



# Swabhimaan Programme, Odisha

Impact Evaluation (2016-2021): Angul and Koraput





# Background

## 1. Odisha Livelihoods Mission (OLM) in Odisha

In 2006, the Government of Odisha formed a society named 'Odisha Poverty Reduction Mission' (OPRM), to implement various poverty reduction programmes in the state, which was reconstituted and renamed as 'Odisha Livelihoods Mission' (OLM). OLM is an autonomous society under the aegis of Department of Panchayati Raj, Government of Odisha, presently implementing both National Rural Livelihoods Mission (NRLM) and National Rural Livelihoods Project (NRLP). Odisha was the first state in the country to launch a State Rural Livelihood Mission (SRLM) in its bid to bring down rural poverty by promoting diversified and gainful self-employment to the rural poor.

The poverty eradication program runs on a mission mode with a focus towards creating sustainable livelihood opportunities for the rural poor households and nurtures them until they are able to come out of poverty and lead a good quality of life. This is a centrally sponsored scheme with a proportionate ratio of 60:40 between the Centre and the State. The OLM has put in place a dedicated and sensitive support structure, to take the rural poor households out of poverty line through capacity building, financial assistance and self-reliant institutions.

The OLM commenced its functioning in year 2012. Subsequently, the World Bank aided TRIPTI Project (Odisha Rural Livelihoods Project) was merged into OLM, since the mandate of both the OLM and TRIPTI are similar. The OLM has reached out to 30 districts in Odisha through both, an intensive and a non-intensive approach. While 24 districts with 88 blocks have been covered under the intensive implementation approach, rest of the blocks and districts are worked through the non-intensive mode. A total of 4,47,887 Self Help Groups (SHGs) were OLM compliant across the state by 2021.

Support is provided for creating women driven institutions to reduce widespread rural poverty in the state through – (i) mobilizing the poor households into functionally effective SHGs and federations; (ii) enhancing access to bank credit and other financial, technical and marketing services (iii) building capacities and skills for gainful and sustainable livelihood development and (iv) converging various schemes for efficient delivery of social and economic support services to the poor with optimal results. The Mission focuses on stabilizing and promoting the existing livelihood portfolio of the poor through its three pillars – 'vulnerability reduction' and 'livelihood enhancement'; 'employment' - building skills for the job market outside; and 'enterprises' – nurturing the self-employed and entrepreneurs (for micro-enterprises).

It also promotes livelihood collectives that help the poor to enhance their livelihoods through deriving economies of scale, backward and forward linkages and access to information, credit, technology, markets etc. Community Professionals, Community Resource Persons (CRPs) and 'Community Heroes' are being engaged for capacity building of SHGs and their federations. The Mission invests in building 'social capital' – community animators, activists, CRPs, etc., who are crucial in making the OLM community driven and sustainable. It ensures that the poor are provided with the requisite skills for managing their institutions, linking up with markets,

managing their existing livelihoods, enhancing their credit absorption capacity and credit worthiness. The focus is to develop and engage community professionals and CRPs for capacity building of SHGs and their federations as well as other collectives.

A Revolving Fund (RF) of Rs. 10,000 to Rs. 15,000 is given to the SHGs as corpus to meet the members' credit needs directly and as catalytic capital for leveraging repeat bank finance. The RF is given to SHGs that have been practicing 'Panchasutra' (regular meetings; regular savings; regular inter-lending; timely repayment; and up-to-date books of accounts). It provides Community Investment Fund (CIF) as seed capital to SHG Federations at the cluster level, in order to meet the credit needs, of the members through the SHGs or Village Organizations (VOs), and to meet the working capital needs of the collective activities at various levels. Vulnerability Reduction Fund (VRF) is also provided to SHG Federations at the village level to address vulnerabilities like food security, health security etc., and to meet the needs of vulnerable persons in the village. Under

## The Swabhimaan Demonstration Programme

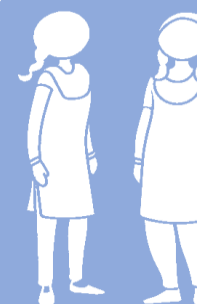
### Strategy 1

Block-wide and entails formal systems strengthening to improve coverage of food security entitlements, health, nutrition, water and sanitation services.



#### The activities under this strategy include:

- Strengthening Village Health, Sanitation and Nutrition Days (VHSNDs) to improve access to antenatal care, family planning and micronutrient supplementation through this platform. Strengthening will involve quarterly trainings of health service providers, monthly review of nutrition indicators and identification of women at risk of under nutrition for special supplementary food/counselling
- Strengthening adolescent health day to improve access to adolescent health and nutrition services via quarterly trainings of health and Integrated Child Development Services (ICDS) service providers
- An extended VHSND once every six months for newly-wed women, including individual counselling and providing information about entitlement camps
- Annual training and follow-up meetings with service providers from allied departments (Rural Development, Civil Supplies & Consumer Welfare, Agriculture, Horticulture) to help them improve the delivery of entitlements and services
- Regularizing block nutrition convergence review mechanism




OLM, the flow of funds to members/SHGs is against the MIP (Micro-investment Plan) which is a participatory process of planning and appraisal at the household and SHG levels. Likewise, SHG-Bank linkage nurtures long term relationship between the poor households and the banks.

## 2. OLM in Angul and Koraput District, Odisha

OLM was initiated in 2011 in all the four blocks of Angul district where TRIPTI project was already in operation and in 2012 in three blocks of Koraput district and gradually scaled up to 4 more blocks by 2016. The OLM data (2021) shows that there are 20,593 SHGs (tier-1), 769 Cluster Level Forums (CLFs) (tier-2) and 108 Gram Panchayat Level Federations (GPLFs) (tier-3) in Angul district. Of the 20,593 SHGs, 2,229 are engaged in various food security, nutrition and Water, Sanitation and Hygiene (WASH) linked behaviour promotion and livelihood initiatives. By 2021, the OLM covered


### Adopts Two Implementation Strategies



**Strategy 2**

Partner with Village Organizations to design, implement and monitor a multi-sector programme for adolescent girls and women.

#### The activities under this strategy include:

- 
- Training cadres of VOs Poshan Sakhis, to facilitate women-specific issues (Maitri Baithak) through monthly meetings with women's SHGs using participatory learning and action cycle methodology
  - Training cadres of VOs (Adolescent Sakhis) to form and facilitate fortnightly adolescent girls' clubs (Kishori Samooch) for discussions, using participatory learning and action cycle and link girls of the VOs to receive grants for secondary education
  - Quarterly trainings of community farming cadre of VOs (Krishi Resource Persons) who in turn engage monthly with women farmer/producer groups of JEEViKA on nutrition-sensitive agriculture methodologies for creation of community nutrition-sensitive agriculture demonstration sites (farmer field school at cluster level) and promotion of backward micronutrient-rich kitchen gardens at homes
  - Training community cadres of VOs (Poshan Sakhis) to identify at nutritional risk adult women (Mid-Upper Arm Circumference [MUAC] <23 cms for women and first/adolescent pregnancy), track and follow-up through fortnightly group/home visits and linkage with (a) VOs for provision of seed grants for agriculture and poultry-rearing activities and (b) one free hotcooked noon meal
  - VOs conducting special meetings and rallies for newly-wed couples
  - VOs conducting a bi-annual process audit of their progress against plan



2, 23,734 households. In Koraput district, there are a total of 12,441 SHGs (tier-1), 274 Cluster Level Forums (CLFs) (tier-2), and 44 Gram Panchayat Level Federations (GPLFs) (tier-3) in Koraput district. Of the 12,441 SHGs, 1,008 SHGs are engaged in various food security, nutrition and WASH linked behaviour promotion and livelihood initiatives. By 2021, OLM covered 1, 24,838 households.

For programme purpose, OLM adopts two approaches by dividing the block into intensive and non-intensive Gram Panchayats (GPs). In these GPs, there are GPLFs through which all CLF level activities are carried out. A Master Book Keeper is appointed from the community to maintain registers and records. This book keeper reports to the Block Mission Management Unit (BMMU) run by the Block Programme Manager (BPM) at the block level. A district Programme Management Unit (PMU) supported by a thematic programme manager anchors various livelihood and nutrition initiatives in the district.

### **3. Swabhimaan Demonstration Programme (2016-2021), Angul and Koraput District, Odisha**

In 2016, OLM partnered with the United Nations Children's Fund (UNICEF) Odisha to initiate the Swabhimaan Project (2016-2021). The aim is to improve the nutritional status of adolescent girls, pregnant women and mothers of children under two years in Pallahara, Angul district and Sadar blocks of Koraput district in Odisha, by increasing the coverage of five essential nutrition (specific and sensitive) interventions.

OLM is anchoring and implementing the Swabhimaan programme, in coordination with the Departments of Health & Family Welfare, Civil Supplies & Consumer Welfare, Women & Child Development and Rural Development, with technical and financial support from the UNICEF. UNICEF in turn is partnering with relevant non-government partners (and resource persons) for development of capacity building tools and methodologies and with relevant academia for impact and process evaluation. The baseline survey was led by the All India Institute of Medical Sciences (AIIMS) in Bihar, Chhattisgarh and Odisha, with technical support from the International Institute for Population Sciences (IIPS) and University College London (UCL) during the baseline survey (2016). The baseline survey has been registered with the Registry for International Development Impact Evaluations (RIDIE-STUDY-ID-58261b2f46876), Indian Council of Medical Research (ICMR) and National Clinical Trials Registry of India (CTRI/2016/11/007482). The International Institute for Population Sciences (IIPS) is the nodal agency for the process evaluation during the midline survey (2018) and endline survey (2021). The process evaluation has been registered with the Institutional Review Board of IIPS – (IRB/SWABHIMAN/458/2018 for main survey and IRB/SWABHIMAN/702/2018 for anthropometric measurement).

Pallahara block of Angul district has 26 GPs (all of which are intensive). The Swabhimaan programme is being implemented in six intensive GPs for 3 years with support from UNICEF. Seven other intensive GPs will serve as comparison/control GPs. Based on the results, the programme may be scaled up to the remaining 13 GPs in phased manner. Koraput Sadar block of Koraput district has 13 GPs (six intensive and seven non-intensive). Here, the Swabhimaan programme will be implemented in six intensive GPs

for 3 years, with support from UNICEF. Seven other non-intensive GPs will serve as comparison/control GPs. Based on the results, the programme may be scaled up to the remaining seven non-intensive GPs in phased manner.

We hypothesise that the Swabhimaan programme will lead to a 15% reduction in the proportion of adolescent girls with a Body Mass Index (BMI) <18.5, a 15% reduction in the proportion of mothers of children under two with a BMI <18.5 and a 0.4 cm improvement in mean MUAC among pregnant women, over the intervention period of four years. Additionally, improvements of 5% to 20% are expected in the coverage of 18 key nutrition specific and sensitive indicators in intervention areas over the span of four years. The programme is reviewed at the national level bi-annually and is guided by a national technical expert group.

#### **4. Swabhimaan Programme Baseline Survey (2016), Koraput and Angul Districts, Odisha**

Data collection for the baseline survey in Koraput block, Koraput District, and Pallahara block, Angul district, was conducted in the intervention and comparison areas between October, 2016, and January, 2017. Based on the outcome indicators and the change envisaged, a representative sample of 1,727 adolescent girls, 814 pregnant women and 3,604 mothers of children under two years were interviewed from both selected blocks. The baseline survey protocol, methodology and tools were approved by the Institutional Ethics Committee of AIIMS. Separate bilingual (English and Odia) interview schedules, containing questions for collecting household and individual information for the three target groups, were used. Data collection in Pallahara and Koraput was carried out by 30 investigators each, who were supervised by 6 supervisors each in the respective blocks. Quality control checks were conducted for 10% of the interviewed population. Verbal consent was taken from all participants before conducting the interviews. For respondents below the age of 18 years, written and verbal consent was taken from the respondents and their parents respectively.

A separate schedule was prepared for each target group. Information obtained included socio-demographic and household characteristics, educational attainment, diet diversity, and availability of a homestead kitchen garden, access to health, ICDS and OLM services and decision making practices using pre-tested interview schedules. Nutritional status was assessed using anthropometry (weight, height and MUAC).

#### **5. Swabhimaan Programme Midline Survey (2019), Angul and Koraput District, Odisha**

The Swabhimaan program midline survey (2018) was conducted in Pallahara block in Angul district and Koraput blocks in Koraput district of Odisha. The cross-sectional survey assessed the system strengthening process and coverage of VO led interventions among beneficiaries. Qualitative data collection included in-depth interviews and focus group discussions of target groups, community cadres and service providers. Quantitative data were collected in Odisha through semi-structured questionnaires. A separate schedule was prepared for each target group including children under 2 years and were pretested. In baseline survey, there was no separate schedule for data collection of

children under two years. The data collection was completed during 27th January and 25th March 2019.

Information collected includes socio-demographic and household characteristics, educational attainment, diet diversity, food insecurity and availability of a homestead kitchen garden, access to health, ICDS, JEEVIKA services, decision making practices and nutritional status. Identification of women respondents in the three target groups was done by Mapping and Listing during January and March 2019. After mapping and listing, 8149 adolescent girls, 800 pregnant women, 2783 mothers of children under two years were identified. The midline survey data collection was carried out during October to December 2018. A total of 1330 households in intervention and 1606 households in the control group were selected for data collection. Finally, 1185 adolescent girls, 614 pregnant women and 1183 mothers of children under two years and their children were interviewed. Anthropometric measurements of 781 adolescent girls, 399 pregnant women and 828 mothers of children under two years and their children were collected.

## **6. Swabhimaan Programme Endline Survey (2021), Angul and Koraput District, Odisha**

In order to examine the intervention process and the extent of the reach of beneficiaries, NRLM and UNICEF entrusted IIPS for conducting the End line process evaluation survey (2021). The cross-sectional survey aims to assess the system strengthening process and coverage of VO led interventions among beneficiaries.

The specific objectives of the End line survey are:

1. To assess the reduction in the proportion of adolescent girls and mothers of children under two years with a BMI<18.5.
2. To examine the improvement in mean mid-upper arm circumference (MUAC) among pregnant women over the intervention period (2016-2021).
3. To compare the baseline and endline data for estimating improvements in the coverage of key nutrition-specific and nutrition-sensitive interventions.
4. To assess the change in utilization of maternal health and nutrition services before and after the COVID 19 pandemic.

### ***Methodology and data collection***

#### ***Sampling***

To study system strengthening interventions and reach of beneficiaries, samples were selected according to the baseline survey indicator on SHG enrolment. The samples for the quantitative data were drawn by using a multi-stage stratified cluster sampling procedure. In the first stage of sampling, villages were selected and considered as Primary Sampling Units (PSUs). In the second stage, a systematic random selection of households within each PSU was conducted. Finally, the survey was carried out in 89 PSUs (22 interventions and 26 control PSUs from Angul district and 19 interventions and 22 control PSUs from Koraput district) in Odisha.



The list of villages from Census, 2011 was used as sampling frame. In each PSU, a mapping and household listing operation was carried out. The listing provides the necessary frame for selecting households at the second stage. In the endline survey, a 'village' is considered as a unit of at least 500 households. Therefore, small villages (with less than 500 households) were merged with the adjacent village in order to fulfil the criteria of at least 500 households. Afterwards, these villages were segmented into three sections based on certain characteristics and two segments were selected randomly using the Probability Proportional to Size (PPS) method. The household listing in the segmented PSUs was carried out only in the selected segments. After fulfilling the above criteria (minimum 500 households per village) a total of 41 villages were covered in intervention area and 48 villages in control area (Angul and Koraput districts combined). The estimated sample size for the survey was 1062 adolescents' girls, 748 pregnant women and 2680 Mothers of children under 2, which were equally divided among intervention and control areas.

### ***Techniques and Tools of Data collection***

Quantitative data was collected using Computer Assisted Personal Interview (CAPI). The questionnaires of baseline and midline surveys were reviewed to finalize the tools for the endline impact evaluation. The quantitative data tools included a separate structured and bilingual questionnaire for each target group. Additionally, there was a separate interview schedule for household information. The questionnaires were translated to Odia and synchronized to state-specific programmes.

#### **Interview schedules:**

1. Household schedule
2. Adolescent girl's schedule
3. Pregnant women schedule
4. Mothers of children under two years schedule

Information collected related to socio-demographic and household characteristics, educational attainment, diet diversity, food insecurity and availability of a homestead kitchen garden, access to health, ICDS, OLM services, decision making practices and nutritional status. Identification of women respondents in the three target groups was done by Mapping and Listing during February 2021. After mapping and listing, 5291 adolescent girls, 833 pregnant women, 2571 mothers of children under two years were identified. The target samples were selected based on the systematic random sampling method from the list of household selected in Mapping and Listing. The endline survey data collection was carried out during 6<sup>th</sup> March 2021 to 30<sup>th</sup> August 2021. A total of 1513 households in intervention and 1699 households in the control group were selected for data collection. Finally, 1,111 adolescent girls, 540 pregnant women and 1522 mothers of children under two years and their children were interviewed.

Anthropometric measurements (weight, height and Mid Upper Arm Circumference (MUAC)) were assessed using the standard technique by trained field investigators. All the measurements were taken twice in order to avoid measurement errors. Weight was measured barefooted in kilograms (kgs) using a SECA electronic weighing scale recorded to the nearest 0.1 kg. Height was taken barefooted in centimeters (cms) using stadiometer nearest to 0.1 cms. MUAC was also measured in centimeters with a non-stretchable measuring tape nearest to 0.1 cm. The tape was placed firmly but gently on the arm to avoid compression of soft tissue. Quality control checks were conducted for 10% of the interviewed population. The weighing scales and stadiometer were calibrated on a weekly basis prior to data collection with standard weights (1, 2 and 5 kg) and a metre rod (100 cm). Anthropometric measurements of 1,108 adolescent girls, 540 pregnant women and 1219 mothers of children under two years and their children were assessed.

### ***Technical Advisory Group (TAG) meeting***

A Technical Advisory Group (TAG) was constituted to guide and approve the survey design, tools, and protocols for the Endline survey. The members include technical experts in nutrition, intervention studies, sampling and survey methodology. The Technical Advisory Group (TAG) meeting was conducted in IIPS on February 2021 for reviewing and finalizing all the endline survey tools (Household, Adolescent Girl, Pregnant Woman, Mothers of children under two years and Children under two years interview schedules).

### ***Ethical Consideration***

The endline survey protocol, methodology and tools were approved by the Institutional Ethics Committee of the IIPS. Paper-pencil personal interviews based on bilingual interview schedules were used for data collection. Written consent was taken from all the participants before conducting the interviews. In the case of adolescent girls below 18 years of age, verbal consents were taken from them and written consent were also taken from their parents.

### ***Endline Survey Factsheet***

Endline factsheet (DID) demonstrates the effect of the programme on selected indicators over time using the difference in difference (DID) technique. DID has been used to understand the changes in the indicators from baseline to endline and midline to endline. The program's effect on three target groups, adolescent girls, pregnant women and mothers of children under two, is presented separately.

# **DIFFERENCE IN DIFFERENCE (DID)**

## **ESSENTIAL NUTRITIONAL INDICATORS (2016-2021)**

## ADOLESCENT GIRLS (10-19 years)

	Key Indicators	Intervention Area			Control Area			Effect Size of Change
		Baseline 2016	Midline 2018	Endline 2021	Baseline 2016	Midline 2018	Endline 2021	DID (Baseline to Endline)
		(N=724)	(N=533)	(N= 546)	(N=1003)	(N=658)	(N= 565)	
	Estimated sample of adolescent girls (n)	530	500	530	530	500	530	
	Adolescent girls interviewed (n)	<b>724</b>	<b>529</b>	<b>546</b>	<b>1003</b>	<b>656</b>	<b>565</b>	
<b>1</b>	<b>NUTRITIONAL STATUS<sup>1</sup>(n)</b>	721	525	543	998	652	565	
1.1	Adolescent girls' mean Body Mass Index (BMI) <sup>2</sup> [SD]	17.7 [2.7]	17.9 [4.8]	18.1 [2.8]	17.7 [2.6]	18.1 [2.6]	18.3 [2.6]	
1.2	Adolescent girls with BMI for age < -2SD <sup>3</sup> (%)	11.8	10.2	9.6	12.8	7.0	8.0	2.6
1.3	Adolescent girls with BMI for age < -3SD <sup>4, 5</sup> (%)	2.9	1.8	1.7	2.3	1.4	2.3	-1.2
1.4	Adolescent girls experiencing both stunting and (%)	4.5	4.1	2.7	5.1	2.5	1.5	1.9
1.5	Adolescent girls experiencing severe stunting and wasting <sup>7</sup> (%)	0.6	0.3	0.3	0.4	0.0	0.5	-0.3
	<b>DIETARY DIVERSITY<sup>8</sup></b>	655	481	517	970	612	527	
2	Adolescent girls' mean Dietary Diversity Score (DDS) <sup>9</sup> [SD]	4.7 [1.6]	4.5 [1.6]	4.7[1.6]	4.5 [1.4]	4.5 [1.4]	4.8 [1.6]	
<b>3</b>	<b>Adolescent girls by number of food groups consumed</b>							
3.1	More than five food groups (%)	49.9	43.9	51.5	45.2	46.3	52.3	-5.0
3.2	Adolescent girls with minimum DDS (6 or more out of 10) (%)	25.7	23.2	25.6	20.0	22.1	29.8	-10.5***
	<b>MICRONUTRIENT SUPPLEMENTATION</b>							
4	Adolescent girls who have consumed at least four IFA tablets in the last month/last three months preceding the survey <sup>10</sup> (%)	13.7	20.6	31.0	19.2	21.8	33.2	3.4
5	Adolescent girls living in households using adequately iodised salt <sup>11</sup> (%)	94.5	93.0	99.5	91.6	93.0	99.3	-2.7**
6	<b>Adolescent girls living in households with a kitchen garden<sup>12</sup> (%)</b>	48.6	57.9	57.6	54.7	55.3	59.6	4.0
7	Adolescent girls living in households in which members practice open defecation (%)	83.4	75.6	57.7	82.7	79.1	64.1	-7.1
8	Adolescent girls who use safe pads or sanitary pads during periods <sup>13</sup> (%)	48.6	75.2	84.8	46.5	71.3	82.8	-0.2
	<b>KISHORI DIVAS</b>							
9	Adolescent girls who have accessed adolescent health services (Kishori Divas) in the last one year preceding the survey <sup>14</sup> (%)	10.5	62.9	69.5	6.0	45.3	67.1	-2.1
10	Adolescent girls who have attended at least two Kishori group meetings in the three months preceding the survey (%)	6.5	4.9	23.3	3.1	0.7	11.9	7.9***

**Notes:**

Inference: \*\*\*  $p < 0.01$ ; \*\*  $p < 0.05$ ; \*  $p < 0.1$

(SD): Denotes the standard deviation of proportion

1. Includes only those adolescent girls who had given their consent for taking their anthropometric measurements.
2. The World Health Organisation (2004) defines Body Mass Index (BMI) as a simple index of weight for height and is used to categorise adults as either underweight, normal, overweight or obese. It is calculated as weight (kilograms) divided by the square of height (metres).
3. Adolescent girls whose z-score of BMI for age is below -2 SD units from the median of the 2007 WHO Growth Reference 5-19 years, are considered as underweight. It excludes 2 flagged cases and 8 case whose weight was not measured in baseline, 1 flagged cases and 8 case whose weight was not measured in midline and 1 flagged cases and 3 case whose weight was not measured in endline survey.
4. Adolescent girls whose z-score of BMI for age below -3 SD units from the median of the 2007 WHO Growth Reference 5-19 years, are considered as severely underweight. It excludes 2 flagged cases and 8 case whose weight was not measured in baseline, 1 flagged cases and 8 case whose weight was not measured in midline and 1 flagged cases and 3 case whose weight was not measured in endline survey
5. Percentage of adolescent girls whose z-score of BMI for age greater than 2 SD units from the median of the 2007 WHO Growth Reference 5-19 years, was very low. Therefore, it is not included in the fact sheet.
6. Proportion of adolescent girls whose z-score of height for age is below -2 SD units and z-score of BMI for age is below – 2 SD units.
7. Proportion of adolescent girls whose z-score of height for age is below -3 SD units and z-score of BMI for age is below – 3 SD units.
8. Excludes those adolescent girls who ate less or more than usual on the day prior to the date of the interview, as in the case of a fast or a celebration.
9. Dietary Diversity Score (DDS) is computed on the basis of consumption of food items, from the ten food groups, on the day prior to the date of the interview. Based on Food and Agricultural Organisation (FAO) 2016 methodology, 14 major food items were clubbed together to form 10 food groups. A ten-point DDS scale was created (0 being the lowest value, 10 being the highest).
10. In baseline survey the information on the consumption of IFA was collected based on the reference period of 'last month' and in midline the reference period was last 'three months' prior to the date of interview.
11. In baseline 'Adequately' iodized salt is used to refer to salt that has iodine content greater than 15 ppm. In midline salt with trademark logo bought from shops was used as a proxy measure for iodized salt.
12. Kitchen gardens are small plots of land cultivated by households. They provide the latter with easy access to fresh and nutritious vegetables and fruits, often on a daily basis.
13. Includes only those adolescent girls who had started or experienced menstruation.
14. Kishori Divas or Adolescent Girls' Day is held once in every three months at AWCs. Health services, including a free health check-up, are extended to all adolescent girls on this occasion.



## PREGNANT WOMEN (15-49 years)

	Key Indicators	Intervention Area			Control Area			Effect size of change
		Baseline 2016	Midline 2018	Endline 2021	Baseline 2016	Midline 2018	Endline 2021	DID (Baseline to Endline)
		(N=367)	(N=258)	(N=242)	(N=447)	(N=356)	(N=298)	
	Estimated sample of pregnant women (n)	374	300	374	374	300	374	
	Pregnant women interviewed (n)	<b>367</b>	<b>258</b>	<b>242</b>	<b>447</b>	<b>356</b>	<b>298</b>	
<b>1</b>	<b>NUTRITIONAL STATUS<sup>1</sup> (n)</b>	<b>359</b>	<b>258</b>	<b>242</b>	<b>445</b>	<b>356</b>	<b>298</b>	
1.1	Pregnant women's mean MUAC (cm [SD])	23.9 [2.3]	24.4 [2.3]	24.3 [2.2]	23.7 [2.2]	24.2 [2.3]	24.6 [2.3]	
1.2	Pregnant women with MUAC between 17-18.9 cm (%)	1.1	0.0	0.4	0.2	0.0	0.0	-0.05
1.3	Pregnant women with MUAC between 19-20.9 cm (%)	6.1	1.5	2.5	8.1	3.1	3.0	1.4
1.4	Pregnant women with MUAC between 21-22.9 cm (%)	26.2	24.7	20.7	29.4	27.1	20.5	3.4
1.5	Pregnant women with MUAC 23 cm and above (%)	66.6	73.8	76.4	62.2	69.8	76.5	-4.4
1.6	Pregnant women experiencing both severe stunting and wasting <sup>2</sup> (%)	4.5	8.4	5.4	6.1	8.2	4.0	3
	<b>DIETARY DIVERSITY<sup>3</sup> (n)</b>	<b>343</b>	<b>240</b>	<b>222</b>	<b>432</b>	<b>319</b>	<b>265</b>	
2	Pregnant women's mean Dietary Diversity Score (DDS) <sup>4</sup> [SD]	4.7 [1.6]	4.8 [1.7]	5.1[1.6]	4.6 [1.5]	4.5 [1.4]	5.1[1.6]	
3	Pregnant women with high dietary diversity score (6 or more out of 10) (%)	24.13	25.86	35.93	23.61	20.83	35.34	0.1
4	Pregnant women living in food secure households <sup>5</sup> (%)	29.7	36.1	44.6	19.02	39.58	42.62	-8.7*
	<b>MICRONUTRIENT SUPPLEMENTATION AND DEWORMING</b>							
5	Pregnant women (in 2nd and 3rd trimester) who consumed at least 25 IFA tablets <sup>6</sup> (%)	71.8	69.7	85.2	74.2	80.8	83.7	3.8
6	Pregnant women (in 2nd and 3rd trimester) who received any calcium tablet <sup>6</sup> (%)	54.64	74.9	89.63	63.61	82.22	84.36	14.2***
7	Pregnant women (in 2nd and 3rd trimester) who consumed any tablet for deworming <sup>6</sup> (%)	24.3	34.68	49.39	27.54	31.34	44.13	8.5
8	Pregnant women living in households using adequately iodised salt <sup>7</sup> (%)	96.13	94.7	99.59	94.85	95.65	100	-1.7
9	Pregnant women who have had ANC check-up in the first trimester (%)	40.1	60.7	65.7	32.7	57.5	74.2	-15.9***
10	Pregnant women whose weight was monitored (%)	77.1	71.7	88	70	67.7	90.9	-10.0**
11	Pregnant women living in households with a kitchen garden <sup>8</sup> (%)	38.3	22.8	56.6	49.1	9.3	55.4	12.1
12	Pregnant women living in households in which members practice open defecation (%)	76.6	77.3	61.6	86.6	82.5	62.8	8.8*
13	Pregnant women living in households with access to PDS in the month preceding the survey <sup>2</sup> (%)	69.6	98.3	99.5	71.1	100	99.6	1.5
14	Pregnant women receiving ICDS entitlement for supplementary food <sup>9</sup> (%)	53.1	67.7	84.7	57.5	73.1	82.6	6.5

	Key Indicators	Intervention Area			Control Area			Effect size of change
		Baseline 2016	Midline 2018	Endline 2021	Baseline 2016	Midline 2018	Endline 2021	DID (Baseline to Endline)
		(N=367)	(N=258)	(N=242)	(N=447)	(N=356)	(N=298)	
15	Adopted family planning methods to keep space between pregnancies <sup>10</sup> (%)	16.5	30.2	29.4	16.9	19.1	26.1	3.7
16	Pregnant women who attended at least three VHSND meetings <sup>11</sup> in the six months preceding the survey (%)	31.3	29.3	50.4	22.6	26.0	40.9	0.7
17	Pregnant women who attended at least three Maitri Baithak meetings in the 12 months preceding the survey (%)	7.9	7.2	15.7	4.7	1.2	10.2	1.8

**Notes:**

Inference: \*\*\* p<0.01; \*\* p<0.05; \* p<0.1

(SD): Denotes the standard deviation of proportion

- Includes only those pregnant women who had given consent for anthropometric measurements.
- Pregnant women whose height is less than 145 cm and MUAC < 23 cm
- Excludes those pregnant women who ate less or more than usual on the day prior to the date of the interview, as in the case of a fast or a celebration.
- Dietary Diversity Score (DDS) is computed on the basis of consumption of food items, from the ten food groups, on the day prior to the date of the interview. Based on Food and Agricultural Organisation (FAO) 2016 methodology, 14 major food items were clubbed together to form 10 food groups. A ten-point DDS scale was thus created (0 being the lowest value, 10 being the highest).
- There are eight items indicating different levels of food insecurity severities. The first three indicate mild level of insecurity, items four to six indicate moderate food insecurity and last two being items for severe food insecurity. FIES is then divided into four categories: 'food secure', if households have not reported affirmatively to any of the eight items; 'mildly insecure', if only any one of the first three are affirmatively reported; 'moderately insecure', if either of items four, five or six are affirmatively reported; 'severely insecure', if all items are affirmatively reported or either of items seven and eight are affirmatively reported.
- Includes those pregnant women who are in their 2nd and 3rd trimester and received any IFA, deworming and calcium tablet (Baseline (n): Intervention Area - 307; Control Area - 353, Midline (n): Intervention Area - 186; Control Area - 272 and End line (n) Intervention Area - 207; Control Area - 252).
- In baseline 'Adequately' iodized salt is used to refer to salt that has iodine content greater than 15 ppm. In midline and endline salt with trademark logo bought from shops was used as a proxy measure for iodized salt.
- Kitchen gardens are small plots of land cultivated by households. They provide the latter with easy access to fresh and nutritious vegetables and fruits, often on a daily basis. They include homestead land, vacant plots, and road sides, edges of a field or even containers.
- Supplementary nutrition is provided to pregnant women and lactating mothers under ICDS.
- Includes only those pregnant women who had two or more pregnancies (Baseline (n): Intervention Area - 218; Control Area - 295, Midline (n): Intervention Area - 167; Control Area - 240 and End line (n) Intervention Area - 136; Control Area - 176).
- The Village Health, Sanitation and Nutrition Day (VHSND), a component of ICDS, is held at Anganwadi Centres across Bihar once every month. On this day, adolescent girls, pregnant women and lactating mothers are provided with integrated health solutions as per their needs.

## MOTHERS (of children under two years) (15-49 years)

	Key Indicators	Intervention Area			Control Area			Effect size of change
		Baseline 2016	Midline 2018	Endline 2021	Baseline 2016	Midline 2018	Endline 2021	DID Baseline to Endline
		(N=1760)	(N=562)	(N=700)	(N=1844)	(N=621)	(N=822)	
	Estimated sample of mothers <sup>1</sup> (n)	1340	500	1340	1340	500	1340	
	Mothers interviewed (n)	1760	562	700	1844	621	822	
1	<b>NUTRITIONAL STATUS<sup>2</sup> (n)</b>	1739	476	700	1831	535	819	
1.1	Mothers' mean Body Mass Index (BMI) <sup>3</sup> [SD]	19.2	19.3	19.8	19.0	19.6	19.8	
1.2	Mothers who are underweight (BMI<18.5) (%)	45.6	44.3	36.3	45.3	38.6	35.1	0.9
1.3	Mothers who are normal weight (BMI between 18.5-24.9) (%)	50.1	52.8	59.0	52.8	58.0	61.1	0.6
1.4	Mothers who are overweight (BMI between 25.0-29.9) (%)	3.4	2.3	3.9	1.7	2.6	3.7	-1.5
1.5	Mothers who are obese (BMI >29.9) (%)	0.9	0.6	0.8	0.2	0.8	0.1	-0.1
1.6	Mothers experiencing both severe stunting and wasting <sup>4</sup> (%)	7.1	9.8	7.3	8.3	13.2	7.0	1.5
	<b>DIETARY DIVERSITY<sup>5</sup> (n)</b>	1566	514	627	1768	566	719	
2	Mothers mean Dietary Diversity Score (DDS) <sup>6</sup> [SD]	4.6 [1.6]	4.6 [1.6]	4.9 [1.6]	4.4 [1.4]	4.6 [1.5]	5.0[1.4]	
3	Mothers with minimum dietary diversity score (6 or more out of 10) (%)	24.9	24.0	32.4	19.2	22.4	31.4	-4.7*
4	Mothers living in food secure households <sup>7</sup> (%)	19.1	31.5	36.6	12.7	29.7	33.0	-2.7
	<b>MICRONUTRIENT SUPPLEMENTATION AND DEWORMING</b>							
5	Mothers who consumed at least 100 IFA tablets during the last pregnancy (%)	30.6	36.4	66.6	42.5	44.4	71.9	6.6**
6	Mothers who received any calcium tablet during the last pregnancy (%)	43.2	67.0	94.4	48.9	68.5	93.8	6.2***
7	Mothers who have consumed any tablet for deworming during the last pregnancy (%)	34.7	49.5	69.9	31.1	39.1	63.7	2.7
8	Mothers living in households which use adequately iodised salt <sup>8</sup> (%)	94.3	91.6	99.4	93.7	92.3	99.8	-1.1
9.1	Mothers who had ANC check-up in the first trimester (%)	27.2	58.8	72.4	18.2	59.9	72.0	-8.7***
9.2	Mothers who had at least four ANC check-ups (%)	21.4	40.9	57.0	17.4	46.6	56.2	-3.1
10	Mothers who were weighed at least four times (%)	38.3	46.8	63.4	37.0	41.3	56.7	5.4*
11	Mothers living in households with a kitchen garden <sup>9</sup> (%)	33.5	19.9	58.8	42.7	7.5	50.7	17.3***
12	Mothers living in households in which members practice open defecation (%)	78.3	74.6	59.3	84.6	82.9	68.9	3.3
13	Mothers living in households with access to PDS in the month preceding the survey <sup>10</sup> (%)	68.0	99.0	99.7	69.1	99.9	99.5	1.3
14	Mothers receiving ICDS entitlement for supplementary food <sup>11</sup> (%)	66.7	96.7	99.4	69.4	96.8	99.7	2.3

	Key Indicators	Intervention Area			Control Area			Effect size of change
		Baseline 2016	Midline 2018	Endline 2021	Baseline 2016	Midline 2018	Endline 2021	DID Baseline to Endline
		(N=1760)	(N=562)	(N=700)	(N=1844)	(N=621)	(N=822)	
15	Mothers who had an institutional delivery <sup>12</sup> (%)	76.9	81.8	91.0	65.6	73.1	79.2	0.4
16	Mothers who received maternity entitlement payment (JSY) from government <sup>13</sup> (%)	52.5	58.3	59.7	47.5	48.5	54.3	0.3
17	Currently use any modern contraceptive <sup>14</sup> (%)	22.6	26.1	35.7	20.7	25.1	25.6	8.2***
18	Mothers who attended at least three VHSND <sup>15</sup> meetings in the six months preceding the survey (%)	36.0	42.7	68.8	31.5	34.7	55.6	8.7***
19	Mothers who attended at least two Maitri Baithak in the 12 months preceding the survey (%)	15.7	13.5	43.8	13.7	1.5	20.6	21.1**

**Notes:**

Inference: \*\*\* p<0.01; \*\* p<0.05; \* p<0.1

SD: Denotes the standard deviation of proportion

1. Mothers refer to women who have children under two years of age.
2. Includes only those mothers who had given consent for taking anthropometric measurements. (Baseline (n): Intervention Area – 1739; Control Area – 1831, Midline (n): Intervention Area – 476; Control Area – 535 and end line (n): Intervention Area - 700; Control Area – 819).
3. The World Health Organisation (2004) defines Body Mass Index (BMI) as a simple index of weight for height and is used to categorise adults as either underweight, normal weight, overweight or obese. It is calculated as weight (kilograms) divided by the square of height (metres).
4. Double burden of stunting and wasting is defined as mothers whose height is <145 cm and MUAC<23cm.
5. Excludes those mothers who ate less or more than usual on the day prior to the date of the interview, as in the case of a fast or a celebration.
6. Dietary Diversity Score (DDS) is computed on the basis of consumption of food items, from the ten food groups, on the day prior to the date of the interview. Based on Food and Agricultural Organisation (FAO) 2016 methodology, 14 major food items were clubbed together to form 10 food groups. A ten-point DDS scale was thus created (1 being the lowest value, 10 being the highest).
7. There are eight items indicating different levels of food insecurity severities. The first three indicate mild level of insecurity, items four to six indicate moderate food insecurity, and last two being items for severe food insecurity. FIES is then divided into four categories: 'food secure', if households have not reported affirmatively to any of the eight items; 'mildly insecure', if only any one of the first three are affirmatively reported; 'moderately insecure', if either of items four, five or six are affirmatively reported; 'severely insecure', if all items are affirmatively reported or either of items seven and eight are affirmatively reported.
8. In baseline 'Adequately' iodized salt is used to refer to salt that has iodine content greater than 15 ppm. In midline and endline salt with trademark logo bought from shops was used as a proxy measure for iodized salt.
9. Kitchen gardens are small plots of land cultivated by households. They provide the latter with easy access to fresh and nutritious vegetables and fruits, often on a daily basis. They include homestead land, vacant plots, and road sides, edges of a field or even containers.

10. Includes only those households which possessed a ration card
11. Supplementary Nutrition is provided to mothers and lactating mothers under ICDS. (In baseline double amount of ICDS food and in midline mothers who received THR, egg and HCM)
12. Institutional delivery refers to last birth(s), which took place in a health facility/institution.
13. Under the Janani Suraksha Yojana (JSY), pregnant women are entitled to receive cash assistance for giving birth in a Government or accredited private health facility.
14. Modern contraceptives include female and male sterilizations, Intra-Uterine Devices (IUDs), injectable, pills, condoms and diaphragms.
15. The Village Health, Sanitation and Nutrition Day (VHSND), a component of ICDS, is held at Anganwadi Centres across Bihar once every month. On this day, adolescent girls, mothers and lactating mothers are provided with integrated health solutions as per their needs.



# **ENDLINE FACTSHEET**

## **ODISHA (2016-2021)**

## ADOLESCENT GIRLS (10-19 years)

	Key Indicators	Intervention Area			Control Area		
		Baseline 2016	Midline 2018	Endline 2021	Baseline 2016	Midline 2018	Endline 2021
		(N=724)	(N=533)	(N= 546)	(N=1003)	(N=658)	(N= 565)
	<b>SOCIO-DEMOGRAPHIC INDICATORS</b>						
1	Estimated sample of adolescent girls (n)	530	500	530	530	500	530
2	Adolescent girls interviewed (n)	<b>724</b>	<b>529</b>	<b>546</b>	<b>1003</b>	<b>656</b>	<b>565</b>
	<b>Distribution of adolescent girls by age groups (years)</b>						
3.01	10-14 (%)	49.2 [356]	58.2 [306]	54.0 [301]	52.6 [528]	53.4 [358]	51.5 [292]
3.02	15-19 (%)	50.8 [368]	41.8 [223]	46.0 [245]	47.4 [475]	46.6 [298]	48.5 [273]
	<b>Educational status of adolescent girls</b>						
4	<b>Educational status of adolescent girls (10-14) (n)</b>	356	306	301	528	358	292
4.01	Never attended school (%)	3.7	4.3	1.5	10.6	4.5	2.7
4.02	Currently attending school (%)	79.2	86.9	67.5	71.2	87.6	71.2
4.03	Currently not attending school (%)	17.1	8.8	31.0	18.2	7.9	26.1
4.04	<b>Before COVID-19 Adolescent girls attending school/ college<sup>1</sup></b>			60.8			67.5
5	<b>Educational status of adolescent girls (15-19) (n)</b>	368	223	245	475	298	273
5.01	Never attended school (%)	6.8	8.9	6.4	13.1	5.0	5.5
5.02	Currently attending school (%)	42.4	45.0	46.2	37.1	51.2	53.4
5.03	Currently not attending school (%)	50.8	46.2	47.4	49.9	43.9	41.1
5.04	<b>Before COVID-19 Adolescent girls attending school/ college<sup>1</sup></b>			40.3			35.9
6	Adolescent girls who were engaged in paid work outside their home (%)	22.0	5.8	3.3	21.0	5.0	2.3
	<b>Religion of the head of household</b>						
7.01	Hindu (%)	97.2	95.1	92.3	93.9	97.3	95.4
7.02	Muslim (%)	0.0	0.5	0.0	0.6	0.0	0.3
7.03	Others <sup>2</sup> (%)	2.8	4.3	7.7	5.5	2.7	4.4
	<b>Caste/Tribe of the head of household</b>						
8.01	Scheduled Caste (SC) (%)	18.5	16.7	20.5	13.2	19.5	26.1
8.02	Scheduled Tribe (ST) (%)	55.0	58.9	55.7	53.4	46.3	41.8

	Key Indicators	Intervention Area			Control Area		
		Baseline 2016	Midline 2018	Endline 2021	Baseline 2016	Midline 2018	Endline 2021
		(N=724)	(N=533)	(N= 546)	(N=1003)	(N=658)	(N= 565)
8.03	Other Backward Classes (OBCs) (%)	18.6	17.4	18.6	25.4	23.5	26.9
8.04	Others <sup>3</sup>	7.9	7.0	5.1	8.0	10.7	5.2
	<b>FOOD SECURITY</b>						
	<b>Ration Card</b>						
9	Adolescent girls women living in households having						
9.01	No ration card (%)	9.9	4.1	3.9	5.9	3.1	3.6
9.02	Above Poverty Line (APL) card (%)	30.5	0.9	10.5	23.4	0.2	10.8
9.03	Below Poverty Line (BPL) card <sup>4</sup> (%)	21.7	0.6	13.1	9.5	0.0	13.8
9.04	Antyodaya Anna Yojana (AAY) card <sup>5</sup> (%)	16.7	15.1	13.5	19.9	17.5	10.3
9.05	Any Other card (%)	21.1	79.4	59.1	41.3	79.1	61.5
	<b>INTEGRATED CHILD DEVELOPMENT SERVICES (ICDS)</b>						
10.01	Adolescent girls who visit Anganwadi Centre (AWC) for any service <sup>6</sup> (%)	23.1	13.3	35.5	29.8	8.2	31.2
10.02	Adolescent girls who receive dry ration from AWC <sup>7</sup> (%)	53.7	35.0	9.4	69.1	30.1	1.7
11	Adolescent girls living in households with a kitchen garden <sup>8</sup> (%)	48.6	57.9	57.6	54.7	55.3	59.6
	<b>MICRONUTRIENT SUPPLEMENTATION AND DEWORMING</b>						
12	Adolescent girls who ever received any Iron and Folic Acid (IFA) tablet (blue coloured) (%)	27.2	69.4	60.3	37.4	69.6	65.4
13	Adolescent girls who have consumed at least four IFA tablets in the last month/last three months preceding the survey <sup>9</sup> (%)	13.7	20.6	31.0	19.2	21.8	33.2
14	Adolescent girls who have taken any tablet for deworming in the last six months/one year preceding the survey <sup>9</sup> (%)	34.1	64.6	84.3	33.4	68.6	78.5
15	Adolescent girls living in households using adequately iodised salt <sup>10</sup> (%)	94.5	93.0	99.5	91.6	93.0	99.3
	<b>DIETARY DIVERSITY<sup>11</sup> (n)</b>	655	481	517	970	612	527
16	Adolescent girls' mean Dietary Diversity Score (DDS) <sup>12</sup> [Standard Deviation (SD)]	4.7 [1.6]	4.5 [1.6]	4.7[1.6]	4.5 [1.4]	4.5 [1.4]	4.8 [1.6]
17	<b>In the 24 hours preceding the survey, food groups consumed by adolescent girls</b>						
17.01	Grains, white roots and tubers and plantains (%)	100.0	99.9	100.0	99.9	100.0	100.0
17.02	Pulses (beans, peas and lentils) (%)	49.3	70.2	68.8	54.1	68.0	72.1
17.03	Nuts or seeds (%)	17.3	11.4	7.4	13.6	6.3	7.7
17.04	Dairy (%)	14.1	8.6	14.8	9.3	9.1	17.2

	Key Indicators	Intervention Area			Control Area		
		Baseline 2016	Midline 2018	Endline 2021	Baseline 2016	Midline 2018	Endline 2021
		(N=724)	(N=533)	(N= 546)	(N=1003)	(N=658)	(N= 565)
17.05	Meat, poultry and fish (%)	27.8	24.8	31.1	28.6	22.9	32.9
17.06	Egg (%)	16.5	18.9	18.5	10.9	20.0	16.9
17.07	Dark green leafy vegetables (%)	49.0	39.1	48.4	43.8	35.3	42.6
17.08	Other vitamin A-rich fruits and vegetables (%)	88.9	82.7	89.5	87.2	87.7	91.7
17.09	Other vegetables (%)	88.4	75.8	75.2	89.8	79.6	77.9
17.10	Other fruits (%)	44.4	18.5	29.6	25.3	18.4	35.3
17.11	Any insects and other small protein foods (%)	5.0	0.7	1.9	3.0	0.5	0.9
17.12	Any sugar-sweetened beverages (%)	30.7	21.4	35.7	19.6	18.4	40.5
17.13	Any savoury and fried snacks (%)	28.9	18.9	23.3	23.2	20.5	29.1
18	<b>Adolescent girls consuming food from specific food groups</b>						
18.01	Animal-source food (meat, poultry, fish and egg) (%)	37.3	40.3	42.1	35.9	39.7	43.6
18.02	Pulses (beans, peas and lentils) and nuts or seeds (%)	56.3	70.9	69.9	58.5	68.7	73.4
18.03	Dark green leafy vegetables and other vitamin A-rich fruits and vegetables (%)	68.1	49.0	61.3	54.7	47.1	60.7
19	<b>Adolescent girls by number of food groups consumed</b>						
19.01	Only one food group (%)	0.8	1.1	0.8	0.7	0.3	0.7
19.02	Only two food groups (%)	5.0	6.6	4.5	3.9	5.1	5.6
19.03	Only three food groups (%)	14.8	18.5	16.1	19.1	20.1	13.7
19.04	Only four food groups (%)	29.5	30.0	27.2	31.1	28.2	27.8
19.05	Less than five food groups (%)	50.1	56.2	48.5	54.8	53.7	47.8
19.06	More than five food groups (%)	49.9	43.9	51.5	45.2	46.3	52.3
19.07	Adolescent girls with minimum DDS (6 or more out of 10) (%)	25.7	23.2	25.6	20.0	22.1	29.8
20	Adolescent girls who ate at least three meals in the last 24 hours including main and small meals	76.8	86.2	88.3	79.1	90.0	87.8
	<b>ACCESS TO HEALTH SERVICES AND WATER, SANITATION AND HYGIENE (WASH)</b>						
	<b>Kishori Divas</b>						
21	Adolescent girls who think that there are times in a woman's cycle when she is more likely to get pregnant than other times <sup>13</sup> (%) (N)	9.0	24.1	40.8	10.1	22.4	46.0
22	Adolescent girls who have accessed adolescent health services (Kishori Divas) in the last one year preceding the survey <sup>14</sup> (%)	10.5	62.9	69.5	6.0	45.3	67.1

	Key Indicators	Intervention Area			Control Area		
		Baseline 2016	Midline 2018	Endline 2021	Baseline 2016	Midline 2018	Endline 2021
		(N=724)	(N=533)	(N= 546)	(N=1003)	(N=658)	(N= 565)
23	Adolescent girls who have attended any Kishori group meeting in the six/three months preceding the survey <sup>15</sup> (%)	11.9	9.5	24.9	6.9	2.3	16.0
24	Adolescent girls who have attended at least two Kishori group meetings in the three months preceding the survey (%)	6.5	4.9	23.3	3.1	0.7	11.9
25	<b>Number of Kishori group meetings attended in the six months preceding the survey</b>						
25.01	Never attended (%)	88.1	90.5	72.3	93.1	97.7	83.6
25.02	Attended once (%)	5.3	4.6	4.4	3.8	1.6	4.6
25.03	Attended twice (%)	4.0	2.3	8.8	1.7	0.2	5.5
25.04	Attended thrice (%)	1.4	2.0	8.3	0.7	0.2	1.9
25.05	Attended more than three (%)	1.2	0.6	6.2	0.7	0.3	4.4
26	<b>Knowledge of social protection scheme for adolescents</b>						
26.01	Rashtriya Kishori Swasthya Karyakram (RKSK) (%)	22.9	5.9	13.5	21.2	9.3	10.8
26.02	Rajeev Gandhi Scheme for Empowerment of Adolescent Girls (Sabla) (%)	9.3	2.0	17.0	5.9	2.6	11.1
27	Adolescent girls who						
27.01	Ever received any vocational training (%)	10.5	12.2	5.9	10.1	7.5	4.9
27.02	Ever attended any school/community occasions (%)	65.9	20.1	23.5	63.3	8.9	17.3
	<b>Water, Sanitation and Hygiene</b>						
28	<b>Adolescent girls living in households having access to drinking water from</b>						
28.01	Public tap/Stand pipe (%)	8.7	3.7	9.4	5.6	2.4	6.8
28.02	Tube well or Borehole (%)	66.2	77.9	74.3	70.5	76.4	73.0
28.03	Others <sup>16</sup> (%)	25.1	18.4	16.3	23.9	21.2	20.2
29	Adolescent girls living in households in which members practice open defecation (%)	83.4	75.6	57.7	82.7	79.1	64.1
30	Adolescent girls living in households in which members use soap for hand-washing after defecation (%)	66.2	44.2	72.8	60.9	37.2	72.0
	<b>Personal hygiene<sup>17</sup>(n)</b>	549	361	228	712	459	206
31	Adolescent girls who use safe pads or sanitary pads during periods (%)	48.6	75.2	84.8	46.5	71.3	82.8
32	Adolescent girls who use any cloth for protection during their periods (%)	65.2	30.2	16.6	67.8	42.0	23.6
	<b>ABILITY TO MAKE CHOICES AND DECISIONS</b>						
33	Adolescent girls taking decisions about their own health care (%)	32.5	44.9	34.0	29.2	43.2	33.4



	Key Indicators	Intervention Area			Control Area		
		Baseline 2016	Midline 2018	Endline 2021	Baseline 2016	Midline 2018	Endline 2021
		(N=724)	(N=533)	(N= 546)	(N=1003)	(N=658)	(N= 565)
34	Adolescent girls taking decisions about making major purchases for the household (%)	19.8	13.3	21.1	16.1	13.0	22.0
35	Adolescent girls taking decisions about making purchases for daily household needs (%)	23.8	12.3	18.2	24.0	15.3	21.8
36	Adolescent girls taking decisions about visits to family members or relatives (%)	24.2	15.4	19.8	24.4	15.0	17.6
37	Adolescent girls taking decisions about going to school or studying <sup>18</sup> (%)	42.0	47.6	55.2	40.2	48.0	51.6
38	Adolescent girls taking decisions about keeping/spending the money they currently have (%)	26.4	43.5	53.7	24.9	44.8	49.3
39	Adolescent girls who think that they can take decision regarding whom to marry (%)	11.9	7.7	10.6	10.3	7.1	7.9
	<b>NUTRITIONAL STATUS<sup>19</sup></b>						
	<b>Early adolescence (10-14 years) (n)</b>	355	305	299	524	355	292
40	Adolescent girls' mean weight (kg [SD])	34.0 [8.2]	35.6 [14.0]	35.7 [7.6]	34.1 [7.4]	35.6 [7.4]	36.3 [7.3]
41	Adolescent girls' mean height (cm [SD])	142.7 [9.1]	143.4 [8.1]	143.8 [8.4]	142.6 [8.4]	143.9 [7.8]	144.5 [7.4]
42.01	Adolescent girls' height for age < -2SD <sup>20</sup> (%)	23.9	18.0	20.6	24.0	13.8	18.0
42.02	Adolescent girls' height for age < -3SD <sup>21</sup> (%)	5.6	3.3	5.7	3.8	2.0	2.5
43	Adolescent girls' mean Mid-Upper Arm Circumference (MUAC) <sup>22</sup> (cm [SD])	20.7 [2.9]	21.2 [2.8]	21.4 [3.0]	20.7 [3.1]	21.2 [2.6]	21.4 [2.5]
44.01	Adolescent girls with MUAC < 17 cm (%)	9.3	2.9	4.9	6.3	4.2	4.8
44.02	Adolescent girls with MUAC between 17-18.9 cm (%)	22.0	20.4	15.8	22.5	19.3	13.0
44.03	Adolescent girls with MUAC between 19-20.9 cm (%)	20.6	24.2	27.2	28.8	24.3	25.3
44.04	Adolescent girls with MUAC between 21-22.9 cm (%)	27.9	27.5	24.3	20.8	28.1	29.1
44.05	Adolescent girls with MUAC 23 cm and above (%)	20.3	25.1	27.8	21.7	24.2	27.8
45	Adolescent girls' mean Body Mass Index (BMI) <sup>23</sup> [SD]	16.5 [2.6]	17.1 [5.9]	17.1 [2.8]	16.6 [2.6]	17.1 [2.5]	17.2 [2.5]
46.01	Adolescent girls with BMI for age < -2SD <sup>24</sup> (%)	16.4	14.5	12.7	16.6	10.1	13.2
46.02	Adolescent girls with BMI for age < -3SD <sup>25,26</sup> (%)	4.5	3.1	1.7	3.1	2.6	4.1
47	Adolescent girls experiencing both stunting and wasting <sup>27</sup> (%)	6.2	5.7	3.9	6.3	3.3	2.2
48	Adolescent girls experiencing severe stunting and wasting <sup>28</sup> (%)	1.1	0.5	0.6	0.4	0.0	0.9
	<b>Late adolescence (15-19 years) (n)</b>	366	220	244	474	297	273
49	Adolescent girls' mean weight (kg [SD])	42.6 [5.8]	42.4 [5.4]	43.7 [5.6]	42.4 [5.7]	43.4 [6.0]	43.4 [5.2]
50	Adolescent girls' mean height (cm [SD])	149.8 [6.0]	149.3 [6.1]	150.3 [5.6]	149.6 [6.1]	149.6 [5.4]	149.4 [5.0]
51.01	Adolescent girls' height for age < -2SD <sup>20</sup> (%)	46.0	48.8	39.0	46.9	47.4	45.6

	Key Indicators	Intervention Area			Control Area		
		Baseline 2016	Midline 2018	Endline 2021	Baseline 2016	Midline 2018	Endline 2021
		(N=724)	(N=533)	(N= 546)	(N=1003)	(N=658)	(N= 565)
51.02	Adolescent girls' height for age < -3SD <sup>21</sup> (%)	9.3	11.6	6.8	9.5	9.0	7.5
52	Adolescent girls' mean Mid-Upper Arm Circumference (MUAC) <sup>22</sup> (cm [SD])	23.6 [2.2]	23.8 [1.9]	23.8 [2.2]	23.8 [2.3]	23.9 [2.2]	23.8 [2.0]
53.01	Adolescent girls with MUAC < 17 cm (%)	0.0	0.0	0.0	0.2	0.5	0.0
53.02	Adolescent girls with MUAC between 17-18.9 cm (%)	0.8	0.6	0.7	1.3	0.2	0.8
53.03	Adolescent girls with MUAC between 19-20.9 cm (%)	9.3	4.3	11.9	7.8	5.2	3.9
53.04	Adolescent girls with MUAC between 21-22.9 cm (%)	31.4	23.0	20.7	27.0	21.4	29.9
53.05	Adolescent girls with MUAC 23 cm and above (%)	58.5	72.1	66.8	63.7	72.7	65.4
54	Adolescent girls' mean Body Mass Index (BMI) <sup>23</sup> [SD]	18.9 [2.3]	19.0 [2.1]	19.4 [2.3]	18.9 [2.1]	19.4 [2.2]	19.4 [2.1]
54.01	Adolescent girls with BMI for age < -2SD <sup>24</sup> (%)	7.4	4.3	5.9	8.7	3.5	2.5
55.02	Adolescent girls with BMI for age < -3SD <sup>25,26</sup> (%)	1.4	0.0	1.8	1.5	0.0	0.4
56	Adolescent girls experiencing both stunting and wasting <sup>27</sup> (%)	2.8	1.8	1.3	3.8	1.5	0.7
57	Adolescent girls experiencing severe stunting and wasting <sup>28</sup> (%)	0.0	0.0	0.0	0.4	0.0	0.0
	<b>Total adolescents (10-19 years) (n)</b>	<b>721</b>	<b>525</b>	<b>543</b>	<b>998</b>	<b>652</b>	<b>565</b>
58	Adolescent girls' mean weight (kg [SD])	38.4 [8.2]	38.4 [11.7]	39.3 [8.0]	38.0 [7.9]	39.2 [7.8]	39.7 [7.3]
59	Adolescent girls' mean height (cm [SD])	146.3 [8.4]	145.8 [7.8]	146.7 [7.9]	145.9 [8.2]	146.5 [7.4]	146.9 [6.8]
60.01	Adolescent girls' height for age < -2SD <sup>20</sup> (%)	35.1	30.8	29.1	34.9	29.5	31.4
60.02	Adolescent girls' height for age < -3SD <sup>21</sup> (%)	7.5	6.7	6.2	6.5	5.3	4.9
61	Adolescent girls' mean Mid-Upper Arm Circumference (MUAC) <sup>22</sup> (cm [SD])	22.2 [3.0]	22.3 [2.7]	22.4 [2.9]	22.2 [2.9]	22.4 [2.8]	22.5 [2.6]
62.01	Adolescent girls with MUAC < 17 cm (%)	4.6	1.7	2.7	3.4	2.5	2.5
62.02	Adolescent girls with MUAC between 17-18.9 cm (%)	11.2	12.1	8.8	12.4	10.4	7.1
62.03	Adolescent girls with MUAC between 19-20.9 cm (%)	14.8	15.9	20.1	18.8	15.4	14.9
62.04	Adolescent girls with MUAC between 21-22.9 cm (%)	29.7	25.6	22.6	23.7	25.0	29.5
62.05	Adolescent girls with MUAC 23 cm and above (%)	39.7	44.7	45.8	41.6	46.8	46.1
63	Adolescent girls' mean Body Mass Index (BMI) <sup>23</sup> [SD]	17.7 [2.7]	17.9 [4.8]	18.1 [2.8]	17.7 [2.6]	18.1 [2.6]	18.3 [2.6]
64.01	Adolescent girls with BMI for age < -2SD <sup>24</sup> (%)	11.8	10.2	9.6	12.8	7.0	8.0
64.02	Adolescent girls with BMI for age < -3SD <sup>25,26</sup> (%)	2.9	1.8	1.7	2.3	1.4	2.3
65	Adolescent girls experiencing both stunting and wasting <sup>27</sup> (%)	4.5	4.1	2.7	5.1	2.5	1.5

	Key Indicators	Intervention Area			Control Area		
		Baseline 2016	Midline 2018	Endline 2021	Baseline 2016	Midline 2018	Endline 2021
		(N=724)	(N=533)	(N= 546)	(N=1003)	(N=658)	(N= 565)
66	Adolescent girls experiencing severe stunting and wasting <sup>28</sup> (%)	0.6	0.3	0.3	0.4	0.0	0.5

**Notes:**

(SD): Denotes the standard deviation of proportion

1. Total number of adolescent girls who are currently not attending school. Endline 10-14 years (n): Intervention Area =90; Control Area=72. Endline 15-19 years (n): Intervention Area =120; Control Area=113.
2. Others include Christians and others
3. Others include those who have reported others, can't say or don't know (
4. Below Poverty Line (BPL) cards are distributed to those households living below the poverty line, which includes households with a Monthly Per Capita Consumer Expenditure (MPCE) less than Rs. 971.28 (Bihar) (Report of the Expert Group to Review the Methodology for Measurement of Poverty, Government of India Planning Commission, June, 2014). These households are entitled to receive 10 kg wheat per card at Rs. 5.22 per kg, 15 kg rice per card at Rs. 6.78 per kg, and 1.49 kg sugar per family at Rs. 13.5 per kg. Retrieved from: <http://www.pdsportal.nic.in/main.aspx>.
5. Antyodaya Anna Yojana (AAY) cards are distributed to those households which comprise the poorest segments of the BPL population, including all households who are perceived to be at the risk of hunger. These households are entitled to receive 14 kg wheat per card at Rs. 2 per kg and 21 kg rice per card at Rs. 3 per kg. Retrieved from: <http://www.pdsportal.nic.in/main.aspx>.
6. Under the Kishori Shakti Yojana (KSY), nutritional and health services are extended to adolescent girls, with local Anganwadi Centres serving as the focal point for delivery of the mandated services.
7. Dry ration is provided from the AWC to those adolescent girls who visited AWC for services and who weigh less than 35 kg. Baseline (n): Intervention Area=56; Control Area=96, Midline (n): Intervention Area=19; Control Area=11 and Endline (n): Intervention Area=52; Control Area=41. In midline and Endline survey reference period for availing AWC services was one year.
8. Kitchen gardens are small plots of land cultivated by households. They provide the latter with easy access to fresh and nutritious vegetables and fruits, often on a daily basis. They include homestead land, vacant plots, and roadsides, edges of a field or even containers.
9. In baseline survey the information on the consumption of IFA and deworming tablets was collected based on the reference period of 'last month' and in midline the reference period was last 'three months' prior to the date of interview.
10. In baseline 'Adequately' iodized salt is used to refer to salt that has iodine content greater than 15 ppm. In midline salt with trademark logo bought from shops was used as a proxy measure for iodized salt.
11. Excludes those adolescent girls who ate less or more than usual on the day prior to the date of the interview, as in the case of a fast or a celebration.
12. Dietary Diversity Score (DDS) is computed on the basis of consumption of food items, from the ten food groups, on the day prior to the date of the interview. Based on Food and Agricultural Organisation (FAO) 2016 methodology, 14 major food items were clubbed together to form 10 food groups. A ten-point DDS scale was created (0 being the lowest value, 10 being the highest).
13. The information was collected from girls in late adolescence aged 15-19 years. Baseline (n): Intervention Area=368; Control Area=475 , Midline (n): Intervention Area=223; Control Area=298 and Endline. (n): Intervention Area=245; Control Area=273.
14. Kishori Divas or Adolescent Girls' Day is held once in every three months at AWCs. Health services, including a free health check-up, are extended to all adolescent girls on this occasion.
15. In baseline survey the information on attending Kishori group meeting was based on the reference period of 'last six months' and in midline the reference period was 'last three months' prior to the date of interview.
16. Others include those households which have other source of drinking water (Cart with small tank/drum and Packaged /bottled water).
17. Includes only those adolescent girls who had started or experienced menstruation.
18. Only those adolescent girls who ever attended school are included (Baseline (n): Intervention Area - 685; Control Area – 883 , Midline (n): Intervention Area=627; Control Area=493) and Endline (n): Intervention Area=527; Control Area=544)

19. Includes only those adolescent girls who had given their consent for taking their anthropometric measurements.
20. Adolescent girls whose z-score of BMI for age is below -2 SD units from the median of the 2007 WHO Growth Reference 5-19 years, are considered as underweight. It excludes 2 flagged cases and 8 case whose weight was not measured in baseline, 1 flagged cases and 8 case whose weight was not measured in midline and 1 flagged cases and 3 case whose weight was not measured in endline survey.
21. Adolescent girls whose z-score of BMI for age is below -3 SD units from the median of the 2007 WHO Growth Reference 5-19 years, are considered as underweight. It excludes 2 flagged cases and 8 case whose weight was not measured in baseline, 1 flagged cases and 8 case whose weight was not measured in midline and 1 flagged cases and 3 case whose weight was not measured in endline survey.
22. The measurement of MUAC is commonly used as a potential indicator of nutritional status.
23. The World Health Organisation (2004) defines Body Mass Index (BMI) as a simple index of weight for height and is used to categorise adults as either underweight, normal, overweight or obese. It is calculated as weight (kilograms) divided by the square of height (metres).
24. Adolescent girls whose z-score of BMI for age is below -2 SD units from the median of the 2007 WHO Growth Reference 5-19 years, are considered as underweight. It excludes 2 flagged cases and 8 case whose weight was not measured in baseline, 1 flagged cases and 8 case whose weight was not measured in midline and 1 flagged cases and 3 case whose weight was not measured in endline survey.
25. Adolescent girls whose z-score of BMI for age is below -3 SD units from the median of the 2007 WHO Growth Reference 5-19 years, are considered as underweight. It excludes 2 flagged cases and 8 case whose weight was not measured in baseline, 1 flagged cases and 8 case whose weight was not measured in midline and 1 flagged cases and 3 case whose weight was not measured in endline survey.
26. Percentage of adolescent girls whose z-score of BMI for age greater than 2 SD units from the median of the 2007 WHO Growth Reference 5-19 years, was very low. Therefore, it is not included in the fact sheet.
27. Proportion of adolescent girls whose z-score of height for age is below -2 SD units and z-score of BMI for age is below – 2 SD units.
28. Proportion of adolescent girls whose z-score of height for age is below -3 SD units and z-score of BMI for age is below – 3 SD units.

## PREGNANT WOMEN (15-49 years)

	Key Indicators	Intervention Area			Control Area		
		Baseline 2016	Midline 2018	Endline 2021	Baseline 2016	Midline 2018	Endline 2021
		(N=367)	(N=258)	(N=242)	(N=447)	(N=356)	(N=298)
	<b>SOCIO-DEMOGRAPHIC INDICATORS</b>						
1	Estimated sample of pregnant women (n)	374	300	374	374	300	374
2	Pregnant women interviewed (n)	<b>367</b>	<b>258</b>	<b>242</b>	<b>447</b>	<b>356</b>	<b>298</b>
	<b>Distribution of pregnant women by age groups (years)</b>						
3.01	15-19 (%) [n]	16.9 [62]	15.6 [40]	19.8 [48]	14.1 [63]	12.2 [45]	13.8 [41]
3.02	20-29 (%) [n]	71.1 [261]	72.2 [187]	64.1 [155]	73.2 [327]	76 [269]	74.5 [222]
3.03	30-39 (%) [n]	10.9 [40]	12.1 [31]	15.3 [37]	11.9 [53]	11 [39]	11.7 [35]
3.04	40-49 (%) [n]	1.1 [4]	0.0 [0]	0.8 [2]	0.9 [4]	0.8 [3]	0.0 [0]
4	<b>Marital Status</b>						
4.01	Currently married (%)	97.5	90	96.3	99.3	93	96
4.02	Remarried (%)	1.9	8.5	3.7	0.7	5.3	3.7
4.03	Others	0.5	1.5	0.0	0.0	1.7	0.3
5	<b>Educational status of pregnant women</b>						
5.01	Never attended school (%)	43.1	45.1	29.8	50.8	39.4	29.9
5.02	Completed 10 or more years of schooling <sup>1</sup> (%)	30.1	37.9	44.3	31.4	33.8	52.7
	<b>Self Help Groups (SHGs)</b>						
6	Pregnant women who are members of SHGs (%)	27.9	49.6	35.5	27.5	53.1	35.9
7	SHG members among the pregnant women who attended three or more Poshan Sakhi meetings in the 12 months preceding the survey <sup>2</sup> (%)	7.9	7.2	15.7	4.7	1.2	10.7
	<b>Religion of the head of household</b>						
8.01	Hindu (%)	94	94.4	93.4	95.7	97.6	97
8.02	Others <sup>3</sup>	6.0	5.6	6.6	4.3	2.4	3.0
	<b>Caste/Tribe of the head of household</b>						
9.01	Scheduled Caste (SC) (%)	22.6	18.1	20.2	14.8	18.7	24.5
9.02	Scheduled Tribe (ST) (%)	51.2	64.3	57	55.5	54.9	48.7
9.03	Other Backward Classes (OBCs) (%)	17.2	11.2	17.8	19.0	18.7	24.2

	Key Indicators	Intervention Area			Control Area		
		Baseline 2016	Midline 2018	Endline 2021	Baseline 2016	Midline 2018	Endline 2021
		(N=367)	(N=258)	(N=242)	(N=447)	(N=356)	(N=298)
9.04	Others <sup>4</sup> (%)	9.0	6.3	4.9	10.7	7.7	2.7
10	Pregnant women who consumed alcohol and/or tobacco during pregnancy (%)	24.9	27.9	17.4	30.6	26.3	16.4
	<b>FOOD SECURITY</b>						
	<b>Ration Card</b>						
11	Pregnant women living in households having						
11.01	No ration card (%)	21.3	13.1	17.4	16.3	18.8	18.5
11.02	Above Poverty Line (APL) card (%)	19.9	2.3	10.7	21.7	0	7.4
11.03	Below Poverty Line (BPL) card <sup>6</sup> (%)	16.9	0.4	11.2	9.8	0	9.1
11.04	Antyodaya Anna Yojana (AAY) card <sup>7</sup> (%)	10.9	8.4	9.1	8.9	18.4	9.4
11.05	Any Other card (%)	31.1	75.9	51.7	43.2	62.8	55.7
	<b>Public Distribution System (PDS) and Integrated Child Development Services (ICDS)</b>						
12	Pregnant women living in households with access to PDS in the month preceding the survey <sup>8</sup> (%)	69.6	98.3	99.5	71.1	100	99.6
13	Pregnant women receiving ICDS entitlement for supplementary food <sup>9</sup> (%)	53.1	67.7	84.7	57.5	73.1	82.6
14	Pregnant women living in households with a kitchen garden <sup>10</sup> (%)	38.1	22.8	56.6	49	9.3	55.4
	<b>FOOD INSECURITY<sup>11</sup></b>						
15	Pregnant women who experienced food insecurity in the 12 months preceding the survey						
15.01	Worried about insufficient food (%)	53.7	47.9	48.8	70.9	49.8	47.7
15.02	Unable to eat healthy and nutritious food (%)	55.6	50.1	47.1	71.6	50.4	48.7
15.03	Had to eat limited variety of food (%)	53.1	43.6	41.3	61.3	42.1	44.3
15.04	Had to skip a meal (%)	32	16.1	10.3	36.7	19	10.4
15.05	Had to eat less meals (%)	51.8	35.4	20.2	61.5	37.1	20.5
15.06	Household ran out of food (%)	32.2	11.1	5.4	33.8	10.4	7
15.07	Had no food to eat at any time (%)	16.9	6.5	1.2	21.5	8.0	1.3
15.08	Had to go an entire day without food (%)	13.1	5.3	0.0	17.2	3.7	1.0
	<b>Food Insecurity Experience Scale (FIES)</b>						
16.01	Pregnant women living in food secure households (%)	29.7	36.1	44.6	19.02	39.58	42.62

	Key Indicators	Intervention Area			Control Area		
		Baseline 2016	Midline 2018	Endline 2021	Baseline 2016	Midline 2018	Endline 2021
		(N=367)	(N=258)	(N=242)	(N=447)	(N=356)	(N=298)
16.02	Pregnant women living in mildly food insecure households (%)	12.5	24.3	31.4	15.44	20.68	28.52
16.03	Pregnant women living in moderately food insecure households (%)	40.3	30.5	22.7	43.18	30.81	26.85
16.04	Pregnant women living in severely food insecure households (%)	17.4	9.1	1.2	22.37	8.94	2.01
	<b>Coping mechanism to manage shortfall of food</b>						
17	Coping strategies of the households as reported by pregnant women						
17.01	Household head now spends extra hours at work to earn more money (overtime) (%)	34.6	50.5	47.5	28	54.6	49.3
17.02	Unlike earlier, now female(s) of household start working outside home (%)	21.8	46.3	28.1	19.2	40.6	28.5
17.03	Unlike earlier, now children of household start working outside home (%)	13.6	29.3	15.3	10.1	31.1	19.5
17.04	Migration of a family member to another city to earn money and send it back to the family (%)	22.6	44.7	27.3	17.2	42.5	33.2
17.05	Borrowing money to meet household expenses (%)	80.9	62.3	55	86.4	66.3	57
17.06	Resort to low-cost food grains/items available (%)	75.5	58.6	65.7	87.2	58.7	60.1
17.07	Borrowing grains to meet food requirements (%)	65.9	49.5	28.5	72.5	43.9	28.2
17.08	Sold household articles or possessions (%)	14.4	14.1	6.2	11	12.3	5.4
	<b>MICRONUTRIENT SUPPLEMENTATION AND DEWORMING</b>						
18	Pregnant women (in 2nd and 3rd trimester) who received any Iron and Folic Acid (IFA) tablet <sup>12</sup> (%)	86.6	84.2	88.4	89.9	88.6	85.7
19	Pregnant women (in 2nd and 3rd trimester) who consumed at least 25 IFA tablets <sup>13</sup> (%)	71.8	69.7	85.2	74.2	80.8	83.7
20	Pregnant women (in 2nd and 3rd trimester) who received any calcium tablet <sup>12</sup> (%)	54.6	74.9	89.6	63.6	82.2	84.4
21	Pregnant women (in 2nd and 3rd trimester) who consumed any tablet for deworming <sup>12</sup> (%)	24.3	34.7	49.4	27.5	31.3	44.1
22	Pregnant women living in households using adequately iodised salt <sup>14</sup> (%)	96.1	94.7	99.6	94.9	95.7	100.0
	<b>DIETARY DIVERSITY<sup>15</sup>(n)</b>	343	240	222	432	319	265
23	Pregnant women's mean Dietary Diversity Score (DDS) <sup>16</sup> [Standard Deviation (SD)]	4.7 [1.6]	4.8 [1.7]	5.1[1.6]	4.6 [1.5]	4.5 [1.4]	5.1[1.6]
24	<b>In the 24 hours preceding the survey, food consumed by pregnant women</b>						
24.01	Grains, white roots and tubers, and plantains (%)	100	100	99.5	100	100	100
24.02	Pulses (beans, peas and lentils) (%)	53.4	66.9	73	58.6	63.8	73.6
24.03	Nuts or seeds (%)	19.5	10.2	14.9	13.9	8.3	12.1
24.04	Dairy (%)	21	11.1	18.9	12.3	8.7	18.5

	Key Indicators	Intervention Area			Control Area		
		Baseline 2016	Midline 2018	Endline 2021	Baseline 2016	Midline 2018	Endline 2021
		(N=367)	(N=258)	(N=242)	(N=447)	(N=356)	(N=298)
24.05	Meat, poultry and fish (%)	32.9	33.5	36.9	27.5	28.3	39.2
24.06	Egg (%)	12.5	18.4	17.6	9.3	14	19.2
24.07	Dark green leafy vegetables (%)	45.8	53.7	58.1	54.2	45.8	56.6
24.08	Other vitamin A-rich fruits and vegetables (%)	86	83.3	91	91	83.2	91.3
24.09	Other vegetables (%)	89.8	79.2	78.8	88.4	81.8	78.9
24.10	Other fruits (%)	36.7	24.5	39.2	25.7	24.9	36.6
24.11	Any Insects and other small protein source	2.6	0.9	2.7	2.3	0.3	3.8
24.12	Any sweets	38.8	29.7	47.3	42.4	20.1	48.7
24.13	Savoury / Fried snacks	26.8	11.9	10.4	20.6	8.2	16.6
25	<b>Pregnant women consuming food from specific food groups</b>						
25.01	Animal-source food (meat, poultry, fish and egg) (%)	39.4	43.3	45.9	32.9	38.1	49.4
25.02	Pulses (beans, peas and lentils) and nuts or seeds (%)	57.4	68.9	76.1	63.7	66.6	74.3
25.03	Dark green leafy vegetables and other vitamin A-rich fruits and vegetables (%)	61.8	63.6	70.3	63.2	60.6	71.7
26	<b>Pregnant women by number of food groups consumed</b>						
26.01	Only one food group (%)	0.9	0.0	0.4	0.9	0.3	0.7
26.02	Only two food groups (%)	5.2	5.2	5.2	3.9	6.9	3.5
26.03	Only three food groups (%)	14.0	18.2	9.5	14.1	14.5	11.0
26.04	Only four food groups (%)	26.7	24.5	19.5	29.6	31.6	20.1
26.05	Less than six food groups (%)	75.9	74.1	64.1	76.4	79.2	64.7
26.06	Pregnant women with high dietary diversity score (6 or more out of 10) (%)	24.1	25.9	35.9	23.6	20.8	35.3
27	Pregnant women having at least three meals in a day	67.4	75.4	81.0	70.8	76.1	81.6
	<b>ACCESS TO HEALTH SERVICES AND WATER, SANITATION AND HYGIENE (WASH)</b>						
	<b>Registration in Antenatal Care (ANC) services</b>						
28	Pregnant women who have registered their pregnancy (%)	91.8	80.9	89.3	88.8	81.4	92.3
29	Pregnant women who have registered in the first trimester (%)	72.5	69.2	84.7	72	70.7	88.9
30	Pregnant women who have received a Mother and Child Protection (MCP) card <sup>17</sup> (%)	89	77	92.1	84.6	81	88.7
	<b>ANC services received during pregnancy</b>						



	Key Indicators	Intervention Area			Control Area		
		Baseline 2016	Midline 2018	Endline 2021	Baseline 2016	Midline 2018	Endline 2021
		(N=367)	(N=258)	(N=242)	(N=447)	(N=356)	(N=298)
31	Pregnant women who have sought ANC services (%)	87.7	77.8	83.1	82.1	76.2	87.6
32	Pregnant women who have had ANC check-up in the first trimester (%)	40.1	60.7	65.7	32.7	57.5	74.2
33	Pregnant women who have received Tetanus Toxoid (TT) injection (%)	80.1	72.2	90.9	74.9	71.8	90.9
34	Pregnant women who have received counselling on birth preparedness by a frontline health worker <sup>18</sup> (%)	74.9	50.8	56.6	63.7	45.6	57.4
	<b>Monitoring of nutritional status during pregnancy</b>						
35	Pregnant women whose weight was monitored (%)	77.1	71.7	88.0	70.0	67.7	90.9
36	Pregnant women whose height was recorded (%)	16.6	16.8	14.9	13.2	8.0	9.7
37	Pregnant women whose Mid-Upper Arm Circumference (MUAC) was measured <sup>19</sup> (%)	24.0	31.7	55.8	14.3	19.3	42.6
	<b>Village Health, Sanitation and Nutrition Day (VHSND)</b>						
38.01	Pregnant women who attended VHSND meeting(s) in the six months preceding the survey <sup>20</sup> (%)	59.9	59.9	73.1	55.3	51.3	65.1
38.02	Pregnant women who attended at least three VHSND meetings in the six months preceding the survey (%)	31.3	29.3	50.4	22.6	25.5	40.9
	<b>Water, Sanitation and Hygiene</b>						
39	<b>Pregnant women living in households having access to drinking water from</b>						
39.01	Public tap/Stand pipe (%)	6.8	3.0	11.6	6.0	4.1	9.1
39.02	Tube well or Borehole (%)	61.3	79.5	73.1	70	74.6	69.1
39.03	Others <sup>21</sup> (%)	31.9	17.4	15.3	23.9	21.2	21.8
40	Pregnant women living in households in which members practice open defecation (%)	76.6	77.3	61.6	86.6	82.5	62.8
41	Pregnant women living in households in which members use soap for hand-washing after defecation (%)	78.7	51.2	73.6	62.9	40.6	68.8
	<b>KNOWLEDGE AND EVER USE OF FAMILY PLANNING METHODS AS REPORTED BY PREGNANT WOMEN</b>						
42	Knowledge of family planning methods (%)	32.2	72.1	81.4	38.7	76	83.9
43	Used any method to delay or avoid getting pregnant before first pregnancy (%)	12.6	21.4	16.9	11.2	13.8	17.1
44	Adopted family planning methods to keep space between pregnancies <sup>22</sup>	16.5	30.2	29.4	16.9	19.1	26.1
	<b>ABILITY TO MAKE CHOICES AND DECISIONS</b>						
45	Pregnant women taking decisions about their own health care (%)	76.0	75.6	78.1	71.4	73.9	73.5

	Key Indicators	Intervention Area			Control Area		
		Baseline 2016	Midline 2018	Endline 2021	Baseline 2016	Midline 2018	Endline 2021
		(N=367)	(N=258)	(N=242)	(N=447)	(N=356)	(N=298)
46	Pregnant women taking decisions about making major purchases for household (%)	75.2	71.5	78.9	70.7	71.2	74.8
47	Pregnant women taking decisions about visits to family members or relatives (%)	80.7	73.4	76.0	79.4	70.4	73.5
	<b>PERCEPTIONS OF PARTNER VIOLENCE</b>						
48	Pregnant women who think that a husband justified in hitting or beating his wife if						
48.01	She goes out without telling him (%)	40.9	25.4	15.3	47.9	30.3	20.8
48.02	She neglects the house or children (%)	46.0	40.0	27.7	47.2	40.3	32.9
48.03	She argues with him (%)	46.3	53.8	42.6	45.9	49.5	44.3
48.04	She refuses to have sex with him (%)	25.6	14.1	16.1	25.7	18.0	13.8
48.05	She does not cook food properly (%)	33.2	19.1	17.8	25.1	15.9	20.1
48.06	He suspects her of being unfaithful (%)	28.6	62.1	52.5	33.3	64.1	51.7
48.07	She shows disrespect towards in-laws (%)	53.1	60.5	47.5	62.0	61.9	46.6
	<b>NUTRITIONAL STATUS<sup>23</sup> (n)</b>	359	258	242	445	356	298
49	Pregnant women's mean height (cm [SD])	150.7 [5.3]	150.6 [6.6]	150.7 [5.4]	150.9 [5.3]	150.4 [5.9]	150.8 [5.3]
50	Pregnant women with height < 145 cm (%)	12.8	17.6	10.7	13.9	18.1	11.7
51	Pregnant women's mean MUAC (cm [SD])	23.9 [2.3]	24.4 [2.3]	24.3 [2.2]	23.7 [2.2]	24.2 [2.3]	24.6 [2.3]
51.01	Pregnant women with MUAC between 17-18.9 cm (%)	1.1	0.0	0.4	0.2	0.0	0.0
51.02	Pregnant women with MUAC between 19-20.9 cm (%)	6.1	1.5	2.5	8.1	3.1	3.0
51.03	Pregnant women with MUAC between 21-22.9 cm (%)	26.2	24.7	20.7	29.4	27.1	20.5
51.04	Pregnant women with MUAC 23 cm and above (%)	66.6	73.8	76.4	62.2	69.8	76.5
52	Pregnant women with height < 145 cm and MUAC < 23 cm (%)	4.5	8.4	5.4	6.1	8.2	4.0

Notes:

(SD): Denotes the standard deviation of proportion

1. Considered only those pregnant women who have ever attended school (Baseline (n): Intervention Area - 209; Control Area – 220; Midline (n): Intervention Area - 142; Control Area – 223; and End line (n) Intervention Area - 170; Control Area – 209).
2. Considered only those pregnant women who have are member of SHGs (Baseline (n): Intervention Area - 97; Control Area – 117; Midline (n): Intervention Area - 127; Control Area – 185 and End line (n) Intervention Area - 86; Control Area – 107).
3. Others include Muslims, Christians and others.

4. Others include those who have reported others, can't say or don't know.
5. Includes only pregnant women who have worked in the last 12 months preceding the survey (Baseline (n): Intervention Area - 96; Control Area – 86, Midline (n): Intervention Area - 40; Control Area – 30 and End line (n) Intervention Area - 14; Control Area – 8).
6. Below Poverty Line (BPL) cards are distributed to those households living below the poverty line, which includes households with a Monthly Per Capita Consumer Expenditure (MPCE) less than Rs. 971.28 (Bihar) (Report of the Expert Group to Review the Methodology for Measurement of Poverty, Government of India Planning Commission, June, 2014). These households are entitled to receive 10 kg wheat per card at Rs. 5.22 per kg, 15 kg rice per card at Rs. 6.78 per kg, and 1.49 kg sugar per family at Rs. 13.5 per kg. Retrieved from: <http://www.pdsportal.nic.in/main.aspx>.
7. Antyodaya Anna Yojana (AAY) cards are distributed to those households which comprise the poorest segments of the BPL population, including all households who are perceived to be at the risk of hunger. These households are entitled to receive 14 kg wheat per card at Rs. 2 per kg and 21 kg rice per card at Rs. 3 per kg. Retrieved from: <http://www.pdsportal.nic.in/main.aspx>.
8. Includes only those households which possessed a ration card (Baseline (n): Intervention Area - 289; Control Area – 374, Midline (n): Intervention Area - 224; Control Area – 287 and End line (n) Intervention Area - 200; Control Area – 243).
9. Supplementary nutrition is provided to pregnant women and lactating mothers under ICDS.
10. Kitchen gardens are small plots of land cultivated by households. They provide the latter with easy access to fresh and nutritious vegetables and fruits, often on a daily basis. They include homestead land, vacant plots, road sides, edges of a field or even containers.
11. There are eight items indicating different levels of food insecurity severities. The first three indicate mild level of insecurity, items four to six indicate moderate food insecurity and last two being items for severe food insecurity. FIES is then divided into four categories: 'food secure', if households have not reported affirmatively to any of the eight items; 'mildly insecure', if only any one of the first three are affirmatively reported; 'moderately insecure', if either of items four, five or six are affirmatively reported; 'severely insecure', if all items are affirmatively reported or either of items seven and eight are affirmatively reported.
12. Includes those pregnant women who are in their 2nd and 3rd trimester of pregnancy (Baseline (n): Intervention Area - 307; Control Area – 353 and Midline (n): Intervention Area - 186; Control Area – 272 and End line (n) Intervention Area - 207; Control Area – 252).
13. Includes those pregnant women who are in their 2nd and 3rd trimester and received any IFA tablet (Baseline (n): Intervention Area - 182; Control Area - 143, Midline (n): Intervention Area - 175; Control Area – 134 and End line (n) Intervention Area - 183; Control Area – 216).
14. In baseline 'Adequately' iodized salt is used to refer to salt that has iodine content greater than 15 ppm. In midline salt with trademark logo bought from shops was used as a proxy measure for iodized salt.
15. Excludes those pregnant women who ate less or more than usual on the day prior to the date of the interview, as in the case of a fast or a celebration.
16. Dietary Diversity Score (DDS) is computed on the basis of consumption of food items, from the ten food groups, on the day prior to the date of the interview. Based on Food and Agricultural Organisation (FAO) 2016 methodology, 14 major food items were clubbed together to form 10 food groups. A ten-point DDS scale was thus created (0 being the lowest value, 10 being the highest).
17. Mother and Child Protection (MCP) card is a joint initiative of ICDS and the National Rural Health Mission (NRHM). It is a comprehensive multipurpose card which provides information to the parents/guardians on various types of services delivered through ICDS and NRHM. Included only those pregnant women who have registered their current pregnancy (Baseline (n): Intervention Area - 338; Control Area – 397, Midline (n): Intervention Area - 208; Control Area – 293 and End line (n) Intervention Area - 217; Control Area – 275).
18. Frontline health workers include Auxiliary Nurse Midwives (ANMs), Accredited Social Health Activist (ASHA) and Anganwadi Workers (AWW).
19. The measurement of MUAC is commonly used as a potential indicator of nutritional status.
20. The Village Health, Sanitation and Nutrition Day (VHSND), a component of ICDS, is held at Anganwadi Centres across Bihar once every month. On this day, adolescent girls, pregnant women and lactating mothers are provided with integrated health solutions as per their needs.
21. Others include those households which have other source of drinking water (Cart with small tank/drum and Packaged/bottled water).
22. Includes only those pregnant women who had two or more pregnancies (Baseline (n): Intervention Area – 218; Control Area – 295, Midline (n): Intervention Area – 167; Control Area – 240 and End line (n) Intervention Area - 136; Control Area – 176).
23. Includes only those pregnant women who had given consent for anthropometric measurements.

## MOTHERS (of children under two years) (15-49 years)

	Key Indicators	Intervention Area			Control Area		
		Baseline 2016	Midline 2018	Endline 2021	Baseline 2016	Midline 2018	Endline 2021
		(N=1760)	(N=562)	(N=700)	(N=1844)	(N=621)	(N=822)
	<b>SOCIO-DEMOGRAPHIC INDICATORS</b>						
1	Estimated sample of mothers <sup>1</sup> (n)	1340	500	1340	1340	500	1340
2	<b>Mothers interviewed (n)</b>	<b>1760</b>	<b>562</b>	<b>700</b>	<b>1844</b>	<b>621</b>	<b>822</b>
	<b>Distribution of mothers by age groups (years)</b>						
3.01	15-19 (%) [n]	8.8 [155]	10.1 [52]	7.8 [58]	9.0 [166]	9.0 [52]	8.7 [75]
3.02	20-29 (%) [n]	72.0 [1267]	75.2 [419]	74.0 [514]	69.6 [1283]	71.9 [455]	73.1 [606]
3.03	30-39 (%) [n]	17.2 [303]	14.1 [88]	17.2 [120]	18.7 [345]	18.1 [110]	16.6 [130]
3.04	40-49 (%) [n]	2.0 [35]	0.6 [3]	1.0 [8]	2.7 [50]	1.1 [4]	1.7 [11]
	<b>Educational status of mothers</b>						
4.01	Never attended school (%)	50.8	40.9	36.2	55.2	45.5	45.1
4.02	Completed 10 or more years of schooling <sup>2</sup> (%)	29.1	31.8	43.0	26.7	36.8	44.7
	<b>Self Help Groups (SHGs)</b>						
5.01	Mothers who are members of SHGs (%)	28.1	56.4	43.5	31.8	58.7	44.1
5.02	SHG members among the mothers who attended three or more Poshan Sakhi meetings in the 12 months preceding the survey <sup>3</sup> (%)	10.3	12.4	35.2	8.4	1.5	15.7
	<b>Religion of the head of household</b>						
6.01	Hindu (%)	94.4	95.6	93.2	95.9	97	96.8
6.02	Muslim (%)	0.2	0.4	0.5	0.4	0.1	0.3
6.03	Others <sup>4</sup>	5.4	4.0	6.3	3.7	2.8	2.9
	<b>Caste/Tribe of the head of household</b>						
7.01	Scheduled Caste (SC) (%)	24.1	11.4	18.1	16.6	14.2	19.1
7.02	Scheduled Tribe (ST) (%)	50.9	70.7	61.8	55.2	53.9	56.8
7.03	Other Backward Classes (OBCs) (%)	15.7	11.1	16.2	20.1	21.9	19.9
7.04	Others <sup>5</sup> (%)	9.2	6.8	3.8	8.2	10.0	4.2
8	<b>Mothers who consumed alcohol and/or tobacco during pregnancy (%)</b>	<b>27.5</b>	<b>26.0</b>	<b>20.1</b>	<b>33.2</b>	<b>30.2</b>	<b>27.4</b>

	Key Indicators	Intervention Area			Control Area		
		Baseline 2016	Midline 2018	Endline 2021	Baseline 2016	Midline 2018	Endline 2021
		(N=1760)	(N=562)	(N=700)	(N=1844)	(N=621)	(N=822)
	<b>FOOD SECURITY</b>						
	<b>Ration Card</b>						
<b>9</b>	<b>Mothers living in households having</b>						
9.01	No ration card (%)	19.1	15.1	14.1	13.2	18.7	13.8
9.02	Above Poverty Line (APL) card (%)	22.4	1.0	9.3	23.2	0.0	8.1
9.03	Below Poverty Line (BPL) card <sup>6</sup> (%)	14.4	1.0	10.9	10.0	0.0	10.7
9.04	Antyodaya Anna Yojana (AAY) card <sup>7</sup> (%)	8.8	9.3	10.2	7.9	16.4	15.3
9.05	Any Other card (%)	35.3	73.5	55.6	45.8	64.9	52.2
	<b>Public Distribution System (PDS) and Integrated Child Development Services (ICDS)</b>						
10	Mothers living in households with access to PDS in the month preceding the survey <sup>8</sup> (%)	68.0	99.0	99.7	69.1	99.9	99.5
11	Mothers receiving ICDS entitlement for supplementary food <sup>9</sup> (%)	66.7	96.7	99.4	69.4	96.8	99.7
12	Mothers living in households with a kitchen garden <sup>10</sup> (%)	33.5	19.9	58.8	42.7	7.5	50.7
	<b>FOOD INSECURITY<sup>11</sup></b>						
<b>13</b>	<b>Mothers who experienced food insecurity in the 12 months preceding the survey</b>						
13.01	Worried about insufficient food (%)	65.8	52.0	56.6	77.5	55.6	56.5
13.02	Unable to eat healthy and nutritious food (%)	66.3	58.3	51.8	78.1	57.7	58.8
13.03	Had to eat limited variety of food (%)	65.4	54.6	46.6	70.9	50.1	50.8
13.04	Had to skip a meal (%)	41.6	21.8	14.1	41.8	20.7	12.3
13.05	Had to eat less meals (%)	62.2	43.3	26.4	71.9	40.0	28.7
13.06	Household ran out of food (%)	38.5	15.3	6.1	40.0	16.3	6.5
13.07	Had no food to eat at any time (%)	24.2	12.5	3.4	24.3	9.9	2.8
13.08	Had to go an entire day without food (%)	21.8	8.1	1.4	21.1	8.7	0.7
	<b>Food Insecurity Experience Scale (FIES)</b>						
14.01	Mothers living in food secure households (%)	19.1	31.5	36.6	12.7	29.7	33.0
14.02	Mothers living in mildly food insecure households (%)	11.4	23.7	31.2	10.6	28.0	32.2
14.03	Mothers living in moderately food insecure households (%)	40.6	30.9	28.6	48.9	30.9	32.1
14.04	Mothers living in severely food insecure households (%)	29.0	13.9	3.6	27.9	11.3	2.8

	Key Indicators	Intervention Area			Control Area		
		Baseline 2016	Midline 2018	Endline 2021	Baseline 2016	Midline 2018	Endline 2021
		(N=1760)	(N=562)	(N=700)	(N=1844)	(N=621)	(N=822)
	<b>Coping mechanism to manage shortfall of food</b>						
<b>15</b>	<b>Coping strategies of the households as reported by mothers</b>						
15.01	Household head now spends extra hours at work to earn more money (overtime) (%)	35.7	60.1	47.0	29.8	46.5	46.3
15.02	Unlike earlier, now female(s) of household start working outside home (%)	27.0	42.2	32.5	26.5	41.1	30.7
15.03	Unlike earlier, now children of household start working outside home (%)	8.8	23.6	17.7	9.3	25.9	17.7
15.04	Migration of a family member to another city to earn money and send it back to the family (%)	19.8	36.7	30.9	13.5	38.9	29.9
15.05	Borrowing money to meet household expenses (%)	82.0	66.4	61.1	88.7	66.6	60.8
15.06	Resort to low-cost food grains/items available (%)	80.9	61.1	63.9	90.8	60.4	65.6
15.07	Borrowing grains to meet food requirements (%)	71.8	50.7	34.0	79.7	49.4	29.3
15.08	Sold household articles or possessions (%)	15.2	12.6	5.1	11.9	14.3	5.4
	<b>MICRONUTRIENT SUPPLEMENTATION AND DEWORMING</b>						
16	Mother who received any Iron and Folic Acid (IFA) tablet during the last pregnancy (%)	89.7	83.6	93.6	88.3	78.7	92.4
17	Mothers who consumed at least 100 IFA tablets during the last pregnancy <sup>12</sup> (%)	30.6	36.4	66.6	42.5	44.4	71.9
18	Mothers who received any calcium tablet during the last pregnancy (%)	43.2	67.0	94.4	48.9	68.5	93.8
19	Mothers who have consumed any tablet for deworming during the last pregnancy (%)	34.7	49.5	69.9	31.1	39.1	63.7
20	Mothers living in households which use adequately iodised salt <sup>13</sup> (%)	94.3	91.6	99.4	93.7	92.3	99.8
	<b>DIETARY DIVERSITY<sup>14</sup>(n)</b>	1566	514	627	1768	566	719
21	Mothers mean Dietary Diversity Score (DDS) <sup>15</sup> [Standard Deviation (SD)]	4.6 [1.6]	4.6 [1.6]	4.9 [1.6]	4.4 [1.4]	4.6 [1.5]	5.0[1.4]
<b>22</b>	<b>In the 24 hours preceding the survey, food groups consumed by mothers</b>						
22.01	Grains, white roots and tubers and plantains (%)	99.9	99.8	100.0	99.9	99.6	100.0
22.02	Pulses (beans, peas and lentils) (%)	48.8	62.5	66.2	56.9	63.3	68.7
22.03	Nuts or seeds (%)	12.5	8.3	6.9	8.3	6.5	5.7
22.04	Dairy (%)	14.6	6.4	13.1	10.0	6.4	13.1
22.05	Meat, poultry and fish (%)	28.1	25.5	29.1	26.1	23.6	28.3
22.06	Egg (%)	13.0	17.0	16.8	7.6	14.4	12.4
22.07	Dark green leafy vegetables (%)	44.7	58.3	55.7	47.0	53.3	58.3

	Key Indicators	Intervention Area			Control Area		
		Baseline 2016	Midline 2018	Endline 2021	Baseline 2016	Midline 2018	Endline 2021
		(N=1760)	(N=562)	(N=700)	(N=1844)	(N=621)	(N=822)
22.08	Other vitamin A-rich fruits and vegetables (%)	85.1	80.7	85.8	84.3	76.5	91.5
22.09	Other vegetables (%)	87.0	82.7	83.0	84.1	81.2	83.4
22.10	Other fruits (%)	23.3	17.3	27.7	14.2	18.6	27.3
22.11	Any insects and other small protein foods (%)	2.6	0.8	1.5	1.8	2.9	0.9
22.12	Any sugar-sweetened beverages (%)	22.2	13.7	23.7	15.6	14.3	26.7
22.13	Any savoury and fried snacks (%)	22.0	10.0	15.7	16.0	12.2	17.6
<b>23</b>	<b>Mothers consuming food from specific food groups</b>						
23.01	Animal-source food (meat, poultry, fish and egg) (%)	34.9	37.1	39.3	31.4	34.0	36.3
23.02	Pulses (beans, peas and lentils) and nuts or seeds (%)	53.3	63.8	67.4	59.1	64.8	69.9
23.03	Dark green leafy vegetables and other vitamin A-rich fruits and vegetables (%)	54.9	64.9	66.2	52.1	60.7	68.7
<b>24</b>	<b>Mothers by number of food groups consumed</b>						
24.01	Only one food group (%)	2.0	0.5	0.7	1.2	0.2	0.8
24.02	Only two food groups (%)	5.2	6.9	3.9	7.7	9.0	4.1
24.03	Only three food groups (%)	17.0	16.8	15.3	17.3	19.6	11.4
24.04	Only four food groups (%)	27.9	28.1	23.1	29.0	24.7	23.3
24.05	Less than five food groups (%)	52.1	52.3	42.9	55.2	53.5	39.6
24.06	More than five food groups (%)	47.9	47.7	57.1	44.8	46.5	60.4
25.01	Mothers with minimum dietary diversity score (6 or more out of 10) (%)	24.9	24.0	32.4	19.2	22.4	31.4
25.02	Mother who ate three and more meals in the last 24 hours including main and small meals (%)	63.5	76.7	82.5	68.5	77.0	81.8
	<b>ACCESS TO HEALTH SERVICES AND WATER, SANITATION AND HYGIENE (WASH)</b>						
	<b>Registration in Antenatal Care (ANC) services during last pregnancy</b>						
26	Mothers who have registered their last pregnancy (%)	96.2	94.9	99.2	97.0	95.3	97.7
27	Mothers who have registered in the first trimester (%)	68.3	70.2	93.1	72.2	71.1	87.9
28	Mothers who have received a Mother and Child Protection (MCP) card <sup>16</sup> (%)	98.3	97.2	99.1	98.7	92.9	97.6
	<b>ANC services received during last pregnancy</b>						
29	Mothers who sought ANC services (%)	93.8	87.4	95.8	92.3	84.5	94.5

	Key Indicators	Intervention Area			Control Area		
		Baseline 2016	Midline 2018	Endline 2021	Baseline 2016	Midline 2018	Endline 2021
		(N=1760)	(N=562)	(N=700)	(N=1844)	(N=621)	(N=822)
30	Mothers who had ANC check-up in the first trimester (%)	27.2	58.8	72.4	18.2	59.9	72.0
31	Mothers who had at least four ANC check-ups (%)	21.4	40.9	57.0	17.4	46.6	56.2
32	Mothers who have received Tetanus Toxoid (TT) injection (%)	92.9	86.7	98.3	91.3	83.3	97.4
33	Mothers who had received counselling on birth preparedness by a frontline health worker <sup>17</sup> (%)	86.2	79.1	90.5	86.9	68.6	88.9
	<b>Monitoring of nutritional status during pregnancy</b>						
34	Mothers whose weight was monitored (%)	86.9	83.9	98.3	79.8	77.6	94.4
35	Mothers who were weighed at least four times (%)	38.3	46.8	63.4	37.0	41.3	56.7
36	Mothers whose height was recorded (%)	21.6	28.7	20.4	15.1	15.2	14.4
37	Mothers whose Mid-Upper Arm Circumference (MUAC) was measured <sup>18</sup> (%)	28.9	50.4	72.7	14.3	31.1	59.2
	<b>Delivery and Post-Natal Care (PNC)</b>						
38	Mothers who had an institutional delivery <sup>19</sup> (%)	76.9	81.8	91.0	65.6	73.1	79.2
39	Mothers who received IFA tablets after delivery (%)	48.5	64.3	85.1	44.9	65.5	81.7
40	Mothers who received calcium tablets after delivery	40.9	64.2	87.8	40.6	63.6	83.7
41	Mothers who received maternity entitlement payment (JSY) from government <sup>20</sup> (%)	52.5	58.3	59.7	47.5	48.5	54.3
	<b>Village Health, Sanitation and Nutrition Day (VHSND)<sup>21</sup></b>						
42	Mothers who attended VHSND meeting(s) in the six months preceding the survey (%)	59.4	65.1	72.4	57.4	54.6	67.0
43	Mothers who attended at least three VHSND meetings in the six months preceding the survey (%)	36.0	42.7	68.8	31.2	34.7	55.6
	<b>Water, Sanitation and Hygiene</b>						
44	Mothers living in households having access to drinking water from						
44.01	Public tap/Stand pipe (%)	5.1	3.0	8.4	6.6	2.7	7.1
44.02	Tube well or Borehole (%)	63.4	78.4	74.2	69.8	71.9	64.4
44.03	Others <sup>22</sup> (%)	31.5	18.6	17.4	23.6	25.4	28.5
45	Mothers living in households in which members practice open defecation (%)	78.3	74.6	59.3	84.6	82.9	68.9
46	Mothers living in households in which members use soap for hand-washing after defecation (%)	72.5	85.0	97.6	63.4	85.7	94.9
47	<b>CURRENT USE OF FAMILY PLANNING METHODS AS REPORTED BY MOTHERS</b>						



	Key Indicators	Intervention Area			Control Area		
		Baseline 2016	Midline 2018	Endline 2021	Baseline 2016	Midline 2018	Endline 2021
		(N=1760)	(N=562)	(N=700)	(N=1844)	(N=621)	(N=822)
47.01	Currently use any family planning method (%)	27.0	31.1	36.0	30.8	28.3	25.88
47.02	Currently use any modern contraceptive <sup>23</sup> (%)	22.6	26.1	35.7	20.7	25.1	25.6
48	Number of pregnancy including last birth (mean [SD])	2.4 [1.4]	2.3 [1.4]	2.2 [1.5]	2.5 [1.5]	2.3 [1.4]	2.2 [1.5]
	<b>ABILITY TO MAKE CHOICES AND DECISIONS</b>						
49	Mothers taking decisions about their own health care (%)	72.5	83.2	87.3	73.0	88.6	86.8
50	Mothers taking decisions about making major purchases for the household (%)	75.5	81.9	86.6	76.8	84.0	83.5
51	Mothers taking decisions about visits to family members or relatives (%)	77.3	81.9	87.9	81.6	85.5	87.1
	<b>NUTRITIONAL STATUS<sup>24</sup> (n)</b>	1739	476	700	1831	535	819
52	Mothers' mean weight (kg [SD])	43.5 [7.3]	43.3 [6.9]	44.8 [7.4]	43.0 [6.1]	43.5 [6.7]	45.0 [6.8]
53	Mothers' mean height (cm [SD])	150.5 [5.4]	150.0 [5.3]	150.4 [5.7]	150.3 [5.4]	150.3 [5.4]	150.7 [5.5]
53.01	Mothers with height<145 cm (%)	14.7	18.9	14.3	16.1	22.5	13.2
54	Mothers' mean Body Mass Index (BMI) <sup>25</sup> [SD]	19.2 [2.9]	19.3 [2.6]	19.8 [2.8]	19.0 [2.3]	19.6 [2.7]	19.8 [2.6]
54.01	Mothers who are underweight (BMI<18.5) (%)	45.6	44.3	36.3	45.3	38.6	35.8
54.02	Mothers who are normal weight (BMI between 18.5-24.9) (%)	50.1	52.8	59.0	52.8	58.0	61.1
54.03	Mothers who are overweight (BMI between 25.0-29.9) (%)	3.4	2.3	3.9	1.7	2.6	3.7
54.04	Mothers who are obese (BMI >29.9) (%)	0.9	0.6	0.8	0.2	0.8	0.1
55	Mothers' mean MUAC (cm [SD])	23.8 [2.8]	23.8 [2.7]	24.2 [2.5]	23.5 [2.2]	23.9 [2.7]	24.2 [2.4]
55.01	Mothers with MUAC between 17-18.9 cm (%)	1.0	0.6	0.3	0.8	1.1	0.8
55.02	Mothers with MUAC between 19-20.9 cm (%)	8.3	9.6	5.1	8.8	6.6	4.1
55.03	Mothers with MUAC between 21-22.9 cm (%)	30.5	30.7	27.2	31.7	34.2	28.3
55.04	Mothers with MUAC 23 cm and above (%)	60.0	59.1	67.4	58.8	58.1	66.7
56	Mothers with height<145 cm and MUAC <23 cm (%)	7.1	9.8	7.3	8.3	13.2	7.0

**Notes:**

SD: Denotes the standard deviation of proportion

1. Mothers refer to women who have children under two years of age.
2. Considered only those mothers who have ever attended school (Baseline (n): Intervention Area - 865; Control Area – 824, Midline (n): Intervention Area - 314; Control Area – 366), and end line (n): Intervention Area - 450; Control Area – 473).

3. Considered only those mothers who have are member of SHGs (Baseline (n): Intervention Area - 494; Control Area – 586 Midline (n): Intervention Area - 311; Control Area –357) and end line (n): Intervention Area - 302; Control Area – 360).
4. Others include Christians, Buddhists/Neo-Buddhist, Jains and others.
5. Others include those who have reported others, can't say or don't know.
6. Below Poverty Line (BPL) cards are distributed to those households living below the poverty line, which includes households with a Monthly Per Capita Expenditure less than Rs. 971.26 (Bihar). These households are entitled to receive 10 kg wheat per card at Rs. 5.22 per kg, 15 kg rice per card at Rs. 6.78 per kg, and 1.49 kg sugar per family at Rs. 13.5 per kg (<http://www.pdsportal.nic.in/main.aspx>).
7. Antyodaya Anna Yojana (AAY) cards are distributed to those households which comprise the poorest segments of the BPL population, including all households who are perceived to be at the risk of hunger. These households are entitled to receive 14 kg wheat per card at Rs. 2 per kg and 21 kg rice per card at Rs. 3 per kg (<http://www.pdsportal.nic.in/main.aspx>).
8. Includes only those households which possessed a ration card.
9. Supplementary Nutrition is provided to mothers and lactating mothers under ICDS. (In baseline double amount of ICDS food and in midline mothers who received THR, egg and HCM)
10. Kitchen gardens are small plots of land cultivated by households. They provide the latter with easy access to fresh and nutritious vegetables and fruits, often on a daily basis. They include homestead land, vacant plots, and road sides, edges of a field or even containers.
11. There are eight items indicating different levels of food insecurity severities. The first three indicate mild level of insecurity, items four to six indicate moderate food insecurity, and last two being items for severe food insecurity. FIES is then divided into four categories: 'food secure', if households have not reported affirmatively to any of the eight items; 'mildly insecure', if only any one of the first three are affirmatively reported; 'moderately insecure', if either of items four, five or six are affirmatively reported; 'severely insecure', if all items are affirmatively reported or either of items seven and eight are affirmatively reported.
12. Among those mothers who received IFA tablets during the last pregnancy. (Baseline (n): Intervention Area=1579; Control Area=1629, Midline (n): Intervention Area=472; Control Area=512 and end line (n): Intervention Area - 653; Control Area – 759).
13. In baseline 'Adequately' iodized salt is used to refer to salt that has iodine content greater than 15 ppm. In midline salt with trademark logo bought from shops was used as a proxy measure for iodized salt.
14. Excludes those mothers who ate less or more than usual on the day prior to the date of the interview, as in the case of a fast or a celebration.
15. Dietary Diversity Score (DDS) is computed on the basis of consumption of food items, from the ten food groups, on the day prior to the date of the interview. Based on Food and Agricultural Organisation (FAO) 2016 methodology, 14 major food items were clubbed together to form 10 food groups. A ten-point DDS scale was thus created (1 being the lowest value, 10 being the highest).
16. Mother and Child Protection (MCP) card is a joint initiative of ICDS and the National Rural Health Mission (NRHM). It is a comprehensive multipurpose card which provides information to the parents/guardians on various types of services delivered through ICDS and NRHM. Included only those mothers who have registered their last pregnancy (Baseline (n): Intervention Area - 1694; Control Area – 1787, Midline (n): Intervention Area - 534; Control Area – 596 and end line (n): Intervention Area - 694; Control Area – 805).
17. Frontline health workers include Auxiliary Nurse Midwives (ANMs), Accredited Social Health Activist (ASHA) and Anganwadi Workers (AWW).
18. The measurement of MUAC is commonly used as a potential indicator of nutritional status.
19. Institutional delivery refers to last birth(s), which took place in a health facility/institution.
20. Under the Janani Suraksha Yojana (JSY), pregnant women from BPL category, SCs and STs are entitled to receive cash assistance for giving birth in a Government or accredited private health facility.
21. The Village Health, Sanitation and Nutrition Day (VHSND), a component of ICDS, is held at Anganwadi Centres across Bihar once every month. On this day, adolescent girls, mothers and lactating mothers are provided with integrated health solutions as per their needs.
22. Others include those households which have other source of drinking water (Cart with small tank/drum and Packaged /bottled water).
23. Modern contraceptives include female and male sterilizations, Intra-Uterine Devices (IUDs), injectable, pills, condoms and diaphragms.
24. Includes only those mothers who had given consent for taking anthropometric measurements. (Baseline (n): Intervention Area – 1739; Control Area – 1831, Midline (n): Intervention Area – 476; Control Area – 535 and end line (n): Intervention Area - 700; Control Area – 819).
25. The World Health Organisation (2004) defines Body Mass Index (BMI) as a simple index of weight for height and is used to categorise adults as either underweight, normal weight, overweight or obese. It is calculated as weight (kilograms) divided by the square of height (metres).

## **INTERNATIONAL INSTITUTE FOR POPULATION SCIENCES**

**Vision:** “To position IIPS as a premier teaching and research institution in population sciences responsive to emerging national and global needs based on values of inclusion, sensitivity and rights protection.”

**Mission:** “The Institute will strive to be a centre of excellence on population, health and development issues through high quality education, teaching and research. This will be achieved by (a) creating competent professionals, (b) generating and disseminating scientific knowledge and evidence, (c) collaboration and exchange of knowledge, and (d) advocacy and awareness.”

### **SWABHIMAAN TEAM AT IIPS**

#### **Principal Investigator**

**Dr. Sayeed Unisa**

Professor & Head

Department of Bio-Statistics and Epidemiology

#### **Co-Principal Investigators**

**Dr. Reshmi R. S.**

Assistant Professor

Department of Migration  
and Urban Studies

**Dr. Laxmi Kant Dwivedi**

Professor

Department of Survey  
Research & Data Analytics

**Dr. Sarang Pedgaonkar**

Assistant Professor,

Department of Family &  
Generations

#### **For more information, please contact:**

International Institute for Population Sciences

Govandi Station Road, Deonar, Mumbai-400 088

Telephone: 022-4237 2442 Fax: 022-2556 3257

E-mail: [iipsswabhimaan@iipsindia.ac.in](mailto:iipsswabhimaan@iipsindia.ac.in)

For related information, visit <https://www.iipsindia.ac.in/content/swabhimaan-project>



Disclaimer: This is a working document. It has been prepared to facilitate the exchange of knowledge and to stimulate discussion. The statements in this publication are the views of the author(s) and do not necessarily reflect the policies or the views of UNICEF. The designations employed in this publication and the presentation of the material do not imply on the part of the United Nations Children's Fund (UNICEF) the expression of any opinion whatsoever concerning the legal status of any country or area, or of its authorities or the delimitations of its frontiers. The text has not been edited or fact-checked to official publications standards and UNICEF accepts no responsibility for error

For more information, please contact:

UNICEF Child Development & Nutrition Section  
UNICEF House  
73, Lodi Estate  
New Delhi 110003  
[www.unicef.in](http://www.unicef.in)