opposite) and ST categories of the population. This is to be expected as the social audits are implemented in the most remote parts of each district, where the SC/ST share of the population is the highest.

Table 2 Caste composition in the sample and in the Census

District	Balangir	Kalahandi	Koraput	Malkangiri	Nabarangpur	Nuapada
Panel A: Baseline data						
SC	21.6	24.6	23.3	14.9	20.6	20.3
ST	25.0	47.0	62.2	75.6	55.0	48.3
OBC	50.0	27.2	13.5	8.1	15.6	30.1
General	3.4	1.2	1.0	1.4	8.8	1.4
Panel B: 2011 Census data						
SC	17.9	18.2	14.2	22.6	14.5	13.5
ST	21.1	28.5	50.6	57.8	55.8	33.8

37% of the PC respondents are literate, which is far below the Odisha-wide literacy rate for women which is of 64%. 20% of respondents can sign and 42% can neither read nor write altogether.

84% of PC respondents are housewives, 8% are self-employed, 5% are employees and just under 3% work without a pay (as apprentice or in a family business). 86% of PC respondents who reported a work activity did so in agriculture (57% in own farm and 35% as agricultural labourer).

77% of PC respondents obtain their drinking water from tube wells, 11% from a public tap/sandpipe, 2.5% from an unprotected well. 2.2% of respondents receive their water directly through a pipe to their house/yard. Overall, 93.5% of respondents do not get their drinking water from either their house or yard.

84% of respondents do not have any access to toilet and defecate in the open. This is higher than a recent estimate from a CSE report which calculates that 60% of rural households in Odisha do not have access to toilets. The remaining 15% of respondents use some variations of pit latrines (almost 10% of respondents use a flush to pit latrine, 3.2% have access to a pit latrine with slab and 2.2% use a flush to septic tank). The rate of open defecation ranges from 73% in Nuapada to 90% in Nabarangpur.

The average respondent reports that their household own 2.7 assets out of a list of 9 assets. There is a wide geographic disparity in the assets index as its mean in the sample ranges from 2 in Koraput to 4 in Balangir district. 82% of respondents have access to electricity and 12% have access to solar electricity. The most commonly owned assets are: mobile telephone (66%), electric fan (38%), television (33%), and wardrobe (26%). Generators, air conditioners, laptops/computers, DVD players are all owned by less (and sometimes considerably less) than 5% of respondents.

Just over half of respondents have a separate room for cooking. 93% of respondents use wood as cooking fuel and 6% use LPG/natural gas. Close to three-quarters (72%) of respondents have an earth floor and the remaining quarter has a cement floor.

Materials for the roof and external walls are relatively varied in the sample. Almost 50% have tiles, 29% have asbestos, 11% have thatch/palm leaf, and 8% have cement for the roof. External walls are made of dirt for 46% of respondents, of cement for 26% of respondents, of bricks for 20% of respondents, of bamboo or stone with mud for 5.5% of respondents and of stone for 2.2% of respondents.

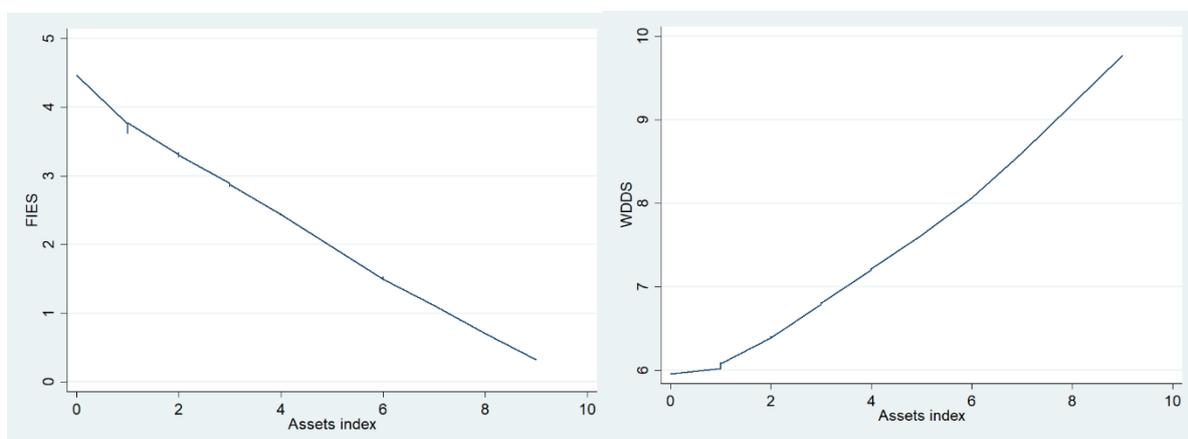
We have attempted to build a socioeconomic index (SES) through a principal component analysis (PCA), using assets, materials for roof, floor and external walls, fuel for cooking and the presence of a separate kitchen as variables. However, the components do not capture a meaningful share of the variance so that the PCA was not able to reduce the dimensionality of the socioeconomic variables.

4.1.3. Food security

To measure food security, we implemented the Food Insecurity Experience Scale (FIES) proposed by Ballard et al. (2013) for the FAO. The scale is made up of 8 questions with dichotomous yes/no responses. We have used a 12-month reference period and we applied the scale at the level of the respondent (individual scale). The questions are not meant to be analysed separately.

The mean FIES score is 3.02 (out of a maximum of 8). The FIES does not vary much across districts as it ranges from 2.7 in Kalahandi to 3.1 in Koraput and Malkangiri. However, Nabarangpur stands out as the most food insecure district as the mean FIES there is 3.6. the extent of food insecurity is higher for SC and ST population (3.2) than for OBCs (2.6). there is also a negative and linear relationship between FIES and the assets index, as seen in Figure 2.

Figure 2 Food Insecurity Index (FIES), Women's Dietary Diversity Index (WDDS) and Assets index



We also implemented the Women's Dietary Diversity Score (WDDS) proposed by Arimond et al. (2010). The WDDS is simply the sum of all the food groups consumed by the respondent on the day prior to the survey (if this was a typical day, otherwise we used the last typical day). The WDDS is based on 21 food groups, using the most disaggregated food groups indicators (the base version of WDDS uses 9 food groups).

The mean score of WDDS is 6.7 (out of a maximum of 21). The mean WDDS is around 7.2 in Nabarangpur, 7.3 in Nuapada and 7.6 in Balangir. Districts with lower values of WDDS are Koraput (5.9), Kalahandi (6.2), and Malkangiri (6.3). The mean WDDS is lower among SC/ST populations (around 6.5) than among OBCs (7.2). Finally, WDDS is strongly related to the assets index, as seen in Figure 2.

It should be noted that the mean and the median for both FIES and WDDS are very close, indicating a low level of inequality across the sample.

4.1.4. Access to the Angawandi Center (AWC)

99% of respondents are aware of their local AWC and 94% of respondents report that the AWC or Angawandi worker (AWW) provided assistance to a household member in the last 3 months.

Out of the 6% of respondents who did not receive assistance from the AWC/AWW, almost half (47%) reports that it is because there were no needs, 18% because the AWC is too far, and 9% because they do not believe the AWC/AWW will be able to help.

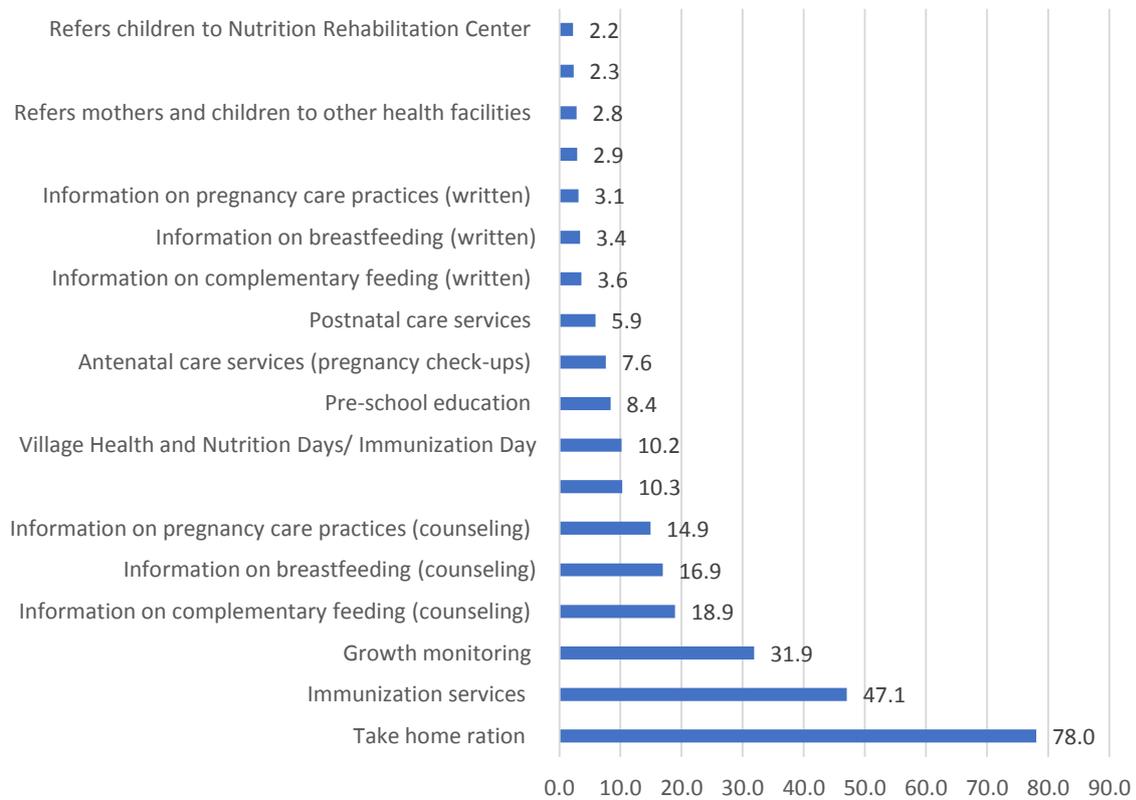
Figure 3 below shows that the take-home ration (THR) is by far the most commonly received service for primary caregivers (78% of them report they received THR). Just less than half of primary caregivers report benefitting from immunization services (47%) and just less than one-third of primary caregivers report growth monitoring services (32%).

Counselling activities are not widespread in the sample; and range from 15% for pregnancy care to 19% on breastfeeding.

86% of caregivers report that the AWC opens on time, 8% report that it does not, and 6% do not know. 79% consider that the AWW comes daily to the center, 13% that she does not, and 8% do not know.

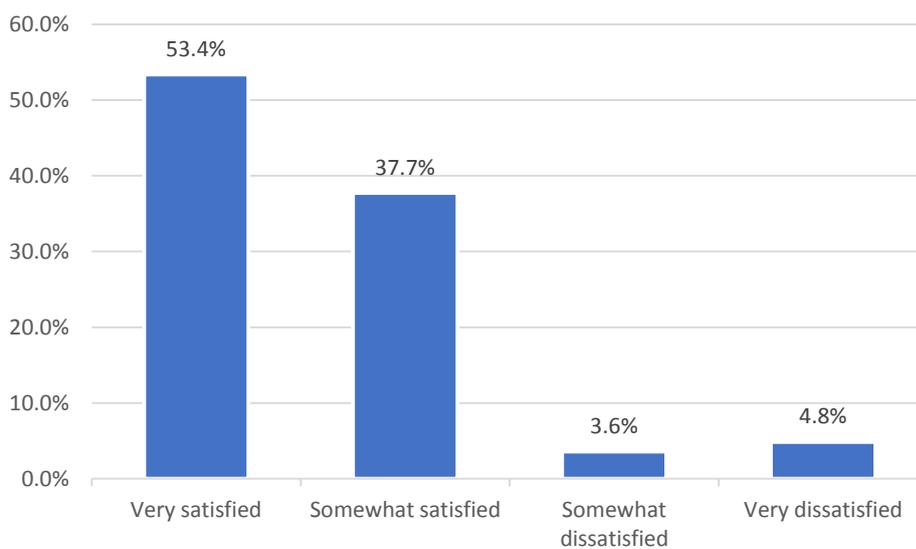
On average, caregivers estimate that the AWC is open for 2.9 hours per day. Opening hours are noticeably shorter in Malkangiri (2.4) than elsewhere with the second worst-placed district being Nabarangpur with 2.8 hours per day on average.

Figure 3 Proportion of primary caregivers reporting they received the following services in the last 3 months from the AWC/AWW



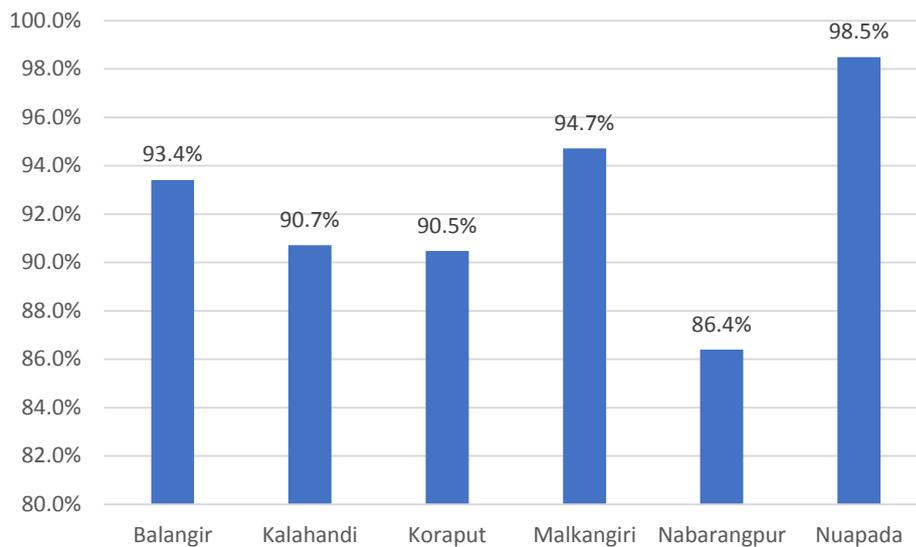
53% of caregivers report they are “very satisfied” with the AWC/AWW, 38% are “somewhat satisfied”, 4% are “somewhat dissatisfied” and 5% are “very dissatisfied”.

Figure 4 Satisfaction with AWC/AWW



The sample average hides some important geographic disparities which are best seen when we group together the “very satisfied” and “somewhat satisfied” and look at their combined percentage across districts. Figure 5 reveals that respondents are noticeably less satisfied with the AWC/AWW in Nabarangpur (and to a lesser extent in Kalahandi and Koraput) than in Balangir, Malkangiri and Nuapada, although satisfaction rates remain high across the board.

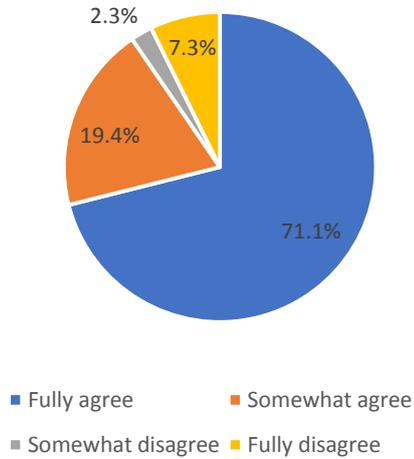
Figure 5 Proportion of respondents very or somewhat satisfied with the AWC/AWW across districts



Overall, respondents are about as likely to report they feel they could express concerns and raise complains regarding AWC/AWW if necessary (about 90%) as they are to report they are satisfied with the services.

It is interesting to note that 11% of respondents who are very satisfied with the AWC/AWW do not feel confident they could express concerns or raise complains. The proportion is almost the same among respondents very dissatisfied with the AWC/AWW (12%).

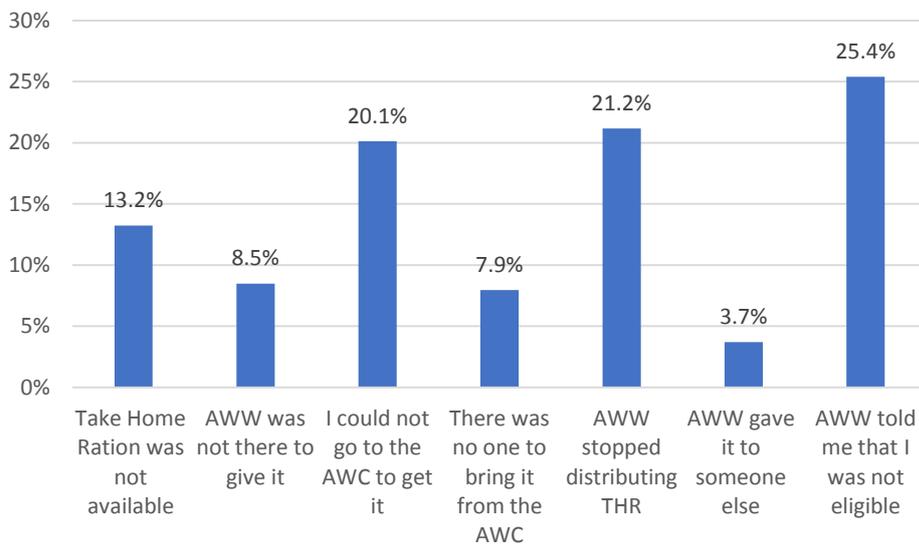
Figure 6 Proportion of caregivers agreeing that they feel confident they could express concerns or raise complains regarding the AWC/AWW



4.1.7. Take-Home Rations

95% of primary caregivers received THR during their pregnancy and 90% of caregivers received THR when they were breastfeeding.⁴ Reasons for not receiving THR during breastfeeding are presented in Figure 7:

Figure 7 Reasons for not receiving THR during breastfeeding



⁴ There is little difference in the rate of uptake of THR during breastfeeding over the periods 0-6 months, 6-12 months and 12-24 months after birth.

Most beneficiaries (80%) received 1 distribution of THR per month and less than 1% received THR more than twice a month (Figure 8). Figure 9 shows that half of beneficiaries received 1 packet per month, and the other half received 2 packets per month (with no difference regarding pregnancy or breastfeeding phases, see Figure 9). **Combining information from both figures reveals that 50% of beneficiaries receive just 1 packet a month, 29% of beneficiaries receive 2 packets a month and 20% receive 4 packets a month.**⁵

Figure 8 Number of monthly distributions of THR (left: during pregnancy; right: during the 6 first months of breastfeeding)

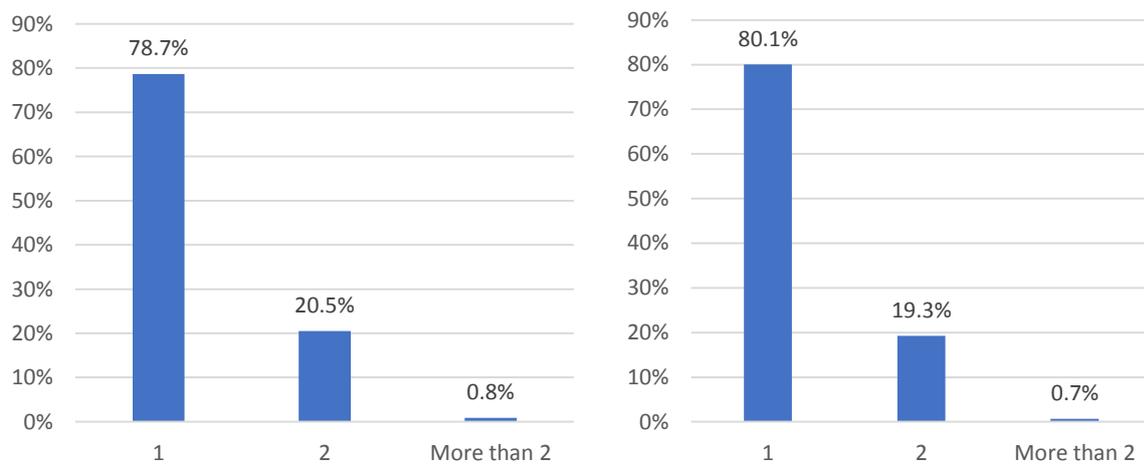


Figure 9 Number of packets distributed in a month (left: during pregnancy; right: during the first 6 months of breastfeeding)

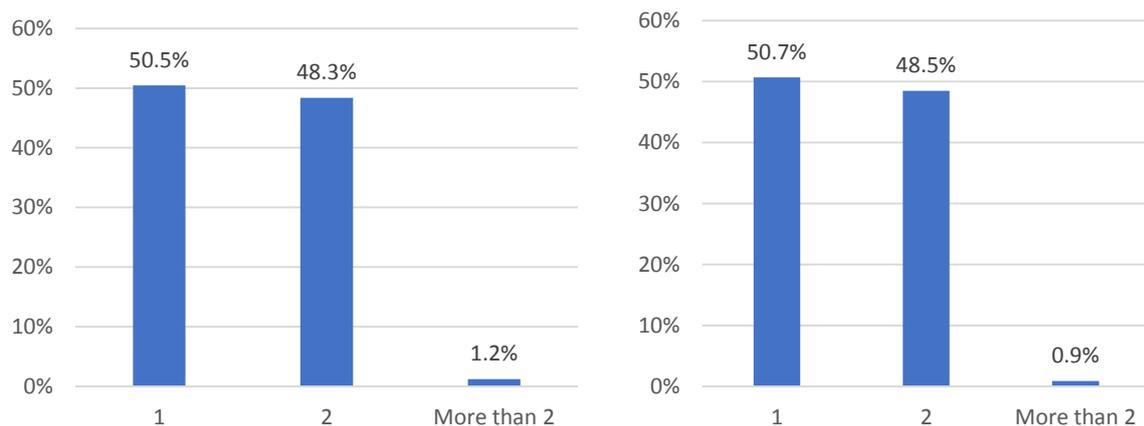
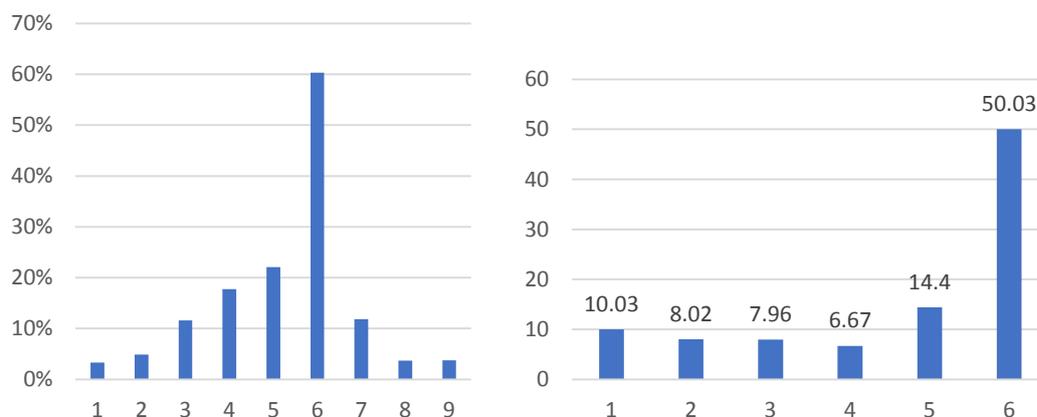


Figure 10 shows that only 50% of beneficiaries received THR during every month of their initial period of breastfeeding whereas 60% of beneficiaries received THR during 6 months of their pregnancy.

⁵ We expect two distributions of 1 packet each in a month.

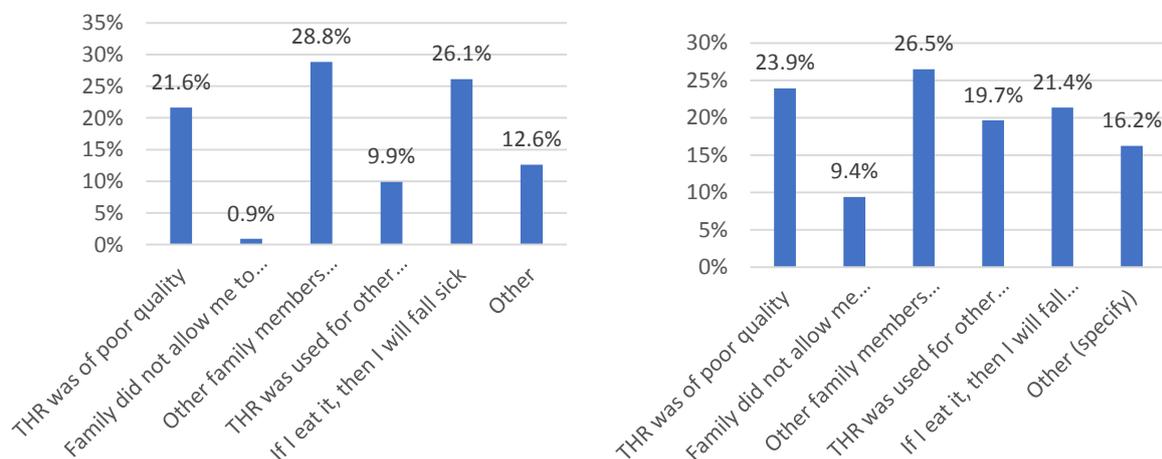
Figure 10 Duration (in months) of receipts of THR (left: during pregnancy; right: during the first 6 months of breastfeeding)



Consumption of THR

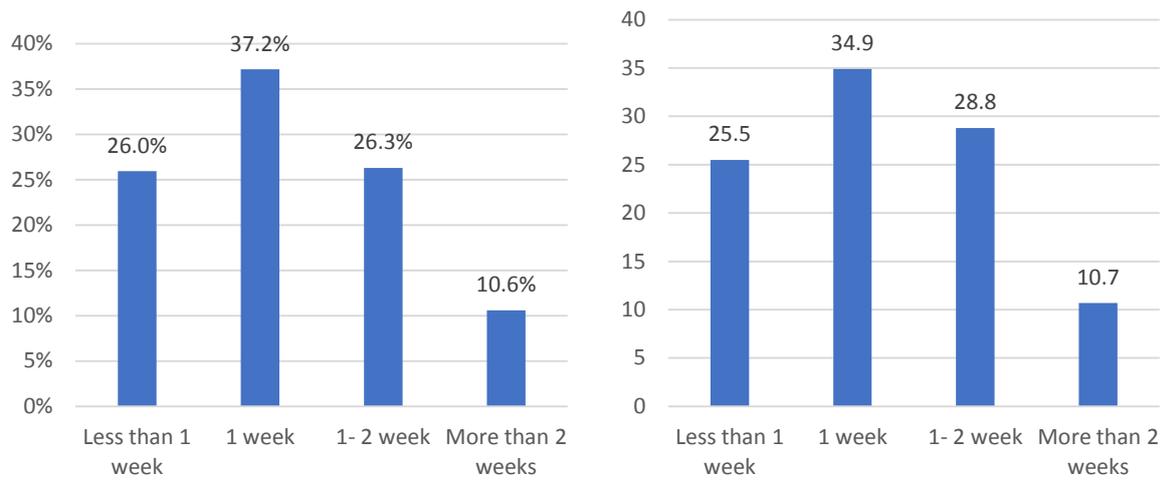
94% of beneficiaries who received THR consumed it. Reasons for not consuming the THR are displayed in Figure 11. The primary reasons are that other members consume the THR, that the THR is perceived to be of poor quality, and that beneficiaries believe the THR will make them sick. Interestingly, 9% of breastfeeding mothers report that their families do not allow them to use the THR.

Figure 11 Reasons for not consuming the THR (left: during pregnancy; right: during the first months of breastfeeding)



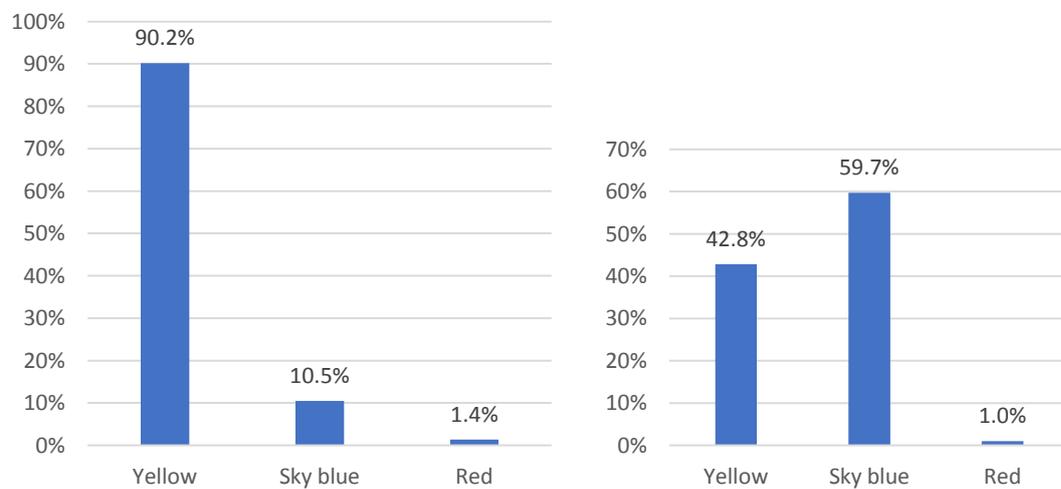
About half of respondents report that each packet lasts no more than 1 week. Given that only 20% of beneficiaries receive 4 packets a month (see above), this data suggests an under-supply of THR.

Figure 12 How long does a packet lasts



A sizable minority of beneficiaries were not explained how to prepare the THR. This concerns 31% of pregnant women and 28% of breastfeeding mothers. Additionally, not all beneficiaries received the correct THR. Almost 11% of pregnant women report they were given a sky blue packet (which is meant for breastfeeding women).

Figure 13 Type of THR received (left: during pregnancy; right: during the first 6 months of breastfeeding)



91% of respondents report they were given eggs (no difference between pregnancy and breastfeeding phases). 60% of them were given two eggs a week and 37% one egg a week, and 2% more than two eggs a week.

42% of respondents have sought help with regards to the THR. In 91% of cases, the respondent asked the AWW and in 7% of the cases they turned to the ASHA worker. Beneficiaries have mostly been satisfied with the behaviour and usefulness of the AWW/ASHA workers they turned to for help. Perceived levels of information and overall satisfaction with THR appear high.

Figure 14 Satisfaction with help received regarding THR

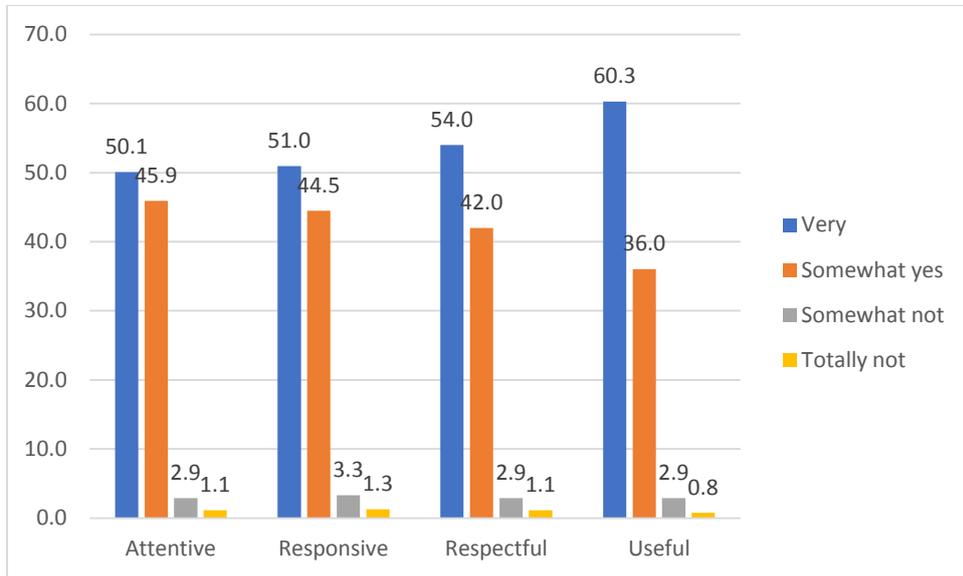


Figure 15 Do respondents feel well informed regarding THR?

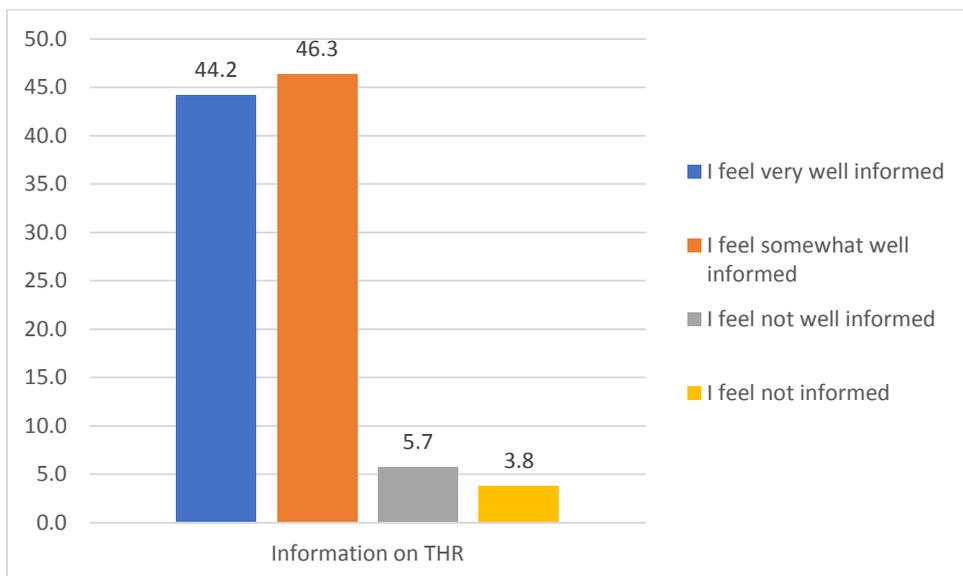
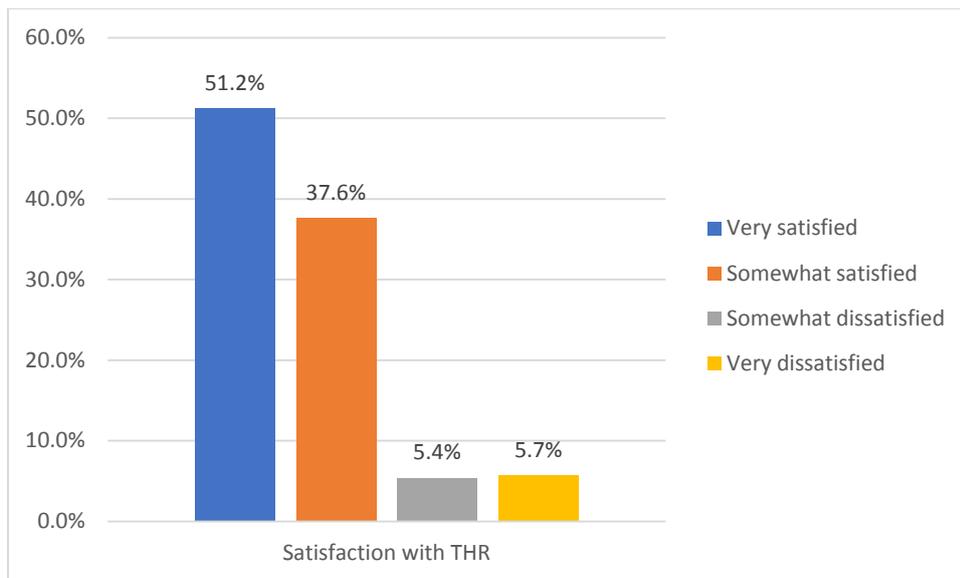


Figure 16 Satisfaction with THR



4.1.5. Access to the Mamata scheme

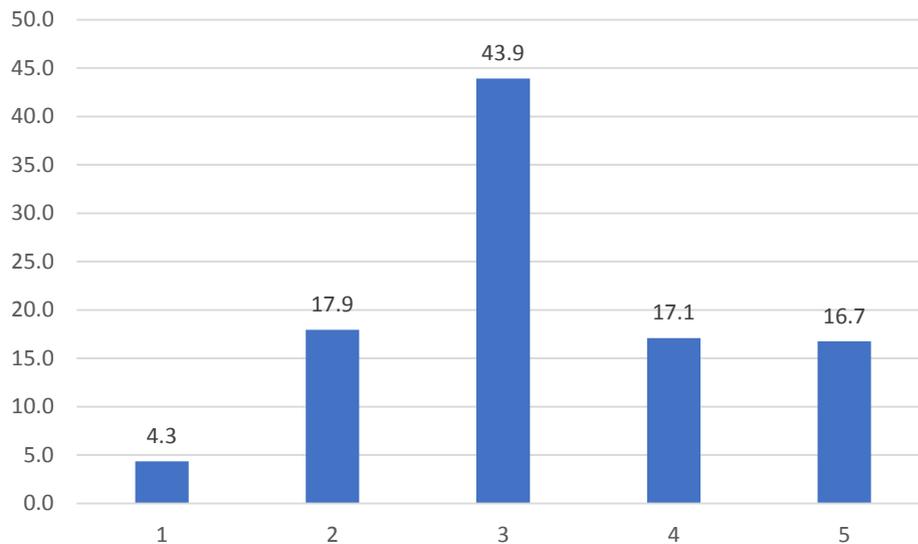
Whereas 96% of respondents have a Mother-Child Protection Card (MCP), only 78% of them have up-to-date information on the card. The information is not up-to-date for 4.5% of them and the card was not available for checking by the enumerator for 16% of respondents.

The Mamata scheme is known by 88% of primary caregivers. Those respondents were then read 7 statements about who is eligible to the Mamata scheme and they were asked to answer whether each statement was true or false. On average, a respondent correctly answered 2.7 statements out of 7. Some noteworthy regional disparities are apparent, with respondents in Nabarangpur (2.4) and above all Nuapada (2.2) having less knowledge of the Mamata scheme than respondents in Malkangiri (3.2), Balangir (3) or Koraput (2.9). A majority of respondents (54%) wrongly believed that the scheme is available no matter the age of the mother or is only available for the first live birth (80%). However, when eventually proposed with the statement that the scheme is available until the second live birth, 72% of respondents correctly agreed.

86% of respondents report having been given information on the Mamata scheme. It is reassuring to note that the knowledge of Mamata entitlements is a bit higher among those who received information (3.2) than for the others (2.7).

Figure 17 shows that 44% of respondents report they are entitled to 3 instalments and 34% to either 4 or 5 instalments. According to the official documentation, 4 instalments are given: the first one at the end of the 2nd trimester of pregnancy and the second one after 3 months since delivery, the third one after 6 months since delivery and the last one after 9 months since delivery.

Figure 17 Number of instalments respondents report they are entitled to (%)



93% of respondents are registered with the Mamata scheme, but only 55% of these have ever received any instalment (a proportion ranging from 48% in Malkangiri to 63% in Nabarangpur). Yet, according to official documentation, all primary caregivers should have received instalments for their last pregnancy (since they all have a child below 24 months of age).⁶ The mean number of received instalments is 0.6 for caregivers with children below 3 months, 1 for those with children below 6 months, 1.3 for those with children below 9 months, 2 for those with children below 12 months and 4 for those with children below 24 months.

Of those caregivers who received instalments as part of their last pregnancy, 47% consider that they have not received all the instalments they are entitled to. 39% of them have sought help regarding these missing instalments (to the AWC/AWW in 85% of cases and ASHA in 13% of cases). Close to 95% of these respondents found the AWW or ASHA worker respectful, responsive and able to solve the problem. 92% found them attentive.

⁶ 90% of these instalments refer to the last pregnancy specifically.

Figure 18 Proportion of respondents feeling well informed on the Mamata scheme

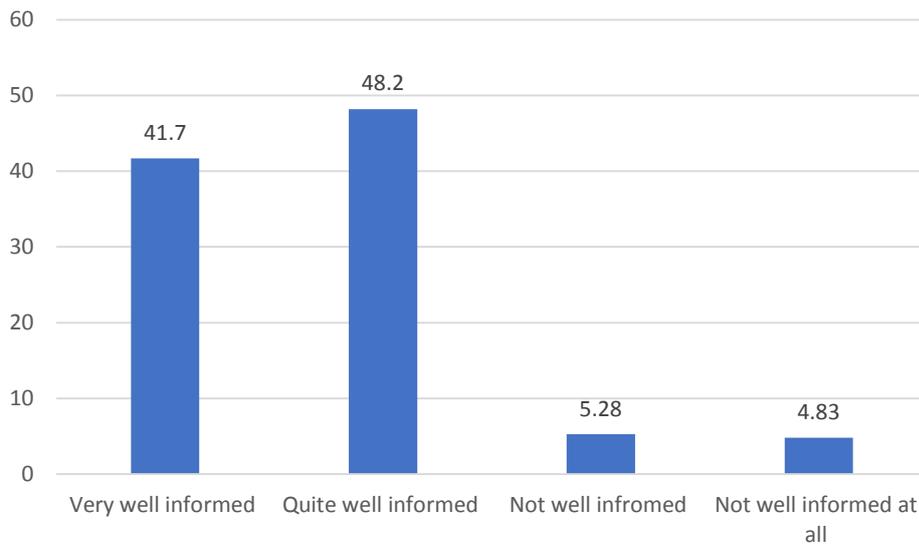
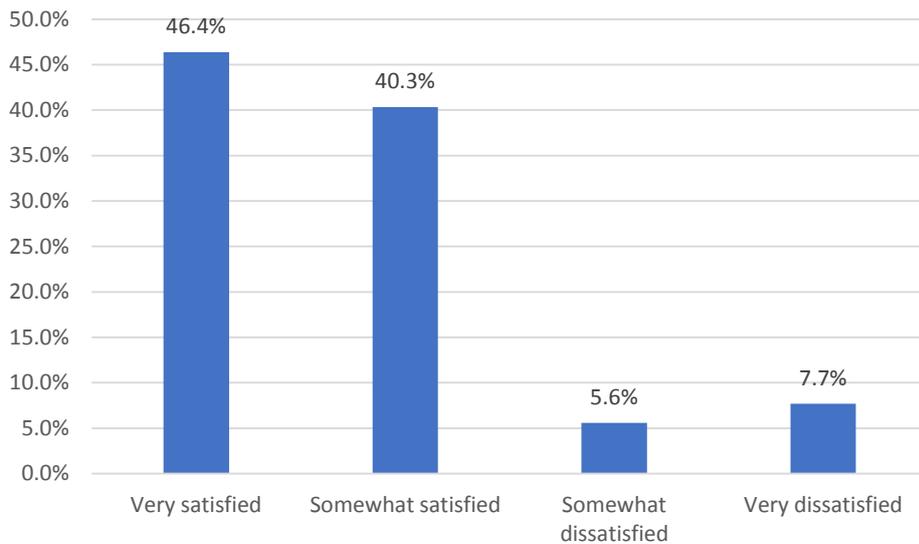


Figure 19 Satisfaction with Mamata scheme



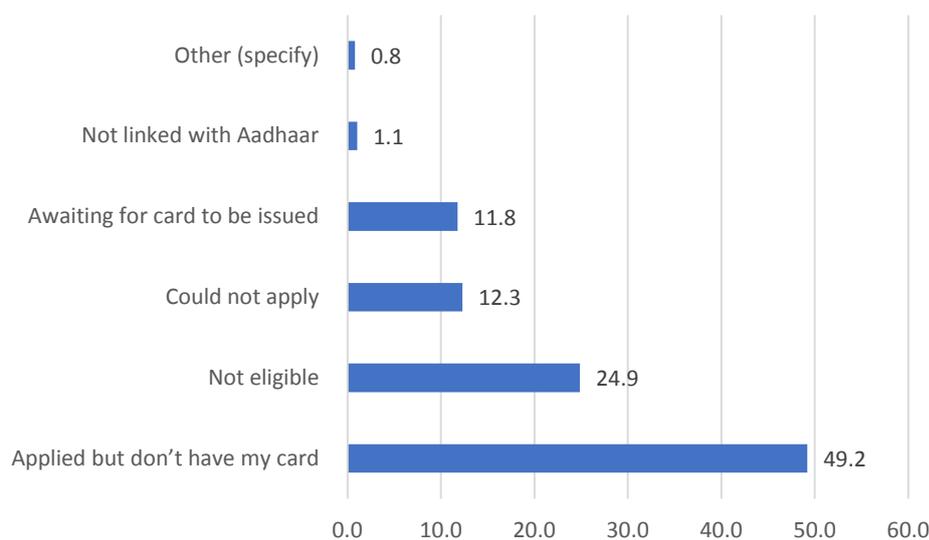
Finally, 11% of respondents feel they could not express their concerns or raise complains with respect to the Mamata scheme.

4.1.6. Targeted Food Distribution System

79.7% of caregivers held a valid ration card at the time of the survey. Reasons for why households do not hold a valid card are presented in Figure 20. Interestingly, almost half of these households have applied but not yet received their card and 12% could not apply. A quarter of respondents without a card claim they are not eligible.

Out of those households which applied but have not yet received their cards, 61% had applied one year ago or more and three-quarters had made their application more than 3 months ago. Moreover two-thirds (67%) of these respondents have not received any written update about the status of their application.

Figure 20 Reasons for not holding a valid food ration card



92% of respondents hold a General Priority Household (PHH) card and 8% hold an Antyodaya Anna Yojana (AAY) ration card.

93% of card holders received exclusively rice and 6.5% received both wheat and rice. 95% consider that the ration shop always provides them with the amount of food they are entitled to (and 5% sometimes). 97% of card holders report that they consume the grains. 94% of respondents rate the grains they receive as of very good quality (47%) or good quality (47%).

Virtually every PHH card holders knew that they are entitled to 5kg of grain per person and per month and 99% of respondents who exclusively receive rice reported that they were provided with 5kg of rice per month and per person.

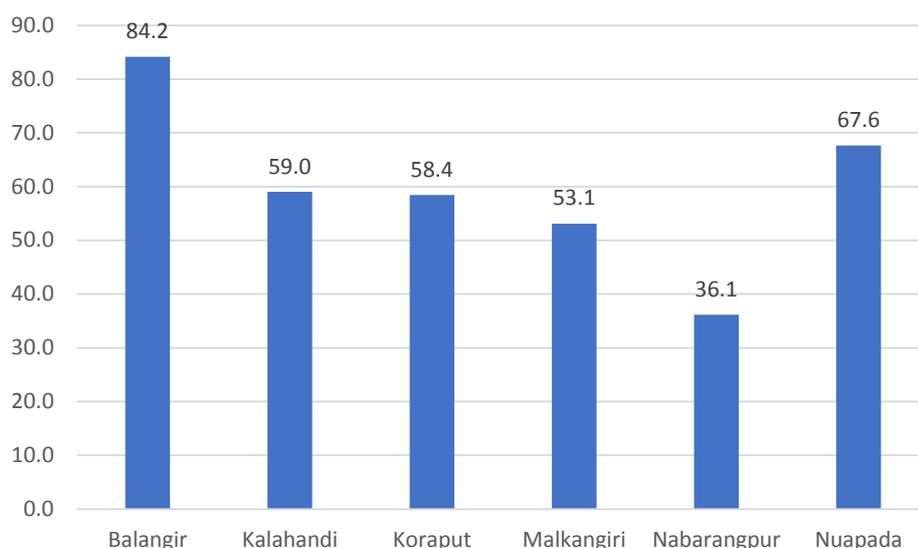
The level of knowledge of AAY card holders is lower as 27% think they are entitled to 5kg of rice per person (probably confusing with the 5kg of rice per person and per month PHH card holders receive) and only 60% of respondents correctly reported that they are entitled to 35kg of rice per month. It turns out that 28% of respondents report they only receive 5kg of rice per month and that 60% report they receive 35kg of rice per month. It is unclear then whether some respondents who are holders of a PHH card mistakenly report they hold an AAY card or whether the mistake is made by the food ration shop.

Information on the TPDS is lacking as only 49% of respondents report that they were given information on their entitlements to TPDS. Out of respondents who were given information, it primarily came from a ward member (in 31% of the cases), the Sarpanch (24%), the Panchayat Executive Officer (23%) or the Jogan Sahayak (14%). The information was considered very clear by 80% of respondents and somewhat clear by 20% of them. It is interesting to note that the proportion

of respondents reporting that the information was very clear changes somewhat with the provider of the information: 87% for ward member, 82% for the PEO, 74% for the Sarpanch, and 70% for the Jogan Sahayak.

The use of an electronic scale to weigh the rice was reported by 59% of respondents (the corresponding figure for wheat is 55%). The use of electronic scale widely varies across districts, as seen in Figure 21.

Figure 21 Proportion of caregivers reporting the use of an electronic scale to weigh the rice



94% of respondents report that they pay the rice at the food shop at 1 rupee per kg, which is the correct level of the subsidised price, with most of the remaining 6% reporting that they do not know the price. It is worth noting that almost 7% of respondents indicate that they had to pay extra money to receive the grains they are entitled to.

Only 39% of food card holders report that they receive their grains monthly, with almost 60% of respondents reporting instead that they receive their grains once in two months.

Almost 7% of card holders have not had an Aadhar number assigned and 12% of all card holders respondents that food distribution was ever withheld because of an issue with their Aadhar number.

27% of respondents do not know whether there is a PDS advisory committee in the GP. Out of those who know, 58% report a committee exists and 42% that it does not.

Out of the respondents who received some information on TPDS, 44% did seek help regarding the service. Unfortunately, we do not know the proportion for all respondents as the question was mistakenly asked only for those who received information. 86% of the respondents who sought help did so with respect to the food ration card and close to 5% did so with respect to the quantity of grains.

Figure 22 and Figure 23 display the proportion of respondents feeling well informed on and satisfied with TPDS. About 8% of respondents do not feel confident they could express their concerns or raise complains with TPDS.

Figure 22 Proportion of respondents feeling well informed on TPDS

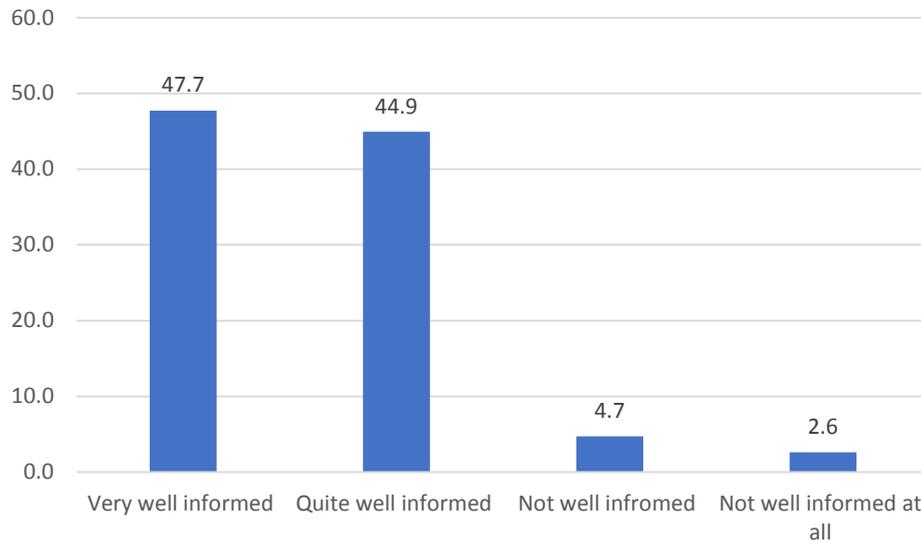
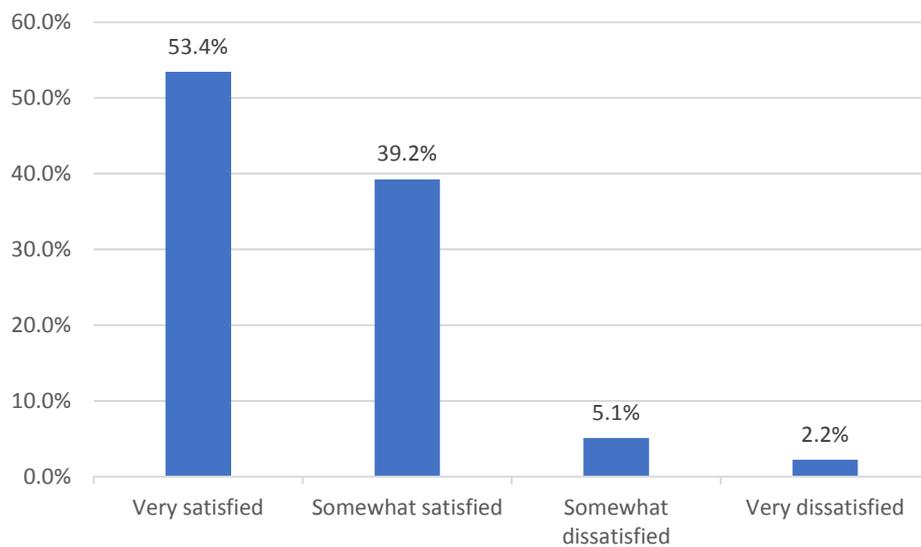


Figure 23 Satisfaction with TPDS



4.1.8. Growth monitoring services

78% of respondents report that their child was weighed by the AWW/ASHA worker either at the AWC or at home. In 90% of the cases, the information on the weight was given to the caregiver and in 46% of the cases the respondent was given specific advice after the measurement. 22% and 4% of respondents report that the child was given special food and referred to a hospital or nutrition rehabilitation centre after the measure, respectively.

Figure 24 Proportion of respondents feeling well informed about growth monitoring services

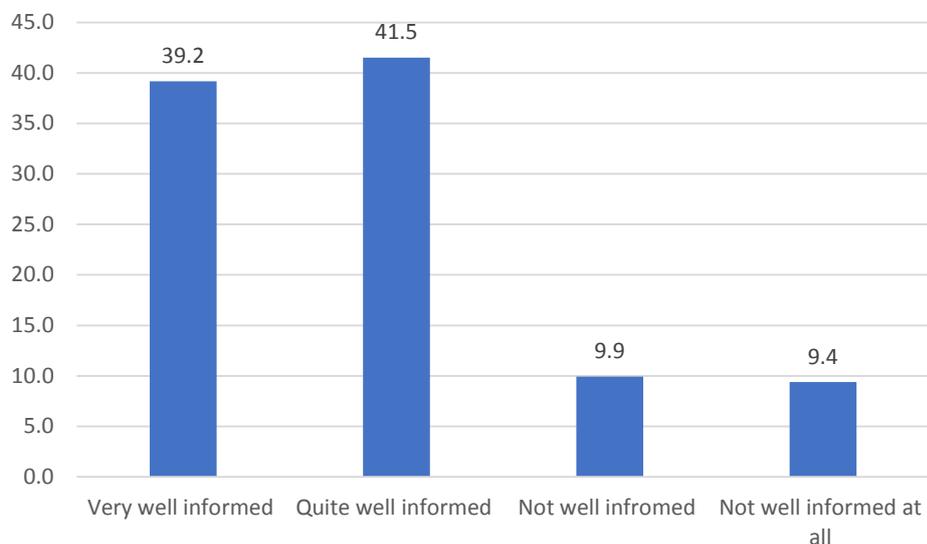
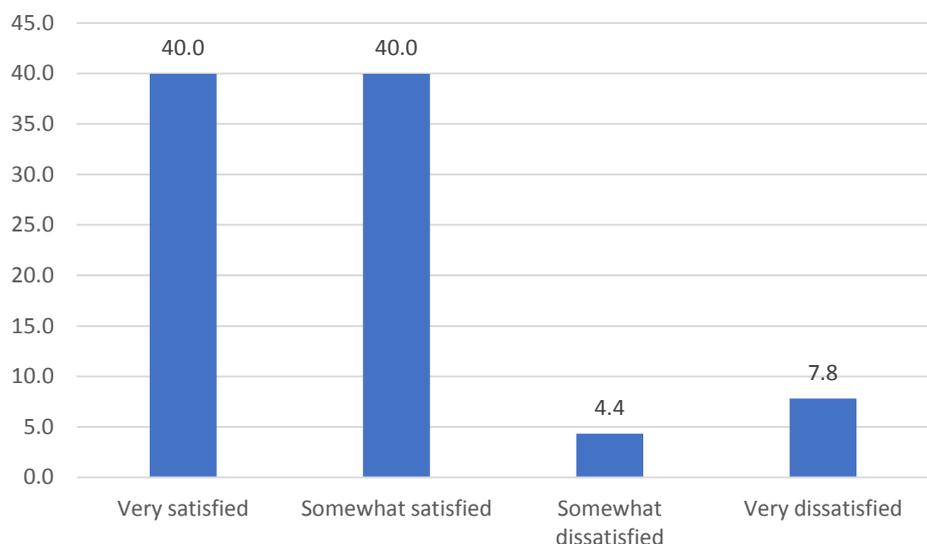


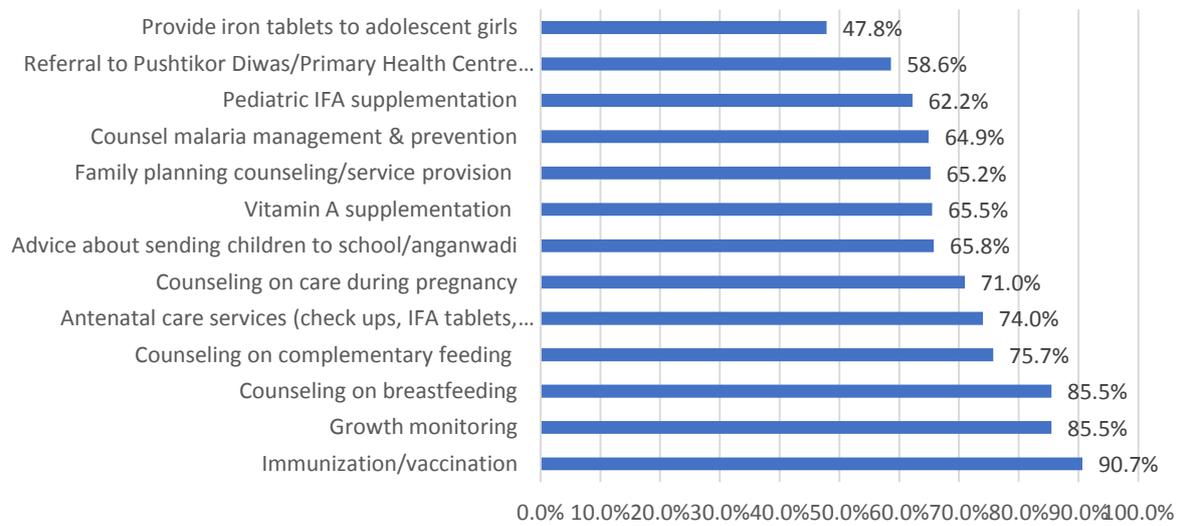
Figure 25 Satisfaction with growth monitoring services



4.1.9. Village Health and Nutrition Days (VHND)

Just below two-third of respondents have heard of VHND (64%), with the lowest proportion in Balangir (52%) and the highest one in Malkangiri (73%). Out of those who know about VHND, still 20% report that no VHND was conducted in their village in the last 3 months. 31% report it happened once, 27% three times, 20% two times and 3% more than three times. Finally, out of the respondents who know about VHND and who live in a village where a VHND was conducted in the last 3 months, 72% report that their child participated in the activities. The list of activities children participated in is presented in Figure 26.

Figure 26 Activities in the VHND



4.1.10. Knowledge of feeding practices

The main source of information for caregivers on nutrition are the AWW/ASHA workers (cited by 74% of respondents) before family members (52%). Similarly, the two most trusted sources of information are the AWW/ASHA workers (66%) and family members (51%).

Figure 27 Main sources of information on nutrition

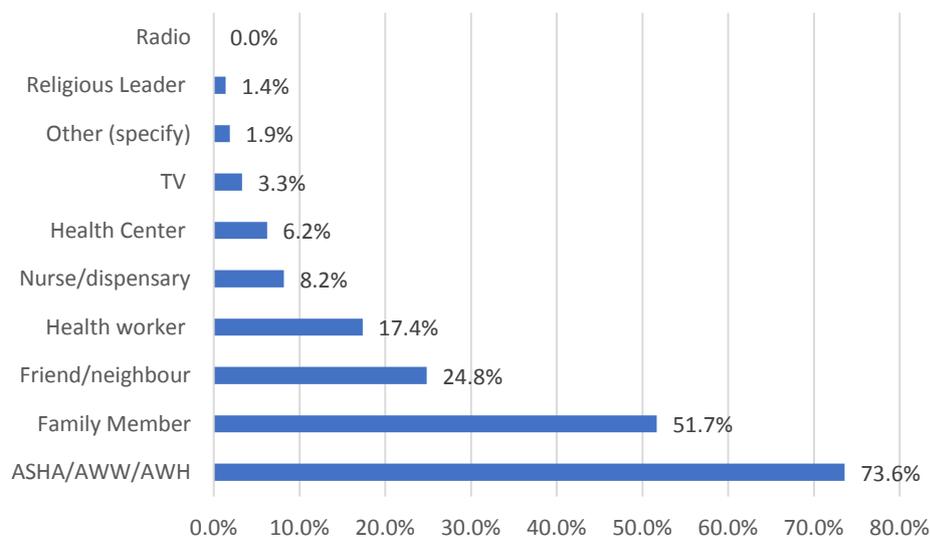
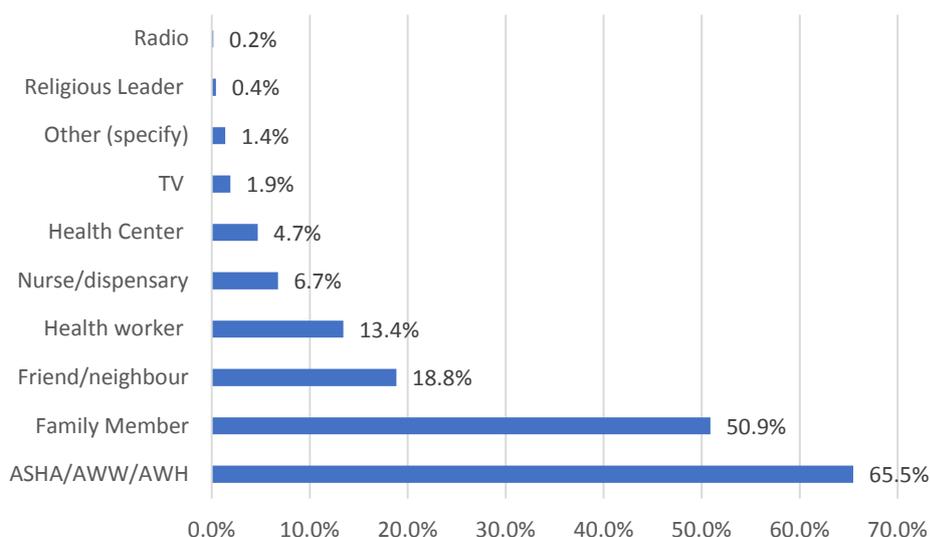


Figure 28 Sources of information on nutrition respondents trust the most



We have implemented a small questionnaire to test nutrition knowledge as in Hoddinott et al. (2016). This entails 4 questions on breastfeeding, 3 questions on supplementary feeding and 7 questions on health and nutrition. Respondents on average answered correctly 8.8 questions out of 14. In detail, they correctly answered 2.2 questions on breastfeeding (out of 4), 1.9 questions on supplementary feeding (out of 3) and 4.7 questions on health and nutrition (out of 7).⁷

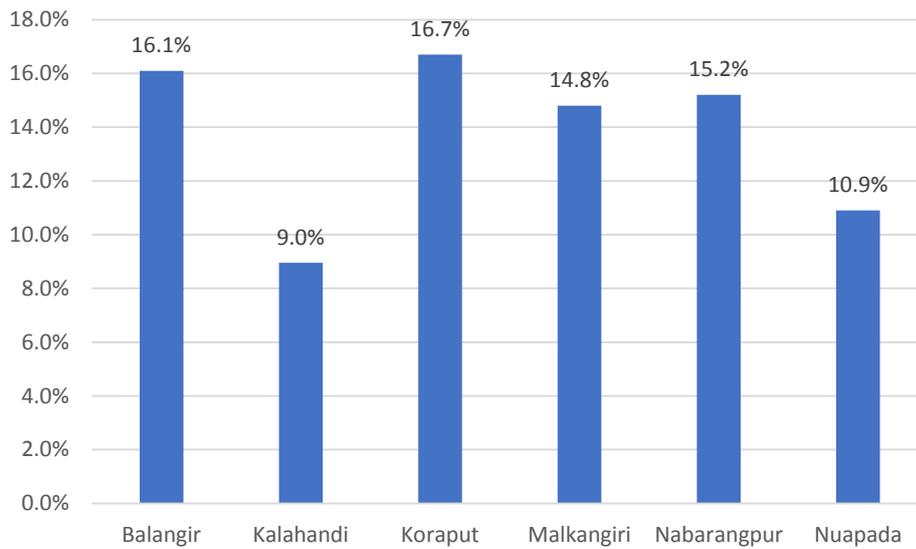
4.1.11. Participation in community life, empowerment and civic attitudes

We asked about the existence of 14 possible groups or committee at the local level. Overall, respondents know about the existence of 4.3 groups/committees, with the mean ranging from 3.8 in Nuapada to 4.6 in Nabarangpur.

Caregivers are members of 0.6 groups/committee on average while 34% of caregivers belong to at least one group/committee. The participation rate of respondents can also depend on the presence of groups or committee in the first place. We thus calculated an *index of community participation* which divides the number of groups the respondent is a member of by the total number of local groups. The mean value of this index in the sample is 13.9% so that respondents are a member of one in every 7 groups/committee. Community participation appears significantly lower in Kalahandi and Nuapada as seen in Figure 29.

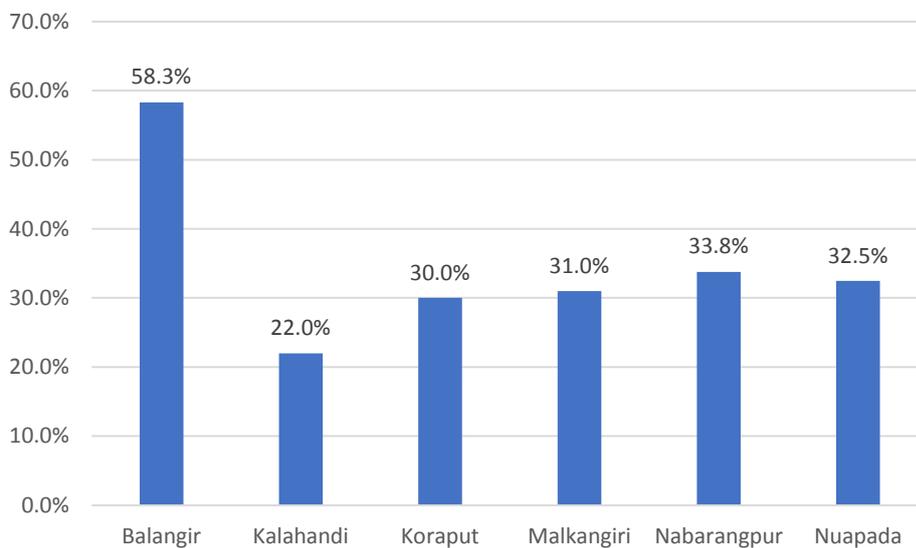
⁷ Hoddinott et al. 2016 found that rural Bangladeshi caregivers correctly answered 8.1 questions out of 14, 2 questions on breastfeeding, 1.5 questions on supplementary feeding and 4.6 questions on health and nutrition).

Figure 29 Index of Community Participation across Districts



We have also calculated an index of *perceived power in community life* which is the proportion of groups/committee in which respondents feel free to express themselves and raise their concerns or suggestions about nutrition. The mean value of this index is 34.7%, with once again some wide regional disparities.

Figure 30 Index of perceived power in community life across districts



4.2. Pregnant women

The baseline survey includes answers from 510 pregnant women (who are not also primary caregivers). The number of interviewed caregivers per GP ranges from 1 to 11, with a mean of 5.6. As explained above, the target number of female interviews per GP was 24, with interviews being split between caregivers and pregnant women. The number of caregivers and pregnant women interviewed in each GP depends on the number of households listed as having A) a child below 24 months and B) a pregnant woman.

4.2.1. Demographic characteristics of pregnant women

Pregnant women are 24.5 years old on average (three-quarter of pregnant women are below 27, and the oldest respondent is 42). 77% of pregnant women are the spouse of the household head, 20% are the daughter/daughter-in-law of the household head and less than 2% (1.8%) are household heads themselves.

Households of the pregnant women have 3 members on average, with 25% of these households having more than 4 members.

97.5% of respondents belong to Hindu households (defined as the religion of the head), 1.8% to Christian households and 0.6% to Muslim households. This religion breakdown is very similar to that of primary caregivers.

52% of respondents are Scheduled Tribes, 27% belong to Other Backward Castes (OBC), 20% are Scheduled Castes and just 2% are in the “general” category. This caste composition is slightly different from that of primary caregivers (pregnant women are more likely to belong to OBC).

42% of the respondents are literate, 20% can sign but not read or write and 36% can neither read nor write. The proportion of women who are literate is higher among pregnant women than among primary caregivers (42 v 27%).

87% of pregnant women declare themselves as housewives, 6.5% are self-employed, 4% are employees and just under 2% work without a pay (as apprentice or in a family business). 92% of pregnant women who reported a work activity did so in agriculture (60% in own farm and 32% as agricultural labourer). These economic outcomes are virtually in the samples of pregnant women and primary caregivers.

79% of respondents obtain their drinking water from tube wells, 10% from a public tap/sandpipe, 2.2% from an unprotected well. 1.8% of respondents receive their water directly through a pipe to their house/yard. 83% of respondents do not have any access to toilet and defecate in the open. The remaining 15% of respondents use some variations of pit latrines. Figures on access to sanitation and water are very similar between pregnant women and primary caregivers.

The average respondent reports that their household own 2.8 assets out of a list of 9 assets. Just over half of respondents have a separate room for cooking (51%). 93% of respondents use wood as cooking fuel and 6% use LPG/natural gas. Close to three-quarters (72%) of respondents have an earth floor and the remaining quarter has a cement floor.

Materials for the roof and external walls are relatively varied in the sample. 46% have tiles, 30% have asbestos, 11% have thatch/palm leaf, and 10% have cement for the roof. External walls are

made of dirt for 46% of respondents, of cement for 29% of respondents, of bricks for 18% of respondents, of bamboo or stone with mud for 6% of respondents and of stone for 1% of respondents.

Overall, there is very little difference in terms of socioeconomic characteristics between pregnant women and primary caregivers.

4.2.2. Food security

The mean FIES score among pregnant women is 2.6 (out of a maximum of 8), which is noticeably lower than among primary caregivers (3.2). Similarly, the mean WDDS score is 7 for pregnant women against 6.7 for primary caregivers. Both results indicate lower extent of food insecurity among pregnant women than among primary caregivers.

4.2.3. Access to services from the Angawandi Worker Center (AWC)

98% of respondents are aware of their local AWC and 93% of respondents report that the AWC or Angawandi worker (AWW) provided assistance to a household member in the last 3 months.

Out of the 7% of respondents who did not receive assistance from the AWC/AWW, 35% reports that it is because there were no needs and 42% because they were not enrolled. These are very different reasons than those put forward by primary caregivers.

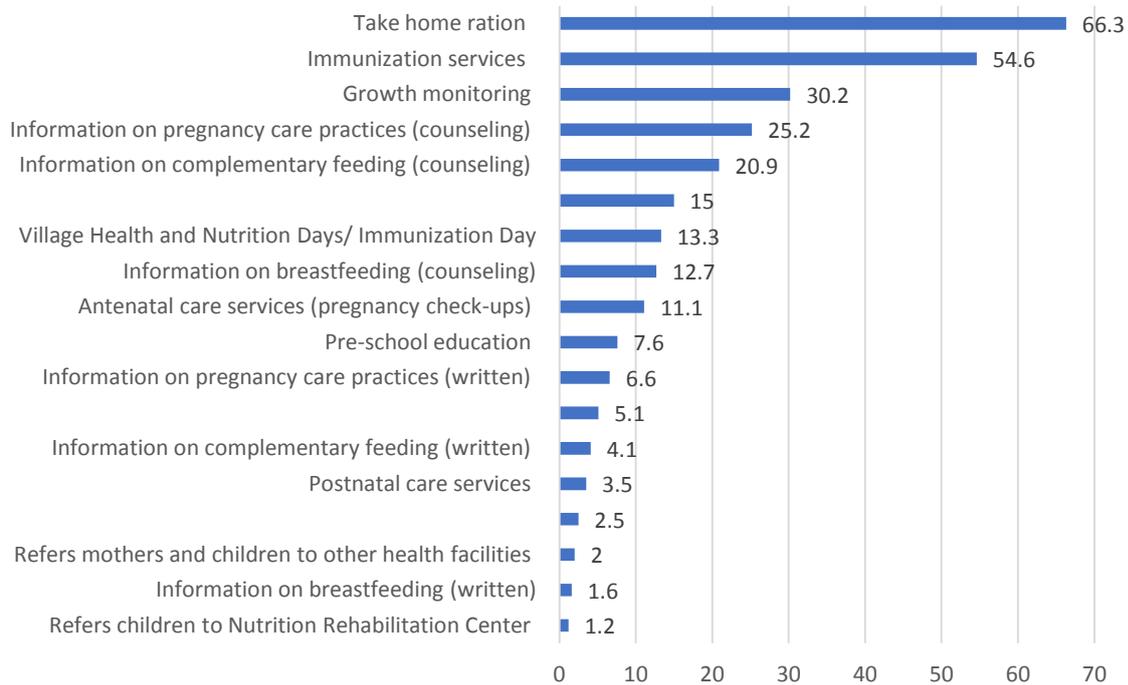
Figure 31 below shows that the take-home ration (THR) is the most commonly received service for pregnant women (66% of them report they received THR). Just over half of pregnant women report benefitting from immunization services (55%); 30% of respondents report growth monitoring services; 25% report having been given information on pregnancy care practices and 21% report having been given information on complementary feeding.

Only 15% of respondents declare having received IFA tablets, 13% declared having received information on breastfeeding and 12% declared antenatal checks.

85% of pregnant women report that the AWC opens on time, 8% report that it does not, and 7% do not know. 78% consider that the AWW comes daily to the centre, 14% that she does not, and 9% do not know.

On average, pregnant women estimate that the AWC is open for 2.7 hours per day.

Figure 31 Proportion of pregnant women reporting they received the following services in the last 3 months from the AWC/AWW



54% of pregnant women report they are “very satisfied” with the AWC/AWW, 38% are “somewhat satisfied”, 2.6% are “somewhat dissatisfied” and 4% are “very dissatisfied”. 75% of respondents are very confident that they could express concerns and raise complains regarding AWC/AWW and 16% are confident. Just over 9% of respondents are either not confident at all or rather not confident.

4.2.4. Take-Home Rations

71% of respondents received THR during their pregnancy. Reasons for not receiving THR during pregnancy are: “the AWW told me I was not eligible” (34%), “registration-related issues” (20%) and “Take home ration was not available “(11%).

Most beneficiaries (80%) received 1 distribution of THR per month and 20% of respondents received THR twice a month. 54% of beneficiaries received 1 packet per month and 44% received 2 packets per month. **Combining these two information reveals that 54% of beneficiaries receive just 1 packet a month, 27% of beneficiaries receive 2 packets a month and 19% receive 4 packets a month.**

95% of beneficiaries who received THR consumed it. 58% of respondents report that each packet lasts no more than 1 week.

A sizable minority (31%) of beneficiarries were not explained how to prepare the THR. Additionally, not all beneficiares received the correct THR. Almost 8% of pregnant women report they were given

a sky blue packet (which is meant for breastfeeding women) or a red packet (for malnourished children).

57% of respondents report they were given eggs (50% of them were given two eggs a week).

42% of respondents have sought help with regards to the THR. In 90% of cases, the respondent asked the AWW and in 9% of the cases they turned to the ASHA worker.

Pregnant women appear substantially less satisfied with and less informed on THR than primary caregivers.

Figure 32 Proportion of respondents feeling well informed on THR

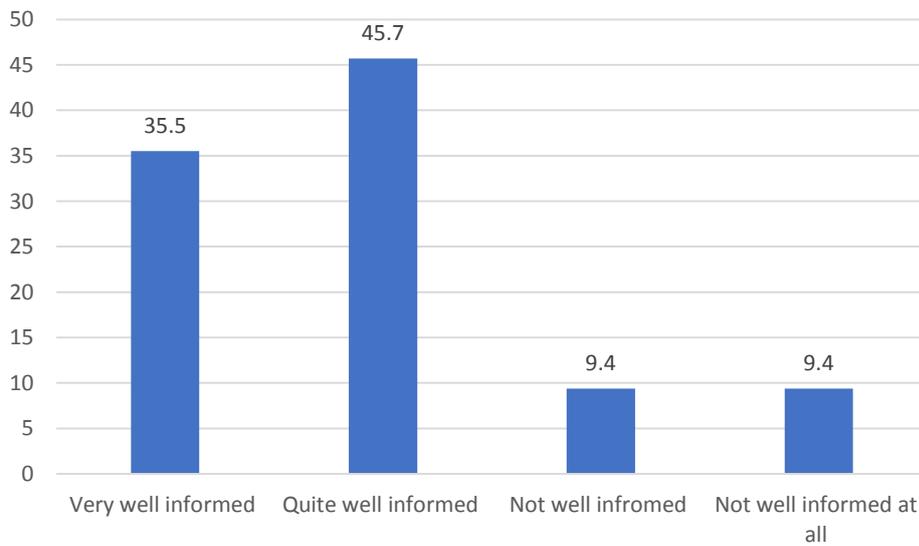
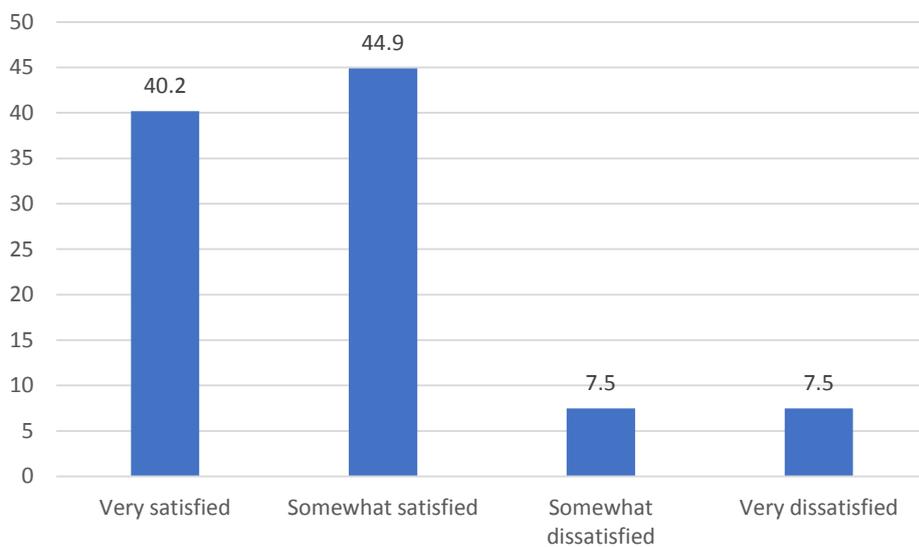


Figure 33 Satisfaction with THR



4.2.5. Access to the Mamata scheme

About two-thirds (69%) of pregnant women have a valid MCP card. Main reasons for not having one are that they are enrolled but the health workers have not yet issued a card (51%), that they are not enrolled (36%) and that the card was not available (7%).

Information on the MCP card was up-to-date for 85% of pregnant women (with a card). The information was not up-to-date for 4% of women, and the card was not available for checking by the enumerator for 9% of respondents.

The Mamata scheme is known by 82% of pregnant women. Those respondents were then read 7 statements about who is eligible to the Mamata scheme and they were asked to answer whether each statement was true or false. On average, a respondent correctly answered 2.4 statements out of 7. Almost half of respondents (47%) wrongly believed that the scheme is available no matter the age of the mother. 59% of respondents also wrongly believed the scheme is only available for the first live birth. When eventually proposed with the statement that the scheme is available until the second live birth, 56% of respondents correctly agreed.

80% of respondents report having been given information on the Mamata scheme. The knowledge of Mamata entitlements is a bit higher among those who received information (3) than for the others (2.6).

Figure 34 Proportion of respondents feeling well informed on the Mamata scheme

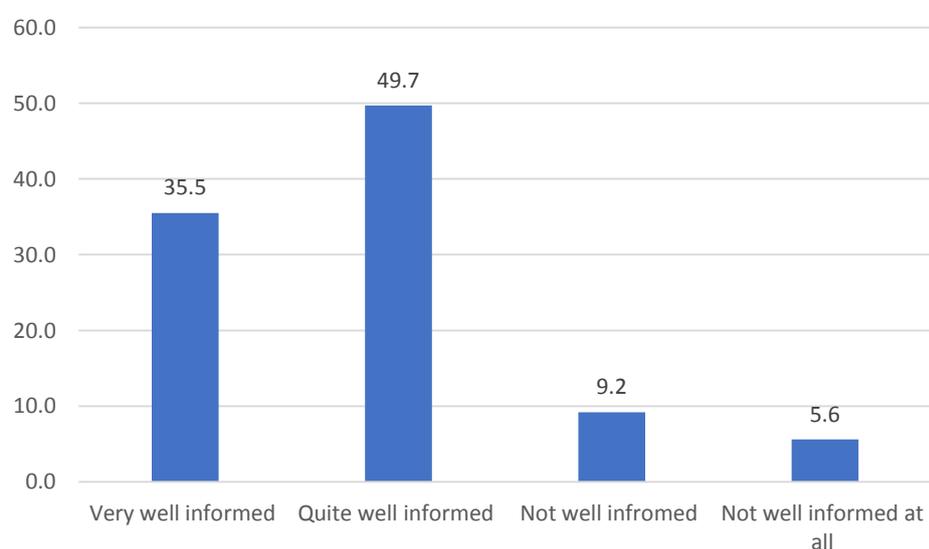
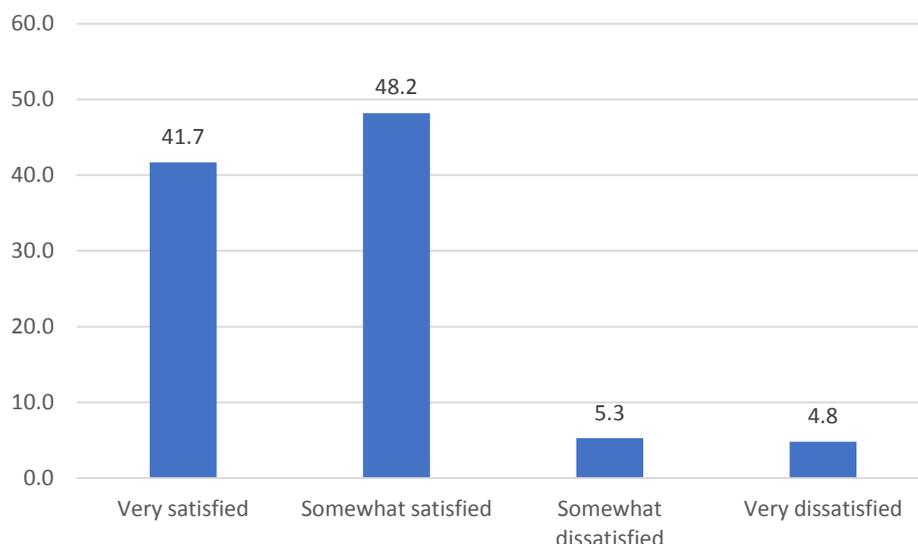


Figure 35 Satisfaction with Mamata scheme



4.2.6. Targeted Food Distribution System

79.4% of pregnant women live in a household holding a valid ration card at the time of the survey. Reasons for why households do not hold a valid card are: “Applied for one but don’t have the card yet” (51%), “Could not apply” (15%), “Awaiting for the card to be issued” (13%), and “Not eligible” (20%).

Out of those households which applied but have not yet received their cards, 50% had applied one year ago or more and 81% had made their application more than 3 months ago. 70% of these respondents had not yet received any written update about the status of their application.

93% of respondents hold a General Priority Household (PHH) card and 6% hold an Antyodaya Anna Yojana (AAY) ration card.

91% of card holders received exclusively rice and 9% received both wheat and rice. 97% consider that the ration shop always provides them with the amount of food they are entitled to. 97% of card holders report that they consume the grains. 92% of respondents rate the grains they receive as of very good quality (44%) or good quality (48%).

93% of PHH card holders knew that they are entitled to 5kg of grain per person and per month and 59% of AAY card holders correctly answered they are entitled to 35kg of rice per month.

Information on the TPDS is lacking as only 47% of respondents report that they were given information on their entitlements to TPDS. The use of an electronic scale to weigh the rice was reported by 59% of respondents (the corresponding figure for wheat is 53%).

94% of respondents report that they pay the rice at the food shop at 1 rupee per kg, which is the correct level of the subsidised price, with most of the remaining 6% reporting that they do not know the price. Almost 6% of respondents indicate that they had to pay extra money to receive the grains they are entitled to.

Only 36% of food card holders report that they receive their grains monthly, with 62% of respondents reporting instead that they receive their grains once in two months.

Almost 7% of card holders have not had an Aadhar number assigned and 16% of all card holders respondents that food distribution was ever withheld because of an issue with their Aadhar number.

30% of respondents do not know whether there is a PDS advisory committee in the GP. Out of those who know, 56% report a committee exists and 44% that it does not.

Figure 36 and Figure 37 display the proportion of respondents feeling well informed on and satisfied with TPDS.

Figure 36 Proportion of respondents feeling well informed on TPDS

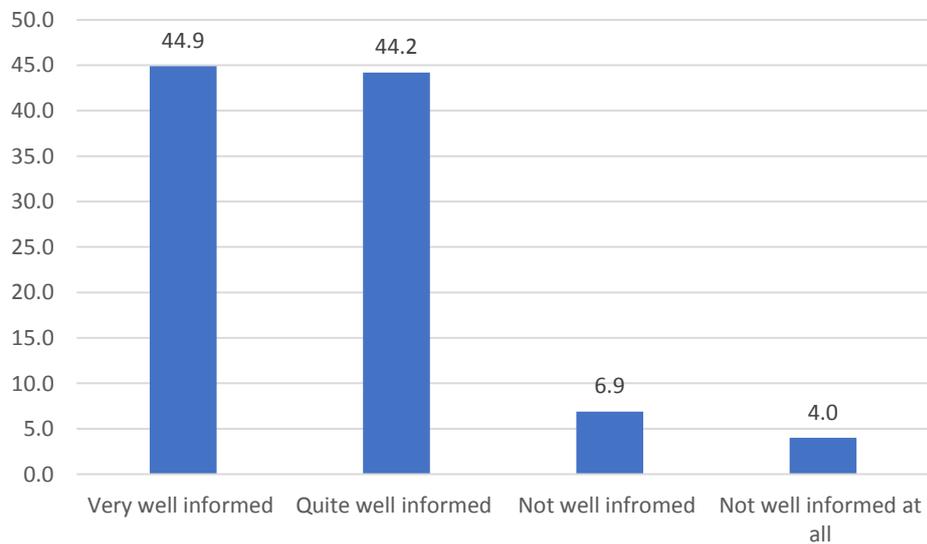
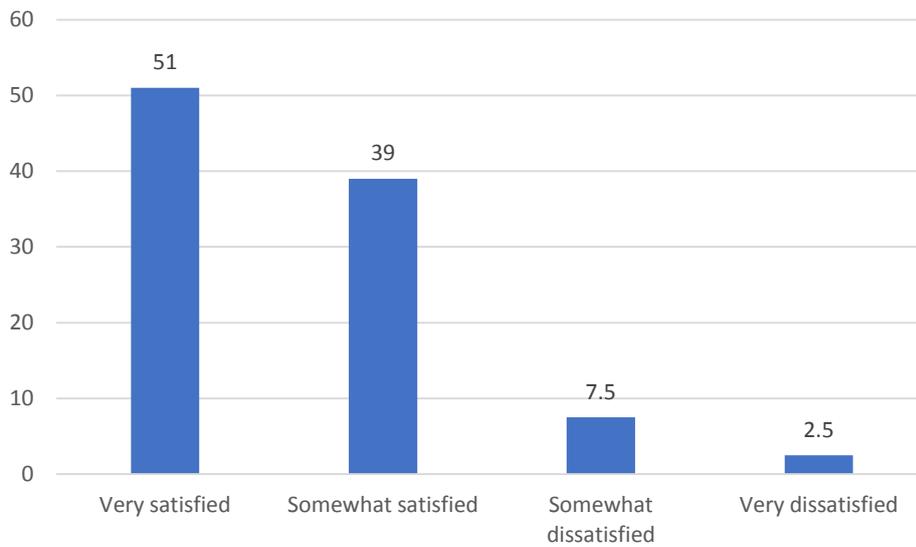


Figure 37 Satisfaction with TPDS



4.2.7. Village Health and Nutrition Days (VHND)

54% of respondents have heard of VHND. Out of those who know about VHND, 14% report that no VHND was conducted in their village in the last 3 months. 26% report it happened once, 21% two times, 37% three times and 2% more than three times. Finally, out of the respondents who know about VHND and who live in a village where a VHND was conducted in the last 3 months, 77% report that they participated in the activities.

4.2.8. Knowledge of feeding practices

The main source of information for pregnant women on nutrition are the AWW/ASHA workers (cited by 71% of respondents) before family members (54%). Similarly, the two most trusted sources of information are the AWW/ASHA workers (64%) and family members (54%).

Figure 38 Main sources of information on nutrition

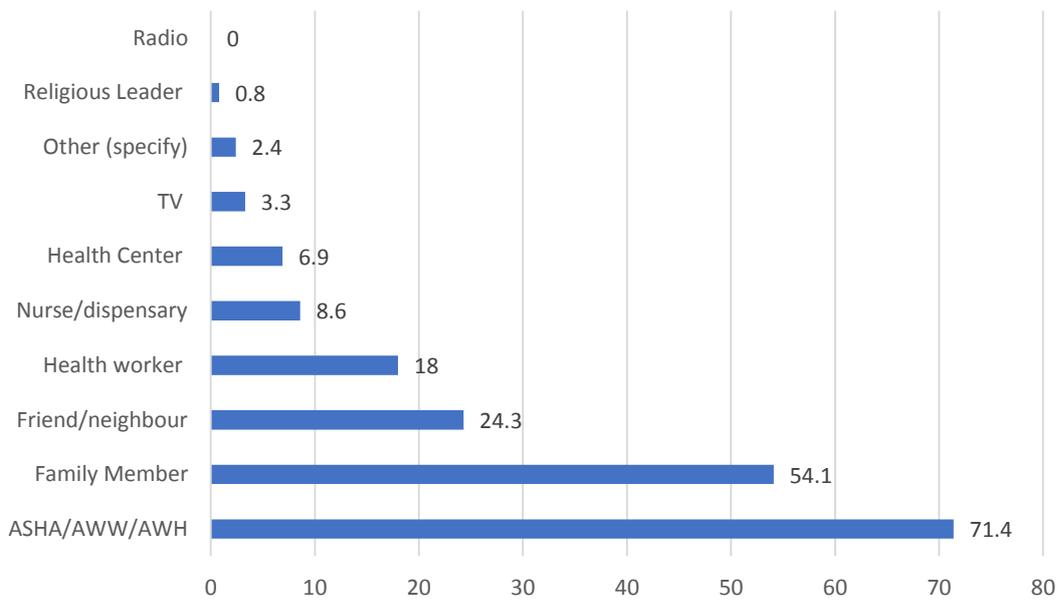
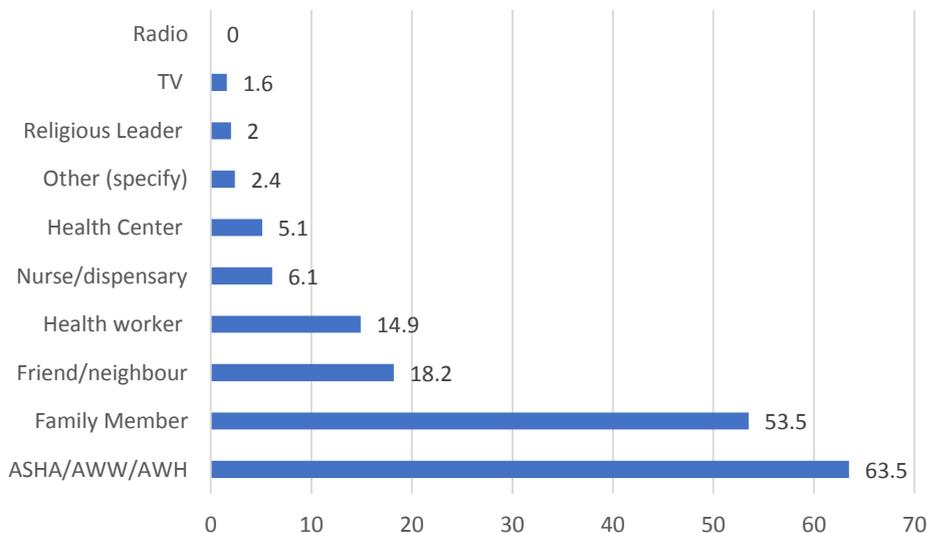


Figure 39 Sources of information on nutrition respondents trust the most



As part of the module on nutrition knowledge, respondents on average answered correctly 8.2 questions out of 14. In detail, they correctly answered 1.9 questions on breastfeeding (out of 4), 1.8 questions on supplementary feeding (out of 3) and 4.5 questions on health and nutrition (out of 7). Knowledge of nutrition practices is therefore slightly lower among pregnant women than among primary caregivers.

4.2.9. Participation in community life, empowerment and civic attitudes

We asked about the existence of 14 possible groups or committee at the local level. Overall, respondents know about the existence of 4.1 groups/committees.

Caregivers are members of 0.5 groups/committee on average while 32% of pregnant women belong to at least one group/committee. The participation rate of respondents can also depend on the presence of groups or committee in the first place. We thus calculated an *index of community participation* which divides the number of groups the respondent is a member of by the total number of local groups. The mean value of this index in the sample is 13% so that respondents are a member of one in every 7 groups/committee.

We have also calculated an index of *perceived power in community life* which is the proportion of groups/committee in which respondents feel free to express themselves and raise their concerns or suggestions about nutrition. The mean value of this index is 34.4%, with once again some wide regional disparities.

4.3. Male respondents

We aimed to survey one male respondent (typically the husband/partner of the primary caregiver or pregnant women) in every household. Male respondents were administered a shorter version of the questionnaire, focused on the socioeconomic module, access TPDS and community participation. Out of the 2394 households with either a primary caregiver of a child below 2 or with a pregnant woman, the field team was able to interview a male respondent in just over two-third of them (68%, or 1645 interviews). In the other cases, men were not in the household during the time the team was in the village, primarily because of work migration patterns.

In the baseline report, we will only report on access to services and community participation.

81% of male respondents declare having a valid food ration card. Out of the 19% who do not have one, the reasons are: “applied but don’t have my card yet” (51%), “not eligible” (20%), “could not apply” (15%) and “awaiting card to be issued” (9%). These figures are quite close to those from the primary caregivers sample.

93% of male respondents declare holding a General Priority Household (PHH) card and 7% an Antyodaya Anna Yojana (AAY) ration card.

93% of card holders received exclusively rice and 6% received both wheat and rice. 97% consider that the ration shop always provides them with the amount of food they are entitled to (3% that it sometimes does). 96% of card holders report that they consume the grains. 93% of respondents rate the grains they receive as of very good quality (49%) or good quality (45%).

Virtually every PHH cardholder knew that they are entitled to 5kg of grain per person and per month and 99% of respondents who exclusively receive rice reported that they were provided with 5kg of rice per month and per person.

The level of knowledge of AAY card holders is lower as 51% of respondents correctly reported that they are entitled to 35kg of rice per month.

Information on the TPDS is lacking as only 53% of male respondents report that they were given information on their entitlements to TPDS. The information was considered very clear by 69% of respondents and somewhat clear by 24% of them.

The use of an electronic scale to weigh the rice was reported by 60% of respondents (the corresponding figure for wheat is 62%).

98% of male respondents report that they pay the rice at the food shop at 1 rupee per kg, which is the correct level of the subsidised price. Almost 7% of male respondents indicate that they had to pay extra money to receive the grains they are entitled to.

Only 40% of food card holders report that they receive their grains monthly, with 58% of respondents reporting instead that they receive their grains once in two months.

Almost 6% of card holders have not had an Aadhar number assigned and 14% of all cardholders reported that food distribution was ever withheld because of an issue with their Aadhar number.

54% of male respondents do not know whether there is a PDS advisory committee in the GP (a much higher proportion than among primary caregivers). Out of those who know, 57% report a committee exists and 43% that it does not.

Out of the respondents who received some information on TPDS, 42% did seek help regarding the service.

Figure 40 and Figure 41 display the proportion of respondents feeling well informed on and satisfied with TPDS.

Figure 40 Proportion of male respondents feeling well informed on TPDS

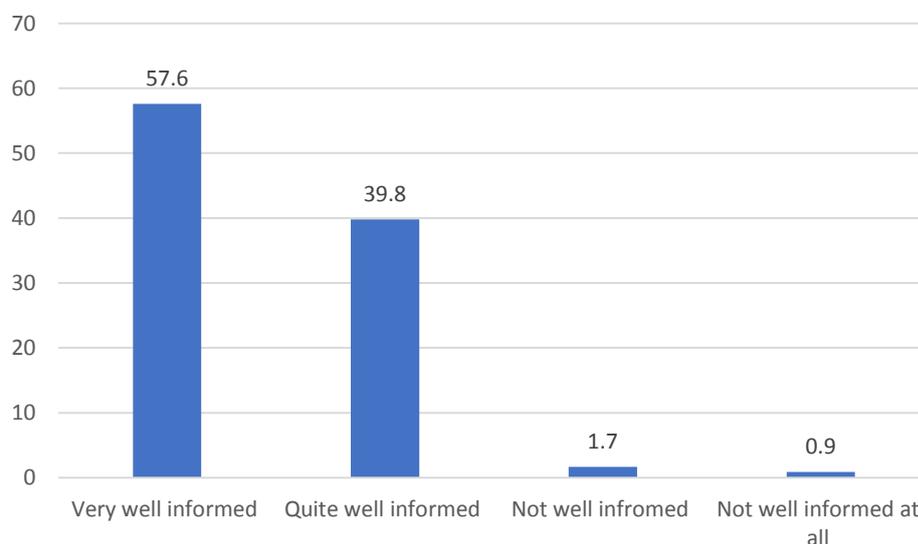
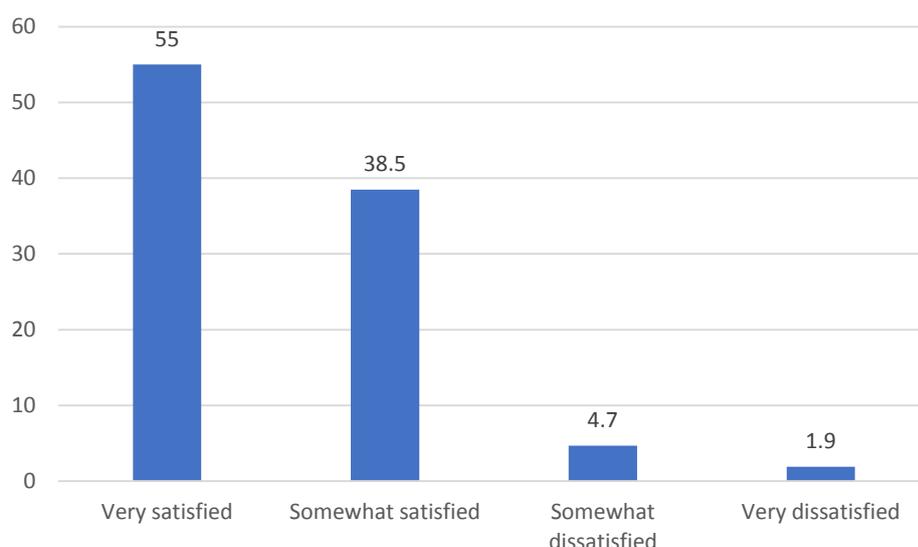


Figure 41 Male respondents' satisfaction with TPDS



4.4. Adolescent girls

As part of the baseline survey, we have interviewed 233 adolescent girls in 201 households (about 2 adolescents in each GP on average). We asked them questions on food security and access to health and nutrition services. Given that access to service was low (see below), the actual sample size of adolescent girls becomes too small to assess satisfaction to services. Nevertheless, a few key interesting figures emerged from the survey.

First, the food dietary diversity score (WDDS) for adolescent girls was 6.4 on average in the sample, which is noticeably lower than the score for pregnant women (7) and primary caregivers (6.7).

Second, 83% of adolescent girls were aware of the AWC and 27% of all adolescent girls have visited the AWC (corresponding to 32% of adolescent girls who are aware of the AWC). Just 12% of all adolescent girls have received some service from the AWC.

Third, access to home visits and VHND was low. Just 9% of adolescent girls have been visited at home by a health worker in the last 3 months, and only 28% of adolescent girls were aware of the VHND, with 7% of all girls having participated in it.

4.5. Angawandi Workers (AWW)

We surveyed one AWW per GP in 115 GPs⁸ and administered the respondent a questionnaire aimed at understanding who the AWWs are, what their working conditions are, what activities they conduct and what problems they face.

⁸ In one GP, it was not possible to schedule the interview with AWWs.

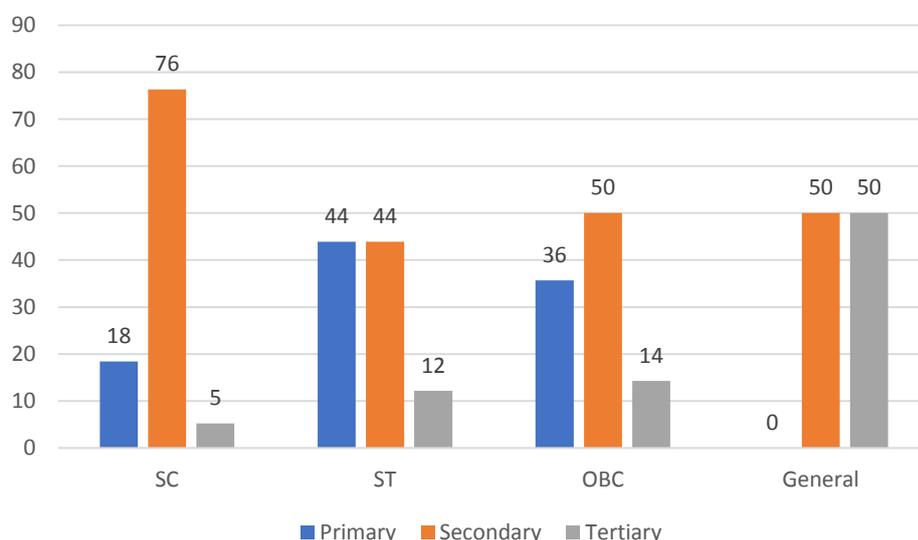
4.5.1. Characteristics of AWC and AWW

78% of AWW live in the village where the AWC is located and more than 90% of AWW report than more than one AWW work in the centre.

The caste breakdown of AWW respondents is as follows: 36% are Scheduled Tribes (ST), 33% are Scheduled Castes (SC), 24% are from Other Backward Castes (OBC) and 7% are from the “general category”. Compared with the caste composition of primary caregivers (51% Scheduled Tribes, 25% OBC, 22% Scheduled Castes and 3% “general” category), one can see that STs are under-represented among AWW whereas SC and the “general” category are over-represented.

13% of AWW completed tertiary education, 57% completed secondary education and 30% completed primary education. There is a very clear relationship between the caste and the education level of the AWWs, as seen in Figure 42.

Figure 42 Proportion of AWW with primary, secondary and tertiary education across caste groups



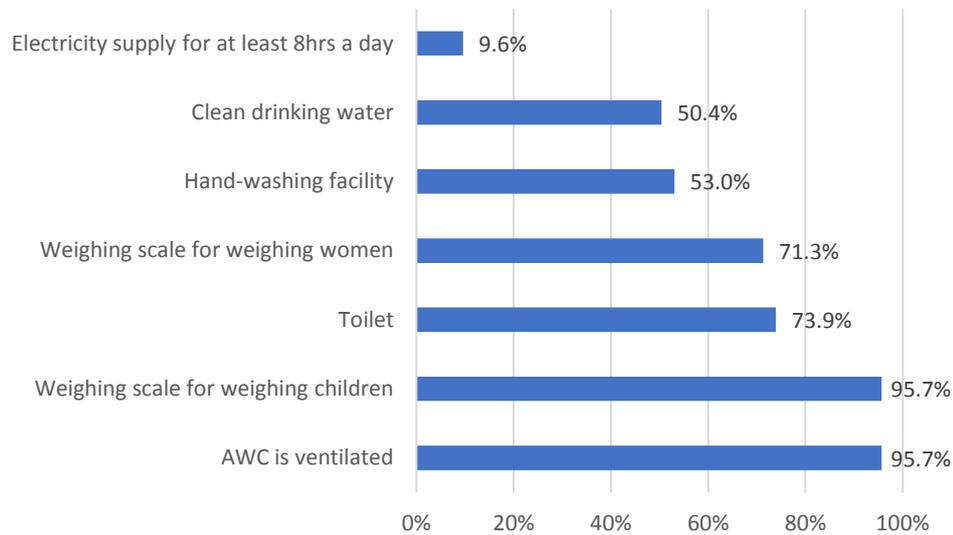
About two-third of AWC (65%) are located at the centre of the village whereas about one-third (35%) are located in the periphery. The average estimated time needed to reach the AWC from the centre of the village according to enumerators is 6.7 min when the AWC is centrally located and 8.7 minutes when it is in the periphery.

In three-quarter of the cases, the AWC is located in its own ICDS building, in 12% of the cases, it is located in a building neither owned nor rented (this include the AWW’s house, the Panchayat building, the school or a community building), in 7% of the cases in a rented building and in 5% of the cases in a rented space (not a building). The AWC is pucca or semi-pucca in 77% and 14% of the cases, respectively whereas 8.7% of AWC are kutcha.

Enumerators were asked to assess the condition of the AWC. About two-third of AWC (65%) are considered in good condition, 22% in adequate condition, 10% in bad condition and 3% in dilapidated condition (which corresponds to 3 AWCs out of 115). While just 5 out 115 AWC are not ventilated, toilets in the AWC are rare (only 13% of them have an exclusive toilet and 74% have no

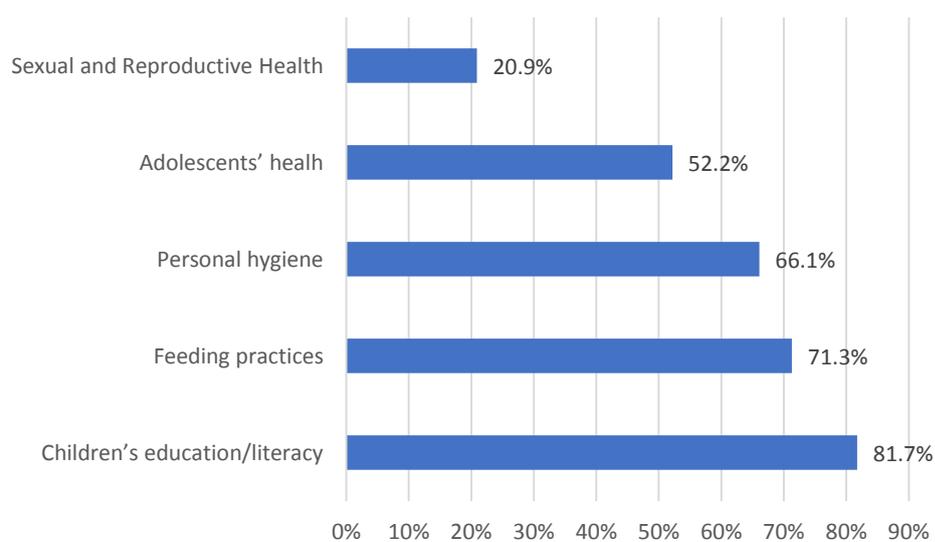
toilet at all). Weighing scales for children are commonplace but less so for women, see Figure 43 for further description of AWCs.

Figure 43 Proportion of AWC with selected characteristics



AWCs display materials (posters, card etc) on topics ranging from children’s education (in 82% of the cases_ to sexual and reproductive health (in 21% of the cases), see Figure 44.

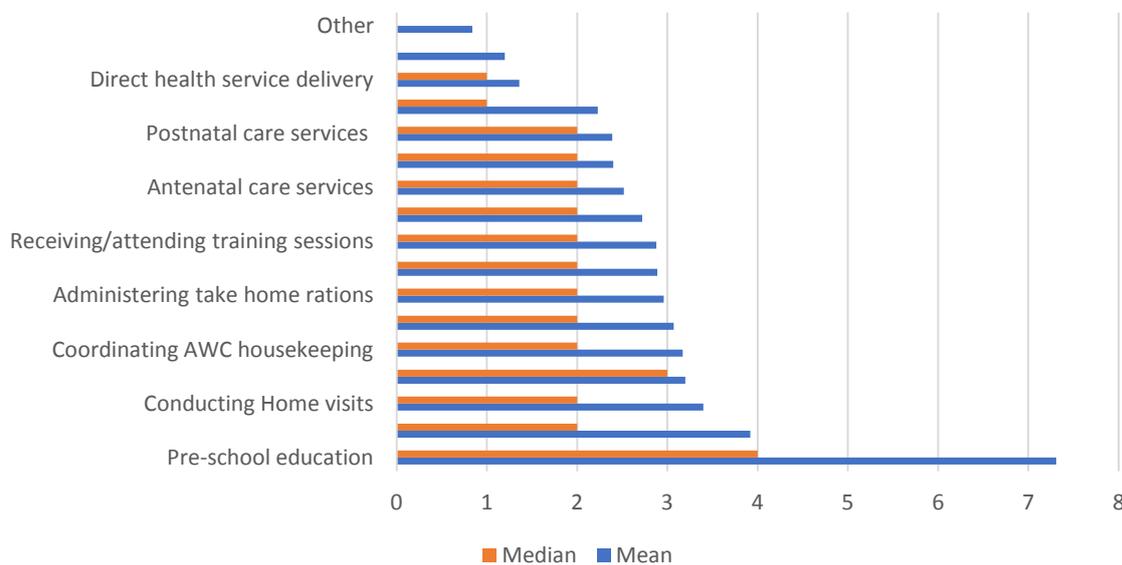
Figure 44 Topics represented in AWCs materials on display



4.5.2. Activities of AWWs

AWWs report working 25 days in a month, with little variation in the sample. AWWs are involved in a wide range of potential activities. In the questionnaire, we asked them how many hours they spend on a typical week for 16 activities. The most time-consuming activity is pre-school education, which occupies AWWs for more than 7 hours a week on average (4 hours a week if we look at the median). Six other activities take-up between 2 and 4 hours a week on average (and exactly 2 hours for the median each), as seen in Figure 45. The grand total of hours spent by a AWW on all activities is very high on average, at 48 hours. However, it is notoriously difficult for respondents to accurately assess time spent on each activity, and AWWs were also probably wary of reporting low volumes of working hours on activities they are supposed to conduct. The sum of the median time spent on all activities (31 hours) is thus likely a better indicator than the mean of the actual workload of the AWWs.

Figure 45 Mean and median number of hours spent per week by the AWW on activities

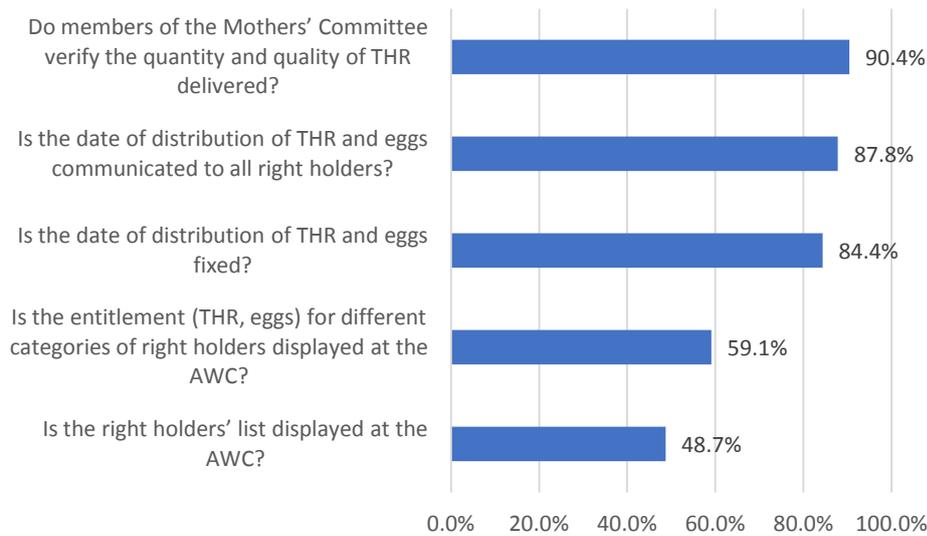


More than 78% of AWWs report that the AWC was closed for a week at a stretch during the last 3 months, mostly as a result of a rally/strike.

AWWs get information on their work responsibilities from their training (48%), the lady supervisor (33%), the CDPO (11%), the previous AWW (4%) and their own prior knowledge (3%).

4.5.3. Take home Rations

Figure 46 ICDS-related information at the AWC



In line with the information given by caregivers, 86% of AWWs report that they distribute THR twice a month. Virtually every target groups receive the THR whereas about 92-94% of AWWs report giving eggs to children between 6 months and 3 years and pregnant and lactating women.

THR come from self-help groups in 87% of the cases. 4% of AWWs report that THR also come from mission Shakhti and food company. 10% of AWWs have said that the food rations were not packed with colour-coded paper and amount indication.

It is interesting to note that 9 AWW out of 115 indicate that there has been at least one situation where beneficiaries were charged for the THR in the last 3 months.

In the last 3 months, 9% and 16% of AWWs report that there has been an instance where some beneficiaries did not receive all their entitlements or some of their entitlements, respectively. This was mostly because AWWs did not receive (all) their stocks.

79% of AWWs report they give verbal instructions to each beneficiary when distributing the THR.

4.5.4. Growth monitoring services

94% of AWWs report that the AWC has a functioning weighing machine for children. About three-quarter (77%) of AWWs weigh children twice a month, 6% once in two months, and 17% have no fixed schedule. Figure 47 presents the proportion of AWWs following best practices of growth monitoring.

Figure 47 Proportion of AWWs following selected practices of growth monitoring

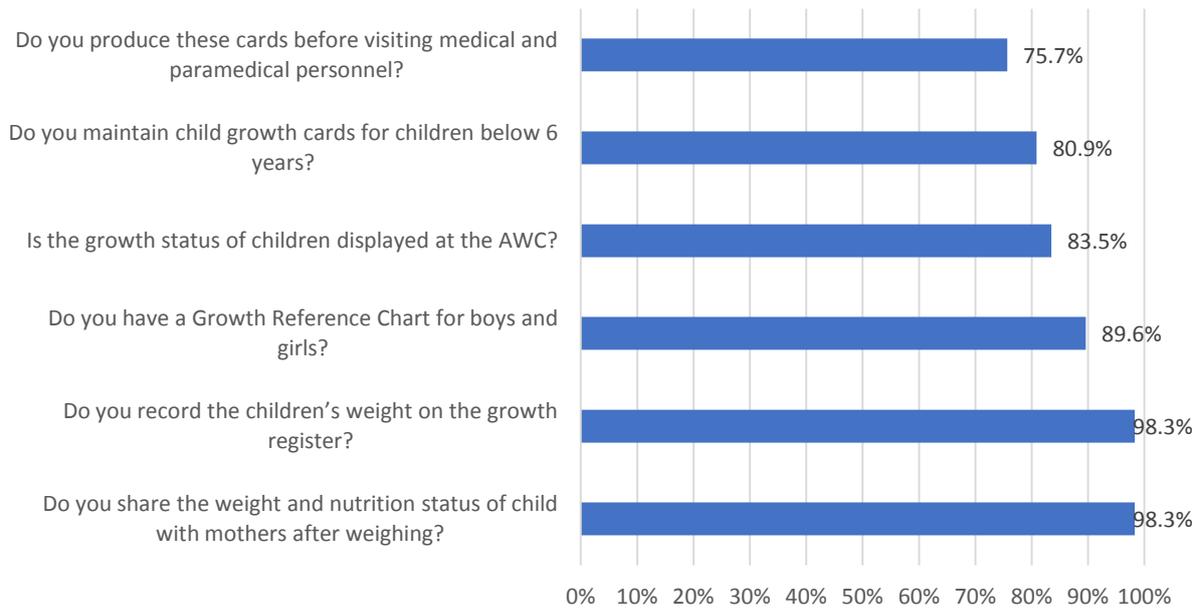
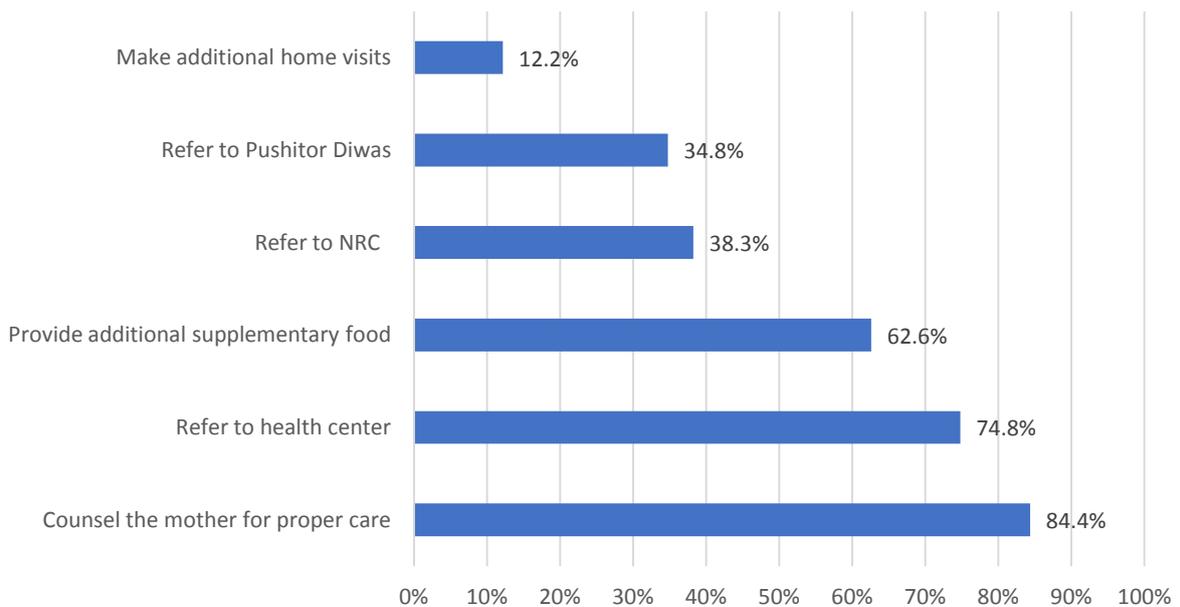


Figure 48 shows the most common actions taken by AWWs after a child has been detected as severely malnourished. Referrals to health centre, NRC and Pushitor Diwas appear as insufficiently common. On average, each AWW has referred to the NRC 0.94 severely underweight children and 0.2 underweight children in the last month.

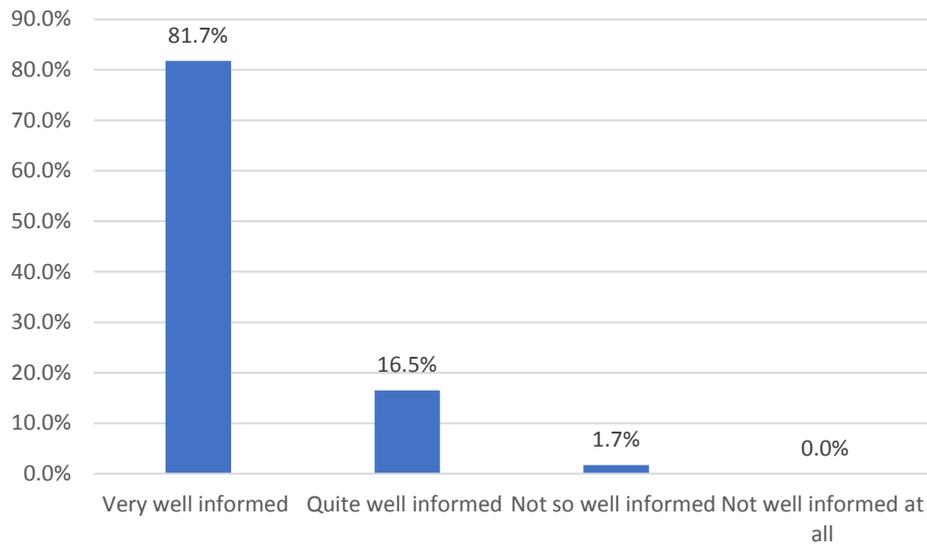
Figure 48 Most common actions of AWWs after a child has been detected as severely underweight



4.5.5. Mamata scheme

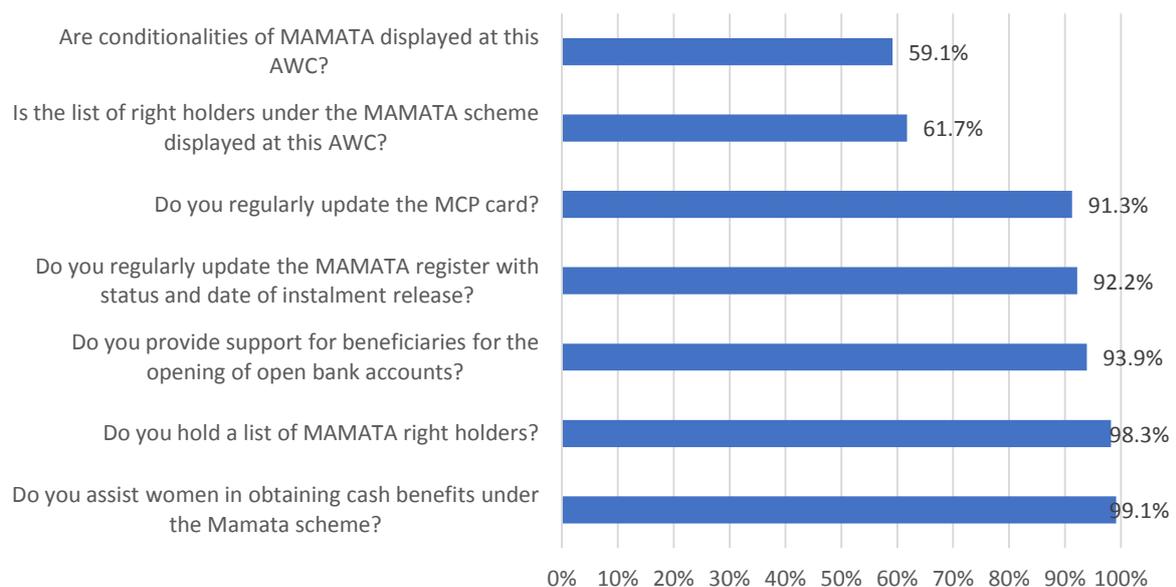
Respondents tend to feel well informed about Mamata, although 17% think they are “quite” well informed as opposed to “very well” informed.

Figure 49 Proportion of AWWs feeling well informed about Mamata scheme



AWWs practices regarding Mamata are summarised in Figure 50. Whereas basic actions are taken by more than 9 AWWs out of 10, it is less common to see the list of right holders and conditionalities displayed at the AWC (62% and 60%, respectively).

Figure 50 Proportion of AWWs following selected practices related to the Mamata scheme

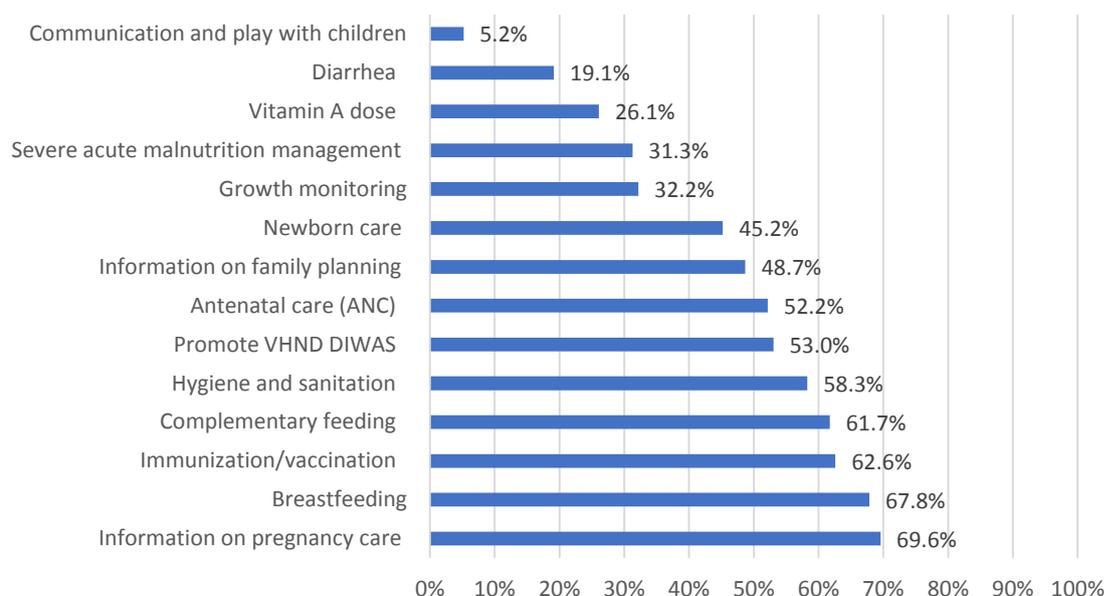


Only 4 AWWs report that there are community mechanisms (usually the Jaanch committee) in place for lodging grievances related to the Mamata scheme. About one-third of AWWs consider that there are channels in place for grievance redressal for acting upon rightsholders' concerns related to the Mamata scheme. These channels are mostly complaints/referrals to the ICDS office or supervisor as well as VHND. Less than half (45%) of AWWs consider these channels to be effective.

4.5.6. Nutrition and health education

66% of AWWs indicate regularly providing nutrition and health education (NHE) to beneficiaries and 31% indicate doing so occasionally. On average, AWWs have conducted 2.8 group education sessions in the last 3 months. The most common occasions for AWWs to provide NHE are on a fixed day in the week/month (mentioned by 44% of AWWs), during VHND diwas (43%), during committee meetings (27%) and during home visits (23%). Topics covered by AWWs during group sessions are presented in Figure 51.

Figure 51 Topics covered in Nutrition and Health Education Groups in last 3 months



4.6. ASHA workers

In terms of caste composition, 38% of ASHA workers are SC, 35% ST, 24% OBC and 3.5% from the general category. 64% of ASHA workers have completed primary schooling and 31% have completed secondary schooling (3.5% have completed tertiary education). 93% of them live in the village in which they work, and 13% have another job/source of income.

43% of ASHA workers received their last training more than 1 year ago. On average, the training lasted 11 days. The duration of training varied substantially with 25% of workers reporting less than 5 days of training and 25% more than 12 days (with a maximum of 90 days).

On average, ASHA workers attend to a population of 763 people, with wide variations across the sample (25% of workers reported less than 420 people, and 25% more than 970). ASHA workers were on the job 24 days in the last calendar month (25% worked less than 20 days). When we sum the estimated time they spent on all activities, the typical ASHA worker (i.e. the median worker) reported 28 hours of work per week.

ASHA workers reported that 3 VHND Diwas were organised in the last 3 months, and 85% of them believed the attendance was good or very good at the last Diwas.

According to ASHA workers, a Village Health and Sanitation Committee (VHSC) was present in 71% of GPs. The ASHA workers were a member of VHSC in 91% of villages where a VHSC was there. Overall, 63% of ASHA workers were then a member of the VHSC at the time of survey.

We have asked a range of questions to gauge the quantity and quality of the interactions between the ASHA workers and their supervisors, from the viewpoint of the former. ASHA workers were asked to tell whether they agreed (strongly or somewhat) or disagreed (strongly or somewhat) with 7 statements. They were also allowed to answer that they neither agreed nor disagreed. All statements described positive behaviours from the supervisor. We assigned 5 points for each statement the ASHA worker strongly agreed with, 4 points for each statement the worker somewhat agreed with, 3 points for each statement the worker neither agreed nor disagreed with, 2 points for each statement the work somewhat disagreed with and 1 point for each statement the worker strongly disagreed with. This **index of supervision quality** thus ranges between 7 and 35 points. On average, ASHA workers posted 30 points, indicating very high satisfaction with supervision.

We also asked 5 questions to assess how often the supervisor enquired with the ASHA worker, followed up on potential problems, took advice into consideration etc. For each question, we assigned 5 points if the ASHA worker reported the supervisor always does it/follows-up, 4 points if “often”, 3 points if “sometimes”, 2 points if “rarely” and 1 point if “never”. This **index of supervision intensity** ranges between 5 and 25. On average, ASHA workers posted 17.7 points.

4.7. Sarpanches

We aimed to collect information on the Sarpanch in each GP. In fact, we managed to interview the Sarpanch in 113 GPs. We asked them a wide range of questions on who they are, and their attitudes and practices related to the management of NFSA schemes.

4.7.1. Characteristics of Sarpanches

Sarpanches are 34.4 years old on average, and 54% of Sarpanches are female. 74% of Sarpanches belong to Scheduled Tribes (ST), 15% belong to OBC and 10% belong to Scheduled Castes (SC). 75% of male Sarpanches and 85% of female Sarpanches have gone to school up to class 10th, whereas 15% of male sarpanches and 8% of female sarpanches have reached an intermediate grade. Finally, just below 10% of male sarpanches are graduates, versus 6.5% of female sarpanches.

It is interesting to note that over a quarter of sarpanches do not know the population size of the GP (26%) or the number of voters in their GP (27%). However, “only” 12% of sarpanches were not able to tell us the number of ration card holder households in the GP.

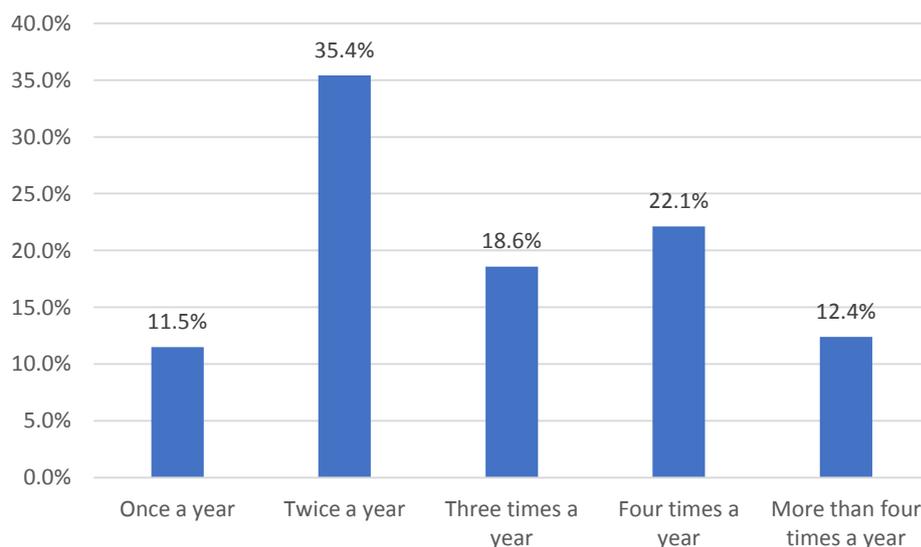
There is a strong gender dimension to these variables, as the proportion of sarpanches who do not know the population size of the GP is 21% for male respondents against 30% for female respondents. The contrast is even more marked for the proportion of sarpanches who do not know the number of voters (19% for males against 34% for females).

86% of sarpanches are currently serving their first term, 10% their second term and 4% their third term.

4.7.2. Gram Sabha meetings

Just over one-third (34.5%) of Sarpanches organise Gram Sabha meetings (GS) once every trimester or more frequently (see Figure 52). 19% organise GS three times a year and 47% of Sarpanches organise GS once or twice a year.

Figure 52 Frequency of Gram Sabha meetings



There is some confusion among sarpanches as to the required frequency of GS. 33% of them believe they must be organised 4 times per year, 27% two times per year, 20% three times per year, 16% more than 4 times per year and 3.5% once per year. 18% of sarpanches report organising a fewer number of GS meetings than the number they believe is required. All but 2 sarpanches also reported that the last GS meeting happened after all the Palli Sabhas.

According to self-assessments of the sarpanches, the median share of women among GS attendees is 33% and the reported proportion of women in GS is less than the quorum of 33% in 47% of the cases. The median number of people attending GS is 200, which corresponds to 7% of the total number of voters in the GP. This proportion varies substantially: 25% of sarpanches report an attendance corresponding to less than 4% of the population of voters whereas 25% of sarpanches report an attendance corresponding to more than 10% of the population of voters.

During the last GS, 93% of sarpanches report that TPDS was discussed, 52% report that Mamata was discussed and 44% report that ICDS was discussed.

4.7.3. Knowledge of Sarpanches

85% of sarpanches are aware of the National Food Security Act (NFSA). When asked to detail which services fall under the NFSA umbrella, 84% of sarpanches mention the TPDS, only 27% mention ICDS and just 19% mention Mamata (see Figure 53).

Figure 53 Services under the NFSA act according to the Sarpanches

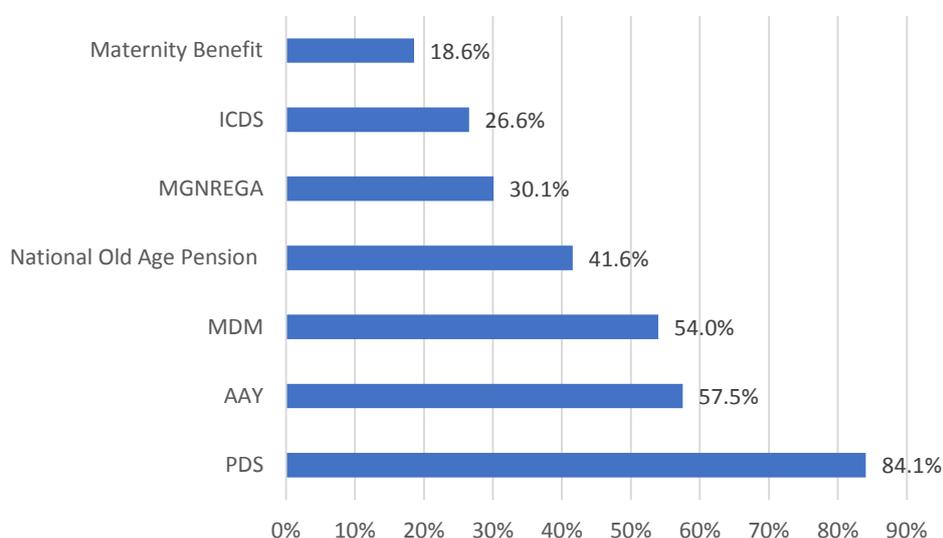
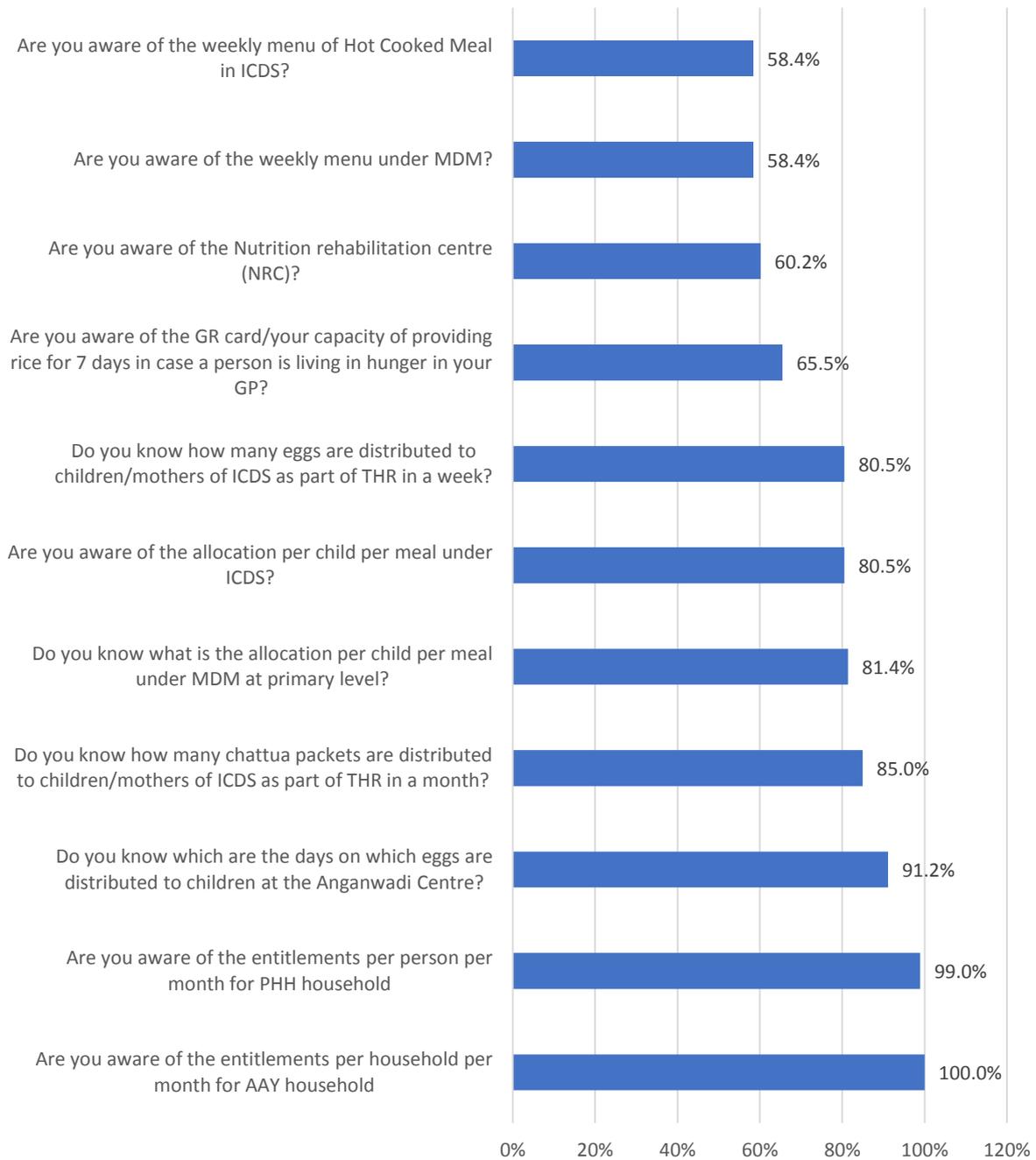


Figure 54 shows that self-reported knowledge levels are very high regarding TPDS entitlements. However, about a third of sarpanches do not know about the GR card and their capacity of providing rice for 7 days for people living in hunger in their GP. 40% of sarpanches do not know about the Nutrition Rehabilitation Center (NRC) and a sizable minority of sarpanches do not know information about the daily operations of MDM and ICDS.

Figure 54 Sarpanches' knowledge of entitlements and services' operations under NFSA



4.7.4. Participation and monitoring of services by Sarpanches

We asked questions about knowledge of and participation in different groups/committees by sarpanches. 77% of sarpanches are aware of the Mothers' committee and Jaanch committee in ICDC centres and only 58% of sarpanches are aware of the PDS advisory committee in their GP.

About half (51%) of Sarpanches were aware of both the Jaanch and Mothers committees, and Sarpanches were member of 1.6 groups/organisations among these five potential ones: Mothers committees, Jaanch committees, School Management committee, GP level education standing committee, PDS advisory committee.

Sarpanches were also asked if they were aware of the menus provided under MDM and ICDS schemes. Out of 5 (weekly menu of MDM, weekly menu of hot cooked meal, days of distribution of eggs as THR, number of packets distributed per month per beneficiary as THR, and number of eggs per beneficiary distributed per month as THR), sarpanches obtained a mean score of 3.7.

Sarpanches were also asked if they took actions in the domains of water/land pollution, water and sanitation, infrastructure related to NFSA schemes, delivery of NFSA schemes and functioning of the PDS food shop. These were summed to create a **GP activity index**. Sarpanches took action in 2.4 domains on average.

We have also created an **involvement index**, based on whether Sarpanches took an active role in monitoring NFSA schemes. The possible actions were: visited any ICDS centre in the GP in the last 2 months, organised any co-ordination meeting of beneficiaries and service providers of ICDS during current term, informed the CDPO or any other officials about the situation of AWW, visited any school in the GP in the last 2 months, went to the Panchayat on the ration distribution day in the GP in the last 2 months, informed the BDO, MI or any other officials about the situation and any problems, organised monthly nodal meetings. Out of these 7 actions, Sarpanches took 5 on average (4.6 for female Sarpanches and 5.7 for male Sarpanches).

5. Balance of key indicators at baseline

The random assignment of GPs into Early and Late groups ensures that any systematic bias between the groups is removed. However, it can still be the case that we observe statistically significant differences in some variables between the E and L GPs due to sampling variability (or sampling noise). Sampling variability is magnified in a cluster RCT with respect to an individual-level RCT, and tends to increase when the intracluster correlation coefficient (ICC), or between-clusters variance, is large.

It is important to assess whether imbalances exist at baseline prior to conducting the impact analysis as the baseline value of outcome variables and of potential confounders that exhibit imbalances at baseline will need to be included in the analysis (Hayes and Moulton 2017) to avoid biasing the estimated impact of the intervention.⁹

The tables in this section will display the mean of key variables for the Early group, the Late group, the difference in means, and the p-value associated with the test of equality of means between the two groups (t-test). Conventionally, it is considered that p-values inferior to 0.05 (5%) indicate a

⁹ Another common reason to assess imbalances at baseline is to check that the randomisation “worked”, that is to identify potential systematic deviation from the random assignment. Failed randomisation manifests itself by a large number of imbalanced variables at baseline. However, it is unclear how many imbalanced variables is too much. Even a perfectly implemented randomisation plan will generate 1 in 20 variables with a statistically significant imbalance (at the 5% level), due to sampling variability.

statistically significant difference. In the tables below, we report the p-values together with 3 stars if the p-value is inferior to 0.01, 2 stars if p-value is inferior to 0.05 and 1 star if p-value is inferior to 0.1.

Hayes and Moulton (2017) advocate against the use of t-tests to assess imbalances as these tests become more powerful as the sample size increases. In other words, the lower the statistical power of a study, the more likely key variables look balanced at baseline. We have nevertheless decided to show t-tests as these are routinely included in baseline reports of evaluations. However, we have added a column showing the standardised difference (SD) of each variable. SD is an alternative measure of imbalances that is invariant with sample size. A SD greater than 10% in absolute value is typically considered statistically significant (Austin 2009). We denote with 1 star the variables for which the SD is above 10%.

5.1. Primary caregivers sample

Table 3 Means of key characteristics of primary caregivers across Early and Late groups

	Early Group (E)	Late Group (L)	Difference (E)-(L)	P-value of difference (E)-(L)	Standardised Difference (SD)
Demographic characteristics:					
Number of sampled primary caregivers per GP	16.8	16.4	0.4	0.00***	0.18*
Household size	3.7	3.9	-0.2	0.00***	-0.14*
Number of children < 24 months	1.00	1.01	-0.01	0.24	-0.05
Age of child (months)	10.65	10.44	0.21	0.50	0.03
Age of respondent	25.89	25.70	0.19	0.40	0.04
Respondent is the spouse of the household head	0.78	0.82	-0.04	0.03**	-0.10*
Respondent is the daughter of the household head	0.16	0.15	0.01	0.69	0.02
SC	0.21	0.22	-0.01	0.87	-0.01
ST	0.53	0.48	0.05	0.02**	0.11*
OBC	0.22	0.27	-0.05	0.013**	-0.11*
General category	0.03	0.03	-0.002	0.82	-0.01
Literacy:					
Respondent cannot read or write	0.44	0.41	0.03	0.26	0.05
Can read but not write	0.22	0.20	0.02	0.23	0.06
Can read and write	0.34	0.39	-0.05	0.03**	-0.10*
Labour force:					
In the labour force	0.18	0.14	0.04	0.01***	0.12*
Housewife	0.81	0.85	-0.04	0.02**	-0.11*

Socioeconomic status:					
Assets index	2.68	2.71	-0.03	0.75	-0.01
Separate kitchen	0.50	0.50	-0.01	0.82	-0.01
Food Insecurity Index Scale (FIES)	3.08	2.96	0.12	0.30	0.05
Women's Dietary Diversity Index (WDDS)	6.66	6.77	-0.11	0.23	-0.05
Not a food ration card holder	0.19	0.21	-0.02	0.35	-0.04
Holds a PHH ration card	0.72	0.74	-0.02	0.28	-0.05
Holds an AYY ration card	0.08	0.04	0.04	0.00***	0.15*
Social capital and community participation:					
Number of existing groups/committees	4.08	4.49	-0.41	0.00***	-0.16*
Community participation index	0.60	0.57	0.02	0.62	0.02
Perceived power in community life	0.34	0.35	-0.01	0.74	-0.02

Table 4 Means of key outcome variables for primary caregivers across Early and Late groups

	Early Group (E)	Late Group (L)	Difference (E)-(L)	P-value of difference (E)-(L)	Standardised Difference (SD)
AWC:					
Aware of the AWC	0.98	0.99	0.01	0.01**	-0.12*
AWC opens on time	0.79	0.79	0.001	0.94	-0.003
AWW comes in daily	0.73	0.73	-0.02	0.92	-0.004
Hours AWC is open per day	3.05	2.71	0.34	0.00***	0.31*
Very satisfied with AWC	0.49	0.49	0.02	0.94	0.003
Very confident can raise concerns regarding AWC	0.67	0.73	-0.05	0.01**	-0.12*
MAMATA:					
Has an up-to-date MCP card	0.75	0.76	-0.01	0.58	-0.03
Aware of MAMATA scheme	0.85	0.91	-0.06	0.00***	-0.18*
Aware of and registered with MAMATA	0.93	0.92	0.01	0.63	0.025
Was provided information on MAMATA entitlements*	0.83	0.90	-0.07	0.00***	-0.20*
Mamata's entitlements knowledge score	2.51	2.95	-0.44	0.00***	-0.23*
Feels very well informed about MAMATA	0.40	0.44	-0.04	0.10*	-0.08
Feels very satisfied with MAMATA	0.44	0.46	-0.01	0.64	-0.02
Feels very confident can raise	0.66	0.70	-0.04	0.08*	-0.09

concerns regarding MAMATA					
TPDS:					
Rice is weighed with an electronic scale at the food ration shop	0.63	0.55	0.08	0.00***	0.16*
Wheat is weighed with an electronic scale at the food ration shop	0.60	0.53	0.07	0.07*	0.14*
Grain considered of very high quality	0.52	0.41	0.11	0.00***	0.22*
Receive grain every month	0.43	0.34	0.09	0.00***	0.19*
Was provided information on TPDS entitlements*	0.45	0.52	-0.06	0.012**	-0.13*
Feels very well informed about TPDS	0.49	0.46	0.03	0.20	0.07
Feels very satisfied with TPDS (quantity)	0.55	0.50	0.05	0.05**	0.10*
Very confident can raise concerns regarding TPDS	0.68	0.73	-0.05	0.06*	-0.10*
ICDS (THR):					
Received THR during last pregnancy	0.96	0.96	0.01	0.32	0.05
Receive fewer than 2 THR packets per month during last pregnancy	0.48	0.53	-0.05	0.02**	-0.11*
Was explained how to prepare THR during last pregnancy	0.71	0.70	0.01	0.60	0.03
Receive eggs during last pregnancy	0.93	0.89	0.04	0.00***	0.15*
Feels very well informed about THR	0.45	0.43	0.02	0.30	0.05
Feels very satisfied with THR	0.52	0.49	0.03	0.23	0.06
ICDS (GMP):					
Child was weighed in last 3 months	0.80	0.76	0.04	0.05*	0.09
Feels very well informed about Growth Monitoring Service	0.37	0.41	-0.04	0.08*	-0.08
Feels very satisfied with Growth Monitoring Service	0.38	0.42	-0.04	0.09*	-0.08
Very confident can raise concerns regarding Growth Monitoring Service	0.64	0.69	-0.04	0.06*	-0.09
VHND:					
Has heard about Village Health and Nutrition Day (VHND)	0.61	0.67	-0.06	0.01**	-0.11*
Child and/or respondent participated	0.71	0.72	-0.01	0.68	-0.03

Knowledge of nutrition best practices:					
Knowledge of nutrition best practices score	8.90	8.68	0.22	0.01***	0.11*
Knowledge of breastfeeding best practices score	2.23	2.13	0.10	0.01***	0.12*
Knowledge of supplementary feeding best practices score	1.99	1.89	0.10	0.02**	0.11*
Knowledge of other health and nutrition matters score	4.68	4.67	0.02	0.78	0.01
Community and political participation:					
Community participation index	0.02	-0.02	0.04	0.61	0.02
Community engagement index	0.05	-0.05	0.09	0.27	0.05
Political participation	-0.16	0.16	-0.32	0.00***	-0.23*
Composite indices on NFSA services :					
Information provision index	1.77	1.90	-0.13	0.00***	-0.16*
Perceived information index	6.41	6.20	0.21	0.03**	0.10
Satisfaction index	8.08	7.99	0.09	0.50	0.03
Perceived approachability index	5.42	5.31	0.11	0.36	0.04

Error! Reference source not found. shows that 4 control variables out of 20 are imbalanced, based on the SD criterion. This is four times as much as what would be expected by chance alone. These variables are on literacy, marital status, type of food ration card and number of groups/organisations in the village. As explained above, there is no clear way to judge whether this number of imbalances is “too high” but this indicates the need to control for these variables in the analysis. It is reassuring to note that none of the variables on food security or socioeconomic status are imbalanced.

Table 3 also shows that 20 out of 42 outcome variables are imbalanced, which is much more than expected. We believe that a very high intracluster correlation (or between-cluster variance) explains these imbalances. A high intracluster correlation indicates that a large share of the variance of a given variable is explained by differences between the means of these variables across clusters. Conversely, a low intracluster correlation indicates that much of the variation that we observe comes from differences across individuals within a cluster. Insofar as variables are strongly explained by cluster-wide considerations, it is difficult for a random assignment plan to generate 2 samples of 58 clusters with similar characteristics. Yet, we routinely find an intracluster correlation coefficient in excess of 15% for these imbalanced variables.

It is reassuring, though, that the imbalances do not seem to paint a coherent picture with either the E or L groups being systematically associated with “better” outcomes. For instance, knowledge of nutrition is higher in the Early GPs, but awareness and knowledge of the Mamata scheme tend to be higher in the Late GPs. In fact, there are exactly 10 variables for which the mean is significantly higher in the Late GPs and 10 variables for which it is the opposite.

Nevertheless, we will need to account for these differences in the estimation of the social audits' impact. It is also clear that any impact assessment based on post-test differences alone will need to be taken with caution.

5.2. Pregnant women sample

Table 5 Means of selected key characteristics of pregnant women across Early and Late groups

	Early Group (E)	Late Group (L)	Difference (E)-(L)	P-value of difference (E)-(L)	Standardised Difference (SD)
Demographic characteristics:					
Number of sampled pregnant women per GP	5.3	5.8	-0.49	0.01**	-0.22*
Household size	2.9	3	-0.18	0.18	-0.12*
Age of respondent	24.2	24.7	0.41	0.32	-0.09
Respondent is the spouse of the household head	0.73	0.82	-0.09	0.02**	-0.21*
Respondent is the daughter of the household head	0.23	0.17	0.05	0.13	0.14*
Scheduled Caste	0.23	0.17	0.07	0.06**	0.16*
Scheduled Tribe	0.53	0.50	0.03	0.56	0.05
OBC	0.21	0.32	-0.1	0.01***	-0.23*
General category	0.025	0.015	0.01	0.39	0.08
Literacy:					
Respondent cannot read or write	0.36	0.37	-0.01	0.88	-0.01
Can read but not write	0.20	0.22	-0.03	0.46	-0.07
Can read and write	0.44	0.41	0.03	0.45	0.07
Chronic illness/instability	0.15	0.16	-0.01	0.73	-0.03
Labour force:					
In the labour force	0.16	0.10	0.06	0.04**	0.18*
Housewife	0.84	0.90	-0.06	0.03**	-0.19*
Socioeconomic status:					
Assets index	2.88	2.69	0.19	0.26	0.10*
Separate kitchen	0.50	0.51	-0.01	0.88	-0.01
Food Insecurity Index Scale (FIIES)	2.68	2.56	0.12	0.59	0.05
Women's Dietary Diversity Index (WDDI)	7.26	6.78	0.48	0.014**	0.22*
Not a food ration card holder	0.22	0.19	0.03	0.38	0.08
Holds a PHH ration card	0.71	0.76	-0.06	0.15	-0.13*
Holds an AYY ration card	0.06	0.04	0.02	0.24	0.10*

Social capital and Community participation:					
Number of existing groups/committees	3.96	4.24	-0.28	0.20	-0.11*
Community participation index	0.15	0.11	0.04	0.04**	0.18*
Perceived power in community life	0.34	0.35	-0.02	0.65	-0.04

Table 6 Means of key outcome variables for pregnant women across Early and Late groups

	Early Group (E)	Late Group (L)	Difference (E)-(L)	P-value of difference (E)-(L)	Standardised Difference (SD)
AWC:					
Aware of the AWC	0.97	0.99	-0.02	0.14	-0.13*
AWC opens on time	0.74	0.81	-0.07	0.06**	-0.17*
AWW comes in daily	0.77	0.78	-0.01	0.72	-0.03
Hours AWC is open per day	2.74	2.61	0.13	0.25	0.12*
Very satisfied with AWC	0.46	0.52	-0.06	0.19	-0.12*
Very confident can raise concerns regarding AWC	0.68	0.78	-0.10	0.01**	-0.22*
MAMATA:					
Has an up-to-date MCP card	0.57	0.59	-0.02	0.68	-0.04
Aware of MAMATA scheme	0.79	0.84	-0.05	0.13	-0.14*
Aware of and registered with MAMATA	0.81	0.82	-0.01	0.89	-0.01
Was provided information on MAMATA entitlements*	0.82	0.79	0.03	0.41	0.08
Mamata's entitlements knowledge score	2.39	2.50	-0.17	0.31	-0.09
Feels very well informed about MAMATA	0.31	0.39	-0.09	0.09*	-0.18*
Feels very satisfied with MAMATA	0.38	0.43	-0.06	0.26	-0.12*
Feels very confident can raise concerns regarding MAMATA	0.68	0.73	-0.06	0.24	-0.13*
TPDS:					
Rice is weighed with an electronic scale at the food ration shop	0.55	0.63	-0.07	0.14	-0.15
Grain considered of very	0.48	0.41	0.07	0.09*	0.13*

high quality					
Receive grain every month	0.35	0.38	0.03	0.51	-0.07
Was provided information on TPDS entitlements*	0.45	0.49	-0.04	0.46	-0.07
Feels very well informed about TPDS	0.43	0.46	-0.03	0.53	-0.06
Feels very satisfied with TPDS (quantity)	0.46	0.54	-0.08	0.10	-0.16*
Very confident can raise concerns regarding TPDS	0.66	0.74	-0.08	0.07*	-0.18*
ICDS (THR):					
Received THR during pregnancy	0.73	0.68	0.05	0.24	0.10*
Receive fewer than 2 THR packets per month during pregnancy	0.51	0.56	-0.05	0.31	-0.11*
Was explained how to prepare THR during pregnancy	0.41	0.50	-0.10	0.03**	-0.20*
Receive eggs during pregnancy	0.59	0.56	0.03	0.56	0.05
Feels very well informed about THR	0.32	0.38	-0.06	0.17	-0.12*
Feels very satisfied with THR	0.39	0.42	-0.03	0.51	-0.06
VHND:					
Has heard about Village Health and Nutrition Day (VHND)	0.48	0.60	-0.12	0.01***	-0.24*
Child and/or respondent participated	0.76	0.78	-0.02	0.67	-0.06
Knowledge of nutrition best practices:					
Knowledge of nutrition score	8.90	8.68	0.22	0.01***	0.11*
Knowledge of breastfeeding score	8.4	8.1	0.26	0.21	0.11*
Knowledge of supplementary feeding score	1.97	1.89	0.08	0.37	0.08
Knowledge of other health and nutrition score	1.75	1.80	-0.05	0.58	-0.05
Knowledge of other health and nutrition score	4.67	4.44	0.23	0.04**	0.18*
Community and political participation:					
Community participation index	0.06	-0.05	0.1	0.51	0.06
Community engagement	-0.02	0.02	-0.03	0.84	-0.02

index					
Political participation	-0.16	0.14	-0.31	0.02**	-0.21*
Composite indices on NFSA services					
Information provision index	1.41	1.56	-0.16	0.05**	-0.17*
Perceived information index	4.59	4.51	0.07	0.67	0.04
Satisfaction index	6.05	5.89	0.16	0.44	0.07
Perceived approachability index	2.39	2.40	-0.001	0.99	-0.00

Note: composite indices cannot be compared across samples as the number of services is not the same for all target groups.

5.3. Male respondents sample

Table 7 Means of key outcome variables for male respondents across Early and Late groups

	Early Group (E)	Late Group (L)	Difference (E)-(L)	P-value of difference (E)-(L)	Standardised Difference (SD)
Number of male respondents sampled per GP	15.1	14.8	0.37	0.015*	0.12*
TPDS:					
Rice is weighed with an electronic scale at the food ration shop	0.63	0.57	0.05	0.055*	0.11*
Wheat is weighed with an electronic scale at the food ration shop	0.67	0.58	0.09	0.38	0.19*
Grain considered of very high quality	0.54	0.43	0.11	0.00***	0.21*
Receive grain every month	0.42	0.39	0.03	0.29	0.06
Was provided information on TPDS entitlements*	0.49	0.57	-0.09	0.01***	-0.18*
Feels very well informed about TPDS	0.58	0.57	0.01	0.84	0.01
Feels very satisfied with TPDS (quantity)	0.56	0.53	0.03	0.28	0.06
Very confident can raise concerns regarding TPDS	0.71	0.81	-0.10	0.00***	-0.25*
Community and political					

participation:					
Community participation index	-0.10	0.11	-0.21	0.01***	-0.14*
Community engagement index	0.02	-0.02	0.04	0.67	0.02
Political participation	-0.20	0.20	-0.40	0.00***	-0.29*

5.3. Adolescent girls sample

Apart from the number of sampled adolescent girls per GP, there were no discernible imbalances at baseline regarding outcomes for adolescent girls.

Table 8 Means of selected key characteristics of adolescent girls across Early and Late groups

	Early Group (E)	Late Group (L)	Difference (E)-(L)	P-value of difference (E)-(L)	Standardised Difference (SD)
Demographic characteristics:					
Number of sampled adolescent girls per GP*	2.9	2.6	0.3	0.15	0.19*
WDDS	6.36	6.48	-0.12	0.74	-0.04
Aware of AWC	0.81	0.84	-0.03	0.51	-0.09
Visited the AWC	0.26	0.28	-0.02	0.74	-0.04
Visited at home by health worker in last 3 months	0.10	0.08	0.02	0.51	0.09
Aware of VHND	0.27	0.28	-0.01	0.85	-0.02
Participated in VNHD	0.07	0.08	-0.01	0.79	-0.04

Note: * provided at least 1 adolescent girl was sampled in the GP.

5.4. AWW sample

Table 9 presents the mean of selected characteristics of AWCs and AWWs across the Early and Late groups. For 3 out of the 16 indicators that are displayed, the difference in means is statistically significant (but only once at the 5% level). However, given that the sample size of AWWs (115) is smaller than that of caregivers, the power of the t-tests displayed in the table is also lower.

The Standardised Differences are independent of sample size and more reliable in this case. For 8 variables out of 16, SD exceed the 10% threshold. Like for caregivers, it is hard to see a common thread revealed by these imbalances. Whereas AWWs in the Early group are less likely to be SC (and more likely to be OBC) and are more likely to have completed secondary education than AWWs in the Late group, AWWs in the Late report slightly more days in work and are less likely to work in a AWC without toilet facility.

Given the high level of imbalance across the board, we will systematically control for the baseline value when assessing the impact of social audits on AWW-level outcome variables.

Table 9 Mean characteristics of AWCs and AWWs across Early and Late groups

	Early Group (E)	Late Group (L)	Difference (E)-(L)	P-value of difference (E)-(L)	Standardised Difference (SD)
Years since training	14.58	13.77	0.80	0.68	0.08
Duration of first full training (in days)	37.97	37.83	0.14	0.98	0.006
ST	0.33	0.33	0.01	0.95	0.01
SC	0.30	0.41	-0.12	0.20	-0.24*
OBC	0.30	0.19	0.11	0.18	0.26*
Completed primary education only	0.21	0.40	-0.19	0.03**	-0.41*
Completed secondary education only	0.65	0.48	0.17	0.07*	0.34*
Completed tertiary education	0.14	0.12	0.02	0.76	0.06
Time needed to reach AWC from center of village (minutes)	6.42	8.41	-1.99	0.07*	-0.34*
AWC has no toilet facility	0.74	0.69	0.05	0.53	0.12*
AWC has hand-washing facility	0.55	0.48	0.08	0.41	0.15*
Population covered by AWC	745.5	667.2	78.32	0.60	0.10
AWC was closed for one full week at least once in last 3 months	0.74	0.77	-0.03	0.71	-0.07
Days AWW work in a month	24.93	25.34	-0.42	0.17	-0.25*
Rightsholders list displayed at the AWC	0.41	0.52	-0.11	0.23	-0.22
Entitlements for different categories of rightsholders displayed at the AWC	0.55	0.59	-0.04	0.68	-0.08

5.4. ASHA workers sample

Table 10 reveals significant imbalances on most variables. A few variables display very large imbalances, such as whether there is a VHSC (0.48 standard deviation), whether the ASHA worker holds another job (0.46 standard deviation), and the estimated working time per week (0.3 standard deviation).

Table 10 Mean characteristics of ASHA workers across Early and Late groups

	Early Group (E)	Late Group (L)	Difference (E)-(L)	P-value of difference (E)-(L)	Standardised Difference (SD)
Personal characteristics:					
SC	0.43	0.32	0.11	0.23	0.23*
ST	0.33	0.38	-0.05	0.60	-0.10
OBC	0.22	0.25	-0.03	0.75	-0.06
General category	0.02	0.05	-0.04	0.30	-0.20*
Primary education	0.59	0.70	-0.11	0.22	-0.23*
Secondary education	0.33	0.29	0.04	0.63	0.09
Tertiary education only	0.05	0.02	0.04	0.33	0.18*
Lives in village where she works	0.90	0.91	-0.01	0.78	-0.05
Holds another job	0.20	0.05	0.15	0.013**	0.46*
Training:					
Last training was more than one year ago	0.20	0.26	-0.06	0.48	-0.13*
Duration of last training (in days)	12.2	10.0	2.2	0.35	0.18*
Workload:					
Population	740	787	-47	0.67	-0.08
Number of days worked in last calendar month	23.9	23.3	0.7	0.56	0.11*
Estimated working time per week	31.8	37.6	-5.9	0.10	-0.30*
VHND:					
Number of VHND Diwas organised in last 3 months	2.9	3.2	-0.25	0.24	-0.22*
Good or very good attendance	0.84	0.85	-0.01	0.89	-0.03
Village Health and Sanitation Committeel					
There is a VHSC	0.8	0.6	0.2	0.00***	0.54*
Member of VHSC	0.75	0.52	0.23	0.01***	0.48*
Monitoring and supervision:					
Supervision quality index	30.4	30.5	-0.1	0.96	-0.01
Supervision intensity index	18.0	17.4	0.55	0.54	0.12*

5.5. Sarpanches sample

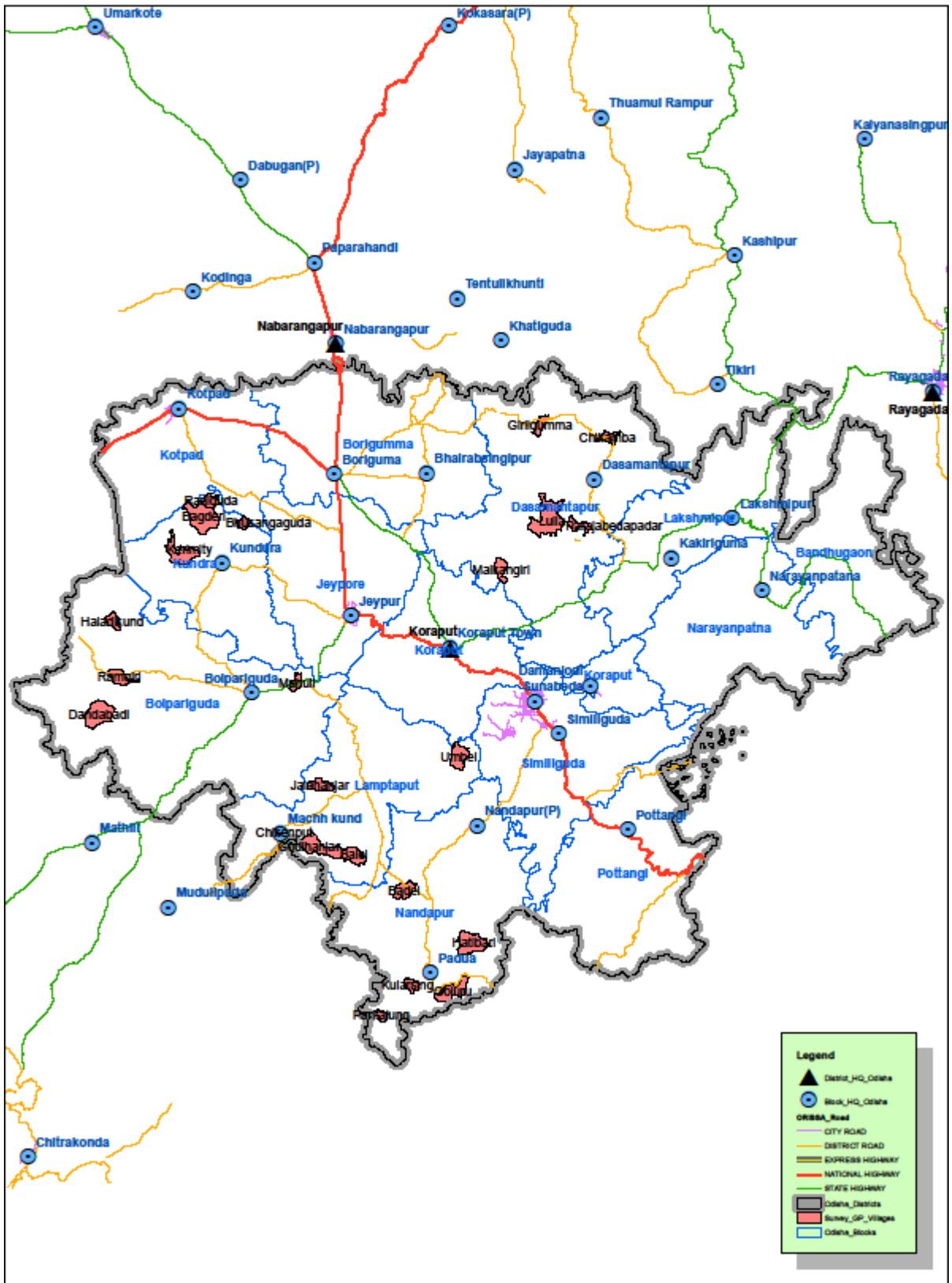
Three of out of eight personal characteristics of the Sarpanches, and 14 out of 19 outcome variables are significantly imbalanced at baseline. Given this high level of imbalance, we will systematically control for the baseline value when assessing the impact of social audits on Sarpanch-level outcome variables.

Table 11 Means of key characteristics of Sarpanches across Early and Late groups

	Early Group (E)	Late Group (L)	Difference (E)-(L)	P-value of difference (E)-(L)	Standardised Difference (SD)
Personal characteristics:					
Age	33.9	34.9	-1.0	0.60	-0.09
Female	0.5	0.55	-0.05	0.58	-0.10*
Secondary or higher education	0.21	0.22	-0.02	0.82	-0.04
SC	0.11	0.09	0.02	0.68	0.08
ST	0.76	0.72	0.04	0.63	0.09
OBC	0.13	0.17	-0.05	0.51	-0.13*
General category	0.00	0.02	-0.02	0.33	-0.19*
First term	0.83	0.84	-0.02	0.80	-0.05
GP and Gram Sabha:					
Number of voters in GP	3497	3328	169	0.56	0.12*
Holds at least two Gram Sabha per year	0.89	0.88	0.01	0.85	0.04
Knows that at least two Gram Sabha must be held per year	0.26	0.28	-0.02	0.84	-0.04
Number of Gram Sabha in last 3 months	1.29	1.31	-0.02	-0.92	-0.02
Estimated share of voters attending the last Gram Sabha	0.08	0.09	-0.01	0.66	-0.09
Estimated share of women among attendees of the last Gram Sabha	0.39	0.43	-0.04	0.55	-0.11*
ICDS was discussed in last Gram Sabha	0.38	0.5	-0.12	0.21	-0.24*
Mamata was discussed in last Gram Sabha	0.56	0.48	0.08	0.39	0.16*
TPDS was discussed in last Gram Sabha	0.91	0.95	-0.04	0.42	-0.15*
Knowledge and behaviours of Sarpanch:					
Knowledge of NFSA schemes score	3.9	3.4	0.5	0.04**	0.42*
Correctly answered all questions on NFSA	0.35	0.19	0.17	0.07*	0.38*

schemes					
Knowledge of NFSA entitlements score	5.2	5	0.2	0.57	0.11*
Aware of menus provided under ICDS and MDM (index)	3.6	3.8	-0.2	0.37	-0.17*
Aware of Jaanch and Mothers committees	0.4	0.62	-0.22	0.02**	-0.45*
Number of groups/committees the Sarpanch belongs to	1.4	1.7	-0.3	0.23	-0.23*
Aware of social audits for NFSA	0.69	0.77	-0.08	0.36	-0.19*
GP activity index (max=5)	2.44	2.29	0.14	0.58	0.11*
NFSA involvement index (max=7)	5.05	5.12	-0.07	0.86	-0.03
Feels responsible to take action to improve health and nutrition in GP	0.98	0.93	0.05	0.19	0.25*

Koraput District



Malkangiri District

