

Behaviour Change Communication through mobile technology

Promoting IYCF practices among
caregivers in **Tamil Nadu**

Tamil Nadu (TN), India's southernmost state, ranks 5th in the Inequality-adjusted Human Development Index (IHDI)^[1] in the country. The IHDI indicators show that the state's performance in economic, educational, and health areas puts it ahead on the Human Development Index. According to National Family Health Survey - 4, the percentage of children under the age of six months who are exclusively breastfed in TN is 48.3%, as compared to the national average of 54.9%. This is despite TN having the highest institutional delivery rate in India, at 99%^[2]. The large gap between institutional deliveries and breastfeeding practices led to the conception of this initiative. To improve the Infant and Young Child Feeding (IYCF) practices, UNICEF — in partnership with Integrated Child Development Services (ICDS), Government of Tamil Nadu — initiated a pilot to improve adoption of IYCF practices using mobile phones for message communication. This was carried out in two blocks in the districts of Salem and Villupuram, which were selected in consultation with the ICDS department. The intervention included the following undertakings: phone messages to mothers, counseling of mothers, capacity building of Frontline Workers (FLWs), and orientation of fathers. These messages were customised for mothers receiving antenatal and postnatal care, with each message focusing on one of the following — health, nutrition, and hygiene practices. As a result of this intervention, the Interpersonal Communication (IPC) skills and knowledge levels of FLWs have improved. There is also an increase in engagement between FLWs, mothers, and their family members. The ICDS department now has a pool of resources trained in Social and Behaviour Change Communication (SBCC), which can be used in the implementation of other interventions.

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Please contact:

United Nations Children's Fund

UNICEF House, 73 Lodi Estate, New Delhi,

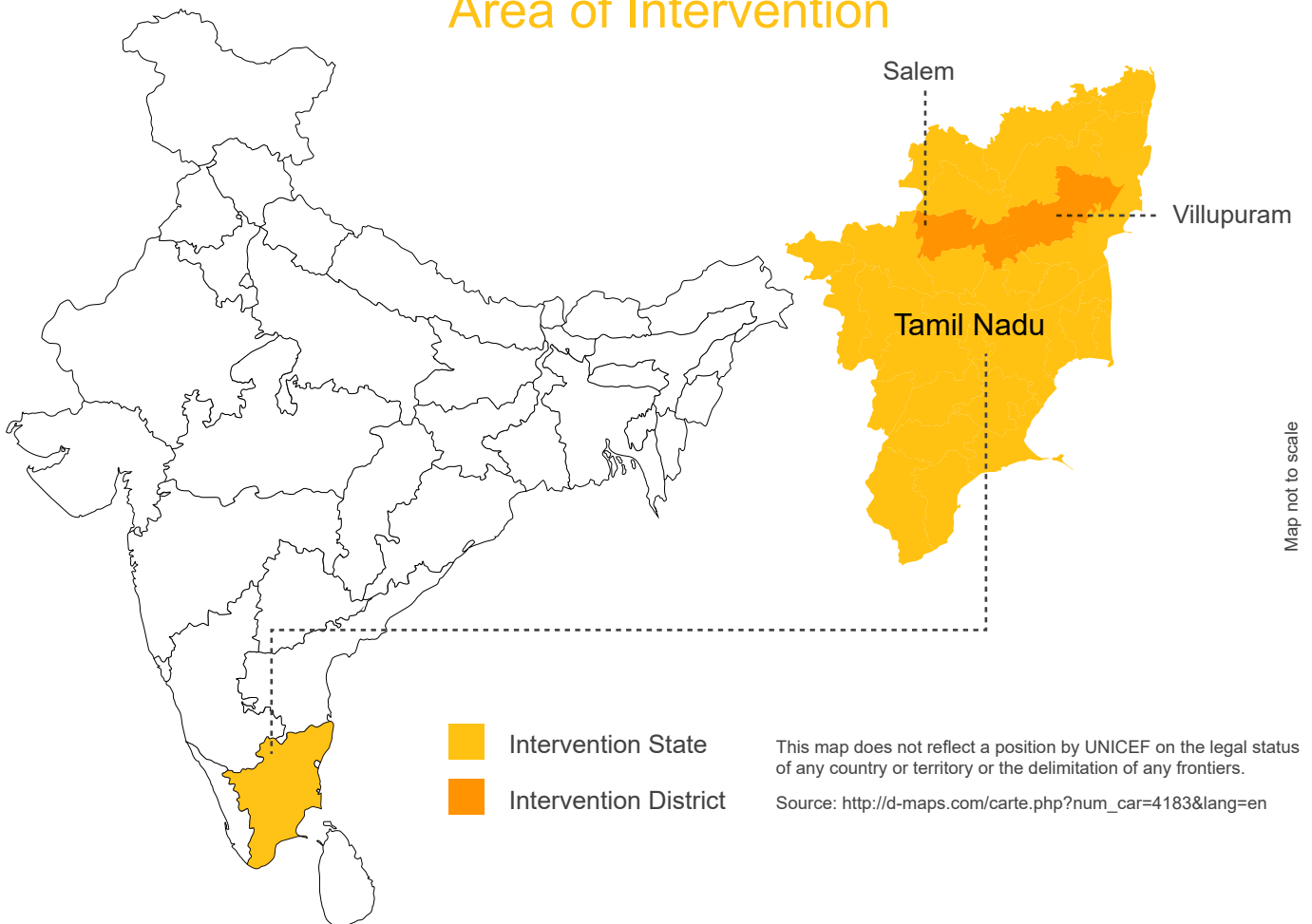
Tel: +91-11-24690401/0409, 40798000

Fax: +91-11-24690410, 246427521

Web: www.unicef.org/india

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Area of Intervention



Situation

The Ministry of Health and Family Welfare (MoHFW) defines Infant and Young Child Feeding (IYCF) practices as “a set of recommendations to achieve appropriate feeding of newborns and children under two years of age so that they achieve optimal nutrition outcomes in populations”. A study showed that the risk of an infant dying was 97% less among those children who were breastfed as compared to those who were not^[3].

In Tamil Nadu, challenges faced from the demand point of view are:

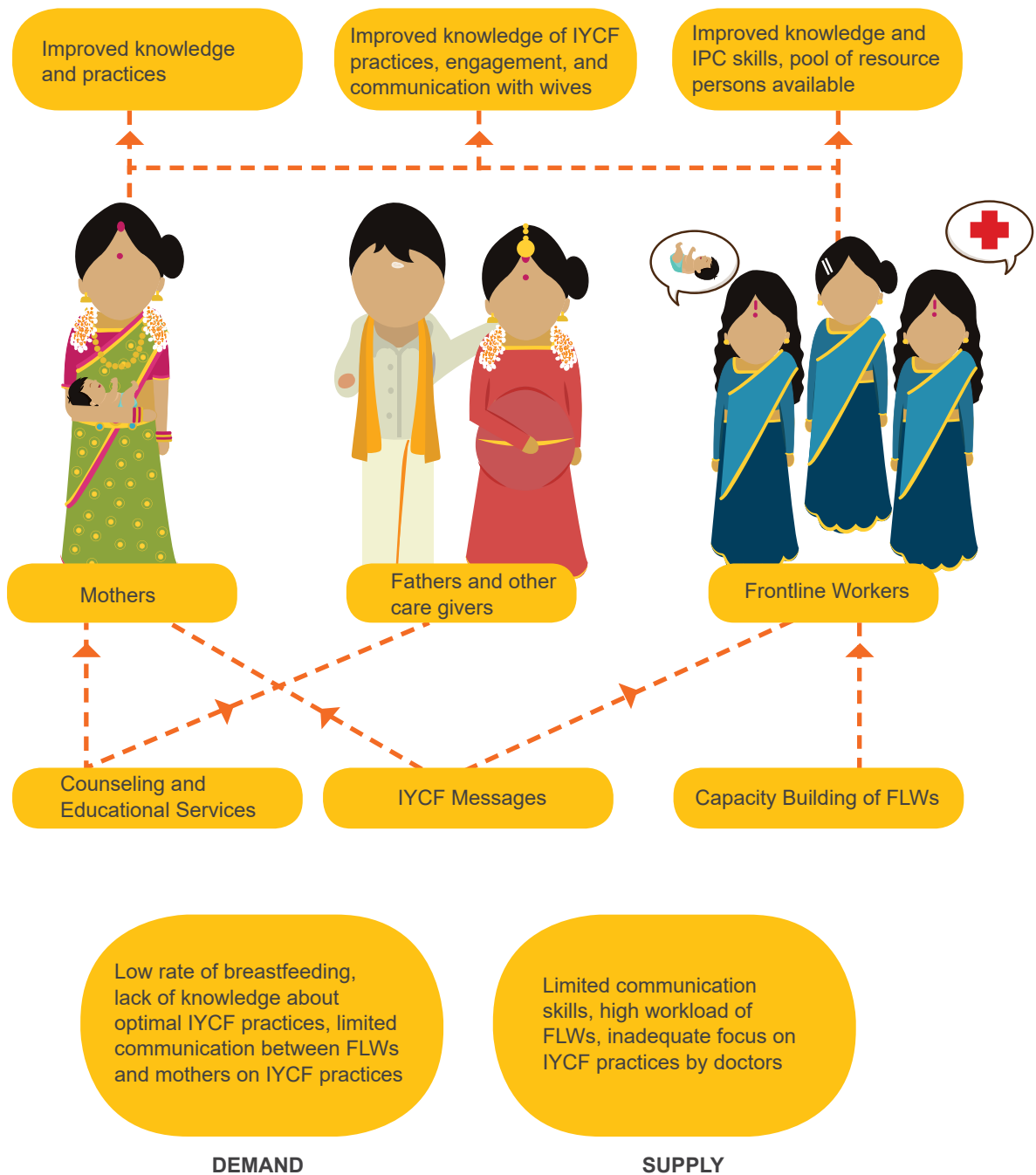
- Low breastfeeding rate: Percentage of children under the age of six months who are exclusively breastfed in TN is 48.3% as compared to the national average of 54.9%^[4]
- Lack of knowledge among women about the importance of optimal IYCF
- Limited communication between FLWs and mothers on IYCF practices like early initiation of breastfeeding and exclusive breastfeeding

On the other hand, challenges from the supply point of view are:

- High workload on FLWs
- Limited IPC skills among FLWs
- Generic and non-contextualised messages given by FLWs to the stakeholders
- Inadequate focus on imparting IYCF practices to mothers by doctors

To help improve the adoption of IYCF practices, UNICEF^[5] partnered with ICDS, Government of Tamil Nadu, and implemented a pilot that leverages mobile phone messages. This was an experimental initiative intended to examine and evaluate the feasibility, time, cost, and possible loopholes of mobile phone-based messaging services for the desired SBCC — with focus on adoption of IYCF practices among caregivers and care providers. A total of 24 messages in the vernacular language, Tamil, were sent every Friday to each of the five categories of stakeholders during this intervention period.

Theory of Change



The objectives of this initiative were:

1. To enhance the adoption of IYCF practices among stakeholders through SMS by using mobile phones as tools for behavioural change
2. To provide immediate counseling services to the stakeholders and educate them on IYCF practices through video films
3. To improve the IPC skills of FLWs during house visits and group meetings
4. To extract recommendations from the learnings for the government to extrapolate as an innovative initiative for the ICDS programme

The initiative was implemented from February to April 2017 in two blocks, namely Magudanchavadi in Salem district and Marakkanam in Villupuram district. These two districts were selected based on the following factors:

- Low intake of Antenatal Care and Postnatal Care services
- High number of beneficiaries among all categories (refer Table 1)
- Maximum number of service providers on board in these blocks at that point of time (36 in Magudanchavadi and 17 in Marakkanam)
- Presence of UNICEF consultants to provide necessary hand-holding, support, and supervision

Groups	No. of Beneficiaries		Total
	Marakkanam (Villupuram)	Magudanchavdi (Salem)	
Antenatal Mothers	911	596	
Pregnant Mothers	901	619	
0-6 month old children	901	619	
6-12 month old children	1,103	574	
1-2 year old children	1,931	1,286	
Total	5,747	3,694	9,441

Table 1

Method

When designing this intervention, UNICEF, in consultation with ICDS, decided to use mobile phones as a communication platform. As of April 2017, data from Telephone Regulatory Authority of India (TRAI) shows that there are a total of **1,174^[6]** million wireless phone subscribers in India, of which **43%** are rural subscribers. TN alone accounts for **8%^[7]** of the total in India. Mobile phones have become an important communication platform that help reach participants residing in remote locations promptly. Because of the widespread use of mobile phones and a high literacy rate (Male – **89%**, Female – **79%^[8]**) in TN, UNICEF decided to use mobile phones for the delivery of IYCF messages.

The pilot undertook the following strategies:

IYCF messages through mobile phones: In the two intervention blocks, phone messages were delivered to:

- Expectant mothers (for antenatal healthcare practices)^[9]
 - Mothers in the postnatal phase
 - Mothers of children aged 0-6 months
 - Mothers of children aged 6-12 months
 - Mothers of children aged 12-24 months
1. **Capacity development of FLWs:** FLWs were trained to build their IPC skills and aid the delivery of focused and contextualised IYCF messages to the participants. Facts for Life (FFL) videos^[10] and flip books were used for these trainings.
 2. **Counseling and educational services:** The counseling and educational services conducted imparted IYCF knowledge to mothers, and to sensitised fathers and mothers-in-law. FFL videos were used by FLWs to further elucidate the IYCF messages to mothers receiving antenatal and postnatal care.



FLWs were trained to build their IPC skills and to aid delivery of contextualized messages.

Action

FLWs from 209 sub-health centres were covered as part of this intervention.

Training of FLWs: FLWs were trained on IPC and the importance of behaviour change communication. They were taught to conduct effective two-way communication by using the GATHER^[11] principle. The training also focused on the usage and impact of mobile phones for information dissemination for behaviour change. Examples from other states, where mobile phones were used as a platform for behaviour change, were shared and discussed with trainees.

Messages to mothers and follow up counseling by FLWs: A total of 9,441 mothers^[12] across both blocks were covered in this pilot. The phone messages were contextualised and specific to the life cycle stage of the recipient. For example, expectant mothers were sent messages on the consumption of nutritious food on a daily basis.

During the intervention, the team came across a few challenges that blocked the effective delivery of text message-based communication. Listed below are the challenges, and the solutions provided for the same.

- Non-receipt of messages: 440^[12] stakeholders did not receive messages as they had activated the Do Not

Disturb (DND)^[13] service. Discussions were held with the technical agency handling the phone message dissemination to override DND and deliver the message.

- Illegible messages: 32%^[12] of the beneficiaries received box images instead of text messages. In such cases, FLWs first tried to readjust phone settings and correct the error. If the problem was still not resolved, they visited these households, showed them the messages, and discussed the content.
- Male ownership of mobile devices: Mobile phones in the house were primarily owned by male members, who carried it to their workplaces. Further, those working in towns returned home only once a week. The probability of them sharing these messages with their wives was uncertain and rendered the messages useless. To address this, it was decided that:
 - FLWs would visit 10 such households every day to educate and counsel the mothers on the message of the week.
 - Fathers would be oriented on the importance of IYCF practices for a mother and child, and the father's role in ensuring they are appropriately cared for.

Each FLW visited 10 households a day to educate and counsel mothers on IYCF practices.



Orientation of fathers: Fathers were informed of the phone messages and the importance for them to read, understand, share, and discuss the messages with their spouses. A total of 113 fathers^[14] participated, and

at the end of the session they were asked for written feedback. The feedback showed that all fathers^[15] found these messages useful in understanding IYCF, and said it helped them take due care of their wives.

Results ^[16]

The results from the pilot initiative can be seen across four stakeholders:

Frontline Health Workers

- The IPC skills of FLWs improved, and they now engage participants in dialogue, listen to and counsel mothers and their families.
- Capacity building activities have helped increase knowledge about IYCF practices.
- FLWs now deliver customised communication messages to mothers. Earlier, FLWs would communicate messages to mothers without focusing on their life stage, whereas now they deliver contextual and relevant messages. The FFL videos have helped them remember the right message for the right audience.
- This intervention has helped enhance the self-confidence of FLWs in conducting health and nutrition counseling for stakeholders.

“When I meet pregnant mothers now, I counsel them on not just regular hospital visits but also on consumption of nutritious meals on a regular basis.”

S Gowri, FLW from Magudanchavdi

Examples recalled and shared by FLWs of Marakkanam block are timings, amount, and duration of breastfeeding. A majority of the mothers were also able to recall the messages they had received.

Mothers

- Knowledge of the mothers on IYCF-related practices have improved. Few themes the mothers are informed about include: importance of iron and folic acid tablets, importance of colostrum, feeding-position, time and method, foremilk and hindmilk, and breastfeeding during sickness.
- The messages also served as a reminder for mothers to follow up on their health checkups.



Interaction with male members to orient them about the programme and importance of phone messages for their wives.

- A few of the mothers also reported that they felt assured, as the government was giving due importance to their healthcare by sending them personalised messages.

Fathers

- They now have knowledge about IYCF practices like colostrum feeding and share it with other caregivers in the family.
- Husbands have become more involved as fathers and have started to tend to their wives' healthcare needs during and post pregnancy. Mothers reported that their husbands accompany them during hospital visits and ensure consumption of nutritious, wholesome meals.

ICDS

- Owing to improvement in the IPC skills and knowledge about IYCF practices in FLWs, a resource pool well-versed in SBCC has been created in the ICDS department. This resource pool can be employed for other ICDS programmes as well.
- Social mobilisation abilities of FLWs have also improved.
- As a result of this intervention, demand for services from participants in the intervention blocks has increased^[17].





FLWs participating in a programme to share their experience and feedback.



Transformative Change

“IPC is a strong component of nutrition counseling for reducing malnutrition in the state. Further, through this initiative, the department has realised that men should also be part of interventions aimed at bringing behaviour and attitude change. The department has shared the initiative and results of the intervention with the state cabinet members, and there are ongoing discussions about scaling up this initiative in a phased manner in other blocks of the state.”

-Ms. J M Yamuna Rani, Deputy Director, ICDS Department, Tamil Nadu

Caselet 1



S. Gowri has been an FLW for the last 10 years in Magudanchavadi block, Salem district. In all her years of

work, she believed that it was her role to provide information and the mother's was to listen to her advice. After undergoing training under UNICEF's intervention, she started to use the GATHER principle in her interactions. As a result, she listens attentively to the mothers, other family members, and only then offers counseling. She feels this intervention has helped her deliver services efficiently, perform her role better, and engage more effectively with the community.

Caselet 2



P. Shanti of Magudanchavadi block, Salem district, was six months pregnant when her husband started receiving the phone messages. Her husband showed her the messages, soon

after which an FLW visited and counseled her and her family members. She feels that as a result of these messages, her husband started buying fruits for her, ensured that she got ample sleep everyday, and tried to help her with day-to-day household chores. This helped her stay healthy and happy during her pregnancy.

FLWs


“Previously, young pregnant women were afraid of delivery and the accompanying pain. After our counseling, they are mentally prepared for it and do not fear the childbirth process. Similarly, mothers would give jaggery water to infants but they are now aware of exclusive breastfeeding and its importance, and have thus stopped this practice.”

-S. Sumati, Marakkanam block, Villupuram district, TN


In Summary

UNICEF, in partnership with Integrated Child Development Services (ICDS), Government of Tamil Nadu, initiated a pilot to improve adoption of IYCF practices using mobile phones for message communication. Here's a blueprint of how the intervention was rolled out in two blocks, in the districts of Salem and Villupuram, which were selected in consultation with the ICDS department.


Action



FLWs from 209 sub-health centers were trained on behaviour change communication. They were taught to disseminate information via mobile phones, apart from other capacity building initiatives.



9,441 mothers received contextualised information specific to their pregnancy stage. They were visited by FLWs, who counseled them on the messages they received.



Fathers were oriented on the importance of the messages received on their phones. They were encouraged to be more participative in their child's care.

Results



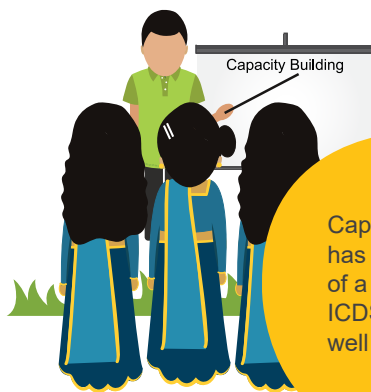
FLWs have enhanced communication skills. They are now able to effectively engage and counsel mothers and fathers on IYCF practices.

Mothers feel assured that the government is invested in their healthcare. There has been an increased uptake of IYCF practices since the intervention.



Fathers have become more involved, and actively tend to the pregnancy needs of their wives.

Transformative Change



Capacity building of FLWs has resulted in the formation of a pool of resources in the ICDS department who are well versed in SBCC.

References

^[1] http://www.undp.org/content/dam/india/docs/inequality_adjusted_human_development_index_for_indias_state1.pdf

The IHDI combines a country's average achievements in health, education and income with how those achievements are distributed among country's population by "discounting" each dimension's average value according to its level of inequality. Thus, the IHDI is distribution-sensitive average level of human development.

^[2] National Family Health Survey-4 (2015-2016)

^[3] Nomita Chandhiok, Lucky Singh, Kh. Jitenkumar Singh, Damodar Sahu, Arvind Pandey, 'Does Breastfeeding Have an Effect on Infant Mortality in India? An Analysis of National Family Health Survey Data', September 2015 (http://file.scirp.org/pdf/OJPM_2015091611264436.pdf)

^[4] Source: NFHS-4

^[5] Within UNICEF, Communication for Development and Health units worked together on this initiative.

^[6] http://www.trai.gov.in/sites/default/files/PR_No_43_Eng_13_06_2017.pdf

^[7] V-1-Less vulnerable, V-2-Moderately vulnerable, V-3-High vulnerable and V-4-Extremely vulnerable.

^[8] Source: National Family Health Survey-4

^[9] Though IYCF focuses on postnatal mothers and infants, based on data and field experience, UNICEF felt it important to include pregnant mothers. Proper maternal health and nutrition, as well as quality of care at delivery and during the newborn period can help to address health problems like low birth weight, birth defects, etc.

^[10] The list of Ammaji video films used is: AN & PN care, exclusive breastfeeding, early initiation and colostrum feeding, growth monitoring, nutrition and care for girl child, diarrhoea-causes & prevention, diarrhoea-home based management and handwashing with soap.

^[11] GATHER stands for the following six activities: Greet, Ask, Tell, Help in the decision-making, Explain, Return. An FLW is expected to do in each of her interaction.

^[12] Source: Programme monitoring data

^[13] https://www.google.com/url?q=https://en.wikipedia.org/wiki/Do_Not_Disturb_

^[14] Source: Internal UNICEF report on the intervention.

^[15] Of the 113 respondents, only 86 who could read and write undertook the feedback.

^[16] These results are based on interaction with ICDS, UNICEF, FLWs and participants (mother and fathers)

^[17] This is anecdotal and based on interaction with government functionaries in ICDS department.

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^[18] This includes traditional healers, traditional leaders and members of the self governing bodies.

^[19] Based on key informant interviews with stakeholders and programme documents.

^[20] The Ministry of Rural Development, a branch of the Government of India, is entrusted with the task of accelerating the socio-economic development of rural India. Its focus is on health, education, drinking water, housing and roads.

^[21] DPMU Endline Survey Report

^[22] DPMU Endline Survey Report

^[23] Based on key informant interview with Odisha UNICEF C4D state representative and programme document.

^[24] NRHM is an initiative undertaken by the government of India to address the health needs of underserved rural areas.

^[25] Integrated Child Development Services (ICDS) is an programme which provides food, preschool education, and primary healthcare to children under 6 years of age and their mothers.

^[26] *Sarva Shiksha Abhiyan* (Education for All Movement), or SSA, is an Indian Government programme aimed at the universalisation of elementary education "in a time bound manner", as mandated by the 86th Amendment to the Constitution of India making free and compulsory education to children between the ages of 6 to 14, a fundamental right.



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