SUAAHARA II GOOD NUTRITION PROGRAM
ANNUAL SURVEY YEAR TWO (2018)

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Annual Survey Year Two (2018)

SII is managed by:

Helen Keller International (HKI)	

In partnership with:

Cooperative for Assistance and Relief Everywhere, Inc. (CARE)	
Family Health International 360 (FHI 360)	
Environmental and Public Health Organization (ENPHO)	
Equal Access Nepal (EAN)	
Nepali Technical Assistance Group (NTAG)	
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Executive Summary

Nepal has made tremendous reductions in maternal and child undernutrition since the mid-1990s but continues to face high burdens. Among children under five years, 36% are stunted, 10% are wasted and 27% are underweight. Additionally, 17% of women of reproductive age (WRA) (15-49 years) are underweight while 41% are anemic (Nepal Demographic and Health Survey, 2016). The Government of Nepal (GoN) is currently rolling out the second phase of a national Multi-Sectoral Nutrition Plan (MSNP), with the support of external development partners (EDPs). *Suaahara* II (SII) is a USAID-funded multisectoral nutrition program, aligned with Nepal's MSNP, being implemented in 42 of Nepal's 77 districts from 2016 to 2021. SII aims to reduce the prevalence of stunting, wasting and underweight among children under five years of age and to reduce the prevalence of anemia among WRA and children 6-59 months of age. SII works across thematic areas including nutrition, health and family planning (FP), water, sanitation and hygiene (WASH), agriculture/homestead food production (HFP), and governance, using a gender equality and social inclusion (GESI) approach for all interventions.

Annual surveys are a key component of SII's monitoring system. The primary purpose is to monitor progress over time related to key SII inputs, outputs, outcomes and impacts in intervention areas. The first SII annual monitoring survey was conducted between June to September 2017 among a representative sample of households with a child under five years, by New ERA, a local survey firm. At the household level, mothers were the primary survey respondents. A primary male (or female, if male unavailable) household decision maker was also interviewed. Additionally, the youngest child's grandmother and an adolescent girl (10-19 years), when residing in the same household, were also interviewed. Data was also collected from Female Community Health Volunteers (FCHVs) and 1 key informant from each health facility in the sampled areas. The household surveys included questions related to exposure, knowledge and practices for each of the thematic areas. Anthropometric status was also assessed for all women of reproductive age, children under five, and adolescent girls residing in the household. FCHV and health facility surveys collected information on their exposure to training, motivation, supervision, work-related activities, knowledge, skills, and availability of supplies/services. The final survey sample included 3642 households, 192 FCHVs and 96 health facilities in 2017.

Similar to the first annual survey, data collection for the second SII annual survey was conducted between July to September 2018, again, among a representative sample of households with a child under five years. The second annual survey was conducted by the same survey firm, New ERA and in the same sample clusters. Mothers were the primary survey respondents. A primary male (or female, if male unavailable) household decision maker was also interviewed. Unlike the first annual survey, grandmothers, health facility workers, and FCHVs were not respondents in the 2018 annual survey and at the household level, anthropometry and hemoglobin were not collected. There was some variation in survey modules and questions in the 2017 and 2018 tools, but key modules and questions needed for calculation of indicators along SII's primary pathways to impact remained unchanged. In 2018, the final survey sample included 3648 households.

When comparing changes in key indicators between 2017 and 2018, trends in the expected directions based on the interventions can be seen across all intervention areas: nutrition, health, WASH, and agriculture and in many cases are large improvements for a one-year period. Some of the key statistically significant (P$\leq$0.05) differences include: children 6-23 months receiving foods from 4 or more groups increased from 47% to 54% (P:0.01), WRA receiving foods from 5 or more groups increased from 36% to 42% (P:<0.000), households practicing correct use of water treatment technologies increased from 14% to 19% (P<0.000), households with soap and water at a handwashing station increased from 37% to 49% (P<0.000), pregnant women weighed during most

recent antenatal care (ANC) visit (among those who received ANC) increased from 87% to 93% (P:0.01), children 0-2 years weighed in the past month increased from 18% to 22% (P<0.000), newborns receiving postnatal checkup within 24 hours of birth increased from 74% to 79% (P<0.000), and households with homestead gardens meeting minimum criteria increased from 9% to 23% (P:0.02) (Table 1).

Table 1 Key indicators from 2017 and 2018 surveys

Indicators	2017	2018	P-value
	Mean (SD)/%	Mean (SD)/%	
Maternal health and nutrition			
Women's Dietary Diversity (10 food groups): Mean number of food groups consumed by women of reproductive age (N=3640, 3648)	*4.1*	*4.3*	*<0.000*
Minimum dietary diversity among WRA (foods from 5 or more of 10 food groups) (N=3640, 3648)	*35.6%*	*41.6%*	*<0.000*
Women consuming all 180 tablets of Iron and folic acid (IFA) during pregnancy (N=1835, 1899)	*52.4%*	*59.1%*	*<0.000*
Pregnant women weighed during most recent ANC visit, among those who received ANC (N=1772, 1855)	*86.7%*	*93.4%*	*<0.000*
Births receiving at least 4 ANC visits during pregnancy (N=1848, 1910)	*79.5%*	*85.5%*	*<0.000*
Births attended by a skilled birth attendant (N=1848, 1910)	*73.2%*	*77.2%*	*0.004*
WRA in union who are currently using a modern method of contraception (N=3642, 3648)	*34.2%*	*33.2%*	*0.40*
Child health and nutrition			
Low birth weight (N=621, 702)	*11.1%*	*8.3%*	*0.09*
Newborns receiving postnatal health check within 24 hours of birth (N=1820, 1896)	*73.5%*	*79.1%*	*<0.000*
Children 0-2 years weighed in the past month (N=1850, 1910)	*17.8%*	*22.2%*	*<0.000*
Children born in the last 24 months who were put to the breast within one hour of birth (N=1843, 1902)	*67.5%*	*69.3%*	*0.03*
Exclusive breastfeeding of children under 6 months of age (N=455, 450)	*70.6%*	*71.1%*	*0.86*
Children 12–15 months of age who are breastfed (N=201, 265)	*98.5%*	*99.6%*	*0.23*
Minimum acceptable diet among children 6-23 months of age (N=1385, 1460)	*37.5%*	*45.7%*	*<0.000*
Minimum dietary diversity among children 6-23 months of age (foods from 4 or more of 7 food groups (N=1385, 1460)	*46.7%*	*53.5%*	*0.001*
Infants 6–8 months of age who receive solid, semi-solid or soft foods (N=214, 210)	*91.6%*	*88.1%*	*0.26*
Breastfed and non-breastfed children 6–23 months of age, who received solid, semi-solid, or soft foods (N=1385, 1460)	*81.2%*	*87.8%*	*<0.000*

Indicators	2017	2018	P-value
	Mean (SD)/%	Mean (SD)/%	
Children 6–23 months of age who received an iron-rich food or iron-fortified food (N=1385, 1460)	*84.2%*	*88.6%*	*0.001*
Sick children 6-23 months of age fed more during illness (N=593, 541)	*38.5%*	*38.8%*	*0.90*
Children <5 years who had diarrhea in the prior two weeks (N=3642, 3648)	*11.1%*	*9.1%*	*0.01*
Sick children (diarrhea) given oral rehydration solution (ORS) and zinc (N=306, 247)	*22.6%*	*21.9%*	*0.71*
Households with a child aged 0-2 years who had contact with the FCHV in the previous month (N= 1848, 1909)	*52.5%*	*58.5%*	*0.002*
Water, sanitation and hygiene			
Households using an improved sanitation facility (N=3644, 3647)	*86.6%*	*88.3%*	*0.03*
Households practicing correct use of household water treatment technologies (N=3630, 3646)	*14.3%*	*19.0%*	*<0.000*
Households with soap and water at a handwashing station commonly used by family members (N=3629, 3646)	*37.1%*	*48.5%*	*<0.000*
Women practices handwashing at 6 critical times (N=3640, 3648)	*7.8%*	*19.0%*	*<0.000*
Agriculture/Enhanced Homestead Food Production			
Households with homestead gardens meeting minimum criteria (N=796, 798)	*8.7%*	*23.2%*	*<0.000*
Households with chickens (N=796, 798)	*47.9%*	*51.4%*	*0.11*
Households with a child aged 0-2 years who received HFP inputs from village model farmers (VMFs) and/or graduated HFP beneficiaries (N=414, 436)	*17.4%*	*29.8%*	*<0.000*
Households who sold surplus vegetable production in the past year (N=796, 798)	*21.7%*	*18.7%*	*0.30*
Households who sold surplus eggs produced in the past month (N=381, 470)	*3.9%*	*2.1%*	*0.05*
Households that used revenue earned by selling HFP surplus for nutrition, in the previous years (N=186, 152)	*20.4%*	*30.9%*	*0.07*

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

Acronyms

AHW	Auxiliary Health Worker
ANC	Antenatal Care
ANM	Auxiliary Nurse Midwifery
ARI	Acute Respiratory Illness
BMI	Body Mass Index
CBO	Community-Based Organization
DAG	Disadvantaged Groups
EDP	External Development Partner
EHFP	Enhanced Homestead Food Production
ENPHO	Environment and Public Health Organization
FCHV	Female Community Health Volunteer
FLW	Frontline worker
FP	Family Planning
FS	Field Supervisor
GESI	Gender Equality and Social Inclusion
GMP	Growth Monitoring and Promotion
GoN	Government of Nepal
GPS	Global Positioning System
HA	Health Assistant
HFP	Homestead Food Production
HFPB	Homestead Food Production Beneficiaries
HH	Household
HKI	Helen Keller International
HMG	Health Mothers' Group
HTSP	Healthy Timing and Spacing of Pregnancy
IFA	Iron and folic acid
IR	Intermediate Result
IYCF	Infant and Young Child Feeding
MER	Monitoring Evaluation and Research
MNSP	Multi-sector Nutrition Plan
NDHS	Nepal Demographic and Health Survey
NHRC	Nepal Health Research Council
NNMSS	Nepal National Micronutrient Status Survey
NPC	National Planning Commission
NTAG	Nepali Technical Assistance Group
ODK	Open Data Kit

ORS	Oral Rehydration Solution
PNC	Postnatal Care
PPS	Probability Proportional to Size
SBCC	Social and Behavior Change Communication
SII	*Suaahara* II
SODIS	Solar Disinfection
ToT	Training of Trainers
USAID	United States Agency for International Development
VDC	Village Development Committee
VDRC	Vijaya Development Resource Center
VMF	Village Model Farmer
WASH	Water Sanitation and Hygiene
WRA	Women of Reproductive Age

1. Background

1.1 Health and nutrition context in Nepal

Nepal has witnessed substantial political, economic, and demographic changes over the last three decades. Years of political instability culminated in the formation of a democratic republic government in Nepal in 2008. A new constitution was signed in 2015, replacing the interim constitution created in 2007. The related restructuring of administrative and geographic boundaries throughout Nepal included a transition from 75 to 77 districts organized into 7 provinces. Within the districts, rural and urban municipalities were allocated to replace and, in most instances, amalgamate the former village development committees (VDCs) as the first sub-district unit, with wards (usually former VDCs) now being the smallest formal administrative unit. At present, there are a total of 753 local government units (6 metropolitans, 11 sub-metropolitans, 276 urban municipalities and 460 rural municipalities) and 6743 wards in Nepal.

The most recent Nepal Demographic and Health Survey report (NDHS), released in 2016, again found high rates of malnutrition in children under five. Among this age group, 36% are stunted, 27% are underweight, and 10% are wasted. While the prevalence of stunting, underweight, and wasting have declined over the last 20 years in Nepal, the current prevalence of these indicators remains among the highest in the world. The NDHS 2016 also found 53% of children aged 6 to 59 months to be anemic. Furthermore, the NDHS (2016) found that 17% of women of reproductive age (WRA) (15-49 years) are thin/underweight (BMI<18.5) and reported 41% of WRA as anemic. These figures highlight the need for improvement of overall maternal and child health and nutrition status in Nepal. There is also substantial variation in nutrition indicators, for example, by socio-economic status, caste/ethnicity, and agroecological zone of residency (e.g. plains, hills, or mountains) (NDHS, 2016).

The Government of Nepal (GoN), with support from external development partners (EDPs), is now implementing the second phase (2018-2022) of its multi-sector nutrition plan (MSNP) throughout the country. Health, education, urban development, federal affairs and local development, and the agriculture and development sectors are managing their own programs with multi-sector coordination and all nutrition-specific and nutrition-sensitive activities are coordinated by the National Planning Commission (NPC) at the central level and local development committees as well. The MSNP's aim is for Nepal to significantly reduce malnutrition in the next decade and ensure that it no longer impedes development.

EDPs invest heavily in supporting the GoN to address persistent health and nutrition burdens and achieve goals outlined in Nepal's MSNP. *Suaahara* II (SII) is one such USAID-funded program, with an overall objective to reduce undernutrition among women and children, particularly those in the 1000-day period between conception and a child's second birthday and those residing in remote, disadvantaged communities.

1.2 Description of SII

SII is a USAID-funded multisectoral nutrition program, being implemented in 42 of Nepal's 77 districts in 6 out of the 7 provinces from 2016 to 2021. SII builds on the first phase of five years of programming in *Suaahara I*. Helen Keller International (HKI) leads SII along with six consortium partners (CARE, Equal Access, Environment and Public Health Organization (ENPHO), FHI360, Vijaya Development Resource Center (VDRC), and Nepali Technical

Assistance Group (NTAG)), along with 40 Community-Based Organizations (CBOs) at the district level. SII covers a total of 389 municipalities (262 rural municipalities and 127 urban municipalities) and 3353 wards in Nepal.

SII aims to reduce the prevalence of stunting, wasting and underweight among children under five years of age and to reduce the prevalence of anemia among WRA and children 6-59 months of age. The program uses a multi-sectoral approach across four key intermediate results (IRs) themes: (1) improved household nutrition, sanitation and health behaviors; (2) increased use of quality nutrition and health services by women and children; (3) improved access to diverse and nutrient rich foods by women and children; and (4) accelerated roll-out of the MSNP through strengthened local governance. SII activities span health including family planning (FP), nutrition, agriculture/homestead food production (HFP); and water, sanitation and hygiene (WASH). Diverse social and behavior change communication (SBCC) approaches are used, primarily to generate demand for access to improved services. Gender equality and social inclusion (GESI), in part by targeting women and disadvantaged groups (DAGs), and monitoring, evaluation, and research (MER) for learning are cross-cutting themes for all SII implementation.

1.3 Structure of the baseline report

Following this introduction section (Chapter 1), this report will outline SII's 2018 annual survey methods including sampling and data collection, management, and analysis (Chapter 2). The results sections will start with a background of survey sample (Chapter 3) and then a presentation of key findings by IR theme: IR 1 – Nutrition (Chapter 4); IR 1 – WASH (Chapter 5); IR 2 – Health (Chapter 6) and IR 3 – Agriculture/Homestead Food Production (Chapter 7). Chapters 8 and 9 present results on cross-cutting themes of SBCC (Chapter 8) and GESI (Chapter 9).

2. Annual monitoring survey design

2.1 Survey objectives and description

The SII annual survey is part of the SII monitoring, evaluation and research (MER) system. The survey will help to identify gaps in coverage and SII-promoted integrated nutrition-related knowledge and behaviors. The survey also aims to monitor progress over time (first and last years) in inputs, outcomes, and outputs at the health facility and FCHV level, given that SII uses these platforms for delivery of key interventions and that both are of crucial importance for maternal and child health and nutrition. The 2017 annual survey, which was the first one, had an additional objective of establishing baseline levels and targets for key indicators, including on the nutritional status of WRA and under five children, in a representative population of SII target beneficiaries. The objective of the 2018 annual survey is to track the progress (or lack therefore) in key indicators.

The SII annual survey is a repeat cross-sectional design using multi-stage cluster sampling and returning to the same clusters each year. For the annual surveys, in 2017, 16 districts were randomly selected using probability proportional to size (PPS) techniques: 8 of 22 mature districts (defined as those where *Suaahara* I was implemented prior to 2016) and 8 of 18 non-mature districts (defined as those where *Suaahara* I was not implemented prior to 2016) (Figure 2.1) (Table 2.1).

Figure 1 Annual Survey Districts

Table 2.1 Mature and non-mature districts sampled in the annual survey

Mature (8)	Non-mature (8)
Bajhang	Arghakhanchi
Bhojpur	Bardiya
Dadeldhura	Dailekh
Gorkha	Dang
Myagdi	Dhading
Nawalparasi	Kailali
Rupandehi	Palpa
Sindhupalchok	Salyan

The SII annual surveys were approved by the Nepal Health Research Council (NHRC). Written informed consent was also obtained from each respondent included in the survey prior to beginning any interview, and consent to continue the survey was obtained after the completion of each module in the questionnaire.

2.2 Survey design

2.2.1 Sample size and power calculations

Before the 2017 survey, sample size calculations were done in Stata13 SE, for each of the six-key anthropometric and hemoglobin outcomes: stunting, underweight, and wasting in children under five, anemia in children 6 to 59 months of age, and body mass index (BMI) and anemia in WRA. We used *Suaahara* I baseline data to establish the intra-cluster correlation for each outcome and assumed a desired power of 0.80, in a two-arm cluster-designed study. Using these factors, along with the prevalence from NDHS 2011 and expected change over time, we calculated the sample sizes needed for each indicator (Table 2.2).

Table 2.2 Sample sizes needed for each indicator, by population type

Indicator	Population	Sample Size Needed
Stunting	Children <5 years	1728
Underweight	Children <5 years	980
Wasting	Children <5 years	980
Anemia	Children 6-59 months	3460
BMI	Women aged 15-49 years	2304
Anemia	Women aged 15-49 years	3072

Given the need for 3460 children between 6-59 months of age for measuring changes in anemia over time, and to allow for refusals, we decided to include at least 3600 households in the survey.

2.2.2 Sampling methodology

The annual surveys were designed using the new administrative units (e.g. urban and rural municipalities and wards). We employed a multi-stage cluster sampling design (Figure 2.2) with the first-stage sampling unit as districts (n=16), the second-stage sampling unit as municipalities (1 urban and 1 rural per district, excluding the district headquarter municipality; n=32), the third-stage sampling unit as wards (3 per municipality, n=96), the fourth-stage sampling unit as "old" wards (2 per ward, n=192) as the wards are very big, and the final-stage sampling unit as households with children under five years of age (19 per cluster, n=3648). The first four stages were conducted using PPS techniques, from the total population sizes according to national census data. For the fifth stage, households with a child under five years and his/her mother in residence were selected randomly from a full list.

The primary respondents were mothers of children under five years of age from the selected households. The secondary respondents included: primary male (or female, if male unavailable) household decision makers.
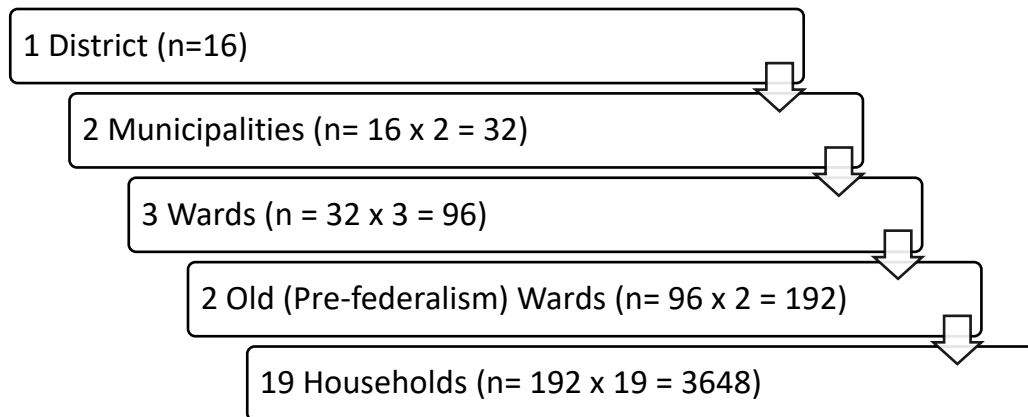
Figure 2 Sampling methodology

Household population data from the 2016 census was used to inform the PPS methods to select the sample districts, municipalities and clusters. Using the list of the districts and number of households per district, sampling interval (k) was obtained by dividing the total number of households in the district in each study arm (mature (22) and non-mature (18) SII districts) by the desired sample size of 8 per study arm. A random number (x) between one and the sampling interval (k) was chosen as the starting point, and the sampling interval (k) was added cumulatively and repeatedly $(x+k)^{th}$, $(x+2k)^{th}$, and so on, until the 8 districts were selected in each arm. The same process of listing, sampling interval and selection of the desired number of municipalities (1 urban and 1 rural per district), wards (3 per municipality) and clusters (2 per ward) was followed.

In the selected wards, a listing of households was conducted which contained information about the name of the household head, whether the household has a child under five years or not, and if yes, the name of the mother of the child. From the list of all households, a list of households having a child under five years of age and the child's mother residing together was prepared and 19 households were randomly selected for inclusion in the survey, by drawing names from a hat. If there was an insufficient number of eligible households in cluster, the same procedures were followed in the adjoining (defined as shortest distance from working cluster) cluster (old "pre-federalism" ward) to select the remaining required households. In 2017, this happened in 17 clusters and due to this, the same adjoining wards were selected in year 2.

From each selected household, one child under five years was selected as the child of focus for the survey (reference child for questions re: young child). If there were more than 2 children in the same household under five years, the youngest child was selected. The mother of the selected child was the respondent for the mothers' questionnaire. A male (or female, if male unavailable) primary decision maker in the household was selected for the household questionnaire, with first preference given for the father of the child. In some cases (e.g. mother lived alone with child; of available adults, mother was the lead household decision maker), the mother answered a shortened version of the household questionnaires (not repeating modules, i.e. empowerment or exposure to key messages) that are the same in the two questionnaires.

2.3 Survey instruments

2.3.1 Household questionnaires

In 2018, two surveys were administered at the household level for two different respondents: 1) mother of the child under five years of age; and 2) household decision-maker (male, when possible). The questionnaire included different modules of questions for each respondent (Table 2.3). Information on altitude, latitude, and longitude of all sampled households was collected using the Global Positioning System (GPS). The GPS coordinates were measured using Garmin eTrex 30x machine.

In 2018, given a desire among the program staff to know more about why households do and do not engage in certain practices, additional questions were asked related to the reasons for the following key behaviors: egg and meat consumption, handwashing with soap and water, treatment of diarrhea with zinc and oral rehydration solution (ORS), growth monitoring and promotion (GMP), receiving certain number of antenatal care (ANC), use of modern method of FP, participation in mothers' group (HMG), and listening/not listening to *Bhanchhin Aama.*

Table 2.3: Household questionnaire modules

Women	Men/ Household Heads
1. Child health and nutrition practices	1. Demographic information
a. Child health and childcare	a. Household roster
b. Child dietary recall	b. Background information of respondents
c. Infant and Young Child Feeding (IYCF) practices	2. Household economics
2. Maternal health and nutrition	a. Socioeconomic status
a. General health seeking practices	b. Economic events
b. Antenatal Care (ANC)	c. Assistance
c. Delivery and postnatal care (PNC)	3. Food security and diets
3. Maternal dietary recall	a. Household food security
4. Empowerment	b. Dietary recall
a. Role in household decision-making	4. Land use and agricultural practices
b. Group membership	5. Empowerment
c. Division of household labor	a. Role in household decision-making
5. Agriculture/homestead food production	b. Group membership
6. Water, sanitation, and hygiene	c. Division of household labor
7. Integrated nutrition knowledge and exposure	6. Integrated nutrition knowledge and exposure
8. Self-efficacy	7. Self-efficacy
9. *Suaahara* exposure	8. *Suaahara* exposure
10. Adolescent mother-specific questions	9. Observations

To avoid measuring behaviors that could have happened up to 5 years ago, the following modules were limited to the sample households with a child less than 2 years of age (rather than the full sample which includes households with a child 0-5 years of age): Module 1C (IYCF practices); Module 2B (ANC); and Module 2C (Delivery and PNC).

2.4 Training and fieldwork logistics

2.4.1 Training of personnel and testing of survey tools

New ERA recruited a team of 89 field staff, including 4 quality controllers, 34 supervisors, and 51 enumerators, and 17 anthropometrists, to make up 17 teams of 2 supervisors (1 male/1 female), 2 female enumerators and 1 male anthropometrist. Selecting from their pool of field researchers, criteria for the field staff included: prior work experience in similar surveys (*Suaahara* annual survey 2017 or similar, and work experience in rural communities), academic

qualification (at least bachelors' degree), fluency in a local language needed for the survey and rapport building skills, while also keeping gender and caste/ethnicity diversity in mind. The recruited field staff included an additional 10% for each position, who were invited to the training, so that there would be backup persons if needed. Each field staff was evaluated during the training and further screened.

New ERA led a training of trainers (ToT) for the quality controllers and supervisors from May 27-June 06, 2018. This training included detailed discussions around the adequacy of the survey questions and pre-coded responses, clarity/wording of questions, sequence/flow of questions and skip patterns. Supervisors beta tested the Open Data Kit (ODK) programming for all survey tools in Gundu and Nanagkhel VDCs of Bhaktapur from June 04-05, 2018. The feedback from the field-testing informed revisions to the surveys in preparation for the main training.

New ERA and SII staff trained the entire field survey team for 12 days from June 10-22, 2018 to familiarize the trainees with the survey objectives and tools. Role play and mock interviews with peers were used and the questionnaires were further checked for content, consistency, flow, validity and reliability. The training included detailed explanations of the survey objectives and design including multi-stage sampling and selection of households and appropriate informed consent and interviewing methods. Every question of every module was discussed and skip patterns, filtering, and probing techniques were explained. They were also trained in how to collect data using android phones. Roles and responsibilities of the field team members were clearly outlined and quality control elements by interviewers, supervisors and the quality controllers were highlighted.

All the questionnaires were tested multiple times in training and pre-testing before finalization. A total of 17 teams, each including 1 supervisor and 3 enumerators, were sent to 3 wards (ward no. 10,11 and 12) of Chautara Sangachok Gadi Municipality of Sindhupalchok district for a pilot test from June 24-27, 2018. This pilot test was practice for the data collectors to use the survey equipment in real field settings and the team tested all the tools including the questionnaires and GPS measurements. Each team completed piloting the survey tools in at least 6 households. After pre-testing, the survey tools were again revised and SII and New ERA re-checked and finalized the revised questionnaire. Additional, New ERA provided two days of extra training after the pre-test on the revised final tools.

2.4.3 Administration of survey questionnaires

After completion of trainings, ethical approvals, and other logistics, data collection occurred during the rainy season (July 2–September 14, 2018). All SII annual surveys are planned for the same season. On July 02, 2018, 17 field teams of five members each (one male supervisor, one female supervisor and two enumerators) departed for data collection. Enumerators were responsible for household-level data collection and GPS data. Only females (17 supervisors and 34 enumerators) interviewed mothers.

Each field team was provided with a field schedule for departure to assigned clusters. As the teams reached each district, they contacted the SII district office. After consultation with district level authorities, the field teams then moved to the assigned clusters. New ERA core team members and *Suaahara* MER team members supervised the first phase of fieldwork from July 10-30, 2018 and again made supervisory field visits in August 06-17, 2018 giving feedback on the interviews and verifying the consistency and accuracy of the completed questionnaires. Fieldwork was completed on September 14, 2018.

2.4.4 Fieldwork challenges

There were a few challenges encountered by the field team that delayed the field work and data collection. The timing of data collection coincided with the rainy season in Nepal, which created logistical obstacles for the field teams. Heavy rains and flooding in some *terai* districts and landslides in some hill districts impacted the roads and means of transport for the field teams. The field work was not impacted much by these events, but due to two suicide cases in 2 separate clusters in Dailekh, the field work in that district was delayed for almost 4-5 days.

2.5 Data management

2.5.1 Data entry, cleaning, and analysis

For the household questionnaires, data was collected on Android phones by the field staff, using Ona, an offline data collection application. Once the data was collected and reviewed by the supervisor, the enumerator synced the data to the Ona server. Key New Era and SII MER staff had access to the uploaded data. New Era staff would download the data from the Ona server weekly, check the quality and consistency of the data, and provide feedback to enumerators, as needed. All corrections were recorded by the New Era staff who consequently updated the database and informed the SII MER team.

Immediately after mobilizing the field teams, a software package for data entry was developed by the data supervisor in the central office, for paper-based survey modules. Quality check mechanisms, such as range checks and skip instructions, were developed to help detect errors in data entry. Before data entry, each questionnaire was thoroughly checked by the coders, and open-ended questions were coded. There was some overlap between field work and data management. Each field team collected diet related data on paper forms; they maintained the files of completed forms and sent these from each completed cluster to Kathmandu in files, labelled by location and cluster number.

New Era completed the first round of data cleaning and verification and translated the data (e.g. other (specify) responses), into English, where necessary before sharing the cleaned raw data files in Stata to the SII MER team on October,2018 for further data cleaning. The SII MER team followed standard data cleaning procedures such as range checks and skip patterns, before starting the process of variable generation and tabulations. All data cleaning and variable generation was done using Stata 14 from October 2018 to December 2019. The SII MER team, supported by an intern from Columbia University, conducted the analyses using Stata 14. The team generated results on means and proportions for the entire survey sample. To examine trends and know if the differences between 2017 and 2018 are meaningful, the SII MER team conducted tests of statistical significance for key indicators. Binary logistic regression was used with dichotomous variables, linear regression was used for continuous variables, and ANOVA for variables with multiple categories. Standard errors were adjusted for sample clustering in all binary logistic or linear regression tests; other factors which may influence the differences found (e.g. that the study population in year 2 was of higher socio-economic status) were not adjusted for in this descriptive analysis.. In the tables in this report, all variables for which tests of significance were done are in italics and the P values are reported. Also, these surveys were not powered to conduct sub-populations analyses and thus, the smaller the sample size, the more challenging it is to confirm statistical significance or not of findings, regardless of testing for sure. Furthermore, when interpreting results, it is important to remember that these are two cross-sectional surveys and thus, the direction of association between any two variables cannot be ascertained. This is also a monitoring survey and thus, there is not a comparison point and attribution of changes to *Suaahara* II may be plausible but cannot be assured.

3. Results: Background

The annual survey sample included 3642 households in 2017 and 3648 in 2018, which represents response rates of 99.8% and 100% respectively. This section presents results on the demographic characteristics of the sampled households (Table 3.1) followed by sampled household heads (Table 3.2), mothers (Table 3.3), and children (Table 3.4).

Equity quintiles, based on the 2016 DHS data as a reference point were calculated, to understand the socio-economic status of the study population relative to Nepal's overall population. To calculate the equity quintile, a household's ownership of assets and home characteristics (e.g. roof/wall/floor materials) (for further details please see www.equitytool.org) The distribution of households across equity quintiles indicated that the sample mostly represented lower equity quintiles, with two-thirds of the households belonging to the middle quintile or lower in both 2017 and 2018 surveys. Very few households have a roof, floor, and walls made of improved materials. More than 7 in 10 households use firewood as main source of energy for cooking in both surveys (Table 3.1).

Most household heads were Hindu (90%) and most respondents were *Brahmin/Chhetri* in both 2017 and 2018. The prevalence of household heads without any formal education declined from 34% in 2017 to 26% in 2018 (Table 3.2).

The demographic characteristics of mothers and children showed little variation in the two survey rounds. On average, the mothers were 26 years and their youngest child was 25 months. Agriculture was reported to be the primary occupation for about nearly 65% of mothers. Almost 1 in 5 mothers reported living alone. The percentage of mothers who had never attended school declined from 21% in 2017 to 17% in 2018 (Tables 3.3 and 3.4).

Table 3.1 Household socio-economic and demographic characteristics

	2017	2018	P-value
	All HH heads N=3642 %	All HH heads N=3648 %	
Equity quintile[1]			*<0.000*
Poorest	*21.7%*	*17.1%*	
2nd Poorest	*28.6%*	*24.8%*	
Middle	*23.2%*	*24.9%*	
2nd Wealthiest	*20.3%*	*24.9%*	
Wealthiest	*6.2%*	*8.3%*	
Home characteristics			
Main material of the floor: cement	18.7%	26.0%	
Main material of the exterior/outer wall: cement	16.0%	21.2%	
Main material of the roof: cement	12.6%	13.0%	
Main source of energy for lighting			
Electricity	70.8%	73.0%	
Solar panel	23.4%	22.6%	
Main source of energy for cooking			

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[1] Equity quintiles were updated since the Annual Survey Report 1. Previously they were based on the NDHS, 2011 but now based on NDHS, 2016; all in line with guidance provided by www.equitytool.org

	2017 All HH heads N=3642 %	2018 All HH heads N=3648 %	P-value
Electricity	0.1%	0.0%	
Firewood	76.5%	71.9%	
Liquefied propane gas	17.1%	22.8%	
Biogas	4.1%	3.9%	
Animal dung	2.0%	1.2%	

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

Table 3.2: Household heads' demographic characteristics

	2017 All HH heads N=3642 Mean (SD)/%	2018 All HH heads N=3648 Mean (SD)/%	P-value
Gender: male	*54.7%*	*49.2%*	*0.20*
Age	*39.3 (15.1)*	*34.4 (13.3)*	*<0.000*
Married	*92.0%*	*95.8%*	*<0.000*
Agriculture as main occupation	*64.7%*	*64.4%*	*0.83*
Religion: Hinduism	89.8%	90.0%	
Relation to the survey reference child			
Mother	39.7%	41.2%	
Grandmother	12.4%	8.8%	
Father	25.7%	35.9%	
Grandfather	20.5%	12.1%	
Other	1.7%	2.0%	
Caste			*<0.000*
Dalit	21.3%	21.9%	
Muslim	1.9%	1.7%	
Brahmin/Chettri	39.3%	38.8%	
Newar	3.7%	3.8%	
Disadvantage Janajati	26.4%	29.1%	
Gurung/Thakali	0.9%	0.7%	
Non dalit *terai* caste	5.8%	3.9%	
Others	0.8%	0.1%	
Education levels			
Never attended school/ grade 1 not complete	*34.1%*	*25.8%*	*<0.000*
Some primary school (grades 1-4)	17.3%	14.9%	
Completed primary school (grades 5)	8.7%	8.7%	
Some secondary school (grades 6-9)	24.4%	29.5%	
Completed secondary school (grade 10)	9.3%	11.4%	
Completed class 12	4.7%	7.5%	
Higher education	1.6%	2.2%	

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

Table 3.3: Mothers' demographic characteristics

	2017 Mothers N=3642 Mean (SD)/%	2018 Mothers N=3648 Mean (SD)/%	P-value
Age in completed years (range: 15-49y)	26.2 (5.5)	25.9 (5.4)	
Married	99.4%	99.4%	

	2017 Mothers N=3642 Mean (SD)/%	2018 Mothers N=3648 Mean (SD)/%	P-value
Currently pregnant	5.0%	5.0%	
Agriculture as main occupation	62.6%	62.7%	
Education			
Never attended school/grade 1 not complete	*20.6%*	*17.4%*	*<0.000*
Some primary school (grades 1-4)	13.9%	12.9%	
Completed primary school (grades 5)	7.7%	7.5%	
Some secondary school (grades 6-9)	34.1%	35.9%	
Completed secondary school (grade 10)	12.6%	13.4%	
Completed grade 12	9.2%	10.9%	
Higher education	1.9%	2.3%	
Residency			
Alone	*19.4%*	*19.1%*	*0.81*
With husband and child only	*30.8%*	*26.6%*	*0.01*
Maternal family	*2.3%*	*2.4%*	*0.64*
Paternal family	*47.3%*	*51.7%*	*<0.000*

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

Table 3.4: Children's demographic characteristics

	2017 Children N=3642 Mean (SD)/%	2018 Children N=3648 Mean (SD)/%
Gender of youngest child: male	55.6%	54.7%
Age in completed months (range: 0-59)	24.8 (16.0)	24.6 (16.2)
Age of youngest child (completed months)		
0-23.9	50.7%	52.4%
24-59.9	49.3%	47.6%
Age of youngest child (completed months)		
0-5.9	12.5%	12.3%
6-11.9	14.6%	13.7%
12-17.9	11.1%	13.0%
18-23.9	12.5%	13.3%
24-29.9	10.5%	10.8%
30-35.9	11.5%	9.8%
36-41.9	8.8%	7.7%
42-47.9	7.9%	8.3%
48-53.9	6.0%	5.3%
54-59.9	4.5%	5.7%

4. Results: IR 1/Nutrition

The overall exposure to child and maternal nutrition and health messages was high in both groups between the two survey rounds, but in both 2017 and 2018 the prevalence of mothers ever heard of each key message was higher than male household heads (Table 4.1 and 4.2).

The percentage of household heads with the knowledge that exclusive breastfeeding meant feeding the child breast milk and nothing else increased from 11% to 15% (P:0.03) in 2018 (Table 4.3). The percentage of mothers who gave the correct definition of exclusive breastfeeding increased from 16% to 19% from 2017 to 2018, but this small increase was not statistically significant. Similarly, the percentage of mothers who knew that the appropriate time to stop exclusive breastfeeding was 6 months increased from 80% to 86% (P<0.000) in 2018 (Table 4.4). Almost all mothers with children under two years had breastfed at some point and 71% of mothers with children under six months practiced exclusive breastfeeding in both 2017 and 2018 surveys. The percentage of mothers with children under two years who fed colostrum to their children increased from 93% to 96% (P:0.001). Almost all mothers continued breastfeeding their child throughout the first year (Table 4.5).

The knowledge on the appropriate age to introduce complementary foods (all food items within 6-8.9 months) increased from 23% to 34% (P<0.000) among household heads (Table 4.6) and from 43% to 52% (P<0.000) among mothers (Table 4.7) in 2018. Regarding complementary feeding practices, the prevalence of breastfed and non-breastfed children 6–23 months of age, who received solid, semi-solid, or soft foods (also including milk feeds for non-breastfed children) the minimum number of times or more increased from 81% to 88% (P<0.000) in 2018. Consumption of iron-rich foods among these children increased from 84% to 89% (P:0.001). The average month for introduction of all food items to children declined from 6.5 to 6.3 months (P<0.000) whereas the percentage of mothers reporting introducing all foods to children within 6-8.9 months increased from 33% to 42% (P<0.000) in 2018 (Table 4.8).

In both surveys, both knowledge (Table 4.9 and 4.10) and practice regarding appropriate feeding of a sick child was low, which was also reflected in practice with only 39% of mothers reporting feeding children more during illness (Table 4.11).

The 24-hour recall method was used to collect diet data. Dietary diversity scores for children were calculated out of 7 food groups: grains, pulses, dairy, flesh foods, eggs, vitamin-A rich fruits/vegetables, other fruits and vegetables. The minimum dietary diversity among children 6-23.9 months increased from 47% to 54% (P:0.001) with the average individual dietary diversity score of 3.6 in 2018. Similarly, the minimum acceptable diet increased from 38% to 46% (P<0.001) (Table 4.12).

The reasons for mothers not feeding eggs/meat to children 6-59.9 months of age (in the last 24 hours) include that s/he ate meat/egg day before, no egg/meat at home, no money to buy egg/meat and unavailability in the local market (Table 4.14 and 4.15).

The knowledge that pregnant women must consume more food than usual increased from 72% to 79% (P<0.000) among household heads (Table 4.16) and from 86% to 91% (P<0.000) among mothers (Table 4.17) in 2018.

Dietary diversity score for women was calculated out of 10 food groups: grains, pulses, nuts and seeds, dairy, flesh foods, eggs, dark green leafy vegetables, vitamin-A rich fruits/vegetables,

other fruits, other vegetables. The individual dietary diversity score among mothers increased from 4.1 to 4.3 (P<0.000) while the percentage of mothers meeting minimum dietary diversity (5 of 10 groups) increased from 36% to 42% (P<0.000) in 2018 (Table 4.19)

Table 4.1: Ever heard key messages for maternal and child nutrition among household heads

	2017	2018
	All HH heads (N=1894) %	All HH heads (N=2141) %
Babies should be put to the breast for breastfeeding immediately after birth.	81.4%	81.5%
Children should only be fed breast milk and no water, other liquids or other foods up to six months of age.	72.0%	72.9%
Children 6 months of age and older should eat foods from different food groups	78.3%	80.2%
Children 6 months of age and older should be fed animal-source foods including eggs, fish and meat	78.1%	82.6%
Children should be fed more than usual when he/she is sick or recovering from sickness	64.8%	67.5%
Breastfeeding should be continued or increased when children are sick or recovering from sickness.	66.6%	66.8%
Children should be given ORS and zinc when sick with diarrhea	95.6%	83.5%
Women should eat more food, and consume animal source foods, during pregnancy and lactation.	82.5%	84.5%

Table 4.2 Ever heard key messages for maternal and child nutrition among mothers

	2017	2018
	Mothers (N=3637) %	Mothers (N=3647) %
Babies should be put to the breast for breastfeeding immediately after birth.	94.6%	94.4%
Children should only be fed breast milk and no water, other liquids or other foods up to six months of age.	90.0%	92.4%
Children 6 months of age and older should eat foods from different food groups	92.4%	94.9%
Children 6 months of age and older should be fed animal-source foods including eggs, fish and meat	92.7%	95.9%
Children should be fed more than usual when he/she is sick or recovering from sickness	84.6%	86.4%
Breastfeeding should be continued or increased when children are sick or recovering from sickness.	84.9%	87.7%
Children should be given ORS and zinc when sick with diarrhea	97.6%	86.6%
Women should eat more food, and consume animal source foods, during pregnancy and lactation.	93.7%	95.1%

Table 4.3: Breastfeeding knowledge among household heads

	2017	2018	
	All HH heads N=1898 Mean (SD)/%	All HH heads N=2142 Mean (SD)/%	P-value
Breastfeeding should be initiated within 1 hour	*62.6%*	*65.0%*	*0.16*
Colostrum should be given to baby	*76.1%*	*81.4%*	*0.001*

Exclusive breastfeeding characteristics			
Breast milk and nothing else (not even water)	*11.4%*	*14.5%*	*0.03*
Breast milk and water	2.4%	3.8%	
Breast milk and other liquids	6.5%	7.1%	
Other	17.4%	18.2%	
Don't know	*62.4%*	*56.4%*	*0.01*
Appropriate timing to stop practices			
Breastfeeding (in months)	35.3 (12.7)	37.0 (13.6)	
Exclusive breastfeeding (in months)	5.9 (4.2)	5.8 (3.1)	
Exclusive breastfeeding: 6 months	*65.2%*	*69.9%*	*0.13*

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

Table 4.4: Breastfeeding knowledge among mothers

	2017	2018	
	Mothers N=3640 Mean (SD)/%	Mothers N=3647 Mean (SD)/%	P-value
Breastfeeding should be initiated within 1 hour	*82.4%*	*83.9%*	*0.14*
Colostrum should be given to baby	*91.0%*	*93.2%*	*0.50*
Exclusive breastfeeding characteristics			
Breast milk and nothing else (not even water)	*16.4%*	*18.8%*	*0.08*
Breast milk and water	3.5%	3.7%	
Breast milk and other liquids	7.1%	8.1%	
Other	17.2%	19.1%	
Don't know	*55.8%*	*50.3%*	*0.01*
Appropriate timing to stop practices			
Breastfeeding (in months)	38.6 (14.9)	38.1 (15.8)	
Exclusive breastfeeding (in months)	6.0 (3.7)	5.9 (2.6)	
Exclusive breastfeeding: 6 months	*80.1%*	*86.0%*	*<0.000*

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

Table 4.5: Breastfeeding practices among children <2 years

	2017	2018	
	Mothers N=1848 %	Mothers N=1910 %	P-value
Ever breastfed	99.7%	99.6%	
Colostrum given (among mothers who ever breastfed, N=1843, 1902)	*93.1%*	*95.9%*	*0.001*
Early initiation of breastfeeding: within 1 hour (among mothers who ever breastfed, N=1843, 1902)	*67.5%*	*69.3%*	*0.03*
Exclusive breastfeeding (among children 0-5.9m, N=455, 450)	*70.6%*	*71.1%*	*0.86*
Liquids/food, other than breast milk, given immediately after birth	*12.7%*	*14.0%*	*0.42*
Continued breastfeeding at 1 year (among children 12-14.9m, N=201, 265)	98.5%	99.6%	0.23
Continued breastfeeding at 2 years (among children 20-23.9m, N=308, 323)	93.8%	96.9%	

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

Table 4.6: Complementary feeding knowledge among household heads

	2017 All HH heads N=1898 Mean (SD)/%	2018 All HH heads N=2142 Mean (SD)/%	P-value
Appropriate age to introduce each liquid/food (in months)			
Water/clear liquids	5.8 (2.2)	5.7 (1.7)	
Milk/milk products (excluding breast milk)	6.8 (3.9)	6.4 (3.0)	
Semi-solid foods	6.8 (2.9)	6.5 (1.9)	
Solid foods	8.7 (4.6)	7.9 (3.6)	
Eggs	9.7 (5.2)	8.7 (4.0)	
Animal meat/fish	10.9 (5.8)	9.7 (4.8)	
All food items	*8.1 (3.0)*	*7.5 (2.3)*	*<0.000*
Appropriate age to give each liquid/food: 6-8.9 months			
Water/clear liquids	*73.7%*	*77.7%*	*0.02*
Milk/milk products (excluding breast milk)	*71.1%*	*76.6%*	*<0.000*
Semi-solid foods	*80.4%*	*86.7%*	*<0.000*
Solid foods	*60.3%*	*70.1%*	*<0.000*
Eggs	*48.4%*	*59.2%*	*<0.000*
Animal meat/fish	*38.2%*	*48.3%*	*<0.000*
All food items	*23.4%*	*34.0%*	*<0.000*

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

Table 4.7: Complementary feeding knowledge among mothers

	2017 Mothers N=3640 Mean (SD)/%	2018 Mothers N=3647 Mean (SD)/%	P-value
Appropriate age to introduce each liquid/food (in months)			
Water/clear liquids	5.8 (1.7)	5.8 (1.0)	
Milk/milk products (excluding breast milk)	6.3 (2.4)	6.1 (1.8)	
Semi-solid foods	6.3 (2.0)	6.1 (0.9)	
Solid foods	7.4 (2.8)	7.0 (2.3)	
Eggs	8.1 (3.4)	7.4 (2.5)	
Animal meat/fish	8.7 (4.1)	8.1 (3.3)	
All food items	7.1 (1.8)	6.8 (1.3)	*<0.000*
Appropriate age to give each liquid/food: 6-8.9 months			
Water/clear liquids	*83.4%*	*87.0%*	*<0.000*
Milk/milk products (excluding breast milk)	*85.0%*	*89.3%*	*<0.000*
Semi-solid foods	*90.6%*	*93.7%*	*<0.000*
Solid foods	*74.6%*	*81.8%*	*<0.000*
Eggs	*66.0%*	*74.9%*	*<0.000*
Animal meat/fish	*58.8%*	*65.3%*	*<0.000*
All food items	*42.7%*	*52.0%*	*<0.000*

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

Table 4.8: Complementary feeding practices for children <2 years

	2017 Mothers N=1848 Mean (SD)/%	2018 Mothers N=1910 Mean (SD)/%	P-value
Introduction of solid, semi-solid or soft food of infant at 6-8.9m of age (N=214, 210)	*91.6%*	*88.1%*	*0.26*
Prevalence of breastfed and non-breastfed children 6–23 months of age, who received solid, semi-solid, or soft foods (but also including milk feeds for non-breastfed children) the minimum number of times or more (6-23.9m, N=1385, 1460)	*81.2%*	*87.8%*	*<0.000*
Consumption of iron-rich foods (6-23.9m) (N=1385, 1460)	*84.2%*	*88.6%*	*0.001*
Age in months of introduction, among those who have been introduced already			
Water/other liquids (N=1502, 1550)	*4.9 (1.8)*	*5.1 (1.6)*	*0.03*
Milk/milk products (other than breast milk) (N=1358, 1454)	*5.2 (2.8)*	*5.2 (2.6)*	*0.79*
Semi-solid foods (N=1357, 1443)	*5.9 (1.5)*	*5.8 (1.3)*	*0.17*
Solid foods (N=1392, 1456)	*6.7 (1.9)*	*6.5 (1.7)*	*0.005*
Eggs (N=1102, 1266)	*7.6 (2.6)*	*7.1 (2.3)*	*<0.000*
Animal meats (N=1217, 1304)	*7.9 (2.8)*	*7.3 (2.4)*	*<0.000*
All food items (N=929, 1128)	*6.5 (1.4)*	*6.3 (1.3)*	*<0.000*
Appropriate age (months) of introduction, among those introduced already (6-8.9 months)			
Water/other liquids (N=1502, 1550)	*58.5%*	*63.8%*	*0.003*
Milk/milk products (other than breast milk) (N=1358, 1454)	*56.9%*	*63.6%*	*<0.000*
Semi-solid foods (N=1357, 1443)	*78.4%*	*82.1%*	*0.02*
Solid foods (N=1392, 1456)	*75.7%*	*78.6%*	*0.06*
Eggs (N=1102, 1266)	*65.1%*	*75.1%*	*<0.000*
Meat (N=1217, 1304)	*61.5%*	*70.7%*	*<0.000*
All food items (N=929, 1128)	*33.1%*	*42.1%*	*<0.000*

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

Table 4.9: Child feeding during illness and recovery knowledge among household heads

	2017 All HH heads N=1896 %	2018 All HH heads N=2142 %	P-value
Specific actions during illness*			
Feed an extra meal daily	*16.4%*	*17.7%*	*0.45*
Feed more food than usual	*11.2%*	*9.1%*	*0.10*
Feed different types of food than usual	30.2%	24.5%	
Give more liquids than usual	*14.4%*	*12.1%*	*0.14*
Give different types of liquid than usual	23.3%	18.4%	
Continue/ Increase frequency of breastfeeding	*26.6%*	*27.8%*	*0.01*
ORS	*6.1%*	*5.7%*	*0.70*
Give zinc tables	*2.7%*	*2.2%*	*0.51*
Give syrups	65.6%	73.1%	
Give traditional medicine	13.0%	12.0%	
Go to health facility/FCHV	*56.7%*	*65.3%*	*<0.000*
Specific actions during recovery from diarrhea*			
Feed more food than usual	NA	3.6%	
Give more liquids than usual	NA	18.2%	
Give different types of liquid than usual	NA	22.7%	

	2017	2018	
	All HH heads N=1896 %	All HH heads N=2142 %	P-value
Continue breastfeeding	NA	8.3%	
Increase frequency of breastfeeding	NA	10.5%	
Give safe/treated drinking water	NA	40.5%	
ORS	NA	73.2%	
Give zinc tables	NA	13.3%	
Give syrups	NA	50.7%	
Go to health facility/FCHV	NA	56.4%	

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.
*Note: These sub-indicators will not add to 100% as this question allowed for multiple responses to be provided

Table 4.10: Child feeding during illness and recovery knowledge among mothers

	2017	2018	
	Mothers N=3640 %	Mothers N=3647 %	P-value
Specific actions during illness*			
Feed an extra meal daily	*16.8%*	*18.1%*	*0.45*
Feed more food than usual	*13.4%*	*8.5%*	*<0.000*
Feed different types of food than usual	33.1%	23.6%	
Give more liquids than usual	*18.7%*	*15.4%*	*0.02*
Give different types of liquid than usual	29.3%	24.8%	
Continue/ Increase frequency of breastfeeding	*31.1%*	*33.6%*	*0.12*
ORS	*5.9%*	*3.0%*	*<0.000*
Give zinc tables	*2.4%*	*0.8%*	*<0.000*
Give syrups	69.6%	77.3%	
Give traditional medicine	10.8%	6.8%	
Go to health facility/FCHV	*54.2%*	*63.8%*	*<0.000*
Specific actions during recovery from diarrhea*			
Feed more food than usual	NA	4.4%	
Give more liquids than usual	NA	24.7%	
Give different types of liquid than usual	NA	30.2%	
Continue breastfeeding	NA	8.4%	
Increase frequency of breastfeeding	NA	16.6%	
Give safe/treated drinking water	NA	48.9%	
ORS	NA	78.7%	
Give zinc tables	NA	20.0%	
Give syrups	NA	50.7%	
Go to health facility/FCHV	NA	50.0%	

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.
*Note: These sub-indicators will not add to 100% as this question allowed for multiple responses to be provided

Table 4.11: Practice of child feeding during illness, among children who were ill in the last 2 weeks

	2017	2018	
	Mothers N=1400 %	Mothers N=1213 %	P-value
Offered to drink including breastmilk			
Less than usual	10.2%	12.1%	

	2017	2018	
About the same as usual	52.5%	55.5%	
More than usual	*32.4%*	*28.2%*	*0.04*
Nothing	4.9%	4.2%	
Offered to eat, excluding breastmilk			
Less than usual	16.7%	16.3%	
About the same as usual	52.3%	51.0%	
More than usual	*21.6%*	*23.0%*	*0.39*
Nothing: stopped foods	0.9%	0.7%	
Nothing: doesn't yet eat foods	8.4%	8.9%	
Sick children 6-23 months of age fed more during illness (N=593, 541)	*38.5%*	*38.8%*	*0.90*

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

Table 4.12: Dietary practices among children 6-23.9 months

	2017	2018	P-value
	Children N=1385 Mean (SD)/%	Children N=1460 Mean (SD)/%	
Individual dietary diversity score (7 food groups)	*3.4 (1.2)*	*3.6 (1.2)*	*<0.000*
Minimum dietary diversity (4+ of food groups)	*46.7%*	*53.5%*	*0.001*
Minimum acceptable diet (6-23.9m, N=1385, 1460)	*37.5%*	*45.7%*	*<0.000*
Consumption of specific food groups			
Grains (cereals and tubers)	96.9%	97.4%	
Pulses (legumes and nuts)	72.0%	75.4%	
Dairy	50.7%	48.2%	
Flesh foods	*17.9%*	*24.0%*	*<0.000*
Eggs	*10.6%*	*17.7%*	*<0.000*
Vitamin A rich fruits and vegetables	*32.0%*	*34.5%*	*0.19*
Other fruits and vegetables	*57.7%*	*64.8%*	*0.001*
Vegetarian diet (no animal source foods given)	4.7%	2.7%	
Consumption of snack foods (probed)			
Commercial savory snacks	37.9%	32.5%	
Commercial sugary foods	28.6%	28.3%	
Commercial fizzy or sweetened drinks	*2.9%*	*17.7%*	*<0.000*
Consumption of snack foods (un-probed, 24-hour dietary recall)			
Commercial savory snacks	26.2%	23.2%	
Commercial sugary foods	25.8%	24.9%	
Commercial fizzy or sweetened drinks	5.1%	6.5%	
MNPs/sprinkles/LBNS consumed	*5.4%*	*7.7%*	*0.05*
Times solid or semi-solid consumed	*3.2 (1.3)*	*3.7 (1.6)*	*0.49*
Times *jaulo* consumed	0.5 (0.9)	0.5 (0.9)	
Jaulo commercially sourced (N=384, 404)	*16.2%*	*18.6%*	*0.21*

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

Table 4.13 Dietary practices among children aged 24-59.9 months

	2017	2018	P-value
	Children N=1779 Mean (SD)/%	Children N=1738 Mean (SD)/%	
Individual dietary diversity score (7 food groups)	*3.8 (1.0)*	*3.9 (1.0)*	*<0.000*
Minimum dietary diversity (4+ of food groups)	*60.5%*	*65.4%*	*0.01*

	2017	2018	
	Children N=1779 Mean (SD)/%	Children N=1738 Mean (SD)/%	P-value
Consumption of specific food groups			
Grains (cereals and tubers)	99.9%	99.9%	
Pulses (legumes and nuts)	75.9%	74.1%	
Dairy	41.6%	41.6%	
Flesh foods	*25.4%*	*29.6%*	*0.01*
Eggs	*8.7%*	*15.3%*	*<0.000*
Vitamin A rich fruits and vegetables	*42.2%*	*46.4%*	*0.06*
Other fruits and vegetables	*82.1%*	*83.8%*	*0.20*
Vegetarian diet (no animal source foods given)	1.0%	1.4%	
Consumption of snack foods (probed)			
Commercial savory snacks	40.0%	39.3%	
Commercial sugary foods	37.2%	36.7%	
Commercial fizzy or sweetened drinks	*4.7%*	*23.9%*	*<0.000*
Consumption of snack foods (un-probed, 24-hour dietary recall)			
Commercial savory snacks	23.6%	24.2%	
Commercial sugary foods	33.7%	33.6%	
Commercial fizzy or sweetened drinks	7.8%	9.2%	
MNPs/sprinkles/LBNS consumed	*1.4%*	*0.6%*	*0.04*
Times solid or semi-solid consumed	*3.7 (1.1)*	*4.1 (1.5)*	*0.69*
Times *jaulo* consumed	0.1 (0.4)	0.1 (0.3)	
Jaulo commercially sourced (N=97, 109)	*11.3%*	*5.5%*	*0.04*

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

Table 4.14 Reasons for egg consumption or not among children 6-59.9 months

	2018
	Mothers N=3198 %
Reason for eating eggs the previous day (N=524)*	
S/he eats eggs everyday	33.2%
FCHV/HWs suggested	2.3%
Suaahara FLW suggested	2.5%
HH members encouraged it	5.9%
To become healthy	51.3%
To meet the need of energy required	31.3%
Sometimes we prepare/no specific reason	18.9%
Reason for not eating eggs the previous day (N=2674)*	
Had eggs the day before/ s/he only eats eggs a few times a week	23.7%
Religious/cultural reason	2.3%
No eggs at home	44.8%
No money to buy eggs	10.9%
Not available on the market	4.2%
Don't like the taste	8.3%
Not started complementary food to child	1.8%
No specific reason	11.7%

*Note: These sub-indicators will not add to 100% as this question allowed for multiple responses to be provided

Table 4.15 Reasons for meat consumption or not among children 6-59.9 months

	2018
	Mothers N=3198 %
Reason for eating meat the previous day (N=865)*	
S/he eat meat everyday	5.8%
FCHV/HWs suggested	0.9%
Suaahara FLW suggested	0.5%
HH members encourages child to eat meat	5.2%
Child eats meat when we can afford it	8.1%
To become healthy	32.7%
To meet the need of energy required for hard work	20.4%
Sometimes we prepare/no specific reason	49.1%
Reason for not eating meat the previous day (N=2333)*	
Had meat the day before/child only eat meat a few times a week	39.7%
Religious/cultural reason	2.7%
No meat at home	32.3%
Child don't eat meat/ vegetarian	1.9%
No money to buy meat	12.5%
Meat is not readily available here/ market is far	6.6%
Don't like the taste	2.5%
Not started complementary food to child	2.0%
No specific reason	12.6%

*Note: These sub-indicators will not add to 100% as this question allowed for multiple responses to be provided

Table 4.16 Maternal nutrition knowledge among household heads

	2017	2018	
	All HH heads N=1898 %	All HH heads N=2142 %	P-value
Diet during pregnancy			
Less than usual	6.2%	3.7%	
Same as usual	20.0%	16.3%	
More than usual	*72.2%*	*78.6%*	*<0.000*

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

Table 4.17 Maternal nutrition knowledge among mothers

	2017	2018	
	Mothers N=3640 %	Mothers N=3647 %	P-value
Diet during pregnancy			
Less than usual	3.5%	2.1%	
Same as usual	10.6%	7.5%	
More than usual	*85.9%*	*90.5%*	*<0.000*

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

Table 4.18 Dietary practices during pregnancy and lactation among mothers of children <2 years

	2017 Mothers N=1848 Mean (SD)/%	2018 Mothers N=1910 Mean (SD)/%	P-value
Extra meal during pregnancy	*57.4%*	*74.7%*	*<0.000*
Amount ate during pregnancy			
Less than usual	18.2%	13.0%	
Same as usual	33.4%	28.6%	
More than usual	*48.4%*	*58.4%*	*<0.000*
Fasting during pregnancy			
Fasted at least 1 day during pregnancy	14.6%	13.9%	
Number of days fasted during pregnancy, among those who fasted (N=267, 266)	3.7 (6.2)	3.6 (6.5)	

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

Table 4.19 Dietary practices among mothers

	2017 Mothers N=3640 Mean (SD)/%	2018 Mothers N=3648 Mean (SD)/%	P-value
Individual dietary diversity score (10 food groups)	*4.1 (1.2)*	*4.3 (1.2)*	*<0.000*
Minimum dietary diversity (5 of 10 food groups)	*35.6%*	*41.6%*	*<0.000*
Consumption of specific food groups			
Grains, white roots and tubers, and plantains	100.0%	100.0%	
Pulses (beans, lentils)	76.0%	76.5%	
Nuts and seeds	3.5%	1.5%	
Dairy	28.9%	26.2%	
Meat, poultry, and fish	*28.4%*	*31.3%*	*0.02*
Eggs	*5.7%*	*10.2%*	*<0.000*
Dark green leafy vegetables	*44.6%*	*41.4%*	*0.02*
Other Vitamin A rich fruits and vegetables	*6.5%*	*12.9%*	*<0.000*
Other vegetables	*86.2%*	*89.2%*	*0.001*
Other fruit	*32.3%*	*40.7%*	*<0.000*
Vegetarian diet followed	1.7%	1.8%	
Consumption of snack foods (probed)			
Commercial savory snacks	16.4%	15.8%	
Commercial sugary foods	9.9%	9.1%	
Commercial fizzy or sweetened drinks	*3.3%*	*6.2%*	*<0.000*
Consumption of snack foods (un-probed; 24-hour diet recall)			
Commercial savory snacks	6.9%	8.7%	
Commercial sugary foods	7.6%	7.4%	
Commercial fizzy or sweetened drinks	3.9%	3.6%	

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

Table 4.20 Division of labor in household cooking and feeding activities

	2018	
	Male HH heads N=1792 %	Mothers N=3648 %
Engagement in household activities		
Purchasing food for daily consumption	92.4%	86.9%
Cooking and preparing food for the family	44.9%	99.3%
Feeding children	58.0%	99.9%
Most engaged in specific activity: self		
Purchasing food for daily consumption	52.5%	48.6%
Cooking and preparing food for the family	4.1%	83.6%
Feeding children	3.5%	92.7%

Table 4.21 Nutrition-related decision-making power of male household heads

	2017	2018	
	Male HH heads N=1733 %	Male HH heads N=1792 %	P-value
Own food consumption			
Little to no input	2.3%	2.3%	
Input into some decisions	17.5%	16.3%	
Input into most or all decisions	*79.8%*	*81.3%*	*0.39*
No decisions made	0.4%	0.1%	
Child feeding			
Little to no input	8.0%	11.8%	
Input into some decisions	58.3%	55.8%	
Input into most or all decisions	*33.0%*	*31.4%*	*0.43*
No decisions made	0.8%	1.1%	

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

Table 4.22 Nutrition-related decision-making power of mothers

	2017	2018	
	Mothers N=3642 %	Mothers N=3648 %	P-value
Own food consumption			
Little to no input	3.1%	2.6%	
Input into some decisions	22.1%	20.6%	
Input into most or all decisions	*74.5%*	*76.7%*	*0.13*
No decisions made	0.4%	0.1%	
Child feeding			
Little to no input	0.6%	0.9%	
Input into some decisions	7.1%	4.8%	
Input into most or all decisions	*92.2%*	*93.9%*	*0.06*
No decisions made	0.1%	0.4%	

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

5. Results: IR 1/WASH

Exposure to key WASH messages was high among both household heads and mothers but was highest among mothers for messages relating to handwashing, cooking and hygiene practices in both surveys (Tables 5.1 and 5.2).

The knowledge on any appropriate water treatment method among mothers increased from 89% to 93% (P<0.000) with 38.4% mothers reporting knowledge of any appropriate method and no inappropriate methods (Table 5.4). Drinking water treatment practices are improving with households using any appropriate method increasing from 14% to 19% (P<0.000). Similarly, households practicing any appropriate method and no inappropriate methods increased from 13% to 17% (P<0.000) (Table 5.5). The frequency of treating drinking water always as reported by mothers also increased from 16% to 23% in 2018 (Table 5.6).

Knowledge as well as practice of handwashing with soap and water at all six critical times is in an increasing trend. Among household heads, the knowledge of handwashing with soap and water at all six critical times increased from 1% to 12% (P<0.000) (Table 5.7), while among mothers it increased from 3% to 9% (P<0.000) (Table 5.8). The practice for the same increased from 8% to 19% (P<0.000) among mothers with significant improvements in each of the six critical times (Table 5.9). Major reasons reported for not washing hands at the six critical times included respondents thought it was not necessary, they were too busy and that they forgot to wash their hands (Table 5.10).

Observation of sanitation facilities showed a significant decline in practice of covering drinking water pots from 42% to 37% (P<0.000) and households with clean toilets from 42% to 35% (P<0.000) in 2018. However, the percentage of households with a handwashing station with soap and water increased from 37% to 49% (P<0.000) (Table 5.13).

The use of commercial/disposable pads among mothers was 26% in 2018 (Table 5.15). The percentage of mothers not practicing menstruation related food avoidance increased from 69% to 73% (P:0.01) (Table 5.16).

When asked about decision-making on the purchase and use of water treatment supplies, 15% of household heads and 29% of mothers reported input in most or all decisions in 2018 (Table 5.18).

Table 5.1 Ever heard key messages for WASH among household heads

	2017	2018
	All HH heads N=1894 %	All HH heads N=2141 %
Water should be treated by boiling, SODIS, water filter or similar method regularly before drinking.	91.7%	93.7%
Hands should be washed with soap and water before cooking and preparing food.	94.6%	96.0%
Importance of safe and hygienic food practices to ensure a healthy family.	84.9%	85.5%
Improved cooking stove and ventilation are important for decreasing indoor air pollution	84.8%	86.0%
Importance of hygienic toilet use and toilet cleanliness	95.7%	95.8%

	2017	2018
	All HH heads N=1894 %	All HH heads N=2141 %
Child feces should be safely disposed of and not thrown out in the open.	92.6%	94.0%
Importance of changing one's cloth or pad at least every 7 hours for proper menstrual hygiene management	32.3%	23.4%
Importance of using a clean cloth or pad, including washing it with soap and water for proper menstrual hygiene management	50.6%	50.3%

Table 5.2 Ever heard key messages for WASH among mothers

	2017	2018
	Mothers N=3637 %	Mothers N=3647 %
Water should be treated by boiling, SODIS, water filter or similar method regularly before drinking.	93.4%	93.3%
Hands should be washed with soap and water before cooking and preparing food.	96.8%	98.1%
Importance of safe and hygienic food practices to ensure a healthy family.	90.4%	93.0%
Improved cooking stove and ventilation are important for decreasing indoor air pollution	87.5%	88.4%
Importance of hygienic toilet use and toilet cleanliness	97.1%	97.6%
Child feces should be safely disposed of and not thrown out in the open.	96.6%	97.6%
Importance of changing one's cloth or pad at least every 7 hours for proper menstrual hygiene management	68.4%	47.7%
Importance of using a clean cloth or pad, including washing it with soap and water for proper menstrual hygiene management	86.7%	89.1%

Table 5.3 Drinking water treatment knowledge among household heads

	2017	2018	P-value
	All HH heads N=1896 %	All HH heads N=2141 %	
Specific methods*			
Boil it	*81.4%*	*81.4%*	*0.99*
Add bleach/chlorine	*22.4%*	*16.9%*	*<0.000*
Filter it	*59.1%*	*63.1%*	*0.05*
Solar disinfection/SODIS	*8.4%*	*10.0%*	*0.11*
Let it stand/settle	15.7%	15.8%	
Strain it through cloth	35.8%	36.2%	
Warm it	NA	10.6%	
Other	9.7%	7.2%	
Don't know	0.0%	0.0%	
Any appropriate method (boil, chlorine, filter, SODIS)	*91.1%*	*92.0%*	*0.38*
Any appropriate method and no inappropriate method	*24.8%*	*20.6%*	*0.26*

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

*Note: These sub-indicators will not add to 100% as this question allowed for multiple responses to be provided

Table 5.4 Drinking water treatment knowledge among mothers

	2017	2018	
	Mothers N=3640 %	Mothers N=3648 %	P-value
Specific methods*			
Boil it	*82.8%*	*88.3%*	*<0.000*
Add bleach/chlorine	*13.1%*	*13.6%*	*<0.000*
Filter it	*55.2%*	*68.3%*	*<0.000*
Solar disinfection/SODIS	*8.9%*	*15.9%*	*0.01*
Let it stand/settle	14.8%	15.4%	
Strain it through cloth	44.1%	47.9%	
Warm it	NA	9.0%	
Other	9.7%	5.8%	
Don't know	14.8%	0.0%	
Any appropriate method (boil, chlorine, filter, SODIS)	*89.2%*	*93.3%*	*<0.000*
Any appropriate method and no inappropriate method	*41.2%*	*38.4%*	*0.11*

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.
*Note: These sub-indicators will not add to 100% as this question allowed for multiple responses to be provided

Table 5.5 Drinking water treatment practices as reported by household heads

	2017	2018	
	All HH heads N=3630 %	All HH heads N=3646 %	P-value
Drinking water treatment (observation)			
Boil it	*8.3%*	*10.8%*	*0.01*
Add bleach/chlorine	*0.1%*	*0.1%*	*0.70*
Filter it	*6.6%*	*9.3%*	*<0.000*
Solar disinfection/SODIS	0.2%	0.2%	0.77
Let it stand/settle	10.9%	9.0%	
Strain it through cloth	4.5%	5.9%	
Other	0.2%	0.2%	
Warm it		0.5%	
Do not treat water	*62.2%*	*58.1%*	*0.03*
Could not observe	9.3%	10.6%	
Any appropriate method (boil, chlorine, filter, SODIS)	*14.3%*	*19.0%*	*<0.000*
Any appropriate method and no inappropriate method	*13.2%*	*17.1%*	*<0.000*

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

Table 5.6 Drinking water treatment practices as reported by mothers

	2017	2018	
	Mothers N=3640 %	Mothers N=3648 %	P-value
Frequency of treating drinking water			
Always	*16.4%*	*23.2%*	*<0.000*
Sometimes	*23.5%*	*36.6%*	*<0.000*

	2017 Mothers N=3640 %	2018 Mothers N=3648 %	P-value
Never	60.1%	40.2%	*<0.000*
Reason for treating drinking water always (N=846)*			
It is important for household health	N/A	80.9%	
It prevents disease/malnutrition	N/A	86.6%	
Bhanchhin Aama radio program said so	N/A	1.0%	
FCVH/HW suggested	N/A	5.0%	
Suaahara FLW suggested	N/A	3.9%	
Reason for not always treating drinking water (N=2802)*			
Do not know how	N/A	4.6%	
No time	N/A	11.0%	
No money	N/A	3.8%	
Nobody helped	N/A	1.7%	
Not necessary in all seasons/times…	N/A	71.4%	
Felt that water is clean	N/A	8.1%	
Other (untreated water is tasty, too lazy, thought that water is safe, etc.)	N/A	10.6%	

*Note: These sub-indicators will not add to 100% as this question allowed for multiple responses to be provided

Table 5.7 Handwashing with soap and water knowledge among household heads

	2017 All HH heads N=1898 %	2018 All HH heads N=2141 %	P-value
All six critical times caretaker should wash hands (open-ended)	*0.8%*	*12.8%*	*<0.000*
Specific times caretaker should wash hands (open-ended)			
After defecation	*81.3%*	*90.5%*	*<0.000*
After cleaning the child's bottom	*67.6%*	*83.6%*	*<0.000*
After handling animals/livestock	*37.1%*	*68.3%*	*<0.000*
Before preparing food/cooking	*10.7%*	*28.3%*	*<0.000*
Before eating	*37.6%*	*56.4%*	*<0.000*
Before feeding the child	*48.3%*	*56.8%*	*<0.000*

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

Table 5.8 Handwashing with soap and water knowledge among mothers

	2017 Mothers N=3640 %	2018 Mothers N=3648 %	P-value
All six critical times caretaker should wash hands (open-ended)	*3.3%*	*9.1%*	*<0.000*
Specific times caretaker should wash hands (open-ended)			
After defecation	*78.1%*	*77.4%*	*0.64*
After cleaning the child's bottom	*84.7%*	*95.6%*	*<0.000*
After handling animals/livestock	*43.1%*	*64.5%*	*<0.000*
Before preparing food/cooking	*13.0%*	*27.3%*	*<0.000*
Before eating	*32.3%*	*39.3%*	*<0.000*
Before feeding the child	*60.1%*	*64.7%*	*<0.000*

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

Table 5.9 Practice of handwashing with soap and water among mothers

	2017	2018	
	Mothers N=3640 %	Mothers N=3648 %	P-value
Handwashing with soap and water all 6 critical times always	*7.8%*	*19.0%*	*<0.000*
Handwashing with soap and water (open-ended)			
After defecation	*96.4%*	*97.8%*	*0.01*
After cleaning a young child's bottom	*73.1%*	*84.6%*	*<0.000*
After handling livestock/animals	*61.0%*	*85.7%*	*<0.000*
Before cooking/preparing food	*21.5%*	*42.3%*	*<0.000*
Before eating	*46.0%*	*61.1%*	*<0.000*
Before feeding children	*22.1%*	*41.2%*	*<0.000*
Handwashing with soap and water (closed-ended)			
After defecation	99.4%	99.8%	
After cleaning a young child's bottom	99.1%	99.4%	
After handling livestock/animals	94.2%	93.3%	
Before cooking/preparing food	85.2%	89.8%	
Before eating	87.6%	92.1%	
Before feeding children	87.9%	90.6%	
Handwashing with soap and water always (closed-ended)			
After defecation	*82.1%*	*94.3%*	*<0.000*
After cleaning a young child's bottom	*73.6%*	*89.5%*	*<0.000*
After handling livestock/animals	*39.3%*	*66.9%*	*<0.000*
Before cooking/preparing food	*14.0%*	*28.3%*	*<0.000*
Before eating	*13.3%*	*28.9%*	*<0.000*
Before feeding children	*13.9%*	*28.7%*	*<0.000*

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

Table 5.10 Reasons for not usually washing hands with soap and water among mothers

	2018
	Mothers N=3648 %
After defection (N=81)*	
I do/forgot to mention	80.3%
Soap not readily available	7.4%
I forget	6.2%
No time/too busy	4.9%
Not necessary	4.9%
After cleaning your child's bottom (N=562)*	
I do/forgot to mention	75.8%
Soap not readily available	3.9%
Water not readily available	0.9%
I forget	6.2%
No time/too busy	7.3%
Not necessary	10.1%
After handling animals (N=522)*	
I do/forgot to mention	42.3%
Soap not readily available	3.3%
Water not readily available	0.2%
I forget	5.8%
No time/too busy	5.8%
Not necessary	14.2%

	2018
	Mothers N=3648 %
Before cooking/preparing food (N=2106) *	
I do/forgot to mention	33.1%
Soap not readily available	4.3%
Water not readily available	0.7%
I forget	15.7%
No time/too busy	17.7%
Not necessary	44.2%
Before eating (N=1420) *	
I do/forgot to mention	32.6%
Soap not readily available	5.4%
Water not readily available	0.8%
I forget	17.9%
No time/too busy	16.6%
Not necessary	42.8%
Before feeding children (N=2147)*	
I do/forgot to mention	39.2%
Soap not readily available	3.8%
Water not readily available	0.3%
I forget	18.4%
No time/too busy	15.2%
Not necessary	35.2%

*Note: These sub-indicators will not add to 100% as this question allowed for multiple responses to be provided

Table 5.11 Water user group available in the community reported by household heads

	2017	2018	
	Male HH heads N=1733 %	Male HH heads N=1792 %	P-value
Water users' group	*39.1%*	*53.2%*	*<0.000*

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

Table 5.12 Water user group available in the community reported by mothers

	2017	2018	
	Mothers N=3642 %	Mothers N=3648 %	P-value
Water users' group	*35.4%*	*49.0%*	*<0.000*

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

Table 5.13 Household sanitation and hygiene facilities and practices

	2017	2018	
	All HH heads N=3644 %	All HH heads N=3647 %	P-value
Usual cooking place: indoors in a separate kitchen room	50.4%	49.4%	
Used for cooking: improved stove (closed with chimney)	10.2%	10.9%	
Improved sanitation (toilet is: flush to piped sewer system, flush to septic tank, flush to pit latrine, composting toilet/eco-san, bio-gas toilet)	*86.6%*	*88.3%*	*0.03*

All drinking water pots covered (N=3629, 3646)	*42.4%*	*37.4%*	*<0.000*
Clean toilets (N=3374, 3429)	*42.4%*	*35.1%*	*<0.000*
Handwashing station with soap & water (N=3629, 3646)	*37.0%*	*48.5%*	*<0.000*
Household has filters for drinking water treatment	N/A	10.3%	

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

Table 5.14 Willingness to pay for WASH-related materials

	2018	
	All HH heads N=2141 Mean (SD)/%	Mothers N=3648 Mean (SD)/%
Filters for drinking water treatment		
Willing to buy water filter among those not using (N=1921, 3226)	81.1%	82.2%
Maximum willing to pay for filter (NRs) (N=1557, 2650)	1299.9 (967)	1134.0 (908.9)
Handwashing soap		
Maximum willing to pay for handwashing shop (NRs)	30.1 (116.2)	25.2 (55.7)
Toilet cleaning materials		
Willing to buy toilet cleaning materials (N=2081, 3484)	90.6%	89.9%
Maximum willing to pay for toilet cleaning materials (NRs) (N=1885, 3133)	146.4 (114.0)	131.2 (101.2)
Commercial sanitary pad		
Willing to buy commercial sanitary pads (N=2141, 2713)	58.0%	70.2%
Maximum willing to pay for commercial sanitary pad (NRs) (N=1241, 1905)	223.0 (350.1)	53.7 (37.0)

Table 5.15 Menstrual hygiene practices among mothers

	2017 Mothers N=3640 %	2018 Mothers N=3648 %	P-value
Pad use during menstruation			
Do not use anything	5.1%	5.3%	
Commercial/disposable pad	*20.2%*	*25.6%*	*0.53*
Old cloth	72.2%	67.5%	
Reusable/homemade pad	2.4%	1.4%	
Place of pad purchase (among those who use pads, N=734, 935)*			
Small shop/local tailor shop	*75.1%*	*97.5%*	*<0.000*
Pharmacy	50.8%	56.8%	
Grocery shop	NA	58.5%	
Cosmetic shop	NA	60.5%	
Other	0.5%	0.8%	
Would use commercial/disposable pads if available and affordable (N=2906, 2713)	*77.6%*	*70.2%*	*<0.000*
Sanitary pad disposal (N=734, 935)			
Burn it	16.1%	17.5%	
Dig a hole and throw and cover	36.0%	52.6%	
Drop in toilet	15.9%	11.4%	
Throw it in dustbin	9.1%	13.4%	
Throw haphazardly without covering	13.2%	12.4%	
Other	22.1%	13.3%	

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.
*Note: These sub-indicators will not add to 100% as this question allowed for multiple responses to be provided

Table 5.16 Menstruation-related food avoidance practices

	2017	2018	
	Mothers N=3640 %	Mothers N=3648 %	P-value
Papaya	2.1%	1.3%	
Banana	2.3%	2.5%	
Meat	0.3%	0.2%	
Dairy	22.6%	19.7%	
Religious offerings	4.5%	NA	
Hot and sour food	2.8%	5.9%	
Other	1.0%	1.2%	
None	*68.9%*	*72.8%*	*0.01*

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

Table 5.17 Division of labor in the household WASH related activities

	2018	
	Male HH heads N=1792 %	Mothers N=3648 %
Engagement in household activities		
Collecting water for household use	63.2%	98.8%
Treating water for drinking	28.7%	50.0%
Cleaning toilet	84.6%	93.2%
Most engaged in activities: Self	7.5%	83.8%
Collecting water for household use		
Treating water for drinking (N=790, 1860)	7.9%	84.4%
Cleaning toilet (N=1726, 3451)	33.5%	73.5%

Table 5.18 Decision-making power on purchase and use of water treatment supplies

	2018	
	Male HH heads N=1792 %	Mothers N=3648 %
Little to no input	9.3%	5.3%
Input into some decisions	23.4%	15.2%
Input into most or all decisions	15.2%	28.7%
No decisions made	55.1%	50.8%

6. Results: IR 2/Health

SII's IR 2 focuses on increased use of quality nutrition and health services by women and children. This section presents data on child and maternal health, including exposure to key messages and health-related knowledge and practices.

Nearly three-fifths of the sample had GoN vaccination cards for children under five years in 2018. The percentage of children who had received the most recent dose of Vitamin A increased from 50% to 63% (P<0.000) in 2018) (Table 6.1).The incidence of diarrhea among children in the two weeks preceding the survey declined from 11% to 9% (P:0.01) in 2018. Among these children, not even one of four mothers reported giving both ORS and zinc for treatment. Major reasons for not giving ORS and zinc were that it was not suggested by health worker/FCHV, mothers felt it was not necessary and lack of knowledge (Table 6.2).

The percentage of children under two years weighed in the previous month (recommendation as per Nepal protocol) increased from 18% in 2017 to 22% (P<0.000) in 2018. Similarly, the percentage of mothers who were told about their child's growth in the last GMP session (among those done in the last month) increased from 27% to 35% (P<0.000). Major reasons for not going for growth monitoring in the previous month were that they were too busy to take the child for growth monitoring every month, because child was not sick and because the health facility was far. (Table 6.4).

There was significant increase in the knowledge of 4 ANC checkups (P<0.000), 180 iron and folic acid (IFA) tablets needed for pregnant women (P:0.02), 45 IFA tablets needed post-partum (P<0.000), and 3 postnatal care (PNC) checkups needed post-partum (P:0.01) among mothers in 2018 (Table 6.8). ANC practice was high among mothers with around 97% of mothers receiving any (at least 1) and the percentage attending at least 4 visits increasing from 80% to 86% (P<0.000) in 2018. Similarly, the percentage of mothers who took the recommended 180 IFA tablets during pregnancy increased from 52% to 59% (P<0.000). Major reasons for receiving certain number of ANC include to know the situation of the baby in the womb, to give birth to a healthy baby, to receive proper advice and to prevent possible complications (Table 6.9).

Practice of institutional delivery for the youngest child improved from 74% to 77% (P:0.01) whereas delivery in the presence of a skilled birth attendant increased from 73% to 77% (P:0.004) in 2018. The average age of the child at birth was 3 kg with 8% of low birth weight children (Table 6.10). PNC practices among mothers with children under two years improved with the percentage of mothers receiving three PNC checkups in the first week after delivery increasing from 28% to 33% (P:0.01). Similarly, PNC for children on the first day increased from 74% to 79% (P<0.000) in 2018 (Table 6.11).

The knowledge of any modern method of FP was 93% for household heads and 98% for mothers in 2018 (Table 6.13 and 6.14). Around 34% of non-pregnant mothers were using a modern method of FP in 2018. Migration of husbands was the most common reason for not using FP in both surveys (Table 6.15).

Interaction of household heads with health frontline workers (FLWs) in the last 6 months increased from 45% to 53% (P<0.000) whereas that of mothers increased from 67% to 80% (P<0.000) in 2018 (Table 6.17).

For SII, non-agricultural empowerment particularly in health and nutrition related domains is important and thus, this was also measured. In 2018, mothers had significantly higher input in making decisions regarding their own health care (P<0.000) and child healthcare (P<0.000) (Table 6.19).

Table 6.1 Child vaccination and supplementation

| | 2017 | 2018 | |
	Mothers N=3642 %	Mothers N=3648 %	P-Value
Vaccination: has card (seen)	*55.1%*	*58.9%*	*0.001*
Most recent Vitamin A received (among children 6-59.9m, N=3173, 3177)	*49.7%*	*63.0%*	*<0.000*
Received specific vaccinations at right age (card or recall)			
BCG (N=3547, 3583)	99.2%	99.6%	
OPV1 (N=3495, 3529)	97.5%	97.8%	
OPV2 (N=3443, 3456)	95.6%	97.0%	
OPV3 (N=3383, 3383)	92.6%	93.9%	
DPT-HEPB-HIB1 (N=3495, 3529)	97.9%	97.8%	
DPT-HEPB-HIB2 (N=3443, 3456)	96.2%	96.8%	
DPT-HEPB-HIB3 (N=3383, 3383)	93.5%	94.3%	
PCV1 (N=3495, 3529)	78.2%	91.1%	
PCV2 (N=3443, 3456)	74.4%	89.6%	
PCV3 (N=2856, 2836)	67.5%	85.3%	
IPV (N=3383, 3383)	44.6%	41.7%	
MR (N=2856, 2836)	95.0%	96.8%	
Japanese Encephalitis (N=2286, 2386)	62.8%	85.3%	
De-worming in last 6 months	63.2%	62.1%	
Micronutrient powder in last week	5.6%	5.4%	

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

Table 6.2 Child health: diarrhea and treatment

| | 2017 | 2018 | |
	Mothers N=3642 %	Mothers N=3648 %	P-value
Diarrhea in last 2 weeks	*11.1%*	*9.1%*	*0.01*
Blood in stools (among those who had diarrhea, N=404, 332)	11.9%	12.7%	
Treatment sought for diarrhea, among those who had diarrhea (N=404, 332)			
None	23.0%	22.6%	
Health facility	63.9%	63.6%	
At home by HW/FCHV	5.5%	5.4%	
Traditional healer	3.5%	3.3%	
At home by self	9.7%	9.3%	
Given for diarrhea among children 2m or more who were treated for diarrhea (N=306, 247)			
ORS only	38.9%	38.9%	
Zinc only	6.9%	6.9%	
ORS and zinc	*22.6%*	*21.9%*	*0.71*
Reason for giving ORS and Zinc (N=54)*			
Child becomes healthy	NA	85.2%	
To prevent malnutrition	NA	5.6%	
FCHV/HW suggested	NA	51.9%	
Reason for not giving ORS or zinc (N=80)*			

	2017 Mothers N=3642 %	2018 Mothers N=3648 %	P-value
Did not know	NA	18.8%	
HW didn't suggest	NA	31.3%	
FCHV didn't suggest	NA	6.3%	
No supply	NA	10.0%	
Child too young	NA	13.8%	
Not necessary	NA	27.5%	

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.
*Note: These sub-indicators will not add to 100% as this question allowed for multiple responses to be provided

Table 6.3 Child health: acute respiratory illness (ARI) and treatment

	2017 Mothers N=3642 %	2018 Mothers N=3648 %	P-value
Fever in last 2 weeks	*26.1%*	*22.6%*	*0.01*
Cough in last 2 weeks	*24.4%*	*20.4%*	*0.002*
Fast, short, difficult breath while ill with a cough (N=887, 744)	*38.6%*	*40.6%*	*0.42*
Chest and/or nose problem causing fast/difficult breathing (N=342, 302)	97.7%	99.0%	
Treatment sought for ARI signs (among those who had ARI signs, N=342, 302)*			
Nowhere/no one	16.7%	17.6%	
Health facility	63.2%	65.9%	
Traditional healer	1.5%	1.7%	
Others	23.7%	21.2	
Drugs given for illness (fever/cough), among those who sought treatment (N=285, 249)	95.4%	95.6%	0.94

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.
*Note: These sub-indicators will not add to 100% as this question allowed for multiple responses to be provided

Table 6.4 Growth monitoring practices among children <5 years

	2017 Mothers N=3642 Mean (SD)/%	2018 Mothers N=3648 Mean (SD)/%	P-value
Weight ever taken by professional/ FCHV	*82.8%*	*94.5%*	
Weight was taken in last 1 month by professional/FCHV, among those who ever had it taken (N=3002, 3232)	*14.5%*	*16.9%*	*0.05*
Time (in months) since weight was taken by professional/FCHV, among those who ever had it taken (N=3002, 3232)	*8.3 (11.3)*	*6.9 (9.9)*	*<0.000*
Children 0-2 years weighed in the past month	*17.8%*	*22.2%*	*<0.000*
Height ever taken by professional/ FCHV	2.3%	5.1%	
Height was taken in last 1 month by professional/FCHV, among those ever had it taken (N=82, 187)	6.2%	5.9%	0.92
Time (in months) since length was taken by professional/FCHV, among those who ever had it taken (N=82, 187)	6.7 (6.1)	7.7 (7.0)	*0.39*

Told about child's growth in last GMP session, among those whose height or weight was taken in the last month (N=3023, 2456)	*27.3%*	*34.9%*	*<0.000*
Reason for going to growth monitoring in last month (N=1429)*			
To know baby is growing properly	NA	78.5%	
To monitor child health status	NA	45.1%	
To get advice from HWs for baby food	NA	7.6%	
To check if the child is sick or not	NA	19.9%	
Reason for not going to growth monitoring in last month (N=1026)*			
Weighing does not help children to grow	NA	0.5%	
Weighing is good only for children <1 year	NA	2.8%	
HF is far	NA	24.7%	
Child is not sick	NA	27.8%	
Too busy so difficult to take child every month	NA	53.3%	
HW does not give medicines	NA	0.3%	
Didn't know about GMP	NA	1.2%	
Other (e.g. done during vaccination)	NA	10.7%	

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.
*Note: These sub-indicators will not add to 100% as this question allowed for multiple responses to be provided

Table 6.5 Ever heard maternal health key messages by Household heads

	2017	2018
	All HH heads N=1894 %	All HH heads N=2141 %
Women should attend at least 4 ANC visits	63.5%	55.4%
Women should take 180 IFA tablets during pregnancy	23.4%	15.6%
Modern methods of FP should be used to delay or avoid pregnancy	87.8%	92.4%
Girls should avoid marriage until at least 20 years of age	95.6%	95.6%

Table 6.6 Ever heard maternal health key messages by Mothers

	2017	2018
	Mothers N=3637 %	Mothers N=3647 %
Women should attend at least 4 ANC visits	92.1%	88.4%
Women should take 180 IFA tablets during pregnancy	73.0%	63.1%
Modern methods of FP should be used to delay or avoid pregnancy	95.6%	97.3%
Girls should avoid marriage until at least 20 years of age	97.1%	97.6%

Table 6.7 Knowledge on maternal health among household heads

	2017	2018	
	All HH heads N=1898 %	All HH heads N=2142 %	P-value
4 ANC checkups needed for pregnant woman	*30.5%*	*34.0%*	*0.02*
180 days of IFA tablets need for pregnant woman	*14.7%*	*14.5%*	*0.88*
45 IFA tablets needed for part partum woman	*15.6%*	*10.9%*	*0.70*
3 PNC checkups needed for post-partum woman	*17.0%*	*11.9%*	*<0.000*
1 Vitamin A capsule needed for post-partum woman	*7.1%*	*7.5%*	*0.18*

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

Table 6.8 Knowledge on maternal health among mothers

	2017 Mothers N=3640 %	2018 Mothers N=3647 %	P-value
4 ANC checkups needed for pregnant woman	*69.5%*	*75.2%*	*<0.000*
180 days of IFA tablets need for pregnant woman	*71.4%*	*75.1%*	*0.02*
45 IFA tablets needed for part partum woman	*55.1%*	*59.0%*	*<0.000*
3 PNC checkups needed for post-partum woman	*17.9%*	*20.6%*	*0.01*
1 Vitamin A capsule needed for post-partum woman	*44.3%*	*46.8%*	*0.16*

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

Table 6.9 ANC practices among mothers

	2017 Mothers N=1848 Mean (SD)/%	2018 Mothers N=1910 Mean (SD)/%	P-value
Any ANC received	*95.8%*	*97.1%*	*0.04*
4+ ANC checkups, among mothers who received any	*79.5%*	*85.5%*	*<0.000*
Months pregnant for first ANC, among mothers who received any (N=1772, 1855)	3.2 (1.0)	3.2 (0.9)	
Weight taken in most recent ANC, among mothers who received any (N=1772, 1855)	*86.7%*	*93.4%*	*<0.000*
Received ANC at health facility, among those who received (N=1772, 1855)	96.8%	97.7%	
IFA tablets taken for 180 days during pregnancy (among mothers who took any, N=1835, 1899)	*52.4%*	*59.1%*	*<0.000*
Any deworming taken during pregnancy	*82.5%*	*87.9%*	*<0.000*
Counselling received during ANC (N=1799, 1855)*			
The need for women to have one extra meal per day during pregnancy	*77.6%*	*89.0%*	*<0.000*
The need for women to take iron after the 1st trimester of pregnancy	*92.6%*	*76.6%*	*<0.000*
Danger signs during pregnancy	*83.1%*	*87.9%*	*0.001*
The importance of institutional delivery	*92.4%*	*93.9%*	*0.21*
Breastfeeding, including when and how	*67.9%*	*73.1%*	*0.003*
Complementary feeding, such as what kinds of food to feed young children and at what age to start feeding young children, liquids and foods other than breastfeeding	*65.7%*	*68.8%*	*0.10*
Reason for receiving <4 ANC (N=218)*			
To prevent possible complications	NA	24.8%	
To receive proper advice	NA	38.1%	
To give birth to a healthy baby	NA	59.6%	
To know situation of baby in the womb	NA	64.2%	
FCHV/HWs suggested to do 4 ANC visits	NA	6.9%	
Shyness	NA	3.7%	
Don't know how many ANCs are important	NA	1.4%	
HW/facility issues	NA	10.3%	
Reason for receiving >4 ANC (N=1633)*			
To prevent possible complications	NA	43.4%	
To receive proper advice	NA	50.1%	
To give birth to a healthy baby	NA	77.1%	
To know situation of baby in the womb	NA	79.4%	

	2017 Mothers N=1848 Mean (SD)/%	2018 Mothers N=1910 Mean (SD)/%	P-value
FCHV/HWs suggested to do 4 ANC visits	NA	16.5%	
Suaahara FLW suggested to do 4 ANC visits	NA	0.3%	
Don't know how many ANCs are important	NA	0.4%	
HW/facility issues	NA	0.4%	

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.
*Note: These sub-indicators will not add to 100% as this question allowed for multiple responses to be provided

Table 6.10 Delivery practices among mothers with children <2 years

	2017 Mothers N=1848 Mean (SD)/%	2018 Mothers N=1910 Mean (SD)/%	P-value
Institutional delivery	*74.4%*	*77.3%*	*0.01*
Delivery assistance: skilled birth attendance	*73.2%*	*77.2%*	*0.004*
Incentive for transportation to facility received (N=1377, 1479)	83.3%	82.4%	
Child weight (for those with record) in kg (N=621, 702)	3.0 (0.5)	3.0 (0.5)	
Low birth weight (N=621, 702)	*11.1%*	*8.3%*	*0.09*

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

Table 6.10 Postnatal care practices among mothers with children <2 years

	2017 Mothers N=1848 Mean (SD)/%	2018 Mothers N=1910 Mean (SD)/%	P-value
Received 3 PNC checks in first 7 days post-delivery	*28.1%*	*33.1%*	*0.01*
Received for mother within 1 day	*72.6%*	*77.6%*	*<0.000*
Received for baby within 1 day (N=1820, 1896)	*73.5%*	*79.1%*	*<0.000*
Times of health worker visit in first 7 days	1.8 (2.3)	1.6 (1.6)	
Times of FCHV visit in first 7 days	0.4 (1.0)	0.8 (1.3)	
Vitamin A received in 6 weeks after delivery	*63.1%*	*59.8%*	*0.06*
Breastfeeding support in first hour after birth	*70.6%*	*83.8%*	*<0.000*
IFA taken after delivery	*70.0%*	*73.8%*	*0.01*
IFA taken for 45 days (among those who took any, N=1282, 1410)	*52.3%*	*53.3%*	*0.42*

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

Table 6.12 Age at marriage, pregnancy and childbirth

	2017 Mothers N=3642 Mean (SD)/%	2018 Mothers N=3648 Mean (SD)/%
Age at marriage	18.0 (2.8)	18.1 (2.8)
Married at or after 20 years of age	25.4%	25.7%
Number of times pregnant	2.4 (1.6)	2.3 (1.6)
Age at first pregnancy	19.5 (3.0)	19.5 (2.9)
Age at first birth	20.1 (3.3)	20.1 (3.0)

Table 6.13 Family planning/ healthy timing and spacing of pregnancy (HTSP) knowledge among household heads

	2017	2018	
	All HH heads N=1898 %	All HH heads N=2141 %	P-value
Age in years woman should first become pregnant: 20 years	*51.6%*	*53.8%*	*0.17*
Months woman should wait between giving birth and becoming pregnant again: 24 months	*13.4%*	*12.7%*	*0.54*
Months woman should wait between miscarriage/abortion and becoming pregnant again: 6 months	*13.9%*	*13.0%*	*0.42*
Knowledge of any modern method of FP	*93.0%*	*93.2%*	*0.85*

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

Table 6.14 Family planning/ healthy timing and spacing of pregnancy (HTSP) knowledge among mothers

	2017	2018	
	Mothers N=3640 %	Mothers N=3647 %	P-value
Age when woman should first become pregnant: 20 years	*58.2%*	*58.9%*	*0.58*
Months woman should wait between giving birth and becoming pregnant again: 24 months	*12.3%*	*11.5%*	*0.39*
Months woman should wait between miscarriage/abortion and becoming pregnant again: 6 months	*17.9%*	*19.7%*	*0.05*
Knowledge of any modern method of FP	*98.6%*	*98.0%*	*0.05*

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

Table 6.15 Family planning practices among non-pregnant mothers

	2017	2018	
	Mothers N=3641 %	Mothers N=3648 %	P-value
Doing anything to delay/avoid pregnancy	*40.2%*	*39.1%*	*0.33*
Using modern method of FP (I.e. female/male sterilization, IUCD, injectable, implant, pills, condom, diaphragm, foam jelly)	*34.2%*	*33.2%*	*0.40*
Using modern method of FP, among those who don't want another child and whose husband has not migrated (N=1979, 2033)	*62.9%*	*59.6%*	*0.05*
Reasons why (among those not using any, N=2069, 2111)			
Husband migrated	76.5%	72.6%	
Want another child	3.9%	0.1%	
Don't know what to do	1.1%	0.8%	
Supplies not available	0.2%	0.1%	
Health side effect for woman	5.4%	3.9%	
Health side effect for child	2.2%	6.8%	
Religious belief/restriction; not allowed by HH members	1.3%	0.5%	
Amenorrhea stage (baby being very small/menstruation not started)	7.0%	9.9%	
Reason for using modern method of FP (N=1212)*			
FCHV/HWs suggested	NA	8.5%	

To ensure we don't conceive again until we are ready	NA	85.9%
My partners' decision	NA	17.7%
It is more reliable than other methods	NA	9.7%
It is safer than other methods	NA	8.3%
It is readily available with HW/FCHV	NA	3.4%
It is readily available in the market	NA	2.5%

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

*Note: These sub-indicators will not add to 100% as this question allowed for multiple responses to be provided

Table 6.16 Interactions of household heads with health workers, in last 6 months

	2017	2018	P-value
	All HH heads N=1894 Mean (SD)/%	All HH heads N=2142 Mean (SD)/%	
*Met Health assistant (HA)/ Auxiliary Health Worker (AHW)/ Auxiliary Nurse Midwife (ANM)**	*44.8%*	*53.2%*	*<0.000*
Number of times met HA/AHW/ANM (N=849, 1140)	2.6 (2.0)	2.4 (1.8)	

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

Table 6.6 Interactions of mothers with health workers, last 6 months

	2017	2018	P-value
	Mothers N=3637 Mean (SD)/%	Mothers N=3647 Mean (SD)/%	
*Met HA/AHW/ANM**	*67.4%*	*80.1%*	*<0.000*
Number of times met HA/AHW/ANM (N=2452, 2921)	2.7 (2.1)	2.9 (1.9)	

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

Table 6.18 Health-related decision-making power of male household heads

	2017	2018	P-value
	Male HH heads N=1733 %	Male HH heads N=1792 %	
Use of FP methods			
Little to no input	9.2%	5.0%	
Input into some decisions	28.5%	25.5%	
Input into most or all decisions	*51.5%*	*47.7%*	*0.12*
No decisions made	10.9%	21.9%	
Own healthcare			
Little to no input	1.0%	0.2%	
Input into some decisions	10.2%	7.9%	
Input into most or all decisions	*88.5%*	*91.7%*	*0.002*
No decisions made	0.4%	0.2%	
Child healthcare			
Little to no input	2.0%	2.5%	
Input into some decisions	35.9%	39.0%	
Input into most or all decisions	*61.8%*	*58.4%*	*0.08*
No decisions made	0.3%	0.1%	

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

Table 6.19 Health-related decision-making power of mothers

	2017 Mothers N=3642 %	2018 Mothers N=3648 %	P-value
Use of FP methods			
Little to no input	5.7%	5.2%	
Input into some decisions	29.7%	28.3%	
Input into most or all decisions	*50.7%*	*43.6%*	*0.002*
No decisions made	13.8%	22.9%	
Own healthcare			
Little to no input	0.9%	1.0%	
Input into some decisions	12.1%	6.8%	
Input into most or all decisions	*86.7%*	*92.2%*	*<0.000*
No decisions made	0.3%	0.0%	
Child healthcare			
Little to no input	0.7%	0.8%	
Input into some decisions	8.2%	4.9%	
Input into most or all decisions	*90.9%*	*94.3%*	*<0.000*
No decisions made	0.2%	0.0%	

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

Table 6.20 Division of labor in the household for child care activities

	2018	
	Male HH heads N=1792 %	Mothers N=3648 %
Engagement in household activities		
Childcare (e.g. cleaning the child's bottom, watching the child, taking for healthcare)	68.8%	99.8%
Most engaged in specific activity: Self		
Childcare other than feeding (e.g. cleaning the child's bottom, watching the child, taking for healthcare)	3.4%	96.1%

7. Results: IR 3/Agriculture and Enhanced Homestead Food Production

SII also has an enhanced homestead food production (EHFP) component in certain areas. There are EHFP intensive districts where all areas of the district receive the EHFP interventions and EHFP non-intensive districts where EHFP is only implemented in select VDCs (now called wards). EHFP intervention was prioritized in remote, disadvantaged populations in which households have limited land, livelihood opportunities, and poor access to resources.

The percentage of food secure households increased from 51% in 2017 to 62% (P<0.000) in 2018 (Table 7.1). Above 98% of households owned agricultural land. The percentage of households using the land owned for kitchen gardens increased from 65% to 79% (P:0.02) in 2018 (Table 7.3).

The percentage of mothers from households in EHFP areas reporting a Homestead Food Production Beneficiaries (HFPB) group to exist in their ward increased from 9% to 19% (P:0.03) between 2017 and 2018. Of these mothers, 41% were members of the HFPB group. The percentage of households with a child under two years receiving EHFP inputs from village model farmers (VMFs) and or graduated HFP beneficiaries increased from 17% to 30% (P:0.002) in 2018 (Table 7.4).

The percentage of households with homestead gardens meeting minimum criteria increased from 10% to 25% (P<0.000) (Table 7.7). Among those who sold surplus vegetables from their homestead gardens, 19% sold vegetables in the past year. Around 30% reported using the revenue to buy nutrition-dense foods (Table 7.8). In the 2018 survey, 51% of households were rearing at least one chicken. Among households who produced eggs, only 2% reported selling surplus eggs in the month preceding the survey (Table 7.9)

For SII, agricultural empowerment is important and thus, this was also measured. Availability of agricultural/livestock/fisheries producer group as well as land/forest user groups increased in 2018 as reported by both male household heads (P<0.000) and mothers (P<0.000) (Table 7.12 and 7.13). The percentage of male household heads participating in decision-making for poultry and processing of milk/meat increased from 55% to 61% (P:0.001) in 2018 whereas for mothers it increased from 61% to 66% (P<0.000) (Tables 7.14 and 7.15).

Table 7.1 Household food security status

	2017	2018	
	All HH heads HFP areas N=798 %	All HH heads HFP areas N=798 %	P-value
Household food insecurity (in past 30 days) (HFIAS)			
Food secure	*51.1%*	*62.1%*	*<0.000*
Mildly food insecure	22.6%	21.1%	
Moderately food insecure	22.7%	12.8%	
Severely food insecure	3.6%	4.0%	

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

Table 7.2 Household affected by unexpected events

	2017	2018
	All HH heads HFP areas N=798 %	All HH heads HFP areas N=798 %
Damage/loss of house or productive assets	3.4%	2.3%
Damage/loss of crops	17.9%	12.0%
Damage/loss of cattle/large livestock	8.9%	10.5%
Loss of small livestock	16.4%	16.0%
Loss of chicken, ducks and other poultry	21.1%	24.9%

Table 7.3 Land ownership and use

	2017	2018	P-value
	All HH heads HFP areas N=798 Mean (SD)/%	All HH heads HFP areas N=798 Mean (SD)/%	
Owns any agricultural land	98.8%	98.4%	
Size of land in hectares (among those who own any) (N=788, 785)	818.9 (1253.8)	679.1 (1506.8)	
Use of land owned (N=788, 785)			
Cultivated Crops	94.5%	95.3%	
Kitchen garden	*65.2%*	*78.7%*	*0.02*
Livestock	*4.7%*	*4.6%*	*0.95*
Decision maker on use of land, if current use is for agriculture (N=772, 776)			
Male household head	39.9%	29.9%	
Female household head	46.2%	42.8%	
Another male member	7.5%	15.5%	
Another female member	6.4%	11.9%	

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

Table 7.4 Interactions between VMFs and homestead food production beneficiaries (HFPB)

	2017	2018	P-value
	Mothers HFP areas N=796 Mean (SD)/%	Mothers HFP areas N=798 Mean (SD)/%	
HFPB group in the ward	*9.1%*	*19.2%*	*0.03*
Member of HFPB group (among those with HFPB in ward, N=72, 153)	*38.9%*	*41.2%*	*0.86*
Ever participated in HFPB group (among those who are members, N=28, 63)	100.0%	88.9%	
Number of HFPB group meetings participated in last 6 months (among those ever participated, N=28, 56)	2.8 (2.5)	3.7 (1.9)	
Last participated in HFPB group meeting (months ago) (among those who participated in last 6 months, N=25, 56)	3.9 (3.0)	1.9 (1.2)	
Ever received from graduation (prior) HFPBs			
Seeds	13.0%	10.2%	
Chicks	6.4%	9.9%	

	2017	2018	
	Mothers HFP areas N=796 Mean (SD)/%	Mothers HFP areas N=798 Mean (SD)/%	P-value
Agriculture/HFP-related info	9.1%	5.3%	
Other agriculture/HFP inputs	2.1%	2.3%	
Households with a child aged 0-2 years who received HFP inputs from VMFs and/or graduated HFP beneficiaries (N=414, 436)	*17.4%*	*29.8%*	*0.002*

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

Table 7.5 HFP knowledge among household heads

	2017	2018	
	Male HH heads HFP areas N=400 %	Male HH heads HFP areas N=454 %	P-value
Benefits of homestead garden*			
Improve household food	*84.5%*	*72.5%*	*<0.000*
Source of income	*67.0%*	*73.8%*	*0.43*
Improve diets of children/women	*53.0%*	*72.0%*	*<0.000*
Advantages of producing small animals*			
Improve household food	*75.5%*	*62.3%*	*<0.000*
Source of income	*98.0%*	*97.6%*	*0.34*
Improve diets of children/women	*45.5%*	*70.9%*	*<0.000*
Key points for planning a homestead garden*			
Proximity to home	N/A	52.2%	
Ease of watering	N/A	66.5%	
Plants that grow well in local conditions	N/A	13.2%	
Plants that improve household nutrition	N/A	9.7%	
Crops that bring in most income	N/A	11.5%	
Protection from animals	N/A	68.5%	
Available space	N/A	21.4%	
Good poultry management practices *			
Keep chicken inside a coop	N/A	83.3%	
Provide quality food	N/A	67.4%	
Vaccinate regularly	N/A	14.3%	

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.
*Note: These sub-indicators will not add to 100% as this question allowed for multiple responses to be provided

Table 7.6 HFP knowledge among mothers

	2017	2018	
	Mothers HFP areas N=795 %	Mothers HFP areas N=798 %	P-value
Benefits of homestead garden*			
Improve household food	*88.1%*	*70.3%*	*<0.000*
Source of income	*70.6%*	*78.5%*	*0.08*
Improve diets of children/women	*50.7%*	*80.0%*	*<0.000*
Advantages of producing small animals*			
Improve household food	*77.6%*	*61.7%*	*0.02*

	2017 Mothers HFP areas N=795 %	2018 Mothers HFP areas N=798 %	P-value
Source of income	*97.7%*	*96.5%*	*0.99*
Improve diets of children/women	*51.1%*	*78.3%*	*<0.000*
Key points for planning a homestead garden*			
Proximity to home	*49.1%*	*45.1%*	*0.05*
Ease of watering	*62.5%*	*76.6%*	*0.002*
Plants that grow well in local conditions	*9.7%*	*9.8%*	*0.82*
Plants that improve household nutrition	*7.4%*	*10.2%*	*<0.000*
Crops that bring in most income	*4.9%*	*11.0%*	*0.11*
Protection from animals	*53.0%*	*65.3%*	*<0.000*
Available space	*11.3%*	*18.9%*	*<0.000*
Good poultry management practices *			
Keep chicken inside a coop	*85.5%*	*86.3%*	*<0.000*
Provide quality food	*67.9%*	*71.9%*	*<0.000*
Vaccinate regularly	*16.2%*	*11.5%*	*<0.000*

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

*Note: These sub-indicators will not add to 100% as this question allowed for multiple responses to be provided

Table 7.7 Homestead gardening practices

	2017 Mothers HFP areas N=796 Mean (SD)/%	2018 Mothers HFP areas N=798 Mean (SD)/%	P-value
Vegetables growing in garden/roof/wall	91.7%	92.1%	
Distance vegetables grown from home (minutes) (among those growing, N=730, 735)	3.0 (4.9)	2.1 (3.7)	
Arrangement of vegetable garden (among those able to observe, N=730, 735)			
All the garden is arranged into fixed plots	2.5%	3.1%	
Some of the garden is arranged into fixed plots, but some is not	22.9%	29.3%	
None of the garden is arranged into fixed plots	68.6%	64.6%	
Not able to observe	6.0%	3.0%	
Use chemical fertilizers in garden (N=730, 735)	11.0%	15.8%	
Length of time vegetable production from homestead garden provides food to family (months) (N=730, 735)	5.9 (3.6)	6.2 (3.8)	
Households with homestead gardens meeting minimum criteria	*9.5%*	*25.2%*	*<0.000*
Nutrient dense vegetables cultivated by households in the previous year			
Vitamin A	*0.4 (0.7)*	*0.1 (0.4)*	*<0.000*
Dark green leafy vegetable	*2.3 (1.6)*	*3.5 (2.1)*	*<0.000*
Other vegetable	*6.0 (3.4)*	*7.4 (4.3)*	*<0.000*
All nutrient dense vegetable	*8.7 (4.5)*	*11.0 (5.9)*	*<0.000*
Crops/vegetables available, by observation (HFP: N=687, 713)			
Chili	69.6%	73.7%	
Snake gourd	10.7%	20.2%	
Brinjal	35.4%	29.4%	
Colocasia	35.1%	40.2%	
Squash	33.9%	9.6%	

	2017 Mothers HFP areas N=796 Mean (SD)/%	2018 Mothers HFP areas N=798 Mean (SD)/%	P-value
Tomato	26.8%	25.4%	
Four season beans	25.8%	27.5%	
Okra	24.8%	28.9%	
Cowpea	22.9%	23.3%	
Bitter gourd	12.1%	27.7%	
Pumpkin	22.0%	0.4%	
Sponge gourd	12.1%	16.7%	
Bottle gourd	12.1%	12.5%	
Radish	12.0%	11.9%	
Broadleaf mustard	8.2%	5.3%	
Potato	4.8%	7.0%	
Orange Fleshed Sweet Potato	0.3%	0.4%	

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

Table 7.8 Use of revenue earned by selling vegetables produced in the last 12 months (among those who sold any)

	2017 Mothers HFP areas N=796 %	2018 Mothers HFP areas N=798 %	P-value
Sold vegetables in past 12 months	21.7%	18.7%	0.30
Use of income from vegetables sales (N=173, 149) *			
Food	60.7%	77.2%	
Nutrition-dense food	*19.7%*	*30.2%*	*0.08*
Health/FP	12.7%	23.5%	
WASH	39.3%	59.7%	
Education	17.9%	21.5%	
Saving	14.5%	20.8%	
Buy clothes	8.7%	12.8%	
Other	2.9%	2.7%	

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.
*Note: These sub-indicators will not add to 100% as this question allowed for multiple responses to be provided

Table 7.9 Poultry ownership and management

	2017 Mothers HFP areas N=796 Mean (SD)/%	2018 Mothers HFP areas N=798 Mean (SD)/%	P-value
Poultry ownership			
Has at least 1 chicken	*47.9%*	*51.4%*	*0.11*
Number of chicken (N=381, 410)			
< 5	*42.0%*	*34.6%*	
5 to 10	*33.6%*	*31.0%*	
10 and above	*24.4%*	*34.4%*	

	2017 Mothers HFP areas N=796 Mean (SD)/%	2018 Mothers HFP areas N=798 Mean (SD)/%	P-value
Vaccination with New Castle Disease (among those who have any chicken, N=381, 410)	*2.9%*	*0.7%*	*<0.000*
Number of chickens vaccinated with New Castle Disease (among those who have any, N=381; 410)	8.1 (12.4)	0.1 (0.9)	
% who received a *Suaahara* chicken	16.2%	23.3%	
Number of chickens received from *Suaahara*, among those who received any (N=129, 182[2])	4.9 (1.3)	5.1 (1.2)	
Any chicks hatched from *Suaahara* chicken (N=129, 186)	15.5%	9.1%	
Number of chicks hatched/regenerated using a *Suaahara* chicken (among those who received from *Suaahara,* N=129, 186)	1.3 (3.8)	0.8 (2.9)	
Illness in poultry and management			
Any chickens sick in last 1 month (among those who have chicken, N=381, 410)	18.1%	26.1%	
No actions for sick chickens (among those who had sick chickens, N=69, 107)	*53.6%*	*43.0%*	*0.21*
Poultry and production			
Did not sale	82.8%	79.3%	
1 to 10 chicken	14.6%	16.9%	
10 and above chicken	2.6%	3.8%	
Household produced eggs in last 1 month	26.9%	23.4%	
Number of eggs produced by household in last 1 month (among those who produced any, N=215, 187)	20.8 (16.5)	21.0 (16.6)	
Households who sold surplus eggs produced in the past month (N=381, 470)	*3.9%*	*2.1%*	*0.05*

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

Table 7.10 Interactions of household heads with agriculture FLWs

	2017 All HH heads N=1894 Mean (SD)/%	2018 All HH heads N=2142 Mean (SD)/%
Met at all in last 6 months		
Livestock extension worker	25.6%	23.3%
Agricultural extension worker	11.7%	8.9%
Number of times met in last 6 months		
Livestock extension worker (N=484, 499)	2.0 (1.8)	1.9 (2.0)
Agricultural extension worker (N=221, 191)	2.5 (2.6)	1.8 (1.5)

In 2018, 4 outliers (receiving more than 10 chickens) were excluded

Table 7.11 Interactions of mothers with agriculture FLWs

	2017	2018
	Mothers N=3637 Mean (SD)/%	Mothers N=3647 Mean (SD)/%
Met at all in last 6 months		
Livestock extension worker	15.8%	15.7%
Agricultural extension worker	7.3%	7.1%
Number of times met in last 6 months		
Livestock extension worker (N=575, 572)	1.5 (0.9)	1.4 (0.9)
Agricultural extension worker (N=267, 260)	1.9 (1.9)	1.7 (1.2)

Table 7.12 Groups available in the community (reported by male household heads)

	2017	2018	P-value
	Male HH heads N=1733 %	Male HH heads N=1792 %	
Agricultural/livestock/fisheries producer group (including marketing groups but excluding HFP beneficiary group)	*19.6%*	*30.0%*	*<0.000*
Land/forest users' groups	*65.4%*	*74.3%*	*<0.000*

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

Table 7.13 Groups available in the community (reported by mothers)

	2017	2018	P-value
	Mothers N=3642 %	Mothers N=3648 %	
Agricultural/livestock/fisheries producer group (including marketing groups but excluding HFP beneficiary group)	*19.8%*	*29.3%*	*<0.000*
Land/forest users' groups	*59.5%*	*72.2%*	*<0.000*

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

Table 7.14 Participation and decision-making of household heads in agriculture related activities (among participants involved in decision making process)

	2017	2018	P-value
	Male HH heads N=1733 %	Male HH heads N=1792 %	
Participation on decision making process			
Horticulture/high value crop farming	*45.8%*	*74.5%*	*<0.000*
Poultry and processing of milk and/or meat	*55.4%*	*60.9%*	*0.001*
Decision making in horticulture/high value crop farming (793, 1335)			
Little to no input	2.0%	2.1%	
Input into some decisions	23.6%	32.1%	
Input into most or all decisions	*73.8%*	*65.8%*	*<0.000*
No decisions made	0.6%	0.0%	
Decision making in poultry rearing and management (N=960, 1091)			
Little to no input	4.2%	5.5%	
Input into some decisions	32.2%	42.9%	
Input into most or all decisions	*62.9%*	*51.2%*	*<0.000*

| | No decisions made | 0.7% | 0.4% | |

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

Table 7.15 Participation and decision-making of mothers in agriculture related activities (among participants involved in decision making process)

| | 2017 | 2018 | |
	Mothers N=3642 %	Mothers N=3648 %	P-value
Participation on decision making process			
Horticulture/high value crop farming	*43.7%*	*75.7%*	*<0.000*
Poultry and processing of milk and/or meat	*60.7%*	*65.8%*	*<0.000*
Decision making in horticulture/high value crop farming (N=1591, 2761)			
Little to no input	7.4%	6.5%	
Input into some decisions	40.0%	43.3%	
Input into most or all decisions	*51.9%*	*50.2%*	*0.43*
No decisions made	0.8%	0.1%	
Decision making in poultry rearing and management (N=2209, 2401)			
Little to no input	7.7%	6.9%	
Input into some decisions	35.3%	41.4%	
Input into most or all decisions	*56.0%*	*51.3%*	*<0.000*
No decisions made	1.0%	0.4%	

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

8. Results: SBCC

Awareness of *Suaahara* and especially the platforms we use for behavior change is the first step towards achieving key outcomes. This section shares related findings.

Among household heads, the percentage reporting meeting *Suaahara* FLWs in the past 6 months increased from 7% to 10% (P:0.01) while among mothers, it increased from 11% to 25% (P<0.000). Similarly, the home visits by *Suaahara* field supervisors increased as reported by household heads from 7% to 11% (P:0.001) and mothers from 9% to 20% (P<0.000) in 2018, also in the last 6 months (Table 8.1 and 8.2).

The percentage of household heads reporting to have ever been visited by an FCHV at home increased from 36% to 42% (P:0.001) in 2018 (Table 8.3). The percentage of mothers who met the FCHV/HMG representative in the last 6 months, including during HMG meetings, increased from 69% to 74% (P<0.000) whereas that of mothers ever visited by an FCHV at home increased from 50% to 54% (P:0.004) in 2018. Similarly, mothers with children under two years who had contact with the FCHV in the month preceding the survey increased from 53% to 59% (P:0.002) (Table 8.4). The percentage of mothers reporting availability of an FCHV-facilitated group (HMG or other) in the community increased from 65% to 72% (P<0.000) in 2018, while the percentage of mothers actively participating in the FCHV-facilitated group declined from 43% to 38% (P:0.002). In the 2018 survey, we asked mothers specifically about participation in HMG. The percentage of mothers reporting participation in HMG was 90% whereas 95% reported participating in the last 6 months (Table 8.7). Among those not participating in HMG in the last month, major reasons reported include no time to attend meeting and meeting time not appropriate for them (Table 8.8).

The prevalence of households having ever participated in any *Suaahara* activity (e.g. food demonstration, healthy home visit) outside of group meetings increased from 14% to 31% (P<0.000) among mothers. Like 2017, among those who did participate, the highest participation was in food demonstrations (Table 8.10).

The percentage of household heads who had ever heard of *Bhanchhin Aama* increased from 21% to 33% (P<0.000) (Table 8.11), whereas for mothers it increased from 31% to 53% (P<0.000) in 2018. Among mothers who had heard about the program, nearly three-fourths reported to have ever listened to the program in 2018 (Table 8.12). Among household heads who had not listened to *Bhanchhin Aama* in the last month, major reasons reported include time and day of program not appropriate, no radio/ radio listening device in the household and busy schedule (Table 8.13).

Over 96% of mothers reported household ownership of a mobile phone with the percentage of households having a smartphone with internet access increasing from 51% to 69% (P:0.005) in 2018. While very few mothers reported receiving health/nutrition-related text messages in the last month, the percentage increased from 2% to 5% (P<0.000) in 2018 (Table 8.14).

Table 8.1 Interactions of household heads with *Suaahara* II FLWs

	2017	2018	
	All HH heads N=1894 Mean (SD)/%	All HH heads N=2142 Mean (SD)/%	P-value
Ever heard of *Suaahara*	29.6%	47.7%	*<0.000*
Met Suaahara frontline workers (e.g. field supervisor (FS), village model farmer, WASH triggerer) in the last 6 months	*6.5%*	*10.0%*	*0.01*
No. of times met with *Suaahara* frontline workers (e.g. field supervisor, village model farmer, WASH triggerer) in the last 6 months (N=123, 218)	1.5 (1.0)	1.8 (1.4)	
Ever visited at home by field supervisor	*6.8%*	*11.0%*	*0.001*
Number of times visited at home by field supervisor in last 6 months (N=128, 236)	0.9 (0.8)	1.2 (2.4)	
Spoke with FS during last visit (N=128, 236)	60.9%	69.1%	0.09
Ever contact with FS outside of home/HMG	*4.0%*	*8.5%*	*<0.000*
Number of times contact with FS other than home visit or HMG meeting in last 6 months (N=76, 181)	1.1 (1.2)	1.9 (6.7)	

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

Table 8.2 Interactions of mothers with *Suaahara* II FLWs

	2017	2018	
	Mothers N=3637 Mean (SD)/%	Mothers N=3647 Mean (SD)/%	P-value
Ever heard of *Suaahara*	40.8%	69.8%	*<0.000*
Met Suaahara FLWs (e.g. field supervisor, village model farmer, WASH triggerer) in the last 6 months	*10.8%*	*24.8%*	*<0.000*
No. of times met with *Suaahara* FLWs (e.g. field supervisor, village model farmer, WASH triggerer) in the last 6 months (N=393, 904)	1.4 (0.9)	1.9 (1.3)	
Ever visited at home by field supervisor	*9.1%*	*19.8%*	*<0.000*
Number of times visited at home by field supervisor in last 6 months (N=330, 721)	0.9 (0.7)	1.0 (2.2)	
Length of time (weeks) since last visited at home by field supervisor (N=330, 721)	16.7 (19.6)	24.7 (18.7)	
Length of time spent last time a field supervisor visited at home (minutes) (N= 330, 721)	27.7 (28.0)	30.7 (26.6)	
Spoke with FS during last visit (N=330, 721)			
Self	87.3%	92.4%	
Spouse	16.7%	14.3%	
Mother/mother in law	22.1%	25.7%	
Father/father in law	10.9%	6.9%	
Another adult HH member	5.5%	4.6%	
Another child HH member	0.9%	0.3%	
Adolescent	2.1%	1.3%	
Ever contact with FS outside of home/HMG	*9.5%*	*19.4%*	*<0.000*
Number of times contact with FS other than home visit or HMG meeting in last 6 months (N=346, 706)	0.7 (1.0)	1.1 (1.2)	
Length of time (weeks) since last contact with FS other than home visit or HMG meeting (N= 346, 706)	41.6 (31.8)	24.6 (25.9)	

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

Table 8.3 Interactions of household heads with FCHVs

	2017	2018	
	All HH heads N=1894 Mean (SD)/%	All HH heads N=2142 Mean (SD)/%	P-value
Met FCHV/HMG representative at all in last 6 months	*32.5%*	*34.4%*	*0.27*
No. of times met with FCHV/HMG representative in last 6 months (N=616, 737)	2.3 (2.2)	2.3 (1.7)	
Ever visited at home by FCHV	*35.5%*	*42.3%*	*0.001*
Number of times visited at home by FCHV in last 6 months (N=672, 906)	1.7 (1.9)	1.5 (3.2)	
Spoke with FCHV during last visit (N=672, 622)	46.9%	54.0%	
Ever contact with FCHV outside of home/HMG	*27.7%*	*27.7%*	*0.55*
Number of times contact with FCHV other than home visit or HMG meeting in last 6 months (N=524, 621)	2.2(3.8)	1.9 (5.0)	

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

Table 8.4 Interactions of mothers with FCHVs

	2017	2018	
	Mothers N=3637 Mean (SD)/%	Mothers N=3647 Mean (SD)/%	P-value
Met FCHV/HMG representative at all in last 6 months	*69.0%*	*74.2%*	*<0.000*
No. of times met with FCHV/HMG representative in last 6 months (N=2509, 2705)	2.7 (2.0)	3.0 (2.2)	
Ever visited at home by FCHV	*50.4%*	*53.7%*	*0.004*
Number of times visited at home by FCHV in last 6 months (N=1832, 1957)	1.4 (1.5)	1.3 (1.3)	
Length of time (weeks) since last visited at home by FCHV (N=672,1957)	18.9 (26.3)	19.6 (23.1)	
Length of time spent last time FCHV visited at home (minutes) (N=672,1957)	18.5 (20.3)	19.3 (18.7)	
Spoke with FCHV during last visit (N=1832, 1957) *			
Self	93.5%	95.9%	
Spouse	11.5%	12.4%	
Mother/mother in law	29.6%	30.2%	
father/father in law	7.1%	7.4%	
Another adult HH member	3.5%	4.7%	
Another child HH member	0.7%	1.2%	
Adolescent	1.5%	1.2%	
Ever contact with FCHV outside of home/HMG	*44.1%*	*51.1%*	*<0.000*
Number of times contact with FCHV other than home visit or HMG meeting in last 6 months (N=1602, 1865)	2.0 (2.3)	2.1 (2.1)	
Length of time (weeks) since last contact with FCHV other than home visit or HMG meeting (N=1602, 1865)	11.3 (14.2)	12.1 (14.7)	
Mother with a child aged 0-2 years who had contact with the FCHV in the previous month	*52.5%*	*58.5%*	*0.002*

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.
*Note: These sub-indicators will not add to 100% as this question allowed for multiple responses to be provided

Table 8.5 Groups available in the community reported by male household heads

	2017 Male HH heads N=1733 %	2018 Male HH heads N=1792 %	P-value
Credit or microfinance group/ cooperative	*59.4%*	*72.8%*	*<0.000*
Civic or charitable group	*18.9%*	*25.2%*	*0.001*
Other (e.g. HFOMC, ward committee, WASH CC)	25.9%	48.1%	
Participation in credit or microfinance group/ cooperative (N=1029, 1305)	28.4%	28.3%	

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

Table 8.6 Groups available in the community reported by mothers

	2017 Mothers N=3642 %	2018 Mothers N=3648 %	P-value
Credit or microfinance group/ cooperative	*65.2%*	*78.2%*	*<0.000*
Civic or charitable group	*14.2%*	*3.3%*	*0.53*
Other (e.g. HFOMC, ward committee, WASH CC)	41.7%	46.7%	
Participation in credit or microfinance group/ cooperative (N=1029, 1305)	45.9%	43.0%	

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

Table 8.7 Participation in health mothers' groups

	2017 Mothers N=3642 %	2018 Mothers N=3648 %	P-value
FCHV facilitated group exists in the community	*64.6%*	*72.3%*	*<0.000*
Active member of the FCHV facilitated group (N=2353, 2639)	*43.0%*	*37.7%*	*0.002*
Ever participated in HMG (N=994)	NA	90.0%	
Participated in last 6 months (N=895)	NA	94.5%	
Number of times participated in HMG meeting in last 6 months (N=846)	NA	4.1 (1.8)	
Length of time (weeks) since last time participated in HMG meeting (N=895)	NA	6.6 (9.4)	
Length of time (minutes) spent on last time participated in HMG meeting (N=895)	NA	81.6 (49.1)	

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

Table 8.8 Reasons for participating/not participating in health mothers' groups

	2018 Mothers N=994 %
Reasons for participating in HMG meeting in the previous month (N=580)*	
FCHV teaches about childcare	26.2%
There is food demo	6.6%
To save money for emergency	58.1%
To meet other mothers	13.6%

	2018
	Mothers N=994 %
To learn about health	51.9%
To learn about nutrition	52.6%
To learn about WASH	26.0%
To listen to *Bhanchhin Aama*	1.4%
Suaahara FLW suggested	1.9%
Others	2.1%
Reasons for not participating in HMG meeting in the previous month (N=315)*	
No time	54.6%
Meeting time not appropriate	17.1%
Location of meeting far	6.0%
No benefit/ information	1.6%
HH member does not allow/like	0.0%
Have no interest to participate	4.4%
Other family member goes to the meeting	2.2%
Didn't know about group/meetings	11.1%
Meeting was not organized	6.7%
Meeting was organized every 3 months	2.2%
Others (Sick, recently delivered, child was small etc.)	9.5%

*Note: These sub-indicators will not add to 100% as this question allowed for multiple responses to be provided

Table 8.9 Participation in *Suaahara* activities (other than group meetings) among household heads

	2017	2018	
	All HH heads N=1894 %	All HH heads N=2142 %	P-value
Participation in other Suaahara activities	*2.6%*	*4.4%*	*0.002*
Specific activities, among those who participated in any (N= 50, 95)*			
Food demonstrations	58.0%	81.1%	
Ideal family celebrations	12.0%	NA	
Key life events	2.0%	11.0%	
Triggering sessions	2.0%	1.0%	
Day celebrations	8.0%	4.2%	
Poshan chautari	NA	27.4%	
Healthy home	NA	7.4%	
Radio listening group	NA	1.1%	

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.
*Note: These sub-indicators will not add to 100% as this question allowed for multiple responses to be provided

Table 8.10 Participation in *Suaahara* activities (other than group meetings) among mothers

	2017	2018	
	Mothers N=3637 %	Mothers N=3647 %	P-value
Participation in other Suaahara activities	*14.3%*	*31.3%*	*<0.000*
Specific activities among those who participated in any (N= 519, 1142) *			
Food demonstrations	86.1%	88.3%	
Ideal family celebrations	4.1%	NA	
Key life events	2.5%	10.6%	

	2017	2018	
Triggering sessions	0.6%	0.6%	
Day celebrations	3.3%	4.2%	
Poshan chautari	NA	27.3%	
Healthy home	NA	9.7%	
Radio listening group	NA	1.4%	

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

 *Note: These sub-indicators will not add to 100% as this question allowed for multiple responses to be provided

Table 8.11 *Bhanchhin Aama* exposure among household heads

	2017	2018	
	All HH heads N=1894 %	All HH heads N=2141 %	P-value
Ever heard of this radio program	*20.7%*	*32.8%*	*<0.000*
Ever listened to this radio program	*15.3%*	*24.8%*	*<0.000*
Ever listened to this radio program, among those who have ever heard (N=391, 703)	*73.9%*	*75.4%*	*0.67*
Listens to this radio program at least once a month	*36.8%*	*43.2%*	*0.07*
Frequency of listening to *Bhanchhin Aama* in the last month, among those ever listened (N=289, 530)			
Every week	13.5%	9.6%	
Two to three times a month	17.0%	23.2%	
Once a month	6.2%	10.4%	
Less than once a month	23.2%	18.5%	
Only listened once or twice	40.1%	38.3%	

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

Table 8.12 *Bhanchhin Aama* exposure among mothers

	2017	2018	
	Mothers N=3637 %	Mothers N=3647 %	P-value
Ever heard of this radio program	*31.1%*	*52.9%*	*<0.000*
Ever listened to this radio program	*21.7%*	*39.0%*	*<0.000*
Ever listened to this radio program, among those who have ever heard (N= 1132, 1929)	*69.8%*	*73.8%*	*0.12*
Listens to this radio program at least once a month	*36.3%*	*46.9%*	*<0.000*
Frequency of listening to *Bhanchhin Aama* in the last month, among those ever listened (N= 790, 1424)			
At least one a month			
Every week	9.0%	11.3%	
Two to three times a month	19.0%	25.4%	
Once a month	8.4%	10.3%	
Less than once a month	23.9%	20.9%	
Only listened once or twice	39.8%	32.2%	

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

Table 8.13 Reasons for listening/not listening to *Bhanchhin Aama*

	2018	
	All HH heads N=530 %	Mothers N=1424 %
Reason for listening to *Bhanchhin Aama* in the past month (N=240, 631) *		
I like it/ am interested	49.2%	55.5%
To receive information on nutrition	77.9%	80.7%
To receive information on health	78.3%	76.7%
To receive information on WASH	32.1%	35.7%
Suaahara FLW encouraged me to listen	3.3%	5.7%
Health worker/FCHV encouraged me to listen	0.0%	3.7%
My family/friends/peers encouraged me to listen	0.4%	2.2%
I attended an HMG where we listened	0.4%	1.1%
I heard about it on *Saathi Sanga Mankaa Kura*	0.0%	0.2%
Reason for not listening to *Bhanchhin Aama* in the past month (N=290, 793)*		
Day of program airing is not appropriate for me	20.7%	16.9%
Time of program airing is not appropriate for me	32.8%	34.6%
No benefit/ information	1.4%	0.6%
Have no interest	11.0%	13.4%
No radio and other radio listening device	16.2%	23.6%
Other household members don't allow	0.0%	0.3%
Didn't know about it	11.7%	8.2%
Busy schedule	20.6%	18.2%
Other (network problem etc.)	5.2%	5.0%

*Note: These sub-indicators will not add to 100% as this question allowed for multiple responses to be provided

Table 8.14 Phone access/use

	2017	2018	P-value
	Mothers N=3642 Mean (SD)/%	Mothers N=3647 Mean (SD)/%	
Household ownership of mobile phone	96.4%	96.4%	
Household has smart phone with internet access	*51.3%*	*68.8%*	*0.005*
Sole ownership of mobile phone	*73.0%*	*83.5%*	*<0.000*
Access to a mobile phone owned by other family members	69.1%	61.9%	
Smart phone access (own or household member ownership)	*45.3%*	*64.9%*	*<0.000*
Received any health/nutrition related texts on mobile in last month (N=2861, 3046)	*2.0%*	*4.5%*	*<0.000*
Family members received any health/nutrition related texts on mobile in last month (N=2771)	NA	0.9%	

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

9. Results: GESI

9.1 Overall empowerment

This section presents results on empowerment (division of household labor, group availability and participation, and participation and decision-making on non-agricultural productive activities) among male household heads and mothers. The empowerment findings related to the four thematic areas: nutrition, WASH, agriculture and SBCC have been presented in the respective sections. The chapter also presents the SII promoted ten key behaviors and sixty contact points disaggregated according to equity quintile, caste/ethnicity, urban/rural areas and agro-ecological zones. For male household heads, participation in non-farm economic activities was 28% and 54% in wage and salary employment in 2018 (Table 9.1). For mothers, participation in non-farm economic activities increased from 13% to 16% (P:0.003) and that in wage and salary employment increased from 18% to 21% (P:0.01) (Table 9.2).

Table 9.1 Household heads' participation/ decision-making in non-agricultural household productive activities

	2017	2018	
	Male HH heads N=1733 %	Male HH heads N=1792 %	P-value
Participation in decision making			
Non-farm economic activities	*27.5%*	*27.7%*	*0.90*
Wage and salary employment	*48.5%*	*54.0%*	*0.004*
Decision in non-farm economic activities (N=477, 497)			
Little to no input	1.5%	3.2%	
Input into some decisions	13.6%	14.9%	
Input into most or all decisions	*83.7%*	*80.9%*	*0.32*
No decisions made	1.3%	1.0%	
Wage and salary employment (N=841, 968)			
Little to no input	0.5%	0.5%	
Input into some decisions	9.6%	14.8%	
Input into most or all decisions	*89.4%*	*84.7%*	*0.02*
No decisions made	0.5%	0.0%	

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

Table 9.2 Mothers' participation/ decision-making in non-agricultural household productive activities

	2017	2018	
	Mothers N=3642 %	Mothers N=3648 %	P-value
Participation on decision making			
Non-farm economic activities	*12.8%*	*16.0%*	*0.003*
Wage and salary employment	*17.5%*	*20.5%*	*0.01*
Decision on non-farm economic activities (N=465, 584)			
Little to no input	2.6%	7.0%	
Input into some decisions	28.4%	37.5%	
Input into most or all decisions	*68.6%*	*55.1%*	*<0.000*
No decisions made	0.4%	0.3%	
Wage and salary employment (N= 636, 749)			

Little to no input	0.3%	0.7%	
Input into some decisions	13.8%	21.8%	
Input into most or all decisions	*85.9%*	*77.4%*	*0.01*
No decisions made	0.0%	0.1%	

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

9.2 Suaahara II key behaviors and contact points, disaggregated

The following presents some of the significant differences found for indicators of SII's 10 key behaviors, based on disaggregated analysis. It is important to remember that the survey was not powered for this type of analysis and that some sub-groups have quite small samples.

The results of key indicators disaggregated by equity quintile (socio-economic equity); caste/ethnicity (social equity); and urban/rural and agro-ecological zone of residency (geographic/distance equity):

- **Maternal diet (among mothers of children aged 0-23.9 months)**:
  - The prevalence of egg consumption among mothers increased overall by about 4 percentage points (pp) (P:<0.000). Similar increasing trends were found among all sub-groups, with the biggest changes in prevalence of egg consumption being a 9pp increase among disadvantaged *Janajatis* (P<0.000) (Table 9.3).
  - The prevalence of meat consumption among mothers had an overall 3pp increase, but it was only borderline significant (P:0.06). However, several sub-groups had significant increases: more than 10 pp for the highest equity quintile (P:0.02), 7 pp among Dalits (P:0.04), 6 pp among those residing in urban areas, and 5 pp among those in hill districts (P:0.04). Interestingly, meat consumption decreased from 35% to 11% among non-dalit *terai* caste (P<0.000) (Table 9.4).
- **ANC visits:** The overall prevalence of mothers receiving at least 4 ANC visits increased between 2017 and 2018 was 6 pp (P:<0.000). An increasing trend was found among all sub-populations (although not always significant), but among the non-dalit *terai* caste a decrease prevalence trend was found. The largest significant increase in prevalence was the 8 pp increases found among the 2nd lowest equity quintile (P:0.01), *Dalits* (P:0.001), disadvantaged *Janajatis* (P<0.000), and hill populations (P<0.000) (Table 9.5).
- **180 IFA during pregnancy**: The prevalence of mothers consuming 180 IFA during pregnancy increased overall was 7 pp between 2017 and 2018 (P:<0.000) in the 2nd lowest equity quintile (P:0.001); among *Dalits* (P:0.03), disadvantaged *Janajatis* (P:0.02) as well as among *Brahmins/Chhetris* (P:0.02); in urban (P:0.002) as well as in rural areas (P:0.01); and in the mountain (P:0.01) and hilly regions (P:0.004) (Table 9.6).
- **Modern method of family planning** among mothers of children under 2 years of age did not change between 2017 and 2018. None of the small differences (increases/decreases) by sub-population were statistically significant.
- **Child diet (among children aged 6-23.9 months)**
  - Egg consumption prevalence among children increased by 7 pp overall between 2017 and 2018. An increasing trend was found among all sub-populations (although not always significant), but a decreasing trend was found among the non-dalit *terai* caste. The largest significant increase in prevalence of egg consumption was found with a 12 pp increase among disadvantaged Janajatis (P<0.000), an 11 pp increase among households in the middle equity quintile (P<0.000); and a 9 pp increase among children in the hills (P<0.000) (Table 9.8)
  - Meat consumption prevalence among children aged 6-23.9 months increased by 6 pp overall between 2017 and 2018 (P:<0.000). A similar trend was seen among

most sub-populations (although not always significant), but a decreasing trend was found among the non-dalit *terai* caste. The largest significant increases between 2017 and 2018 were found among the following sub-populations: 10 pp increase among both Dalits and households in the other caste/ethnicity group and an 11 pp increase in the mountains (Table 9.8).

    o The prevalence of consumption of iron-rich foods among children aged 6-23.9 months increased between 2017 and 2018 overall by 5 pp (P:0.001). A similar trend was found among all sub-populations and the increases were usually significant. The 10-pp increase (P:0.02) among the lowest equity quintile was the largest significant increase among all sub-populations. (Table 9.10).

- **Sick child feeding:** The prevalence of feeding a child under 2 years of age more food during illness did not change between 2017 and 2018 in the overall population. Similarly, none of the slight increases and decreases in prevalence seen among sub-populations are statistically significant, meaning that there has been no change in prevalence over time.

- **ORS/Zinc treatment for diarrhea:** The trend for this ideal behavior decreased by 5 pp, but this decrease was not significant and thus should be interpreted as no change in prevalence between 2017 and 2018. Because many of the sub-populations for this behavior would include only 5-40 mothers, we have not presented the disaggregated analysis (Table 9.12).

- **Exclusive breastfeeding:** The prevalence of exclusive breastfeeding of children under 6 years of age remained at 71% for both 2017 and 2018. Similarly, we found no significant changes over time among any sub-populations (Table 9.13).

- **Appropriate drinking water treatment** in households with children under two years increased in prevalence by 6 pp between 2017 and 2018 (P:<0.000). The prevalence for this behavior remained the same or increased for each sub-population. The largest significant changes found included a 11 pp increase among the 2nd highest equity quintile (P:<0.000), a 7 pp increase among Brahmin/Chhetri (P:0.001) and hill populations (P:0.001) (Table 9.14).

- **Handwashing at all six critical times:** The prevalence for this key behavior among mothers with children under two years increased by 11 pp between 2017 and 2018 (P<0.000). This positive trend was found among all sub-groups other than a statistically insignificant drop among the non-dalit *terai* caste. Large significant progress across time in prevalence of handwashing at all 6 critical times were found in several of the equity quintiles: 15 pp increase among the middle equity quintile (P<0.000), 13 pp increase among the 2nd lowest equity quintile (P<0.000), and 11 pp increase among the two highest equity quintiles. Among the caste/ethnicity groups, a 10-pp increase was found among *Dalits* (P<0.000), 9 pp increase among disadvantaged *Janajatis* (P:0.001) and 15 pp increase among *Brahmins/Chhetris* (P<0.000). In urban areas there was a prevalence increase of 11 pp (P<0.000) and in rural areas the increase was by 12 pp (P<0.000). The change in the hill areas was a 14-pp increase (P<0.000) and in the *terai,* the prevalence increased by 10 pp (P:0.01) (Table 9.15).

The following are some of the significant differences found based on disaggregated analysis for indicators of SII promoted 60 GON contact points by equity quintile (socio-economic equity); caste/ethnicity (social equity); and urban/rural and agro-ecological zone of residency (geographic/distance equity):

- **ANC:** The mean number of ANC visits among mothers of children under two years has increased from 4.2 in 2017 to 4.5 in 2018 (P:<0.000). Among all sub-populations, the mean stayed the same or increased, with almost all changes being significant and all sub-populations being at or above the recommended 4 visits (Table 9.16).

- **PNC:** The average number of PNC visits among mothers of children under two years has increased from 2.1 to 2.4 visits between 2017 and 2018 (P<0.000). While most sub-population groups have seen an increase, the increase has only been statistically significant

among a few sub-population groups: from 1.1 to 1.9 visits among mothers the lowest equity quintile (P<0.000); from 1.9 to 2.4 visits among disadvantaged *Janajatis* (P:0.002) and from 2.2 to 2.5 visits among *Brahmins/Chhetris* (P:0.01). The average number of PNC visits increased from 2.1 to 2.3 visits in urban areas (P:.04) and from 2.1 to 2.5 visits in rural (P:0.003) areas. Similarly, mountain-dwelling mothers saw, on average, an increase from 1.6 to 2.2 visits (P:0.01) whereas hill-dwelling mothers saw an average change from 1.9 to 2.2 visits (P<0.000) (Table 9.17).

- **GMP:** The mean number of GMP visits in the last 6 months among households with a child 0-2 years of age was 2.5 overall in 2018 (data not collected in this way in 2017). While little variation was seen by equity quintile and most of the caste/ethnicity groups, the non-dalit *terai* caste only had an average of 1.4 visits (2.1-2.6 for all others). Similarly, geographic discrepancies were found: households in urban areas had an average of 2.2 visits versus 2.7 for households in rural areas. Similarly, while hill-residing households had an average of 2.7 visits, those in the mountains in *terai* had 2.2 visits.
- **HMG:** Households with a child 0-2 years of age reported to have participated in 3.7 HMG meetings in the last six months. The variation by equity quintile showed 3.2 among the highest equity quintile and 3.9 among the middle, with the other 3 groups falling somewhere between those two extremes.

Table 9.3 Egg consumption among mothers of children aged 0-23.9 months

	2017		2018		P-value
	%	N	%	N	
Total	*6.2%*	*1850*	*10.3%*	*1910*	*<0.000*
Equity quintile					
Lowest	*1.2%*	*388*	*7.0%*	*100*	*<0.000*
2nd lowest	*3.0%*	*528*	*9.3%*	*471*	*<0.000*
Middle	*7.7%*	*430*	*10.9%*	*488*	*0.07*
2nd highest	*12.6%*	*389*	*13.9%*	*455*	*0.63*
Highest	*9.6%*	*115*	*16.3%*	*153*	*0.13*
Caste/ethnicity					
Dalit	*3.9%*	*385*	*9.0%*	*424*	*0.003*
Disadvantaged Janajati	*6.1%*	*478*	*15.2%*	*532*	*<0.000*
Brahmin/Chhetri	*6.4%*	*740*	*8.6%*	*766*	*0.123*
Non-Dalit terai caste	*8.5%*	*118*	*9.2%*	*76*	*0.88*
Others	*10.9%*	*129*	*15.2%*	*112*	*0.23*
Urban/rural residence					
Urban	*6.0%*	*934*	*10.3%*	*951*	*0.001*
Rural	*6.4%*	*916*	*11.6%*	*959*	*<0.000*
Agro-ecological zone					
Mountain	*7.6%*	*238*	*11.8%*	*237*	*0.09*
Hill	*6.1%*	*1018*	*11.1%*	*1090*	*<0.000*
Terai	*5.9%*	*594*	*10.3%*	*583*	*0.004*

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

Table 9.4 Meat consumption among mothers of children aged 0-23.9 months

	2017		2018		P-value
	%	N	%	N	
Total	*28.9%*	*1850*	*31.8%*	*1910*	*0.06*
Equity quintile					

	2017		2018		P-value
	%	N	%	N	
Lowest	19.9%	388	22.2%	343	0.40
2nd lowest	29.0%	528	31.6%	471	0.39
Middle	31.2%	430	30.9%	488	0.95
2nd highest	34.5%	389	35.6%	455	0.74
Highest	32.2%	115	45.1%	153	0.02
Caste/ethnicity					
Dalit	31.2%	385	38.4%	424	0.04
Disadvantaged Janajati	41.2%	478	44.4%	532	0.35
Brahmin/Chhetri	16.5%	740	19.5%	766	0.15
Non-Dalit terai caste	34.8%	118	10.5%	76	<0.000
Others	42.6%	129	45.5%	112	0.67
Urban/rural residence					
Urban	27.8%	934	33.8%	951	0.01
Rural	30.0%	916	29.8%	959	0.92
Agro-ecological zone					
Mountain	25.6%	238	30.0%	237	0.20
Hill	28.4%	1018	32.6%	1090	0.04
Terai	31.1%	594	31.1%	583	0.97

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

Table 9.5 Attended ANC at least four times

	2017		2018		P-value
	%	N	%	N	
Total	79.5%	1850	85.5%	1910	<0.000
Equity quintile					
Lowest	76.3%	388	79.0%	343	0.34
2nd lowest	72.9%	528	80.7%	471	0.01
Middle	83.5%	430	87.5%	488	0.05
2nd highest	85.1%	389	91.4%	455	0.001
Highest	86.1%	115	90.9%	153	0.23
Caste/ethnicity					
Dalit	79.2%	385	88.0%	424	0.001
Disadvantaged Janajati	72.8%	478	81.0%	532	<0.000
Brahmin/Chhetri	83.9%	740	89.2%	766	0.003
Non-Dalit terai caste	81.4%	118	69.7%	76	0.09
Others	77.5%	129	83.0%	112	0.41
Urban/rural residence					
Urban	77.1%	934	82.7%	951	0.004
Rural	81.9%	916	88.1%	959	<0.000
Agro-ecological zone					
Mountain	82.8%	238	90.7%	237	0.01
Hill	76.5%	1018	84.3%	1090	<0.000
Terai	83.2%	594	85.6%	583	0.28

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

Table 9.6 Took at least 180 IFA tablets during pregnancy

	2017		2018		P-value
	%	N	%	N	
Total	*52.4%*	*1835*	*59.1%*	*1899*	*<0.000*
Equity quintile					
Lowest	*48.8%*	*385*	*49.4%*	*342*	*0.69*
2nd lowest	*46.2%*	*522*	*55.5%*	*465*	*0.001*
Middle	*56.7%*	*427*	*61.7%*	*485*	*0.14*
2nd highest	*58.8%*	*386*	*65.0%*	*454*	*0.06*
Highest	*58.3%*	*115*	*66.7%*	*153*	*0.17*
Caste/ethnicity					
Dalit	*44.7%*	*380*	*53.3%*	*420*	*0.03*
Disadvantaged Janajati	*51.8%*	*475*	*58.8%*	*526*	*0.02*
Brahmin/Chhetri	*58.0%*	*736*	*63.5%*	*765*	*0.02*
Non-Dalit terai caste	*51.28%*	*117*	*38.2%*	*76*	*0.09*
Others	*45.7%*	*127*	*67.0%*	*112*	*0.002*
Urban/rural residence					
Urban	*49.1%*	*928*	*55.6%*	*949*	*0.002*
Rural	*55.7%*	*907*	*62.6%*	*950*	*0.01*
Agro-ecological zone					
Mountain	*51.1%*	*237*	*64.8%*	*236*	*0.01*
Hill	*50.3%*	*1006*	*56.7%*	*1086*	*0.004*
Terai	*56.4%*	*592*	*61.4%*	*577*	*0.09*

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

Table 9.7 Use of modern method of family planning among mothers of children <2 years

	2017		2018		P-value
	%	N	%	N	
Total	*30.5%*	*1850*	*30.3%*	*1910*	*0.90*
Equity quintile					
Lowest	*30.2%*	*388*	*26.0%*	*343*	*0.23*
2nd lowest	*33.7%*	*528*	*30.6%*	*471*	*0.29*
Middle	*30.0%*	*430*	*33.4%*	*488*	*0.30*
2nd highest	*28.3%*	*389*	*29.9%*	*455*	*0.61*
Highest	*27.0%*	*115*	*30.7%*	*153*	*0.50*
Caste/ethnicity					
Dalit	*31.2%*	*385*	*27.8%*	*424*	*0.32*
Disadvantaged Janajati	*37.7%*	*478*	*39.1%*	*532*	*0.67*
Brahmin/Chhetri	*28.6%*	*740*	*26.1%*	*766*	*0.33*
Non-Dalit terai caste	*23.8%*	*118*	*29.0%*	*76*	*0.43*
Others	*20.2%*	*129*	*27.7%*	*112*	*0.13*
Urban/rural residence					
Urban	*30.3%*	*930*	*29.1%*	*951*	*0.60*
Rural	*30.8%*	*916*	*31.5%*	*959*	*0.78*
Agro-ecological zone					
Mountain	*42.0%*	*238*	*40.1%*	*237*	*0.70*
Hill	*28.7%*	*1018*	*28.0%*	*1090*	*0.74*
Terai	*29.1%*	*594*	*30.7%*	*583*	*0.61*

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

Table 9.8 Egg consumption among children aged 6-23.9 months

	2017		2018		P-value
	%	N	%	N	
Total	10.6%	1385	17.7%	1460	<0.000
Equity quintile					
Lowest	5.4%	279	8.9%	258	0.08
2nd lowest	7.9%	394	14.9%	348	0.01
Middle	12.1%	332	23.2%	380	<0.000
2nd highest	15.5%	290	20.9%	354	0.09
Highest	17.8%	90	18.3%	120	0.91
Caste/ethnicity					
Dalit	7.9%	281	16.5%	333	<0.000
Disadvantaged Janajati	13.4%	359	25.1%	394	<0.000
Brahmin/Chhetri	8.2%	559	13.7%	583	0.01
Non-Dalit terai caste	11.5%	87	4.6%	65	0.25
Others	21.2%	99	25.9%	85	0.41
Urban/rural residence					
Urban	8.1%	704	15.9%	716	<0.000
Rural	13.2%	681	19.5%	744	0.003
Agro-ecological zone					
Mountain	13.1%	175	16.8%	179	0.40
Hill	10.9%	762	20.2%	816	<0.000
Terai	9.2%	448	13.8%	465	0.05

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

Table 9.9 Meat consumption among children aged 6-23.9 months

	2017		2018		P-value
	%	N	%	N	
Total	17.9%	1385	24.0%	1460	<0.000
Equity quintile					
Lowest	17.6%	297	21.3%	258	0.18
2nd lowest	18.0%	394	23.3%	348	0.13
Middle	16.9%	332	25.3%	380	0.01
2nd highest	17.6%	290	25.1%	354	0.02
Highest	23.3%	90	25.0%	120	0.78
Caste/ethnicity					
Dalit	18.5%	281	28.5%	333	0.003
Disadvantaged Janajati	28.4%	359	36.3%	394	0.09
Brahmin/Chhetri	9.8%	559	13.7%	583	0.03
Non-Dalit terai caste	16.1%	87	4.6%	65	0.03
Others	25.3%	99	35.3%	85	0.24
Urban/rural residence					
Urban	17.6%	704	24.3%	716	0.004
Rural	18.2%	681	23.8%	744	0.01
Agro-ecological zone					
Mountain	17.1%	175	27.9%	179	0.01
Hill	18.9%	762	24.0%	816	0.02
Terai	16.5%	448	22.6%	465	0.02

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

Table 9.10 Consumption of iron-rich foods among children aged 6-23.9 months

	2017		2018		P-value
	%	N	%	N	
Total	84.2%	1385	88.6%	1460	0.001
Equity quintile					
Lowest	78.5%	279	88.9%	258	0.02
2nd lowest	83.5%	394	85.3%	348	0.47
Middle	84.9%	332	89.7%	380	0.08
2nd highest	88.3%	290	92.9%	354	0.06
Highest	88.9%	90	90.0%	120	0.80
Caste/ethnicity					
Dalit	87.5%	281	88.6%	333	0.70
Disadvantaged Janajati	84.7%	359	90.1%	394	0.04
Brahmin/Chhetri	83.7%	559	88.3%	583	0.01
Non-Dalit terai caste	77.0%	87	81.5%	65	0.57
Others	81.8%	99	89.4%	85	0.16
Urban/rural residence					
Urban	83.5%	704	87.4%	716	0.04
Rural	84.9%	681	89.8%	744	0.01
Agro-ecological zone					
Mountain	76.6%	175	88.3%	179	0.001
Hill	84.5%	762	88.7%	816	0.01
Terai	86.6%	448	88.6%	465	0.42

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

Table 9.11 Feeding more to sick children <2 years

	2017		2018		P-value
	%	N	%	N	
Total	38.5%	593	38.8%	541	0.75
Equity quintile					
Lowest	33.6%	143	28.1%	96	0.26
2nd lowest	36.2%	177	41.4%	140	0.85
Middle	46.9%	145	37.3%	134	0.16
2nd highest	38.5%	104	44.4%	126	0.24
Highest	33.3%	24	42.2%	45	0.83
Caste/ethnicity					
Dalit	37.0%	127	37.2%	129	0.05
Disadvantaged Janajati	33.3%	156	35.7%	154	0.90
Brahmin/Chhetri	43.2%	248	42.5%	219	0.54
Non-Dalit terai caste	32.1%	28	8.3%	12	0.11
Others	38.2%	34	48.2%	27	0.09
Urban/rural residence					
Urban	37.0%	308	41.4%	292	0.41
Rural	40.0%	285	35.7%	249	0.18
Agro-ecological zone					
Mountain	38.7%	93	31.6%	76	0.08
Hill	39.4%	358	40.7%	307	0.83

	2017		2018		P-value
	%	N	%	N	
Terai	*35.9%*	*142*	*38.6%*	*158*	*0.87*

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

Table 9.12 Treatment of diarrhea with ORS and zinc among children 2-23.9 months

	2017		2018		P-value
	%	N	%	N	
Total	*22.9%*	*170*	*18.2%*	*143*	*0.19*

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

Table 9.13 Practice of exclusive breastfeeding

	2017		2018		P-value
	%	N	%	N	
Total	*70.6%*	*455*	*71.1%*	*450*	*0.86*
Equity quintile					
Lowest	*74.5%*	*106*	*70.6%*	*85*	*0.57*
2nd lowest	*66.4%*	*131*	*72.4%*	*123*	*0.37*
Middle	*75.0%*	*96*	*71.3%*	*108*	*0.54*
2nd highest	*71.1%*	*97*	*76.2%*	*101*	*0.37*
Highest	*56.0%*	*25*	*51.5%*	*33*	*0.72*
Caste/ethnicity					
Dalit	*85.2%*	*101*	*80.2%*	*91*	*0.39*
Disadvantaged Janajati	*73.0%*	*115*	*73.2%*	*138*	*0.98*
Brahmin/Chhetri	*59.8%*	*179*	*65.0%*	*183*	*0.28*
Non-Dalit terai caste	*80.0%*	*30*	*81.8%*	*11*	*0.91*
Others	*66.7%*	*30*	*66.7%*	*27*	*1.00*
Urban/rural residence					
Urban	*69.2%*	*224*	*69.8%*	*235*	*0.89*
Rural	*71.9%*	*231*	*72.6%*	*215*	*0.88*
Agro-ecological zone					
Mountain	*58.7%*	*63*	*70.7%*	*58*	*0.18*
Hill	*71.5%*	*249*	*72.6%*	*274*	*0.78*
Terai	*74.1%*	*143*	*67.8%*	*118*	*0.26*

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

Table 9.14 Appropriate drinking water treatment among households with children <2 years

	2017		2018		P-value
	%	N	%	N	
Total	*13.5%*	*1846*	*19.7%*	*1909*	*<0.000*
Equity quintile					
Lowest	*7.5%*	*388*	*7.9%*	*343*	*0.86*
2nd lowest	*9.1%*	*528*	*11.7%*	*471*	*0.18*
Middle	*20.6%*	*428*	*26.6%*	*488*	*0.04*
2nd highest	*14.0%*	*387*	*24.9%*	*453*	*<0.000*
Highest	*26.1%*	*115*	*32.7%*	*153*	*0.28*
Caste/ethnicity					

	2017		2018		P-value
	%	N	%	N	
Dalit	_12.0%_	_384_	_18.2%_	_424_	_0.03_
Disadvantaged Janajati	_13.0%_	_477_	_18.4%_	_531_	_0.04_
Brahmin/Chhetri	_14.8%_	_738_	_22.1%_	_766_	_0.001_
Non-Dalit terai caste	_4.2%_	_118_	_4.0%_	_76_	_0.92_
Others	_20.9%_	_129_	_25.2%_	_111_	_0.40_
Urban/rural residence					
Urban	_11.2%_	_933_	_18.6%_	_951_	_<0.000_
Rural	_15.9%_	_913_	_20.7%_	_957_	_0.02_
Agro-ecological zone					
Mountain	_9.7%_	_237_	_14.8%_	_236_	_0.13_
Hill	_17.2%_	_1016_	_24.6%_	_1089_	_0.001_
Terai	_8.6%_	_593_	_12.4%_	_583_	_0.08_

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

Table 9.15 Practiced handwashing at all six critical times among mothers with children <2 years

	2017		2018		P-value
	%	N	%	N	
Total	_7.8%_	_1850_	_19.4%_	_1910_	_<0.000_
Equity quintile					
Lowest	_5.2%_	_388_	_10.5%_	_343_	_0.02_
2nd lowest	_6.4%_	_528_	_18.5%_	_471_	_<0.000_
Middle	_8.8%_	_430_	_23.8%_	_488_	_<0.000_
2nd highest	_10.5%_	_389_	_21.3%_	_455_	_0.002_
Highest	_9.6%_	_115_	_22.2%_	_153_	_0.01_
Caste/ethnicity					
Dalit	_6.5%_	_385_	_17.0%_	_424_	_<0.000_
Disadvantaged Janajati	_8.0%_	_478_	_17.3%_	_532_	_0.001_
Brahmin/Chhetri	_8.8%_	_740_	_24.4%_	_766_	_<0.000_
Non-Dalit terai caste	_5.1%_	_118_	_4.0%_	_76_	_0.73_
Others	_7.8%_	_129_	_14.3%_	_112_	_0.11_
Urban/rural residence					
Urban	_6.3%_	_934_	_17.3%_	_951_	_<0.000_
Rural	_9.3%_	_916_	_21.5%_	_959_	_<0.000_
Agro-ecological zone					
Mountain	_7.1%_	_238_	_13.1%_	_237_	_0.07_
Hill	_7.4%_	_1018_	_20.8%_	_1090_	_<0.000_
Terai	_8.8%_	_594_	_19.2%_	_583_	_0.01_

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

Table 9.16 Sixty contact points: Mean ANC visits among mothers with children <2 years

	2017		2018		P-value
	Mean	N	Mean	N	
Total	4.2	1850	4.5	1906	<0.000
Equity quintile					
Lowest	4.0	388	4.0	341	0.87
2nd lowest	3.9	528	4.2	469	0.01
Middle	4.4	430	4.6	488	0.21
2nd highest	4.5	389	4.9	55	0.003
Highest	4.7	115	5.0	153	0.53
Caste/ethnicity					
Dalit	4.1	385	4.4	422	0.02
Disadvantaged Janajati	4.0	478	4.4	531	<0.000
Brahmin/Chhetri	4.3	740	4.6	66	0.003
Non-Dalit terai caste	4.6	118	4.4	76	0.52
Others	4.5	129	4.7	111	0.53
Urban/rural residence					
Urban	4.1	934	4.4	948	0.003
Rural	4.3	916	4.6	958	0.002
Agro-ecological zone					
Mountain	4.4	238	4.8	237	0.05
Hill	4.1	1018	4.3	1086	0.02
Terai	4.3	594	4.6	583	0.001

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

Table 9.17 Sixty contact points: Mean PNC visits among mothers with children <2 years

	2017		2018		P-value
	Mean	N	Mean	N	
Total	2.1	1848	2.4	1910	0.005
Equity quintile					
Lowest	1.1	388	1.9	343	<0.000
2nd lowest	1.9	527	2.1	471	0.19
Middle	2.3	429	2.5	488	0.39
2nd highest	2.9	389	2.7	455	0.42
Highest	3.1	115	3.4	153	0.47
Caste/ethnicity					
Dalit	2.0	385	2.3	424	0.15
Disadvantaged Janajati	1.9	478	2.4	532	0.01
Brahmin/Chhetri	2.2	739	2.5	766	0.02
Non-Dalit terai caste	2.3	118	1.8	76	0.30
Others	2.5	128	2.4	112	0.68
Urban/rural residence					
Urban	2.1	933	2.3	951	0.13
Rural	2.1	915	2.5	959	0.01
Agro-ecological zone					
Mountain	1.6	238	2.2	237	0.05
Hill	1.9	1016	2.2	1090	0.002
Terai	2.8	594	2.9	583	0.68

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

Table 9.18 Sixty contact points: Mean GMP visits in the last six months among mothers with children <2 years

	2018	
	Mean	N
Total	2.5	1798
Equity quintile		
Lowest	2.5	318
2nd lowest	2.5	449
Middle	2.4	460
2nd highest	2.3	423
Highest	2.5	148
Caste/ethnicity		
Dalit	2.4	397
Disadvantaged Janajati	2.5	503
Brahmin/Chhetri	2.6	734
Non-Dalit *terai* caste	1.4	59
Others	2.1	105
Urban/rural residence		
Urban	2.2	878
Rural	2.7	920
Agro-ecological zone		
Mountain	2.2	226
Hill	2.7	1041
Terai	2.2	531

Table 9.19 Sixty contact points: Mean HMG attendance in the last six months among mothers with children <2 years, who reported to be an active HMG member

	2018	
	Mean	N
Total	3.3	495
Equity quintile		
Lowest	3.0	119
2nd lowest	3.6	134
Middle	3.6	118
2nd highest	3.3	102
Highest	2.2	22
Caste/ethnicity		
Dalit	3.4	112
Disadvantaged Janajati	3.2	119
Brahmin/Chhetri	3.5	239
Non-Dalit *terai* caste	1.8	5
Others	1.9	20
Urban/rural residence		
Urban	2.8	207
Rural	3.7	288
Agro-ecological zone		
Mountain	2.7	85
Hill	3.5	314
Terai	3.4	96

9.3 Suaahara II SBCC (program reach/coverage), disaggregated

The following are some of key findings for reach of SII interventions, with disaggregated analysis by equity quintile (socio-economic equity); caste/ethnicity (social equity); and urban/rural and agro-ecological zone of residency (geographic/distance equity):

- **Any exposure**: The prevalence of mothers having ever heard of Suaahara increased by 30 pp between 2017 and 2018 (P<0.000). Among the equity quintiles, the most progress was in the lowest 2 equity quintiles with increases of at least 35 pp (P<0.000). Among caste/ethnicity groups an increase of pp was found among all groups of at least 30 pp (P<0.000), other than the non-dalit *terai* caste which had a statistically insignificant drop by 6 pp. While all geographic areas had large progress, the weakest increase was the 22 pp increase in prevalence in the *terai* (P<0.000) (Table 9.21)
- **FLW interaction**: The prevalence among mothers for having met a SII FLW in the previous 6 months increased by 20 pp between 2017 and 2018 (P<0.000). Similar progress was seen across equity quintiles and caste/ethnicity groups. Variation by agro-ecological zone shows that while the prevalence in the mountains increased by 30 pp, the hill increase was 20 pp, and the *terai* was 15 pp (half of the progress made in the mountains) (Table 9.22).
- **Community events**: There was a 20 pp increase in mothers reporting to have participated in SII community events, other than group meetings (P<0.000). An increase by 27 pp was seen for the both lowest 2 equity quintiles versus an increase of 9 pp for the highest equity quintile. For caste/ethnicity sub-populations, the most progress was found for the disadvantaged Janajati who had a 22-pp increase, like the 20 pp increase among Brahmin/Chhetris (Table 9.23).
- *Bhanchhin Aama*: The prevalence of having ever heard of *Bhanchhin Aama* increased by 23 pp between 2017 and 2018 (P<0.000). This increase was large and significant for all population sub-groups, other than among the non-dalit *terai* caste. Among the lowest equity quintile, an increase by 28 pp was found (P<0.000), but the increase was at least 20 pp for each equity quintile. Among Dalits the increase was by 28 pp (P<0.000), which was the largest increase by caste/ethnicity. While the change was an increase by 26 pp among households in urban areas (P<0.000), the increase in rural areas was by 19 pp (P<0.000). Among the thee-agro-ecological zones, the biggest increase was seen in the hills with a 30 pp increase over time (P<0.000) (Table 9.24). The overall change in those who ever listened to *Bhanchhin Aama* was by 19 pp (P:0.000) and the sub-population variation was like that already described for ever heard of, except that among the 3 agro-ecological zones the biggest increase was the change by 24 pp in the mountains (P:0.000).

Table 9.21 Ever heard of *Suaahara* (among mothers with children <2 years)

	2017		2018		P-value
	%	N	%	N	
Total	*39.3%*	*1848*	*70.3%*	*1909*	*<0.000*
Equity quintile					
Lowest	*42.4%*	*387*	*76.7%*	*343*	*<0.000*
2nd lowest	*39.8%*	*528*	*77.1%*	*471*	*<0.000*
Middle	*41.0%*	*429*	*72.3%*	*488*	*<0.000*
2nd highest	*34.2%*	*389*	*60.4%*	*454*	*<0.000*
Highest	*37.4%*	*115*	*57.5%*	*153*	*0.001*
Caste/ethnicity					
Dalit	*37.8%*	*384*	*69.3%*	*424*	*<0.000*

	2017		2018		P-value
	%	N	%	N	
Disadvantaged Janajati	*34.6%*	*477*	*70.2%*	*531*	*<0.000*
Brahmin/Chhetri	*47.2%*	*740*	*77.6%*	*766*	*<0.000*
Non-Dalit terai caste	*21.2%*	*118*	*14.5%*	*76*	*0.35*
Others	*32.6%*	*129*	*61.7%*	*112*	*<0.000*
Urban/rural residence					
Urban	*35.6%*	*933*	*67.2%*	*951*	*<0.000*
Rural	*42.9%*	*915*	*73.3%*	*958*	*<0.000*
Agro-ecological zone					
Mountain	*59.1%*	*237*	*88.1%*	*236*	*<0.000*
Hill	*45.7%*	*1017*	*80.8%*	*1090*	*<0.000*
Terai	*20.6%*	*594*	*43.2%*	*583*	*<0.000*

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

Table 9.22 Ever met *Suaahara* FLWs (among mothers with children <2 years)

	2017		2018		P-value
	%	N	%	N	
Total	*14.7%*	*1848*	*34.7%*	*1909*	*<0.000*
Equity quintile					
Lowest	*17.6%*	*387*	*33.8%*	*343*	*0.001*
2nd lowest	*17.4%*	*528*	*37.6%*	*471*	*<0.000*
Middle	*15.4%*	*429*	*40.6%*	*488*	*<0.000*
2nd highest	*10.0%*	*389*	*29.5%*	*454*	*<0.000*
Highest	*5.2%*	*115*	*24.2%*	*153*	*0.001*
Caste/ethnicity					
Dalit	*18.5%*	*384*	*30.4%*	*424*	*0.004*
Disadvantaged Janajati	*13.6%*	*477*	*38.8%*	*531*	*<0.000*
Brahmin/Chhetri	*15.0%*	*740*	*37.6%*	*766*	*<0.000*
Non-Dalit terai caste	*5.1%*	*118*	*1.3%*	*76*	*0.26*
Others	*14.0%*	*129*	*33.9%*	*112*	*0.002*
Urban/rural residence					
Urban	*11.3%*	*933*	*29.0%*	*951*	*<0.000*
Rural	*18.1%*	*915*	*40.3%*	*958*	*<0.000*
Agro-ecological zone					
Mountain	*21.9%*	*237*	*52.1%*	*236*	*<0.000*
Hill	*18.6%*	*1017*	*38.9%*	*1090*	*<0.000*
Terai	*5.1%*	*594*	*19.7%*	*583*	*<0.000*

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

Table 9.23 Ever participation in *Suaahara* community activities, other than group meetings (among mothers with children <2 years)

	2017		2018		P-value
	%	N	%	N	
Total	*12.2%*	*1848*	*32.8%*	*1909*	*<0.000*
Equity quintile					
Lowest	*13.7%*	*387*	*40.5%*	*343*	*<0.000*
2nd lowest	*12.9%*	*528*	*39.3%*	*471*	*<0.000*
Middle	*14.7%*	*429*	*32.4%*	*488*	*<0.000*

	2017		2018		P-value
	%	N	%	N	
2nd highest	*8.7%*	*389*	*26.7%*	*454*	*<0.000*
Highest	*6.1%*	*115*	*15.0%*	*153*	*0.05*
Caste/ethnicity					
Dalit	*15.1%*	*384*	*36.8%*	*424*	*<0.000*
Disadvantaged Janajati	*10.5%*	*477*	*34.1%*	*531*	*<0.000*
Brahmin/Chhetri	*13.2%*	*740*	*33.7%*	*766*	*<0.000*
Non-Dalit terai caste	*6.8%*	*118*	*5.3%*	*76*	*0.72*
Others	*7.8%*	*129*	*24.1%*	*112*	*0.01*
Urban/rural residence					
Urban	*9.1%*	*933*	*30.6%*	*951*	*<0.000*
Rural	*15.3%*	*915*	*35.0%*	*958*	*<0.000*
Agro-ecological zone					
Mountain	*20.3%*	*237*	*36.0%*	*236*	*0.001*
Hill	*14.2%*	*1017*	*39.5%*	*1090*	*<0.000*
Terai	*5.6%*	*594*	*19.0%*	*583*	*<0.000*

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

Table 99.24 Ever heard of *Bhanchhin Aama* (among mothers with children <2 years)

	2017		2018		P-value
	%	N	%	N	
Total	*31.1%*	*1848*	*54.0%*	*1909*	*<0.000*
Equity quintile					
Lowest	*27.4%*	*387*	*55.1%*	*343*	*<0.000*
2nd lowest	*34.5%*	*528*	*55.8%*	*471*	*<0.000*
Middle	*35.7%*	*429*	*61.5%*	*488*	*<0.000*
2nd highest	*28.0%*	*389*	*48.0%*	*454*	*<0.000*
Highest	*20.9%*	*115*	*39.9%*	*153*	*0.002*
Caste/ethnicity					
Dalit	*25.5%*	*384*	*53.5%*	*424*	*<0.000*
Disadvantaged Janajati	*32.5%*	*477*	*50.3%*	*531*	*<0.000*
Brahmin/Chhetri	*38.5%*	*740*	*61.0%*	*766*	*<0.000*
Non-Dalit terai caste	*5.1%*	*118*	*9.2%*	*76*	*2.44*
Others	*32.6%*	*129*	*56.3%*	*112*	*<0.000*
Urban/rural residence					
Urban	*25.7%*	*933*	*52.0%*	*951*	*<0.000*
Rural	*36.5%*	*915*	*56.1%*	*958*	*<0.000*
Agro-ecological zone					
Mountain	*35.0%*	*237*	*60.2%*	*236*	*<0.000*
Hill	*37.2%*	*1017*	*65.6%*	*1090*	*<0.000*
Terai	*19.0%*	*594*	*29.9%*	*583*	*0.003*

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

Table 9.25 Ever listened to *Bhanchhin Aama* (among mothers with children <2 years)

	2017		2018		P-value
	%	N	%	N	
Total	*21.3%*	*1848*	*40.1%*	*1909*	*<0.000*
Equity quintile					
Lowest	*19.6%*	*387*	*40.2%*	*343*	*<0.000*
2nd lowest	*22.6%*	*528*	*43.3%*	*471*	*<0.000*
Middle	*24.5%*	*429*	*47.8%*	*488*	*<0.000*
2nd highest	*19.8%*	*389*	*33.3%*	*454*	*<0.000*
Highest	*13.9%*	*115*	*25.5%*	*153*	*0.02*
Caste/ethnicity					
Dalit	*16.7%*	*384*	*37.5%*	*424*	*<0.000*
Disadvantaged Janajati	*20.3%*	*477*	*36.2%*	*531*	*<0.000*
Brahmin/Chhetri	*27.8%*	*740*	*47.7%*	*766*	*<0.000*
Non-Dalit terai caste	*2.5%*	*118*	*2.6%*	*76*	*0.97*
Others	*14.0%*	*129*	*42.0%*	*112*	*<0.000*
Urban/rural residence					
Urban	*19.1%*	*933*	*37.4%*	*951*	*<0.000*
Rural	*23.5%*	*915*	*42.7%*	*958*	*<0.000*
Agro-ecological zone					
Mountain	*21.9%*	*237*	*46.6%*	*236*	*<0.000*
Hill	*27.1%*	*1017*	*48.4%*	*1090*	*<0.000*
Terai	*10.9%*	*594*	*22.0%*	*583*	*<0.000*

Note: Italics indicates that statistical testing was done to test the differences found in this indicator's results in 2017 and 2018, with the result presented in the P-value column.

10. Program implications

This section presents a discussion of the key highlights of all results of the Year 2 annual survey, with attention to progress made or not made in inputs, outputs and non-mature districts for few key outcomes between 2017 and 2018 to help guide programmatic efforts in 2019 and beyond.

While the methodology and sampling for both surveys (2017 and 2018) was the same, the randomly chosen sample in 2018 was slightly wealthier and both the mothers and household heads were more educated. Interestingly, household composition between the two years was consistent with only half of all households having an extended structure, about one-third of households being nuclear (mother with child and/or husband only) and nearly one in five mothers residing alone with the child. These key socio-economic and demographic issues should be kept in mind when interpreting results.

Maternal and Child Nutrition:
IYCF (MAD, MDD, WDD, EBF, 180 IFA, GM, MGM, Zinc and ORS, CPR, ANC4 and SBA delivery and PNC,increased between 2017 and 2018 with tremendous progress in intervention areas on key breastfeeding and complementary feeding indicators including increases in the prevalence of early initiation of breastfeeding, minimum meal frequency, minimum dietary diversity, and minimum acceptable diet. However, no progress was made for sick child feeding. Maternal dietary indicators also increased between 2017 and 2018 including the prevalence of mothers meeting minimum dietary diversity; having an extra meal daily during pregnancy and lactation; eating more during pregnancy than usual; and consumption of eggs and other animal source foods. While knowledge on appropriate dietary practices increased among both the mothers themselves and adult household members, the absolute prevalence of appropriate knowledge and most appropriate practices is still quite low Also, mothers and male household heads both reported mothers and other female household members to do nearly all the cooking, household food preparation, and child feeding.

Thus, the *Suaahara* II nutrition team from 2019 onwards should focus during household visits and community events, especially food demonstrations/*poshan chautari*, on increasing:
- Ability of mothers and all adult household members to accurately define exclusive breastfeeding and report back to us the exact age to stop exclusive breastfeeding;
- Knowledge and practice for introducing all types of complementary foods at 6 months;
- Consumption of eggs, dairy and meat/fish and decrease consumption of biscuits, sweetened drinks, etc. among children at least 6 months and mothers;
- Awareness than sick children should be fed more than usual;
- Awareness and practice of extra meal daily for mothers during pregnancy and lactation and eating more during pregnancy than usual; and
- Male engagement in household food-related (e.g. cooking, feeding) roles to help share household labor and ensure that men also take ownership and responsibility for improving maternal and child dietary practices.

Water, Sanitation, and Hygiene
Progress on many key WASH indicators was found between 2017 and 2018 in intervention areas including prevalence of appropriate drinking water treatment practices, frequency of drinking water treatment, soap and water availability at a handwashing station and washing hands at six key times. These positive trends, especially the pp changes in a one-year period, are

encouraging but much work remains to be done given that the prevalence levels of some of the key behaviors remain low and knowledge gaps persist.

When mothers and household heads are asked about appropriate drinking water treatment, almost all do name at least one appropriate method, but the majority also name an inappropriate method, the most common being to strain with a cloth. When asked why drinking water treatment is not more common, nearly three out of four households report that it is not important in all seasons. Appropriate handwashing practices, particularly before cooking/preparing food, before eating, and before feeding a young child, have increased but the majority who do not do it at these times report that it is not necessary, whereas this reason is not given for the three critical "after times". Menstrual hygiene message exposure was the lowest of all the messages asked about, for both mothers and household heads. Similarly, appropriate menstrual hygiene management knowledge and practices were low, as was willingness to pay for commercial pads.

In the 2018 survey, we also asked a series of questions regarding willingness to pay and found that almost all are willing to pay for handwashing soap, drinking water filters, and toilet cleaning supplies. Men and women both seem to engage in WASH-related practices, but in most households, it is the mothers who are responsible for water treatment.

Thus, the *Suaahara II* WASH team from 2019 onwards should focus on increasing:
- Knowledge of which drinking water treatment methods are appropriate and inappropriate and why straining with a cloth is not an appropriate method;
- Knowledge that appropriate drinking water treatment is always needed, in every season;
- Prevalence of appropriate drinking water treatment practices (method and frequency);
- Knowledge that handwashing before cooking/preparing food, before eating, and before feeding a young child is necessary and how it can help to decrease disease;
- Prevalence of handwashing before cooking/preparing food, before eating, and before feeding a young child;
- Awareness and knowledge of menstrual hygiene management and its importance;
- Increase access and availability of WASH products, perhaps via local PPPs; and
- Engagement of men, particularly for household drinking water treatment.

Health and Family Planning Services
Several health service indicators also improved between 2017 and 2018 in intervention areas, such as exposure in the last six months to health workers. During pregnancy these included mothers receiving at least 4 ANC visits and being weighed during ANC. During delivery and post-partum these included the prevalence of low birthweight dropping and an increased prevalence of skilled birth attendance at delivery, receiving breastfeeding support in the first hour after birth, and having a PNC visit within 24 hours. Additionally, during the one-year period there was an increase in the prevalence of contact with FCHVs in the previous month and a reduction in child diarrhea. However, knowledge on several critical health service topics decreased and household participation in several key health services, such as growth monitoring and promotion (GMP), participation has increased but remains low.

Exposure to messages on the importance of 4 ANC visits and 180 IFA tablets during pregnancy decreased among both mothers and household heads. Similarly, correct knowledge at the household-level was unacceptably low (and not really improving) regarding the recommended number of ANC visits, PNC visits, IFA during pregnancy, IFA post-partum and Vitamin A postpartum.

Both GMP participation and prevalence of growth being interpreted and discussed with caretakers has improved but remains low. More than half of those who don't go to GMP said that they are too busy and other major reasons were that the child was not sick and the health facility far. Not even one in four children who suffered from diarrhea were given ORS and Zinc. Interestingly, across all IYCF and child nutrition topics, the only decrease in exposure (reporting to have ever heard a specific message) was for the message that ORS and Zinc should be given for a child with diarrhea; this decrease in exposure was true for both mothers and household heads. Among households who did engage in this practice, more than half credited the FCHV or health worker for suggesting it; more than one-third who did not give ORS and Zinc mentioned that they weren't told to do so by an FCHV or health worker and nearly one in four mothers said that it wasn't necessary to do this.

There was no overall change in use of modern methods of family planning and about three out of four mothers not using family planning in both surveys reported that it was because of the husband having migrated or wanting a baby. Exposure to family planning and healthy timing and spacing of pregnancy (HTSP) messages was high and in increasing trend. While almost everyone could identify a modern method of family planning knowledge was remarkably low (less than one in five) among both mothers and household heads for HTSP messages.

The prevalence of mother engagement with childcare responsibilities was higher than among male household heads, when asked about watching the child, cleaning their bottoms, and taking them for healthcare.

Thus, the *Suaahara II* health team from 2019 onwards should focus on increasing:
- Exposure to messages on and knowledge at the household level related to the importance of ORS and Zinc; being given to children with diarrhea;
- Exposure to messages on the importance of 4 ANC visits and 180 IFA tablets during pregnancy for mothers and household heads;
- Knowledge among all household adults (particularly male household heads) regarding the exact number of ANC visits, PNC visits, IFA tablets during pregnancy, IFA tablets post-partum and Vitamin A postpartum that should happen;
- Household interest and participation in attending GMP monthly, despite being busy and the facility being far, for children 0 to 5 years;
- FCHV and health worker understanding of importance of GMP (for promotion) and quality interpretation of growth progress in child health card;
- Health worker and FCHV recommendation of ORS and Zinc to caretakers with a child who has diarrhea;
- Ensure health workers and FCHVs are recommending IFA during ANC visits; and
- Encourage male adult household members to take on childcare responsibilities.

Agriculture/Enhanced Homestead Food Production
Progress on agriculture-related indicators was found between 2017 and 2018 in EHFP intervention areas including increases in the prevalence of household food security, but for many key indicators the absolute values remain low. There was no change in prevalence of households and government agriculture and livestock workers meeting, but there was an increase in households having a kitchen/EHFP garden; and those gardens meeting minimum criteria established apriori. There was also an increase in the mean number of nutrient dense crops being grown in EHFP gardens. However, nearly two out of three of these gardens did not have plotting of crops and the production from the gardens only last half of the year. While there was

an increase among those selling surplus production and eggs to use the income to purchase nutritionally-rich foods, there was a slight drop in the prevalence of households having a surplus and selling it. For poultry, there was a significant decline in the prevalence of vaccination for Newcastle disease and few households reported regular vaccination when asked what is important about poultry rearing.

In addition to practices, more households reported availability of community-level groups for agriculture/livestock/land/forests; more availability of EHFP beneficiary groups; and to have received EHFP inputs from VMF or graduated EHFP households. Awareness also increased among both mothers and household heads in this one-year period that a benefit of both homestead gardening (other than income and food security) is to improve diets of children and women in the household. For poultry, there was a similar increase in awareness for the same benefit for rearing poultry.

Participation in household decision-making seems to be about the same for male household heads and mothers both for horticulture and for poultry and processing of milk and/or meat.

Thus, the Suaahara II EHFP team from 2019 onwards should focus on increasing:
- Interactions between government agriculture FLWs and EHFP households;
- Optimal gardening practices to increase production to meet household diet needs;
- Production of surplus and selling it to generate income;
- Awareness of the importance of vaccinating poultry regularly; and
- Optimal poultry practices, including NewCastle disease vaccination.

SBCC
The roll-out and at-scale implementation over time can be seen in the SBCC indicator progress between 2017 and 2018. Exposure to Suaahara can be noted in several indicators as the prevalence among both mothers and household heads increased for: ever heard of SII; met a SII FLWs in the last 6 months; ever visited at home by a SII FLW; and ever met outside of a home visit or HMG meeting. Similarly, in this one-year period, there was an increase in participation in non-group SII activities, but it is still only one in three women and very few men. Regarding SII mass media efforts, awareness of *Bhanchhin Aama*

Household-level exposure to FCHVs, and, having received a home visit by an FCHV in the previous 6 months, increased in this one-year period. Similarly, more mothers reported that there is an FCHV-led group exists in the community, but the prevalence of participation dropped slightly.

Finally, nearly all households now own mobile phones and more than two out of three households own a smart phone. Among mothers, nearly all also reported sole ownership of a mobile phone. While the SMS campaign reached an increasing number of households, the absolute percentage remains low.

Thus, the Suaahara II SBC team (and all programming teams) from 2019 onwards should focus on increasing:
- Home visits so that more households are reached in a six-month period;
- FS and CNF (and FCHV, if possible) engagement with household members other than the mother, particularly men during home visits;

- Participation in HMGs, particularly using meeting with other mothers and learning about health and nutrition as factors to motivate mothers and
- Participation, particularly among non-mother adult household members, in other Suaahara II activities including key life events, food demos/*poshan chautari*
- Awareness of its existence and listenership of *Bhanchhin Aama*, encouraging SII FLWs and FCVHs to all promote it as this seems particularly low
- Promotion of other means of listening to *Bhanchhin Aama*, including using a mobile phone or watching the recordings on Facebook at one's own convenience, during HMG meetings, etc.

GESI

In addition to the GESI-focused factors for each of the thematic areas integrated above, some additional GESI insights were found in the two rounds of surveys, particularly by conducting disaggregated analysis by equity quintile (socio-economic inequity), caste/ethnicity (social inequity), and urban/rural and agro-ecological zone (geographic inequity), and to understand how sub-groups have progressed on key indicators such as SII's ten key behaviors. While the absolute value varies by sub-group and specific behavior, the prevalence improved for all sub-groups for the following 10 key SII behaviors, except where indicated:

1. Maternal diet
    a. Egg consumption: N/A
    b. Meat consumption: agro-ecological zone (*terai* stayed at 31%); equity quintile (middle stayed at 31%); and urban/rural (rural stayed at 30%)
2. ANC visits (at least 4): caste/ethnicity (other dropped from 81% to 80%)
3. 180 IFA during pregnancy: equity quintile (lowest stayed at 49%)
4. Modern method of family planning: agro-ecological zone (all stayed or moved by 1%) equity quintile (lowest dropped from 30% to 26%, second lowest dropped from 34% to 31%; middle increased from 30% to 33%; second highest increased from 28% to 30%; and highest increased from 27% to 31%); and caste/ethnicity (Brahmin/Chhetri dropped from 29% to 26%, Others increased from 25% to 28%)
5. Child diet
    a. Egg consumption: equity quintile (highest stayed at 18%); caste/ethnicity (others stayed at 17%) and urban/rural (rural dropped from 13% to 10%)
    b. Meat consumption: N/A
    c. Iron rich foods: NA
6. Sick child feeding: equity quintile (dropped from 34% to 28%, middle dropped from 47% to 37%); caste/ethnicity (others dropped from 43% to 36%); agro-ecological zone (mountain dropped from 39% to 32%); and urban/rural (rural dropped from 40% to 36%)
7. ORS/Zinc treatment for diarrhea: this indicator went in the opposite way of what was intended overall and for almost all sub-populations; only households in the *terai* and in the highest equity quintile made any progress
8. Exclusive breastfeeding: equity quintile (lowest dropped from 75% to 71%, middle dropped from 75% to 71%, and highest dropped from 56% to 52%); caste/ethnicity (socially excluded dropped from 79% to 76%); and agro-ecological zone (*terai* dropped from 74% to 68%)
9. Drinking water treatment: NA
10. Handwashing at six critical times: NA