

Nutrition Practices in Uttar Pradesh

Results of a Formative Research Study



An Anganwadi worker discusses a newborn child's breastfeeding practices and lactating mother's diet with a mother and grandmothers in a home in rural Uttar Pradesh.

Conducted before and during an intervention, formative research ensures programs are designed—and refined—based on current realities of those affected. These findings are the result of a partnership between Alive & Thrive and the Center for Media Studies, who worked with local doctors, officials, frontline workers, pregnant women, mothers, families and community members in Uttar Pradesh (UP).

We learned that mothers can and will improve behaviors related to infant and young children nutrition when provided with social support and timely counseling. Frontline workers already have frequent contacts with pregnant women and mothers, and should be enabled to provide nutrition support timed according to the first 1,000 days of life. Husbands can improve mother and child nutrition by procuring supplies of iron and folic acid supplements, affordable nutritious foods, and soap for washing hands. Several national programs and multiple communication channels are available to mobilize families, community members, and frontline workers in UP around nutrition.

BACKGROUND

The importance of household nutrition practices in preventing maternal and child mortality, morbidity, and undernutrition is well established in global literature (Lancet 2013, Lancet 2016). There is clear evidence that large-scale improvements in nutrition practices are possible, and recent programs focusing on infant and young child feeding (IYCF) practices have illustrated that evidence-based, comprehensive programs can produce results in a short period of time (Menon et al 2014, Sanghvi et al 2016).

In Uttar Pradesh, the most populated state in India (population of over 200 million), 50.4% of children below five years of age are stunted (MWCD, Rapid Survey of Children 2013-2014). To help improve the nutritional status of women and children in UP, the state government has developed a UP Nutrition Mission (2014-2024) vision document that outlines how it will reduce undernutrition through improving maternal and child nutrition and hygiene practices. Preliminary steps

have already been taken to implement a state action plan for IYCF practices (GOUP, 2014-2017).

This report describes current nutrition practices and their determinants (barriers and facilitators), identifies key influential groups, “small, do-able actions” that mothers can take to improve behaviors, and provides information on program platforms and media channels that government and development partners can use to reach priority groups for effective change.

STUDY DESIGN AND PURPOSE

The purpose of the study was to understand the factors that influence a mother's diet and the feeding practices of her children; and to discover how mothers can be supported to adopt optimal MIYCN practices through existing programs and information sources. Research was conducted in three districts designated as high priority districts by the Government of Uttar Pradesh.

Allahabad, Shahjahanpur, and Siddharthnagar. Twice as many rural areas were selected for the study (versus urban). Qualitative and quantitative methods were used, including in-depth interviews, small group discussions, observations, and a set of rapid household trials to test the feasibility of recommended practices for mothers.



Figure 1. Location of Formative Research Sites

The behaviors selected for study were:

- **Maternal nutrition:** Consumption of iron and folic acid (IFA) tablets and calcium tablets, and dietary diversity (intake of specified nutrient-rich food varieties) in pregnant women
- **Breastfeeding:** Early initiation of breastfeeding, use of prelacteals (food given before breastfeeding), exclusive breastfeeding and manual expression of breastmilk
- **Complementary feeding:** Timely introduction and quantity of food, and dietary diversity (intake of defined nutrient-rich food varieties) for children between 6 and 18 months of age
- **Sanitation and hygiene:** Washing hands with soap before eating (pregnant women) and child feeding (mothers); washing hands with soap after disposal of a child's feces; safe disposal of a child's feces (in a toilet); and using a protected play area (separation from soil) for children below 18 months of age

In-depth interviews and observations were conducted with 360 pregnant women and mothers of children 0 to 18 months. In the same households, 218 husbands and mothers-in-law (MILs) were engaged in small group discussions of three to four persons per group. In-depth interviews were held with 66 front line workers (FLWs) including ASHAs (Accredited Social Health Activists), AWWs (Anganwadi Workers) and ANMs (Auxiliary Nurse Midwives), and 42 community influentials including doctors and Self Help Group (SHG) members. Household trials focused on maternal nutrition (60 pregnant women), and complementary feeding, and sanitation/hygiene (120 mothers of children 6 to 18 months of age).

FINDINGS

MATERNAL NUTRITION

DIETARY DIVERSITY

- The percentage of pregnant women who eat food from at least five designated food groups, as per global recommendations, is 9%, and the proportion of lactating women consuming food from five food groups is 14%. The typical diet includes primarily starchy staples/grains/tubers, followed by vegetables, legumes/pulses and dark green leafy vegetables. 15% of the sampled households reported having animal source foods (non-vegetarian), and women in these households were more likely to consume food from all the recommended food groups than others.
- The respondents were not sufficiently aware of the unique and specific nutrients in each food category or the critical importance of obtaining these nutrients. MILs and husbands recognize that a pregnant woman's diet should include: green leafy vegetables, milk, fruits, lentils, *roti* (unleavened flat whole wheat bread), meat/fish, egg and nuts. However, affordability and cultural preferences determine actual practice.
- Frontline workers are aware of the importance of diet diversity, and noted that a pregnant woman's diet should include cereals, green leafy vegetables, other vegetables, lentils, oranges and yellow vegetables and fruits, other fruits, and dairy products. Since most of the households in the study areas were vegetarian, animal source foods did not emerge as essential components in the diet of pregnant women when FLWs in study areas were asked.

DETERMINANTS

- **Social norms** – More than 65% of the respondents stated that other pregnant women in their community would be able to consume green leafy vegetables in their daily diet. This was followed by dairy products (40%) and orange/yellow vegetables and fruits rich in Vitamin A (36%).
- Regarding their own **confidence** in consuming foods from the five food groups, most women were confident that they could incorporate green leafy vegetables, followed by lentils, milk and milk products; over 40% were confident that they would be able to consume animal foods daily.
- The primary barriers preventing daily consumption of food from all food groups include **affordability, availability, and food habits**. Irregular consumption of fish, meat, and milk products was reported, as they are expensive. Unavailability and not liking their taste were barriers, too.
- The primary factors that would facilitate uptake of the recommended foods are **availability** of these items at a cheaper price, and **support from family members**.

CONSUMPTION OF IFA AND CALCIUM TABLETS

The consumption of IFA tablets during pregnancy was reported by a small percentage of women; the percentage of calcium consumption was even smaller. Respondents could identify some, but not all, of the most critical benefits of taking IFA and calcium. Urban respondents were more aware about the benefits and importance of supplements than rural respondents.

IFA tablets are reportedly procured from ANMs and AWWs, while calcium tablets are procured from government doctors, private doctors, and pharmacies. Our study found that doctors, registered medical practitioners (RMPs), and community influencers know that IFA and calcium tablets should be recommended, and have a general understanding of their benefits (e.g. anemia reduction in the case of IFA) but not of the specific mortality reducing effects. They did not know how to counsel women on the side-effects. The study found that AWWs and ASHAs are not providing the needed counseling and information.

Why are pregnant women not taking IFA? (n=91)	
Reasons	Percentage (%)
Not available in the house	35
Nausea, vomiting, dizziness	16
Don't know	14
Others	19

DETERMINANTS OF BEHAVIOUR

- There is widespread **knowledge** among women, their husbands and Mothers-in-law regarding the need for pregnant women to consume an IFA tablet daily to reduce anemia, but the risk of death from post-partum hemorrhage due to low iron levels is not well understood.
- Women reported a lack of adequate **supplies of IFA** and calcium that are usually obtained free of charge from ANNs and AWWs.
- **Negative side-effects** (dizziness, nausea, vomiting) are frequently noted as the main barriers to consuming IFA. Women who stopped consumption of IFA tablets during pregnancy noted a lack of awareness on how to manage these symptoms.
- The study reported that family and community **influentials were supportive** of women consuming IFA and calcium tablets.
- **Knowledge** of the practice of daily consumption of calcium and some of the benefits (strength, bone and tooth development of fetus) are known by pregnant women, but the life-threatening outcomes of low calcium intake that are associated with eclampsia and pre-eclampsia are not widely known.

RAPID HOUSEHOLD TRIALS

For the next six days, participants were asked to take one IFA tablet a day, and to consume foods available from at least three food groups from the following list: **1)** yellow/orange vegetables and fruits; **2)** dark green leafy vegetables; **3)** lentils (thick); and **4)** egg (non-vegetarian families).

Most respondents chose to eat yellow vegetables and fruits during the trial period, followed by *dal*/lentils and eggs.

The counseling led to an uptake in the recommended practices and knowledge regarding the benefits of these practices:

- Because of the **health benefits**, pregnant women noted that they intend to continue consuming yellow and orange fruits and vegetables and are willing to consume green leafy vegetables daily. A few respondents even mentioned that green, leafy vegetables increase blood and prevent anemia.
- Pregnant women reported that they intend to continue consuming lentils because it is beneficial for their health and provides **strength for the unborn child**.
- Regarding the consumption of eggs, pregnant women noted that eggs provide strength and help in **mental development of the unborn child**. A few women mentioned that eggs provide protein, which is good for their health.
- The most common reason cited by women for continuing IFA consumption was the knowledge that it increases blood and prevents anemia; **reduced risk of fatality during child birth** was another reason.

BREASTFEEDING

EARLY INITIATION AND FEEDING OF PRELACTEALS

Our study indicated that early initiation of breastfeeding (within one hour of birth) was practiced by a minority of women. The majority of women knew that breastfeeding within one hour after delivery is recommended, but were not aware of its life-saving importance. Women who delivered in health facilities reported practicing early initiation more often (72%) than those who delivered at home. A significant proportion of respondents reported feeding their children prelacteals in the first two to three days.

Family and community members believed early initiation was important to stop newborns from crying, and were supportive. Only half of the doctors, registered medical practitioners and community influentials were aware that early initiation within an hour of delivery is a recommended practice.

DETERMINANTS

Regarding prelacteals, mothers reported giving honey, cow's milk, goat's milk, buffalo's milk, formula milk, and water after birth. FLWs also reported the same in a few cases.

- **The main barriers to early initiation were C-section deliveries and the perception that 'milk doesn't form' that early.**
- The **community opinion leaders** were mostly aware that nothing except breastmilk should be given, but did not know the serious risks of feeding prelacteals.
- About half of the mothers reported being advised to feed colostrum, and **received help from a health worker** on how to position or attach the baby. The health workers also observed if proper feeding techniques were used, and assisted the mother in early breastfeeding.

- Almost 90% of **mothers felt confident** they could practice early initiation, especially if they had a normal delivery and received family support.

Maa ka doodh utrataa hai toh bachhe log peete hain, aur jiska doodh nahin utare woh upar ka doodh de, chahe powder ka, chahe gai ka, chahe bakri ka.

(“If milk is formed and produced, then the child will breastfeed, and if milk does not we give top milk like powder milk or cow’s milk or goat’s milk)

- Grandmother, Siddharthnagar

Why are mothers not practicing breastfeeding as recommended? (n=120)

Behaviour	Reasons	Percentage (%)
Early initiation of BF	Milk doesn’t form	26
Avoid prelacteals	Milk doesn’t form	26
Exclusive Breastfeeding	Milk production inadequate for 6 months	27
Feeding expressed breastmilk	Did not know that it can be done	25

DETERMINANTS

The awareness that breastfeeding exclusively for six months is recommended was high among all respondents, but the **perception that breastmilk alone is not sufficient** to quench the babies hunger and thirst was also high. The most frequently reported motivating factors for practicing exclusive breastfeeding were advice from family members and frontline health workers, and whether they perceive that breastmilk is sufficient for their child.

- About 27% of mothers noted they would give other milk if breastmilk **supply was perceived to be low**; 21% would feed other milk or foods if the child is perceived to be hungry or weak; and 12% would give water during hot weather.
- Three-fourths of the mothers could correctly explain that **breastmilk protects babies** and children against illness, but did not mention higher risk of death if not exclusively breastfed.
- Only 18% of mothers were aware that a sick child needs to be breastfed more often, and 42% believed that during a mother’s illness, the child should be breastfed less.
- While around 43% of mothers said that feeding frequency should be normal when the mother is sick, around 42% felt that the frequency should be decreased. Around 9% felt breastfeeding should completely stop when the mother is sick.
- Less than 8% of mothers knew that a child urinating six times or more a day indicates adequate supply of breastmilk. The **knowledge** that breastmilk supply increases with frequent breastfeeding was low (10%).
- Mothers and community influentials incorrectly believe that a mother’s diet is the main pathway to increasing milk supply (63%).
- The concept of expressing milk is new and **not a social norm**. A majority of grandmothers believe that if expressed, ‘breastmilk would get spoiled’ and that there is no need since either the mother would come back from work to feed her child or, in a few cases, take the child along with her to the field.
- Very few mothers reported receiving advice on exclusive breastfeeding from ASHAs and AWWs.
- **Fathers and grandmothers** were aware that women should breastfeed exclusively for six months, as well as some of the benefits of exclusive breastfeeding, but they also believe that breastmilk alone will not fulfill the child’s hunger for all six months.



A mother practices correct position and attachment after being counseled on exclusive breastfeeding in rural UP.

EXCLUSIVE BREASTFEEDING

The current level of exclusive breastfeeding from birth is low, and 65% of the mothers reported introducing cow’s milk, goat’s milk, buffalo’s milk, and formula/powdered milk, or water before 180 days. Two sub-behaviors were investigated: the elimination of all liquids (predominantly milk and water) in the first 180 days, and expressing breastmilk when a mother is separated from the baby.

Bachche ki bhukh nahin mit ti sirf maa ke doodh se, thoda-thoda biscuit chatate hain.

(Only mothers' milk is not enough to remove hunger, we give them a little bit of biscuit)
- Father, Shahjahanpur

- After counseling, the majority of mothers reported no major barriers to practicing optimal dietary diversity, but some reported perceptions among **family members** that children were too young to eat all food varieties, (such as eggs) and that a child 'spitting out' food was an indication of such.
- Regarding feeding oranges and yellow fruits and vegetables, **grandmothers had some reservations** about feeding them to six or seven month old infants.

COMPLEMENTARY FEEDING

TIMELY INTRODUCTION OF SOLIDS AND SEMI-SOLID FOODS AND MEAL FREQUENCY

Although 70% of respondents (mothers of children 6-8 months old), had initiated complementary feeding, the first choice of foods for children is largely watery and cereal and grain-based, such as *dal ka pani* (watery lentil soup), rice water, biscuits, Cerelac, thin layer of *roti* or mashed *roti* with *dal*, *panjiri*, *khichdi* and milk. Thus, while knowledge on timely initiation and meal frequency did exist among some respondents, age appropriate feeding was not practiced. Of the 28 children in the age group of 9-11 months, 25 were reportedly being breastfed, but only one child was receiving the required meal frequency (half a bowl of solid or semi-solid food, given three times a day).

DETERMINANTS OF BEHAVIOUR

- There was a widespread gap in **knowledge** among mothers and family and community influentials regarding the recommended age-specific practices.
- There are deeply held beliefs that a young **child cannot digest or benefit** from the recommended semi-solids and solids.
- **Social norms** play a important role. Mothers reported that the main cue to start complementary feeding is when a child starts reaching for food.
- **Frontline workers** were credited by mothers as the **source of information** regarding when to introduce complementary foods, but mothers reported that they did not receive counseling on meal content, diversity, frequency or quantity, including how to address poor appetite and feeding a sick child.

DIETARY DIVERSITY

The proportion of mothers who gave their child food from at least four defined food groups was 15.8%. More urban and non-vegetarian families feed their children food from at least four food groups. Urban respondents are more likely to have dairy products, eggs, and other fruits and vegetables than their rural counterparts. In addition to cereal grains, children are consuming lentils (46%), dairy products (41%), fruits and vegetables. Eggs and animal-source foods are consumed by less than 10%.

DETERMINANTS

- During rapid household trials, the facilitating factors in adopting additional food varieties included the perceived **benefits for the child's health** and well-being, whether the child likes the food, and food being available in the home.

Bahut nuksaan bhayi, kamzori pakdega, sayaana ho jaaye, tab di.

(This is risky, to avoid getting ill, we can give these foods when the child is older)
- Grandmother, Shahjahanpur,

RAPID HOUSEHOLD TRIALS

Participants were asked to feed one food from each of the following food groups daily: **1)** yellow/orange vegetables and fruits; carrot, pumpkin, ripe papaya **2)** dark green leafy vegetables; *palak*, *bathua*, *methi*, other *saag* **3)** *dal*, *chana*, dried peas, groundnuts or sesame (*til*) seeds (thick); and **4)** egg (non-vegetarian)

It was found that mothers were willing to adopt new practices, with some modifications.

- Of the 120 respondents, a majority agreed to feed lentils (98), followed by yellow vegetables/fruits (56), and eggs (56); very few agreed to include green leafy vegetables (30). A variety of recipes using foods from the four food groups were discussed with mothers to encourage their adoption of the practice. Mothers made modifications in terms of adding green leafy vegetables in lentils, feeding carrots in the place of the pumpkin and vice-versa, adding a little bit of sugar in pumpkin, adding pumpkin in *dal*/lentils, and adding egg with green vegetables.
- For all the four food groups, common reasons cited for their willingness to continue practicing this diet primarily related to the **child's health for necessary mental and physical development**.
- **Cost** was noted as a major limitation in feeding eggs; nearly one quarter of the respondents cited their willingness to feed meat/chicken/fish to their children if the products were affordable. Cost was also a barrier to feeding fruits and vegetables rich in Vitamin A, especially when not in season.
- Lack of communication from **frontline workers** was noted. Although frontline workers reported disseminating information on age-appropriate diets to mothers as part of their usual services, they were mentioned by very few mothers as an influence in deciding what and when to feed young children.

SANITATION AND HYGIENE

Sanitation and hygiene practices that are known to be associated with mothers' and children's nutritional status were probed through interviews, small group discussions, and observations (presence of soap and water near the places where children are fed).



A mother washes her hands and her child's hands with soap before food preparation and feeding complementary foods in a village in UP.

PREGNANT WOMEN AND MOTHERS OF INFANTS BELOW 6 MONTHS

Hand washing with soap before handling food: Subclinical enteric infections in pregnant women can be a factor in poor weight gain, poor appetite and low birth weight. The study explored the practice of washing hands with soap before food preparation and eating among pregnant women. Although the practice of handwashing with water at critical occasions (such as before food preparation) was reportedly high (at almost 90%) handwashing with soap during these same occasions was significantly lower, at 50%, specifically before handling food and eating. The main reasons cited for not washing hands with soap are **the perception that hands are clean** if not handling dirt and **forgetfulness**. Although 82% of households had hand-pumps within the household premises, and soap was kept near these hand pumps, only 50% said they washed their hands with soap while handling food.

Safe disposal of child feces: About 49% of respondents reported disposing the child's feces by flushing them down the drain, 27% threw them in open spaces after wrapping them in paper, and 14.2% reported flushing them in the toilet. The **absence of toilets** is a barrier to practicing safe disposal of child feces, with only 55% of respondents having a toilet.

As a result, self-confidence about practicing safe disposal was low. Awareness about the risks associated with unsafe disposal was also not evident.

Handwashing with soap: Handwashing with soap after using the toilet was almost universal. Around 31% of the households have a handwashing facility near the feeding area. However, the practice of handwashing with soap before feeding children and eating was only 18%. The practice of washing hands with soap after disposing child feces or after washing a child's bottom was uncommon. The **knowledge** that dirty hands may lead to infections like diarrhea, fever or cold and cough was low.

MOTHERS WITH CHILDREN 6 TO 18 MONTHS OF AGE

Safe disposal of child feces: The most common practice of disposing feces of infants and children below 18 months is flushing them down the drain or throwing them in the open space after wrapping them in paper. The correct practice (flushing in the toilet) was low (14.2%). When families with children 6 to 18 months of age were asked about the disposal of child excreta the last time the child passed stool, eight out of ten reported throwing feces in the open, either wrapped in paper or not, disposing in the garbage bins, practicing defecation on open ground, and flushing in the drain.

The absence of toilets is a significant barrier to practicing safe disposal of child feces; only 55% of mothers interviewed reported that they own a toilet. As a result, self-confidence in being able to practice safe disposal was low. This study did not explore how/who can enable more toilets to be built in homes. Handwashing facilities and washing agents were observed more in urban households than in rural households.

Handwashing with soap: Around 31% of the households were observed to have a handwashing facility (water plus soap) near the feeding area. However, the practice of handwashing with soap before feeding a child and eating was low. Urban families had substantially better handwashing practices. There was no practice reported on washing hands with soap after disposing child feces, or after washing the child's bottom.

According to husbands and mothers-in-law, the reasons for not washing hands with soap, especially before eating food was **carelessness, as 'they are always in hurry and are not habituated to wash hands before eating food'**. There is a strong belief that hands are clean if not handling dirt. The **knowledge** that dirty hands may lead to infections like diarrhea, fever or cold and cough was low (less than 15%). Many respondents noted that they do not have soap nearby everytime (14.2%).

Mothers perceived that **family support** for supplies of soap and water would be high if family members understood the risk of not washing hands. The husbands confirmed they can enable this practice by purchasing soaps in a timely manner, ensuring placement of soap near places of hand washing, and educating their wives about the positive impact of this practice on health. After understanding the risks of not washing hands with soap, **more than 90%** of the mothers felt **confident** that they could wash hands with soap every time after cleaning child's bottom and before feeding.

SEPARATING THE CHILD FROM SOIL

Most of the mothers reported the practice of separating the child from soil, 'as someone is always there to hold the child on the lap'. However, several **family members were not aware** of the risks of illness transmitted through exposure of the child to soil.

“ *Mitti men khele toh bachcha jaldi badhega, mitti men jaane se beemari hone par hi mana karna chahiye.* (Playing in the soil helps the child to grow faster, only when the child is ill should s/he be kept away from soil) – Grandmothers, Allahabad ”

Why are mothers not practicing hygiene and sanitation? (n=120)		
Behaviour	Reasons	Percentage (%)
Safe disposal of child feces	Don't have toilet	47
Washing hands with soap after handling child feces	Soap is not always readily available	17
Washing hands with soap before feeding	Forget sometimes	11
Keeping child separated from soil	Floor is kuchha so child has easy access to soil	23
	Child likes to play in soil	18

RAPID HOUSEHOLD TRIALS

Mothers were asked 1) to place a bucket of water and soap near the place where children are fed, and before each feeding, wash her own and her child's hands with soap and water; 2) dispose child feces in the toilet and flush properly (only recommended where toilets were available); 3) and wash hands with soap after cleaning a child's bottom

Findings

- **Most mothers were confident** that they could maintain hand wash stations and practice handwashing with soap every time the child eats.
- The recommendation to dispose child feces in the toilet was practiced by most of the mothers who had toilets in or near their home, and all of the respondents were able to recall the recommendations.
- Mothers were motivated to follow the recommendations because they are largely responsible for maintaining **handwashing stations at convenient locations** in their families and practicing handwashing with soap each time before feeding child.

- Some mothers reported **receiving support from their Mothers-in-law**; only few reported being aided by their husbands and very few stated being helped by their sisters-in law.

Of those who practiced each of the recommendations of hygiene practices, most expressed their willingness to continue practicing the hygiene behaviors.

PROGRAM PLATFORMS AND MEDIA REACH

Mobile phones are the most widespread communication platform in the homes of pregnant women and children below two years. Ownership of mobile phones is 87%, and these are used almost exclusively by men, for receiving and making calls. The cost of re-charging batteries was noted as a barrier by husbands for using mobile phones more extensively (e.g. for entertainment/music/sports/news).

Frontline workers of the National Rural Health Mission (NHM) and Integrated Child Development Services (ICDS) have the second highest reach or coverage of women during the critical 1,000 day period. The study found a medium to high coverage of direct face-to-face contacts of mothers with ASHAs and AWWs, ranging from 55% during pregnancy to between 60% and 80% in the 0 to 18-month age group. The frequency of contacts with mothers was found to decline after their infants reached about six months of age. Pregnant women reported getting advice from AWWs and ASHAs about dietary diversity, antenatal care, IFA, consumption of recommended foods, and other pregnancy care related issues. However, gaps were noted in specific information and supportive counseling given by frontline workers.

- Mothers noted that their mothers-in-law and AWWs are the most credible sources of information for advice. AWWs (Anganwadi worker) and Primary Health Centre (PHCs), doctors/ANMs emerged as the most credible sources of information on maternal diet and nutrition.
- Mothers noted that during the counseling contacts from the frontline workers of the NHM and ICDS on priority nutrition practices, relatively little counseling on information or support for key behaviors was provided. When discussed with FLWs, the workers noted they had provided the key information on priority nutrition topics.
- The nutrition content of contacts with FLWs is reported by respondents to be better for pregnant women as compared with mothers of young children.

Broadcast media was found to have a limited reach among pregnant women, mothers of young children, mothers in law and husbands in rural areas. The **reach of television is higher in urban areas. Broadcast media has a moderately high reach among frontline workers and community influentials.** Forty-two percent of the respondents reported having a television at their home, while only 5% had a radio. Among respondents and frontline workers, Zee Anmol, Star Utsav emerged as the most watched channels in rural areas, whereas Colors, Zee TV and Star Plus were the mostly watched channels among the urban respondents. Husbands also reported watching news.

CONCLUSIONS AND NEXT STEPS

With a greater understanding of the factors influencing current and future nutrition behaviors, a comprehensive Social and Behaviour Change initiative can be developed to mobilize key participants to improve nutrition in the first 1,000 days. An SBC initiative should be carefully focused and streamlined, and implemented with rigor in a sustained, intensified way. Based on this formative research and data from RSoC (MWCD 2013-2014), we recommend focusing on the following priority behaviors and small doable actions for mothers:

- Maternal nutrition: Encourage IFA and dietary diversity for pregnant women; small doable actions for mothers include asking FLWs and husbands to procure supplies of IFA and specific types of foods.
- Early initiation and exclusive breastfeeding for six months: Ask family members and health workers attending births (staff nurses and ANMs) for the newborn child to be placed on mother's breast immediately within the first hour (even for C-section deliveries) and ask for home visits by health workers and AWWs to learn breastfeeding skills and address common difficulties.
- Dietary diversity for complementary feeding: Ask fathers to procure specific locally available, affordable foods with high nutrient content.
- Handwashing with soap before eating (in pregnant women) and feeding children, and after disposal of feces: Focus on asking fathers to procure soap and establish handwashing stations near the place of food preparation and feeding.

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