USING DIGITAL MEDIA TOOLS TO IMPROVE
HEALTH, NUTRITION AND FAMILY PLANNING
OUTCOMES:
A REPORT OF PHONE BASED SURVEY
UNDER SAMVAD PROGRAM
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Executive Summary

The goal of Digital Green (DG) is to contextualize solutions, build capacities of frontline functionaries and engage communities to strengthen implementation and effectiveness of ongoing government programs. It works in partnership with state governments as well as civil society organizations to meet this goal. In the USAID funded Samvad Project, DG green aims to improve reproductive, maternal, newborn, and child health (RMNCH) outcomes by scaling ICT-enabled, human-mediated social and behavioral change communication (SBCC) approach for dissemination of integrated health information. Under this project community-based videos for improved health and nutrition outcomes were created and disseminated at the community settings through trusted and active public and civil society organizations that reach target audiences through self-help groups, Anganwadi Centers (AWCS) and FLW of health nutrition and livelihood missions, especially on Village Health and Nutrition Days (VHNDs), and at village organizations’ meetings. The project is being implemented in six states of India – Bihar, Chhattisgarh, Jharkhand, Uttarakhand, Odisha and Assam. For regular monitoring of the project surveys were also conducted in partnership with the London School of Hygiene and Tropical Medicine.

DG has started focusing on the use of digital tools to reach out to the communities which got further speeded up due to restrictions on group meetings imposed during the COVID-19 pandemic. During this time DG’s human mediated SBCC approach was replaced with digital platforms like WhatsApp (WA) and IVRS. After implementing these innovative and digital solutions for almost one and half years, DG conducted a study in Bihar, Chhattisgarh, Jharkhand, Odisha, and Uttarakhand. Designed to understand the efficacy and learnings of these new digital media tools in disseminating the information among the rural communities, a phone-based survey methodology was adopted. It attempted to reach 3423 community members and 350 mediators, across the five states, whose phone numbers were available with the project teams. Out of these, interviews were completed with 1850 community members and 237 mediators, due to different reasons.

The key findings of the study, across all the five states can be divided into the following themes:

1. Exposure to different channels of SBCC

   a. 85.5% community members (N=1352) were exposed to any of the platforms used for SBCC. 87.8% of women (n=1231) exposed to these messages, which was higher than the male (62%, n=121).

   b. Out of the total respondents who completed the interview (n=1352), majority (80.6%) were exposed to non-digital channels, while 40.2% were exposed to WA videos and 6.1% were exposed to IVRS.

   c. Among women community members, FLWs were the most popular source (83.2%) while for men community members, it was mass media (60.1%)

2. Exposure to WA videos

   a. 89.9% of the community members who received WA videos (n=967), recalled watching videos related to infant and young child feeding, followed by 78.9% watched videos on Mother’s Diet.

   b. More than 50% had watched videos related to Infant and Young Child Feeding (IYCF), while 24.4% and 33.5% reported viewing videos related to mother’s diet during pregnancy and ANC.

   c. More than 70% of the respondents who received WA videos reported that they watched videos on the WA platform using android phone while 42.7% reported that they saw the video through projectors in the community.

   d. 91% of the mediators reported that they received the WA videos
3. Exposure to IVR messages

(a) 22.4% of total respondents (1850) had received IVR messages. Out of these (415), 368 respondents shared that they could recognize the IVR messages. The most common reason cited was that the phone number displayed during the IVR calls started with 011 and ended with 0. The fact that these calls came on a fixed day also aided the respondent to identify the numbers. Some also reported that they were informed about these calls through the FLWs or through promotional messages sent earlier.

(b) Commonly heard themes through IVR messages include IYCF (85.3%), WASH (82.7%), Mother’s Diet (70.1%) and ANC (67.7%)

Amongst all the community respondents who did not hear the IVR messages, 86% shared that they were not aware of any such messages. The other reasons include respondent not carrying the mobile phone with them or inability to receive the call.

(c) 81% of the mediators shared that they had heard the IVR messages.

4. Knowledge and practice related to RMNCH

(a) 59.7% of mothers (of children under 2 years, n=514) were aware of more than 4 ANC services. However, out of 109 respondents, 66.1% shared that they were practicing the required number of visits.

(b) 93% of mothers (of children under 2 years, n=514) had knowledge about WASH

(c) Out of 1752 community respondents, both female and male, 80.4% were aware that a couple should maintain at least 3 years gap between two child births.

(d) Overall, 81.7% mothers reported practicing exclusively breastfeeding their children up to six months of age.

5. Utility of WA video/IVR messages

(a) 52.3% of mothers, in the study sample, across all stated reported that they adopted

(b) Almost all the community respondents who watched the WA video and/or heard IVR message reported these had helped in improving their knowledge and practice.

(c) 89% out of 237 mediators who received the WA videos and/or IVR messages found them to be useful.

While majority of the mediators reported that information shared through these channels provide required information on health and nutrition, many of them added that the language was easy to understand, and the time required for watching or listening to these videos was less. Due to these reasons, the digital channels were very useful.
6. Training and role of frontline workers

a. 45% of the total medicators in the study (237) had received virtual training on forming WA groups. 65% of them received training through WA videos especially developed for this purpose.

b. 46% of the total medicators in the study (237) had received training on disseminating health and nutrition videos through these groups.

c. 45% out of the 216 mediators reported forming WA groups

d. 89% mediators sharing videos to community members

e. 75% of the mediators suggested that information about the training should be given in advance for better participation.

7. Implications of COVID-19 on health and nutrition

a. The most prominent services affected during the pandemic are consumption of nutritious foods (68.5%), followed by availability of food items (39.6%).

b. Around 20% women (n=1231) and 24% men (n=121) said their health and nutrition got affected due to COVID-19.

c. Unavailability of required food was highlighted by 39.5% of the women and 41.3% men

d. 18.4% among women and 33.1% among men reported that they faced problem in treatment of general illness due to COVID-19

e. 63% women were not able to manage the ANC checkups during COVID-19

Due to the limitation of the phone survey, these results may not be generalizable. However, the study successfully highlighted that multiple channels of information dissemination were useful during the pandemic period. This helped in reaching health and nutrition related information to more than 85% of the community members. The exposure was more among the women as compared to men. This could be because, often, the information related to maternal and child health is considered to be relevant for women and hence men do not devote much attention to it. Although almost all participants who listened to the IVR messages and/or watched the WA videos, the main consideration for receiving the IVR messages is the availability of a phone, while for watching WA videos an android-based phone is essential. Network issues were also a challenge in accessing these channels.

The study also drew attention to the crucial role of the FLWs in dissemination of information, with more than 80% of the women seeking their advice for health and nutrition of mother and child. Hence, there is a need to build capacities of these workers on issues related to these digital channels. However, many of these workers did not receive the training on WA group formation and video dissemination through WA which resulted in less WA groups formed as well as videos being shared.
In conclusion it can be reiterated that, while digital platforms may be considered as a potential channel for SBCC with increase in penetration of mobile services in different parts of India, it is important to take some measures to make this channel more effective.

These are as follows:

01 Any organization, before adopting this digital based SBCC should have a valid data base of phone numbers which needs to be frequently updated.

02 Considering the dependency on the FLWs for information on maternal and child health issues, more attention is required to enhance the capacities of these workers in promoting these channels. In addition to traditional training methodologies, WA videos can be circulated, and some handholding support should also be provided.

03 While the digital channel can be used to inform people, they do not necessarily translate into positive practices. For this human-mediated approach is very crucial

04 There should be regular interaction with the community, especially target beneficiaries to understand their needs and based on those new videos may be developed.
About Digital Green and Project Samvad

With the mission to empower smallholder farmers, to lift themselves out of poverty by harnessing collective power of technology and grassroots level organizations, Digital Green (DG) partners with government, private agencies, and rural communities to co-create appropriate and participatory digital solutions for improving agricultural, health and nutritional outcomes. The three key strategies adopted by DG are contextualization, capacity building (training and mentoring local partners) and community engagement. Integrating complementary Information and Communication Technology (ICT) platforms -- including Interactive Voice Response (IVR), community radio, mobile vans, and mid media have expanded the coverage of these interventions.

‘Project Samvad is a digital Community Engagement Platforms for Improving Family Planning, Maternal and Child Health and Nutrition Outcomes. It aims to improve reproductive, maternal, newborn, and child health (RMNCH) outcomes by scaling DG ICT-enabled, human-mediated social and behavioral change communication (SBCC) approach to disseminate integrated health information. The video-enabled, community-focused, participatory approach empowers rural communities to share knowledge in a way that promotes adoption of practices that improve health and nutrition outcomes.

Three objectives of Project Samvad are:

01. Increased knowledge and improved maternal and child health behaviors, with a focus on nutrition for women in the 1000 days period and their children.

02. Increased knowledge and use of modern contraceptive methods; and

03. Capacity building and scale-up of DG approach to empower communities to demand and access government services and entitlements.

DG, with the help of the government and other partners, is implementing Project Samvad in six states of India viz. (Bihar, Chhattisgarh, Jharkhand, Odisha, Uttarakhand, and Assam). Under this project, community-based videos for improved health and nutrition outcomes were created and disseminated at the community settings to reach target audiences through self-help groups and Anganwadi Centers (AWCs). This strategy of collaborating with existing health system structures -- including State Rural Livelihood Missions (SRLMs), state-level agencies of the National Health Mission (NHM) under Ministry of Health and Family Welfare (MoHFW), and the Department of Women and Child Development (DWCD) -- is particularly important for: reaching women in the critical 1000-day window through community health educators – ASHA (Accredited Social Health Activists or ASHAs) and Anganwadi workers (AWWs); ensuring that efforts are not duplicated; and ensuring project sustainability beyond the funding cycle.

Since March 2020, COVID-19 disrupted the video dissemination in the community settings as in-person meetings and field visits had come to a halt. To address this, DG developed short videos and IVRS messages related to maternal, child health, and nutrition, in consultation with the government and other partners. These were shared through innovative digital media tools, such as WA and IVRS among the communities and the mediators. After almost one and half year of implementing these innovative digital solutions, DG conducted a phone based study to understand the efficacy and learnings of disseminating the information among the rural communities through these tools.

Key achievements of Samvad Project

Samvad reach over One Million beneficiaries within the first four years of implementation. Directly reached 714,053 women in reproductive age through its video enabled SBCC approach Indirectly reached 1.9 million people through mass media and midmedia platforms
Background of the study

The intervention’s assessment aimed to understand lessons on using digital media channels in reaching out to the community and the utility and acceptability of these channels.

Specifically, the objectives of the assessment were:

01. To understand the availability of active phone numbers (Android/features phones to access WA and IVR messages) among the mediator and community members whose contact numbers are available with Samvad team.

02. To understand the exposure of different digital and social media tools (like WA, IVRS and mobile phone-based dissemination) by the mediator and community members.

03. To know acceptance/utility of the WA videos, WA chatbot messages, IVRS messages, and other digital tools to the community members and mediators.

04. To know the enablers and barriers in using digital media tools by the mediators and community members.

05. Knowledge and practices of community members and mediators about health and nutrition.

06. Understanding the challenges of COVID-19 on nutritional and Family Planning (FP) related topics.
Methodology

Study Design

With increasing penetration of mobile phones in developing countries many development agencies have identified phone-based surveys as a rapid, accurate, flexible, and cost-effective method for data collection. In some situations, like identifying citizen priorities, or assessing the perception of beneficiaries about the project, this method of data collection has been able to augment the traditional methods (Leo et al, 2015). For this study a phone-based cross-sectional survey was conducted by a third-party research firm who were engaged in previous rounds of Samvad surveys.

The study sample included mediators and the community beneficiaries of Samvad in Bihar, Jharkhand, Odisha, Chhattisgarh, and Uttarakhand. The project collected the mediator and community members’ phone numbers from different government partners such as State Nutrition Mission, State Livelihood Mission, and NGO partners. The mediators included in the study were FLWs from different government departments. In Odisha, they were the staff of the NGO partner. The community members comprised mothers of children under two years of age, women aged 15-34 years, and their husbands.

Interviews with the mediators helped us to understand the process and challenges of sharing and accessing videos through WA, YouTube links, and listening to IVRS messages. Interviews with the community members helped to gauge the intervention’s reach, exposure to the digital tools, utility of digital channel, and outcome in terms of knowledge of recommended health practices.

For the data collection, Centre for Media Studies (CMS) was contracted by DG. The same agency was also employed for the different rounds of survey conducted during the project. The team of investigators had experience in conducting population-based phone surveys.

The survey findings and learnings were used to inform and refine the program strategies for more effective implementation of such programs and upscale the program using digital approaches.

Parameters of assessment:

- **01** Community and mediators having active phone numbers
- **02** Community members (out of those whose phone numbers are available) accessing WA videos, IVRS, and other platforms like mass media and projectors
- **03** Community and mediators exposed to health and nutrition videos, IVRS messages, and other information sources.
- **04** Utility of the digital media tools by the community members and mediators
- **05** Challenges in accessing digital extension tools by the community members and mediators
- **06** FLWs imparted training/orientation or received facilitative videos to access and share videos with the community
- **07** Knowledge and practice of community members around key health and nutrition practices.
- **08** Challenges of COVID-19 on nutrition and family planning related matters
Sample Size

Although the plan was to cover 50 mediators and 500 community members from each of the project states, the sample was selected randomly from the mediators and community members whose phone numbers were available with the project team. Hence, the findings of the study are applicable to this population only and do not represent the entire community. The required sample size for the community was met in Jharkhand and Odisha, out of the study states. Similarly, except Odisha, the sample size for mediators was met in all project districts. The actual sample size across the five states was as follows (Table 1):

<table>
<thead>
<tr>
<th>Type of respondent</th>
<th>Chhattisgarh</th>
<th>Jharkhand</th>
<th>Odisha</th>
<th>Uttarakhand</th>
<th>All states</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community Interviews completed</td>
<td>326</td>
<td>516</td>
<td>503</td>
<td>370</td>
<td>1850</td>
</tr>
<tr>
<td>Mediators Interviews completed</td>
<td>52</td>
<td>51</td>
<td>32</td>
<td>51</td>
<td>237</td>
</tr>
</tbody>
</table>

89.8% out of the 1850 community members and 85% out of the 237 mediators in this study were female. The remaining 10.2% and 15% were male respondents from community and mediators respectively.

Data collection:

Separate mediators’ and community members' questionnaires were developed using an Open Data Kit (ODK), allowing data collection using Android phones and tablets. Investigators with experience of doing CAPI based interviews were deployed for data collection. They were oriented, in details, on the questionnaire and use of the ODK based. The questionnaires took nearly 20 minutes to complete an interview with community members as well as with mediators.

Quality Assurance Mechanism:

To ensure the data quality, research organization team employed the following measures:

1. Rigorous orientation of investigators which included mock interviews to make sure that they asked questions and mark answers correctly.
2. In the ODK questionnaire features were built-in that reminded investigators to recheck the responses before submitting the filled up final questionnaires.
3. The data was downloaded periodically and the data quality for each of the investigators was monitored. Besides, DG M&E team conducted back checks.
4. Inbuilt skips in the questionnaires helped investigators to avoid possibilities of asking wrong questions.
Data Security

The data was collected at the secured server of DG or ODK Kobo Collect and was password protected. Interviewers were required to login to the system to access the surveys and to upload data which was transmitted electronically from the mobile ODK application to the server. Only authorized personnel could access the data via password control. The data was extracted in csv files or as per the requirement for quality monitoring and analysis.

Respondents’ consent and protection of the rights

The study has been approved by the Ethics Review Board of CMS. A verbal informed consent for phone-based interviews was obtained by the data collectors before the interview. In cases where recording was not possible due to technical issues, verbal consent was taken.

To protect the rights of respondents of the survey following measures were adopted:

1. Before initiating the data collection, the study subjects (community members and mediators whose phone numbers are available with Samvad program) were fully informed about the study purpose and the methods adopted. They were explicitly informed that the information collected will be used only for the research purpose.

2. Interviewers used consent forms and clearly mentioned that participation of the respondents in the study was completely voluntary and that there was no consequence for not participating in the study. The community members were assured that they will receive the same information and health services whether they participate in the study or not. Mediators were explicitly told that there was no pressure on them to participate in the study and in case of their refusal to participate in the survey no actions will be taken against them.

3. The information from the interview was kept confidential. Interviewers did not ask the name of the respondents and data collection was anonymous; only DG staff and research organization staff had access to identifiers. The responses of mediators were not shared with their supervisors or anyone else with identifying information to protect their rights and interests. Respondents’ identifiers, including the phone numbers were removed while sharing the data with anyone. The investigators were instructed not to share the respondents phone numbers or any other information of respondents with anyone other than the study team.

4. The respondents were informed that they can decide not to answer questions that are uncomfortable to them, and they could stop the interview at any time.

5. The information was analyzed collectively so that no one person’s response can be traced individually.

6. The Principal Investigator and the research organization had access to the collected data while DG and the survey organization ensured confidentiality.

7. The participants were provided the contact number of the research organization/Principal Investigator to get clarification or ask any question about the study even later.

Study applicability and dissemination plan

Digital tools and technologies can be mobilized to step up the pace and scale of programs and increase the reach to the remotely located communities. The lessons of employing digital tools for health and nutrition purposes aimed to enhance the access to the poorest, remote, and vulnerable and help to improve the uptake of services and knowledge and outcomes related to maternal & child nutrition and family planning.

Findings of this study may not be generalizable due to limitations in sampling, but evidence generated on the efficacy of digital channels for social behavior change does merit attention. These lessons have also been shared with the government stakeholders in all five study states.
Findings

1. Reach of information through different digital and social media tools (like WhatsApp videos, IVRS)

Number of people who had access to phones is a necessary parameter to ascertain the reach of the program through different social media tools. To know this, first the number of calls attempted on the available phone data base was noted. Second indicator was the percentage of active phone number which were indicated by the number of respondents that the interviewer could reach, telephonically. The low figures of calls attempted in Chhattisgarh can be justified by the fact that the Samvad project is being implemented in only 2 blocks of 1 district of Chhattisgarh. Hence the phone numbers available with the project team was also lesser. The state with least active phone numbers was Odisha (37.1% out of 1357 calls attempted). In Bihar, the project is being implemented in 9 blocks across 5 districts, but the total calls attempted was 485; out of which 67.8% respondents had active phone numbers (Graph 1).

It was found that 54.6% of community respondents whose numbers were available (N=3423), had active phones. The percentage of respondents in this category varied across the five states. The highest was in Uttarakhand (81.6% out of 468 calls attempted), followed by Chhattisgarh (80.6% out of 170 calls attempted). Across all states 72.3% of mediators (N=350) had active phone numbers. Odisha (96.97% out of 33 calls attempted) followed by Chhattisgarh (94.12% out of 68) were the top two states while the lowest figures are from Bihar where only 45.61% of mediators had an active phone number.

Merely having a phone may not translate into ability to access information, especially those that are circulated through digital platforms like WA. Out of 1850 respondents whose numbers were active, 78.9% had android phones, while 12.4% had feature phone while 8.5% had basic phones without WA (Graph 2).

While 99% of the respondents from the community and 93.7% of mediators completed the survey, there were a few who did not complete the interview because of their busy schedule, respondent not carrying the phone and network problems.
2. Exposure of Community Members and Mediators to maternal and child health messages

85.5% of 1850 community members, who completed the interviews, responded that they were exposed to the messages prepared under the Samvad Project. Disaggregated by gender, the majority of women respondents shared this opinion (87.8%). There were interstate variations as well (Graph 3). In Chhattisgarh and Bihar more than 90% of the respondents shared that they were exposed while the least was in Jharkhand (82.3%). In Bihar and Chhattisgarh, more than 90% of respondents who had seen the videos were women. Among male respondents who were exposed the percentage varied between 81.8% in Chhattisgarh and 53.7% in Jharkhand.

Graph 3: Community exposure by any medium WA vid/IVR call/IVR SMS/FLW/Phone/Projector (in%)

85.5% of community respondents were exposed to the messages prepared under the Samvad Project. Out of them, 87.8% were women.

3. Sources of information

The phone survey gathered data on the types of sources from which the community members received the health and nutrition messages. The sources included WA, IVR calls, IVR SMS, FLWs, Phone and Projector. Graph 4 shows the variations in the different types of sources across the five study states. 80.6% of 1352 respondents were exposed to the non-digital platforms, followed by 40.2% and 21.6% of respondents exposed to WA Videos and projectors respectively. While men respondents (97.2%) had more access to non-digital platforms, than the female (81.2%), for all other platforms women had more access respondents were higher.

Graph 4: Exposure to different types of sources

80.6% exposed to digital platforms and 40.2% to WA videos.
Further, it is important to specify the types of non-digital sources reported by majority of the community members. Health workers and other FLWs was most popular among both female (83.4%) and male (61.5%) (Graph 5). Exposure to the mediators among the women varied from 79.1% in Jharkhand to 92.4% in Chhattisgarh while it was between 16.7% in Odisha and 81.8% in Chhattisgarh for the male respondents. Members of family and community was a preferred source for women, while for men television was more common. The third source which was mentioned by almost 50% of both female and male members were the mass media like posters and banners (Graph 6).

Graph 5: Community Exposure from Non digital channels like TV, Radio, FLW

Graph 6: Community exposed by FLWs (Gender-wise, in %)
4. Access to video messages

The two important indicators that determine the access to video messages are receiving the video and watching it. Out of 1850 community respondents, 54.4% reported receiving the video across the five states. There were inter-state variations with more than 60% respondents in Chhattisgarh, Bihar, and Odisha reported receiving videos compared to 50.4% and 38.7% in Jharkhand and Uttarakhand respectively (Graph 7). More than 80% of the community respondents mentioned that they received the videos from the FLWs and 37% from the DG team. According to 12% respondents the videos were shared by government and other agencies (excluding the FLWs).

Among the 1006 community respondents who had received the videos, more than 95% across the states had watched it. Among the 5 states, 100% community respondents from Chhattisgarh said that they had watched the video, while in others it ranged between 90.9% (in Uttarakhand) and 98% (in Bihar). Among these 74.3% of the respondents had watched the video that was sent by WA, 20.4% respondance said they used the You Tube link, while 42.7% had seen the video through projector in the community group, and 20.8% saw it through phone in the community group.

100% of the mediators in Jharkhand and Odisha as well as more than 90% in Chhattisgarh and Uttarakhand reported that they had received the video messages. The lowest numbers were reported from Bihar, where 72% mediators had seen the videos.

Yet another important indicator was the content of the video messages that community members were accessing. According to the response by the community members during the phone survey the top three most watched videos were on Infant and Young Child Feeding Practices (89.9%), Mother’s Diet (78.9%) and WASH (76.9%).

Only 37 respondents said that they had not seen the videos. The most cited reasons were as follows:

- Lack of awareness of these videos or did not know how to operate.
- Phone was not available with respondent
- Problems with the phone or internet connectivity.
5. Access to IVRS

Two indicators to assess the access to IVRS were- (i) received IVR and (ii) recognized IVR by respondents. Out of 1850 respondents only 22.43% respondents across state reported that they had received IVR. The figures were highest in Odisha (45.33%) and lowest in Jharkhand (4.65%). 60% of them reported that they identified the IVR messages as sent by DG or Samvad Project while the remaining said that these were from the Government. When the respondents were asked how they recognized the IVR, 59.5% said that the number which was visible on the mobile screen started with 011 and ends with 0, while 38.6% said because the phone came on a fixed day of the week. According to 29.4% of the respondents, they could identify because the promos were shared earlier. 15.2% said that FLWs had informed them about the videos. 72% of those who received the IVR messages shared that they heard the complete message, while 25% had heard it partially. When the respondents were asked about their views regarding the IVR, almost all shared that these messages helped them to improve their knowledge and practice.

77.6% of the 1850 community respondents had replied that they did not receive IVR. Overall, 81% of the mediators across 5 states received IVR messages except Chhattisgarh with 32% of mediators were in this category.

6. Utility of the video/IVR

Most respondents shared that information shared by digital platform was useful because of reasons given in Table 2.

<table>
<thead>
<tr>
<th>Reasons</th>
<th>Videos (N-961)</th>
<th>IVR (N-410)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Provide required information on health and nutrition</td>
<td>88.87%</td>
<td>82.93%</td>
</tr>
<tr>
<td>2. Easy to understand</td>
<td>77.7%</td>
<td>86.1%</td>
</tr>
</tbody>
</table>

In addition, 40.6% of respondents said that they found the WA video useful because it required less time while 40.1% reported that the messages were short. 17% of respondents said the videos could be easily viewed in the WA group. Some reasons in favor of IVR were that these messages could be heard anytime of the day by giving a missed call (26.6%) and they can be accessed in feature phones as well (25.1%).
7. Knowledge and Practice of key health and nutrition behavior

In this study an attempt was made to understand the current situation related to knowledge and practices. According to the responses gathered, 59.7% out of 514 respondents had knowledge of at least 4 ANC Check-ups. The percentage of respondents ranged between 83.9% in Chhattisgarh and 45.1 in Uttarakhand (Graph 9).

95% of the respondents (n=514) responded correct knowledge about mother’s diet during pregnancy. In this case the range was between 100% in Jharkhand and 87.1% in Chhattisgarh (Graph 10). Almost all respondents had the correct knowledge of Water and Sanitation Hygiene (WASH) practices but 52.4% out of 514 respondents reported practicing the knowledge. The percentage of respondents adopting the handwashing practices ranged between 67.3% in Odisha and 41.9% in Uttarakhand (Graph 11).

79.4% women and 73.6% men were aware that a minimum 3 years gap should be maintained between 2 pregnancies. In Bihar, Chhattisgarh and Uttarakhand, the knowledge among women was slightly more than men while in Odisha it was opposite (Graph 12).

Graph 9: Knowledge and Practice about 4+ANC

Graph 10: Knowledge about mother’s diet during pregnancy (in %)

Graph 11: Knowledge about handwashing practices (in %)

Graph 12: Knowledge about minimum 3 years gap a couple should maintain between two births (in %)
8. Training and role of frontline workers

The mediators had a very crucial role in the contribution to the success of the project. To ensure that they were able to share videos effectively, 45% out of 237 mediators, who responded to the questions related to training, reported that they underwent training in forming WA groups while 46% said that they were trained on disseminating health and nutrition messages. While in Odisha 100% of mediators were trained in both these topics, the status was not same in other states (Graph 13). At this juncture it is important to recognize that both these categories are not mutually exclusive.

Graph 13: Mediators participation in training/orientation

The 118 mediators who were unable to participate in these trainings, cited reasons such as lack of information about training programs, poor internet and mobile connectivity and did not receive training videos.

The other important indicator related to training was the medium of training. Broadly, there were three categories – (i) face to face, (ii) WA video based and (iii) others. Overall 65% and 45% of mediators were trained through WA and face to face trainings respectively, while only 7% of them were trained through other methods. The percentage of mediators who received the second type of training was more than the first in all states, except Jharkhand (Table 3).

<table>
<thead>
<tr>
<th>Table 3: Medium of training</th>
</tr>
</thead>
<tbody>
<tr>
<td>States</td>
</tr>
<tr>
<td>--------------</td>
</tr>
<tr>
<td>Bihar (N=52)</td>
</tr>
<tr>
<td>Chhattisgarh (N=51)</td>
</tr>
<tr>
<td>Jharkhand (N=29)</td>
</tr>
<tr>
<td>Odisha (N=32)</td>
</tr>
<tr>
<td>Uttarakhand (N=17)</td>
</tr>
<tr>
<td>Total (N=110)</td>
</tr>
</tbody>
</table>

Mediators suggested different measures to improve the reach of these trainings. 94% of them were of the opinion that information about the training schedule and purpose of the training should be provided in advance as well objectives of the training need to be explained. 14% of them also mentioned that problems related to communication channels needs to be resolved prior to the training while 5% mentioned that the permission of the supervisors and other officials needs to be sought.

Data revealed that differences in numbers of mediators trained, and the types of training received had an impact on the WA groups formed as well as on regularity of sharing videos by them. 45% out of 216 mediators across states reported forming WA groups. While 93.7% mediators from Odisha (n=32) reported that they were able to form the groups, followed by 81.3% in Chhattisgarh (n=48), in Jharkhand, 7.84% mediators (n=51) were able to do so. On an average 17 members were in each group, but the numbers varied across states. Table 3 shows the state-wise variation in WA groups formed and the average members of each group.
89% of mediators, who formed WA groups (N=215), reported sharing WA videos. Graph 14 indicates slight variation among four states had shared the videos. Bihar was an exception where half of the mediators were doing the same.

<table>
<thead>
<tr>
<th>States</th>
<th>Mediators formed WA groups (in %)</th>
<th>Average community members in each group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bihar (N=37)</td>
<td>27.03</td>
<td>14</td>
</tr>
<tr>
<td>Chhattisgarh (N=48)</td>
<td>81.25</td>
<td>14</td>
</tr>
<tr>
<td>Jharkhand (N=51)</td>
<td>7.84</td>
<td>12</td>
</tr>
<tr>
<td>Odisha (N=32)</td>
<td>93.75</td>
<td>21</td>
</tr>
<tr>
<td>Uttarakhand (N=48)</td>
<td>29.17</td>
<td>15</td>
</tr>
</tbody>
</table>

9. Implications of COVID-19 on Health an Nutrition

The survey captured some information on the adverse effects of COVID-19 on health and nutrition of the community. Although these findings may not be generalizable, it provides some important insights. The first most important factor is availability of food. 39.6% of the overall community respondents reported that food available during the COVID-19 period was inadequate as compared to pre-pandemic days. The percentage of men who reported this was slightly more than the female. The problem was more in Bihar and Chhattisgarh where 62.1% and 53.3% respectively mentioned this problem. In these two states, the percentage of women who voiced this opinion was more than the men. In the remaining three states, 48% to 26% respondents reported the same, but male respondents were more in agreement compared to females (Graph 15.1).
The problem of less availability of adequate milk and food was also faced by 74.1% children, as reported by their mothers. In two state Chhattisgarh and Jharkhand the percentage of mothers who reported this was around 90% or more, while for Bihar and Uttarakhand it was around 75%. The lowest percentage was from Odisha which was 40% (Graph 15.2).

It is commonly understood that delivery of health services during COVID 19 was disrupted. The phone survey revealed the magnitude of this problem varied across states and between gender. While 19.8% of the total respondents shared that they faced problems in getting treatment, the percentage of men reporting this was more than women. Among the states, Chhattisgarh (50.7%), followed by Jharkhand (25.7%) and Bihar (20.5%) had more percentage of people reporting difficulties as compared to the overall figures. The percentage of female who gave the same response ranged between 5.8% in Odisha and 45.5% in Chhattisgarh. For the male, the percentage was between 12.5% in Uttarakhand and 81.8% in Chhattisgarh (Graph 16).

Besides the problems in getting general treatment, the pregnant women did not receive regular ANC checkups during COVID-19. As the data shows, 63% of the 92 pregnant women who competed the interview mentioned this issue. The percentage varies across states with 100% women complaining about this while in Odisha it was 34.8% (Graph 17).
58.3% of the overall respondents reported that family planning methods were available to them. Availability of these services was highest in Odisha (73.9%) while it was lowest in Bihar (36.2%). Women had more access to FP service as compared to male across the states, except Chhattisgarh where the male had better access (Graph 18).

The most dominant effect of pandemic was on the consumption of nutritious foods, followed by availability of milk and food items. The health and nutrition as well as access to health services were also reported to have suffered (Graph 19).
Discussion:

Project Samvad was aimed to improve the knowledge and practices related to reproductive, maternal and child health. DG adopted an ICT enabled human-mediated SBCC approach. Context-specific video messages were developed that responded to the RMNCH needs of the women of reproductive age group and their families in the six states of India – Assam, Bihar, Chhattisgarh, Jharkhand, Uttarakhand, and Odisha. These videos were screened in the community, by the FLWs of the selected government departments and other nongovernment partners, using pocket-size Pico projectors.

For assessing the effectiveness of this approach, DG in collaboration with London School of Hygiene and Tropical Medicine conducted six surveys. Findings of this study served as a responsive feedback mechanism for the project’s progress and course corrections.

Since March 2020, the human-mediated SBCC approach was stalled due to the COVID-19 restrictions. In response, DG leveraged digital platforms for awareness generation like WA and IVRS. Short videos and IVRS messages developed and shared with the community and mediators through phones. To facilitate better coverage, the organization also trained the mediators on topics like forming WA groups and sharing messages through this platform.

The COVID-19 situation also posed a challenge for continuing the ongoing survey that was conducted face-to-face with community and mediators. However, DG was committed to assess the activities and the outputs that took place since March 2020. For this, a phone-based survey was conducted in five project states – Bihar, Chhattisgarh, Jharkhand, Uttarakhand, and Odisha. The sample for this study included only those community members and mediators whose phone numbers were available with the project team. The study focused on the following parameters of assessment:

- Community and mediators having active phone numbers
- Community members (out of those whose phone numbers are available) accessing WA based videos, IVRS, and other social media tools.
- Challenges in accessing digital extension tools by the community members and mediators
- Community and mediators exposed to health and nutrition videos, IVRS messages, and other information sources.
- FLWs imparted training/orientation or received facilitative videos to access and share videos with the community
- Utility of the digital media tools to the community members and mediators
- Knowledge and practice of community members around key health and nutrition practices.
- Challenges of COVID-19 on nutrition and family planning related matters
Although the findings of the study are not generalizable because the phone survey could gather data from only 54.6% of the potential respondents from the community (N=3423) and 72.3% of mediators (N=350), there are some important findings that merits discussion.

To begin with, almost 80% out of community members who responded, had android phones while remaining had basic phones. Thus, DG’s decision to include platforms like WA and IVR based dissemination in the Samvad Project, along with other mediums like the Projectors and non-digital channels, ensured complementarity. This helped in widening the reach of the messages. As reflected in the phone survey, more than 85% of the community members (N=1850), across states had received information from any of the sources.

However, according to the responses of community members, only 40.2% and 6.1% of the respondents from the community were exposed to WA and IVR respectively while, 80.6% had received information from non-digital platforms. Although this might be construed as inability of the digital platforms to reach large number of people, it was also revealed that 95% of those who received video messages had watched them while 22.4% had received IVRS. Majority of the community respondents who used the two sources shared that these provided required information and that were easy to understand.

Over and above of all these digital and non-digital platforms, FLWs were identified as the most common source of information, especially by women. Recognizing the important role of this cadres, DG included strategies to enhance the capacities of these cadres in the Samvad Project. They were not only imparted training to improve their knowledge and skills related to reproductive and child health outcomes, but they were also trained on forming WA groups and disseminating information through these groups. Broadly two approaches were adopted for the training of FLWs – face to face and through WA videos. However, the participation of these mediators in these trainings were around 45%.

The results of all these activities conducted under Samvad project was the improvement of knowledge and practices on key health and nutrition indicators. It was found that for some indicators like importance of 4+ ANC, around 60% of the community respondents reported that they were aware and out of them 66.1% were also practicing it. When juxtaposed with the data on poor access to ANC services during the pandemic it explains to some extent why women were not able to practice 4+ ANC despite their knowledge. The knowledge about handwashing was also above 50% while more than 90% shared that they knew about mother’s diet during pregnancy.

Finally, it is important to state the limitations of the phone-based survey which hinder the generalizability of these findings. First and foremost, this kind of survey only reaches those who had phones. In this case, the sample was even more biased because the sample was drawn from within those whose phone numbers were available with DG staff in these districts. Second, in a phone survey it was difficult to accurately capture the knowledge and practices of the community. Due to both these factors, these findings are not truly comparable to the lean survey rounds conducted in course of the project cycle.
## Recommendations

The key recommendations emerging from this study are as follows:

<table>
<thead>
<tr>
<th>Recommendation</th>
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<tbody>
<tr>
<td>Popularity of digital platforms as important channels for IEC is undeniably increasing, especially during COVID-19 when face-to-face interaction were stalled. However, to ensure wider reach of these sources it will require updating the database of the community members’ phone numbers. Alongside information about type of phone—android or basic phone, should also be gathered. This will help to assess how far these platforms will be useful. It will also need to factor in the inherent issues like poor network connectivity, especially in remote areas as well as lack of proper information about how to access these sources. Hence a multi-pronged approach for SBCC is also beneficial, as shown through this study.</td>
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<tr>
<td>Some studies have shown that while considering social media platforms for disseminating information, clear and crisp messaging is essential. These are usually a one-way communication channel which means that the end users often do not have any means to clarify the doubts.</td>
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<tr>
<td>The importance if FLW in reaching women has been explicitly captured through the study. Based on this finding, it is essential to advocate for enhancing capacities of these mediators. To do that, first, their participation in these training is crucial. Second, there should be a recognition of those FLWs who are not only communicating with the target population but are also utilizing these videos to make their services more impactful and result oriented. For all these steps resources need to be adequate.</td>
</tr>
<tr>
<td>Finally, there should a constant connect with the community to understand what information they wish to see and to address their doubts as well as feedback.</td>
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# Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>ANC</td>
<td>Antenatal Care</td>
</tr>
<tr>
<td>ASHA</td>
<td>Accredited Social Health Activist</td>
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<tr>
<td>AWC</td>
<td>Anganwadi centre</td>
</tr>
<tr>
<td>AWW</td>
<td>Anganwadi Worker</td>
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<tr>
<td>CAPI</td>
<td>Computer Assisted Personal Interview</td>
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<tr>
<td>CMS</td>
<td>Centre for Media Studies</td>
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<td>DG</td>
<td>Digital Green</td>
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<tr>
<td>DWCD</td>
<td>Department of Women and Child Development</td>
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<td>FLW</td>
<td>Frontline Workers</td>
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<td>FP</td>
<td>Family Planning</td>
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<td>ICT</td>
<td>Information Communication Technology</td>
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<tr>
<td>IVR</td>
<td>Interactive Voice Response</td>
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<tr>
<td>MoHFW</td>
<td>Ministry of Health and Family Welfare</td>
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<td>NHM</td>
<td>National Health Mission</td>
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<tr>
<td>ODK</td>
<td>Open Data Kit</td>
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<tr>
<td>RMNCH</td>
<td>Reproductive Maternal Newborn and Child Health</td>
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<tr>
<td>SBCC</td>
<td>Social and Behavioral Change Communication</td>
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<tr>
<td>SRLM</td>
<td>State Rural Livelihood Mission</td>
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<tr>
<td>USAID</td>
<td>United States AID</td>
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<tr>
<td>VHND</td>
<td>Village Health and Nutrition Days</td>
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<tr>
<td>WA</td>
<td>WhatsApp</td>
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<tr>
<td>WASH</td>
<td>Water and Sanitation Hygiene</td>
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