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# Validation study of LQAS-2 in Uttar Pradesh behavior change management project

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Report

# VALIDATION STUDY OF LQAS-2 IN UTTAR PRADESH BEHAVIOR CHANGE MANAGEMENT PROJECT

Arupendra Mozumdar  
Jaleel Ahmad  
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# Acknowledgments

We are thankful for the financial support for this study provided by Bill and Melinda Gates Foundation (BMGF) under Uttar Pradesh Behavior Change Management (UPBCM) project. We are thankful to *Rajiv Gandhi Mahila Vikas Pariyojna* (RGMVP), especially to all the field level staffs for their cooperation and support to the every state of this study. We appreciate the help of the Public Health Foundation of India (PHFI) in providing help to develop the survey instruments; to share the field movement plans of their mentors, and to share LQAS-2 data for comparison. We appreciate the administrative and logistic support provided by Furthermore, we acknowledge with thanks the support provided by administrative and Project Coordinator of the Council for ensuring logistic support.

# List of Abbreviations

AAA	ASHA, ANM and AWW
AMC	Antenatal Care
ANM	Auxiliary Nurse and Midwife
ASHA	Accredited Social Health Activist
AWW	Anganwadi Worker
BMGF	Bill and Melinda Gates Foundation
BO	Block Organization
CRDC	Community Resource Development Center
CRDI	Community Resource Development Institute
CV	Community Volunteers
EW	Eligible Woman
GP	Gram Panchayat
LQAS	Lot Quality Assurance Sampling
MLE	Management Learning and Evaluation
PC	Population Council
PHFI	Public Health Foundation of India
PNC	Postnatal Care
RGMVP	Rajiv Gandhi Mahila Vikash Pariyojna
SHG	Self Help Group
UP	Uttar Pradesh
UPBCM	Uttar Pradesh Behavior Change Management
VO	Village Organization





# Background

Uttar Pradesh Behavior Change Management (UPBCM) project was started considering the potential and importance of community mobilization through Self Help Groups (SHG) of *Rajiv Gandhi Mahila Vikash Pariyojna* (RGMVP) for improving selected healthy behavior having direct bearing on the maternal, newborn and child health outcomes. Among different Management Learning and Evaluation (MLE) activities in the UPBCM project, multiple rounds of Lot Quality Assurance Sampling (LQAS) surveys were proposed to monitor the project activities and to help taking corrective measures to improve the project indicators across the project area. The other major purpose of the LQAS surveys in UPBCM project was to evaluate the diffusion of health messages in the project area from SHG members to SHG households and ultimately to non-SHG households.

In UPBCM project the periodic LQAS surveys are being conducted jointly by two of the consortium partners. Those are RGMVP and Public Health Foundation of India (PHFI). The Community Resource Development Institute (CRDI) personnel of RGMVP administer the survey. The CRDI personnel are responsible for building the capacity for SHG related activities and health interventions in a block. Experts of PHFI provide the technical support to RGMVP to conduct the survey and help to analyze the LQAS data for programmatic feedback.

The first round of LQAS was conducted in June, 2014. The second round of LQAS i.e. LQAS-2, was conducted in November – December, 2014 using a 17 item questionnaire (Appendix 1). It was conducted in 100 intervention blocks of UPBCM project. Each block was divided into 4 lots. However, depending of the size, population and geography of the block the number of lots varied sometimes between 3 to 5. Each lot consisted of 5-8 Gram Panchayats (GPs), which coincides with zones allotted to each community volunteer (CV) of RGMVP.

For LQAS-2 from each lot 19 eligible women were randomly selected as respondents. The eligibility criteria for the respondents were the following: (1) the women who delivered a child within last six months, (2) the respondent should be a member of a SHG household i.e. belonging to a household with at least one member is also a member of an SHG belonging to RGMVP. The sampling frame to select the 19 eligible women (EW) was the registers of village organization (VO) of SHGs within a GP. It was calculated that at least 42 SHG was required to achieve a sample of 19 eligible women. Therefore, the lots having less than 42 SHG were removed from the sampling frame. Ultimately LQAS-2 was conducted in 373 lots.

For LQAS-1 i.e. the first round of LQAS the CRDIs (at that time they were known as community health trainers) administered the survey in their own block. However, in LQAS-2 the each CRDI swapped their survey area with CRDI of her neighboring block so that they can administer the survey with less reporting bias.

As a part of technical support, PHFI gave the CRDIs a day-long training for LQAS survey. PHFI also arranged mentor support to the CRDIs to assure the quality of data collection in LQAS. Among the 4 lots within a block, in two lots a mentor supported each CRDI. The role of the mentor was to assist the CRDI administering the questions, to help explain questions to the respondents, if necessary, and to ensure correct recording of the answer given by the respondents. For each block generally mentor support was provided for the first five days and then the mentor was shifted to a different block.

The results of the first round of LQAS survey were shared with the consortium partners in MLE meeting held in September 2014. Since LQAS survey was administered by the community women, not by experienced fieldworkers, it was decided that the answers obtained by the CRDI staff could be independently evaluated with two purposes; one to validate the accuracy of the response and second, in case of significant discrepancy how the CRDI could be more efficient and better trained to collect the data accurately. Bill and Melinda Gates Foundation (BMGF), the financial partner of the consortium views it as part of capacity building exercise of the RGMVP so that in future RGMVP could monitor their own program. Population Council (PC) the M&E partner of the project was requested to conduct a validation study of the LQAS-2.

## OBJECTIVES

The validation study of LQAS-2 aimed to answer two research questions:

1. To examine the accuracy of the LQAS-2 data by CRDI with or without mentoring support, and
2. To understand the process of administering the LQAS by CRDIs

## Methods

The aims of the validation study were to document the process of administration of the LQAS-2, accuracy of the data, and whether these two are different with or without mentor support.

Therefore, the validation study of the LQAS was conducted using two approaches:

- (1) A validation survey among a subsample of women, who participated in LQAS-2 , and
- (2) Observation of the sampled interviews during the LQAS-2 survey

## VALIDATION SURVEY

The validation survey was conducted among a subsample of participants of the LQAS-2. The design of the validation survey had two steps to maintain the randomness of the subsample and to make the subsample representative for LQAS-2 data. Those two steps were:

1. Calculation of required sample-size for the validation study
2. Selection of study area

### Sample-size

The LQAS-2 was conducted in 100 blocks. Generally each block was divided into 4 lots. Sometimes the number of lots varied depending on the size of the block. Each lot corresponded with the zone allotted to a community Volunteer (CV), which looks after 5-6 GPs. In 100 blocks, LQAS-2 was conducted in 373 lots. From each lot 19 eligible women were interviewed. Therefore, the total number of respondents was  $373 \times 19 = 7087$ . Half of these interviews were mentor supported while the remaining half was done without mentors.

The required sample size for each study arm, with mentor and without mentor, was calculated with the following assumptions:

- 95% confidence level (c),
- 5% margin of error (E), and
- 50% response distribution (r).

Using the following formulae including correction for finite population size (N) the required sample size was:

$$n = \frac{N x}{\{(N-1)E^2 + x\}}$$

Where,

$$\begin{aligned} x &= Z(c/100)^2 r(100-r) \\ E &= \text{Sqrt}\{(N - n)x/n(N-1)\} \end{aligned}$$

Therefore, to represent 3550 (N) LQAS interviews of each of the two types of lots, a subsample of 347 (n) was required.

## Selection of study area

It was decided to conduct the validation survey in two lots from each block; one block was considered where LQAS was done with mentor support and the other one without mentor support. From each selected lot, the survey team revisited all LQAS participants. Therefore, from each block there were  $19 \times 2 = 38$  possible respondents. Therefore, to achieve the sample size of  $347 \times 2 = 694$  it was necessary to conduct the survey in around  $694/38 = 18.26 \approx 20$  blocks. However, expecting a high loss to follow-up, being conservative, the study was conducted in 25 blocks.

The 100 blocks of LQAS-2 spread over 33 districts of 8 CRDC zones of RGMVP project area. Since the number of districts and blocks vary by the Community Resource Development Center (CRDC), blocks were selected proportionately from each CRDC. The blocks in each CRDC were shorted alphabetically and then the required number of blocks from that CRDC was selected following a systematic random sampling. The distribution of the 25 blocks, selected for LQAS validation survey, is given in Table 1. Those blocks were from 18 districts of Uttar Pradesh (UP). The distribution of the districts in UP has been shown in Figure 1.

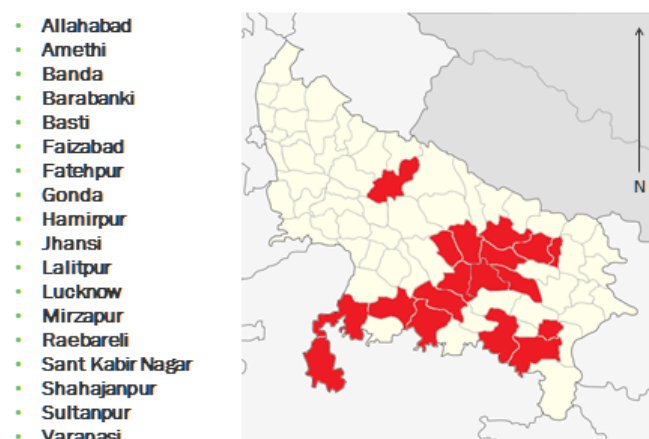
**TABLE 1** Distribution of the structured observation in different blocks

CRDC	Number of districts in LQAS	Total number of intervention blocks where LQAS-2 is being done	Number of blocks selected for validation (1/4th from each CRDC)	Number of districts covered in validation
AMETHI	4	28	7	3
BANDA	4	8	2	2
GORAKHPUR	7	12	3	3
JHANSI	4	9	2	2
LUCKNOW	4	9	2	2
RAE BARELI	3	20	5	2
SHAHJAHANPUR	2	4	1	1
VARANASI	5	10	3	3
<b>TOTAL</b>	<b>33</b>	<b>100</b>	<b>25</b>	<b>18</b>

Since from each block two lots were included as the study area for validation, the survey was done in 50 lots (25 blocks X 2 lots). All the EW from each selected lot was approached to participate for validation interview. Among a possible total of around 950 EWs (50 lots\*19 EW) 668 were interviewed in validation survey. Of those, 332 were from mentored lots and 336 from non-mentored lot. Same questions of LQAS -2 survey were included in the survey instrument of the validation survey to maintain the consistency between the two surveys.

The major reason for the lost to follow-up was unavailability of the respondents in their home. The unavailability was mostly due to respondent's visit to their parents' home. Moreover, the survey coincided with *Makar Sankranti* festival, when the women generally visit and stay in their parent's home.

**FIGURE 1** Distribution of district in LQAS validation study



## **OBSERVATION OF THE SAMPLED INTERVIEWS**

To conduct the observation an eight item observation checklist was developed for uniform observation of the interviews (See Appendix-2 for details). The eight observation items included :

1. Proper introduction of the survey and explanation of the purpose of the study
2. Asking the question in own way without changing the meaning
3. Asked the question clearly
4. Giving away answers while explaining any question
5. Reading out the answers
6. Showing the pictorial answers
7. Marking the answers correctly
8. Prior availability of the list of the eligible women

Three trained research assistance (RA) observed the LQAS interviews, done by the CRDIs staff using the observation checklist. The observers took the consent of all the participants and the LQAS interviewers before doing the observations and informed them that they will be watched during the LQAS interview but their privacy will be maintained and the observation is being done to understand the process of the interviews. The observers did not intervene in case of any mistake during the interview or recording of the answer choices. They completed the checklist based on their observation and also recorded significant qualitative observations after the interview.

All observations were conducted in second and third week of November 2014. The observations were conducted in 12 randomly selected blocks spreading over 7 districts. A total of 13 CRDIs' interviews were observed. Of those 6 had mentor support, and 7 did not have any mentor support during LQAS interviews at the time of the observation. Total 65 observations of the LQAS interviews were done spreading over 20 GPs. Of those observations 35 LQAS interviews were mentor supported and 30 LQAS interviews were without mentors.

## **ANALYSES PLAN**

The data were analyzed using the following analyses plan. These include:

- The comparison of results of validation survey between lots with and without mentor support
- Since the same respondents are being followed up in validation survey, the degree of consistency for each program related indicators was calculated
- Percentage of consistency, false positive rate, Cohen's Kappa were calculated for mentor supported and non-mentor supported lots
- Comparison of the results of the observations, on how CRDI staff administered the LQAS questionnaire both in mentor supported LQAS interviews and the interviews without mentor support

# Results

In this section findings of the LQAS validation study have been presented. The section begins with presentation of background characteristics of the respondents of validation study, followed by the estimates of different program related variables. The pattern of the consistency in LQAS-2 in comparison with validation survey has been presented next. The section ends with the presentation of the result of the observation study to suggest the possible improvements required for future rounds of LQAS in UPBCM project.

## FINDINGS OF THE VALIDATION SURVEY

The present section gives the LQAS validation survey results. First, the background characteristics of the respondents have been presented followed by the estimates of the key outcome variables. Then the comparison of the results of LQAS-2 and validation survey has been tabulated.

### Background characteristics of the respondents

The background characteristics of the respondents are presented in Table 2. Most of the respondents had a child aged between 2-5 months. In LQAS-2 one of the criteria for eligible woman was having a child less than 6 months. The validation study was conducted about a month after the end of the LQAS-2. Therefore, at the time of the validation study data collection some of the children were more than 6 months old. Majority of the respondents were literate. More than half of the respondent herself were member of SHG. Most of the

**TABLE 2** Distribution of the structured observation in different blocks

Background characteristics	Mentor supported lots (n = 332)	Non-mentor supported lots (n = 336)	P value (Z-test)
<b>Age of the child, %</b>			
0-1 month	12.0	12.5	NS
2-3 months	33.7	30.1	NS
4-5 months	28.6	30.7	NS
6 months or above	25.6	26.8	NS
<b>Education status, %</b>			
Cannot read/ write	45.2	43.5	NS
Can read/ write	3.9	5.1	NS
Can both read & write	50.9	51.5	NS
<b>SHG membership, %</b>			
Self	55.4	50.3	NS
Mother-in-law	33.4	33.0	NS
Others	11.1	16.7	0.036
<b>Caste, %</b>			
Scheduled caste/ tribe	35.5	42.9	0.049
Other backward class	50.6	44.6	NS
Other	13.9	12.5	NS

respondents belonged to disadvantaged groups such as scheduled castes or scheduled tribes or other backward classes. Most of the background characteristics of the respondents did not differ between mentor-supported zones and non-mentor-supported zones. This indicates the distribution of the respondents were unbiased between the two zones.

There were a high number of lost to follow-up in the validation survey from LQAS-2 (about 30%). The reason for lost to follow-up have been given earlier in the method section. However, the background characteristics of the drop-outs and followed-up participants did not show a significant difference (not presented here). Therefore, the current followed-up respondents are a representative sub-sample of the LQAS-2 participants in the selected study area.

### Estimates of the program related variables

In LQAS-2, there were questions on both outcome variables and process variables. The outcome variables were related to four different types of family health indicators including: (1) maternal health practices, (2) knowledge of maternal and newborn danger signs, (3) home based newborn practices, and (4) knowledge of childcare. Apart from the outcome variables there were 3 process variables in the LQAS survey. Those included (1) source of knowledge on maternal and newborn health, (2) receipt of the maternal and newborn health related leaflets and letters, and (3) participation in health discussion in pregnancy during pregnancy.

## ANC and hospital delivery

Table 3 presents the estimates of maternal health related practices separated for mentor-supported and non-mentor-supported lots. About 60% of the respondents of the both types of LQAS lots received 3 or more antenatal care (ANC) check-ups. Nearly 10 percent respondents did not receive any ANC check-ups. About 45 percent of the respondents consumed 100 or more iron and folic acid (IFA) tablets during their last pregnancy. However,

**TABLE 3: Estimates** of practices related to maternal health

Outcome variables	Mentor supported lots (n = 332)	Non-mentor supported lots (n = 336)	P value (Z-test)
<b>Number of ANC check-up, %</b>			
0 ANC check-up	8.1	10.7	NS
1-2 ANC check-up	31.0	28.3	NS
3 or more ANC check-up	60.8	61.0	NS
<b>IFA tablets consumed, %</b>			
0 IFA tablet	18.4	20.5	NS
1 - 99 IFA tablets	36.1	35.2	NS
100 or more IFA tablets	45.5	44.3	NS
<b>Hospital delivery, %</b>	88.0	88.1	NS
<b>Delivery preparedness, %</b>			
Identification of health facility	28.3	30.1	NS
Arrangement of transport	67.8	65.5	NS
Saving money	79.5	79.5	NS
Care for children at home	20.8	23.2	NS
Accompany of family members	41.3	42.6	NS

nearly 20 percent did not consume any IFA tablets during their last pregnancy. A very high percentage (88 percent) of child delivery happened in private or government hospitals. Saving money prior to delivery was the most common (80 percent) arrangement done by the respondents to prepare against any pregnancy related or delivery related complications.

That was followed by arrangement of transport (nearly 65 percent). Care for children at home was the least common among delivery related preparations. None of the percentage of delivery related preparations were significantly different between mentor supported and non-mentor supported lots.

## Knowledge of danger signs

The prevalence of knowledge of maternal danger signs and newborn danger signs has been presented in Table 4. Most commonly reported maternal danger sign was vaginal discharge or foul smell (52 percent). The other commonly reported maternal danger signs were vaginal bleeding and swelling of

**TABLE 4** Estimates of knowledge of maternal and newborn danger signs

Outcome variables	Mentor supported lots (n = 332)	Non-mentor supported lots (n = 336)	P value (Z-test)
<b>Danger signs of pregnancy, %</b>			
Vaginal bleeding	49.4	49.1	NS
Bleeding after delivery	30.4	30.7	NS
Swelling/ headache/ blurred vision	43.1	45.2	NS
Labor pain > 12 hrs	16.0	22.0	0.047
Faintness	14.2	13.7	NS
Vaginal discharge/ foul smell	52.4	52.1	NS
<b>Danger signs of newborn, %</b>			
No breastfeeding	16.6	20.5	NS
Redness of cord/ discharge	6.0	9.8	NS
Chest drawing in/ pneumonia	58.7	65.5	NS
Sudden pulling	5.7	8.6	NS
High fever	66.3	63.1	NS
Diarrhea	58.7	53.0	NS

hand and feet or headache or blurred vision during pregnancy.

Among the danger signs of newborn child the most commonly reported sign was high fever, reported by over 60 percent of respondents. The other two commonly reported newborn danger signs were chest in-drawing and diarrhea.

Among the different danger signs, reporting of only one danger sign was significantly different in between the two types of lots and that danger sign was prolonged labor pain of more than 12 hours.

### Home based newborn care practices

Table 5 presents the estimates for different home based newborn care practices separated for mentor supported lots and non-mentor supported lots. The different practices of newborn care included thermal care, correct knowledge of KMC, and exclusive breastfeeding within last 24 hours, cord care, and PNC within a week.

**TABLE 5** Estimates of home based newborn practices

Outcome variables	Mentor supported lots (n = 332)	Non-mentor supported lots (n = 336)	P value (Z-test)
<b>Thermal care, %</b>			
Gave KMC	40.4	45.5	NS
Wrapped by warm cloths	69.0	61.3	0.036
Keeping fire in room	1.8	3.3	NS
<b>Correct knowledge or KMC, %</b>	44.0	50.3	NS
<b>Exclusive breastfeeding (24 h) %</b>	74.7	77.4	NS
<b>Delayed bathing (&gt; 2 days), %</b>	58.4	59.8	NS
<b>Cord care to dry cord stump, %</b>			
Oil	19.6	16.7	NS
Talcum powder	10.2	10.7	NS
Turmeric/ Ash/ Beatle nut etc.	8.4	8.4	NS
Nothing	66.9	68.2	NS
<b>PNC check-up within 7 days, %</b>	53.6	61.0	NS

The most commonly reported thermal care practice was wrapping the newborn child with warm cloths. Respondents of mentor supported lots reported significantly higher prevalence of this practice. More than 40 percent women reported that they gave KMC to their newborn child. Nearly half of the respondents correctly described the method of giving KMC. Nearly 60 percent respondents reported that they bathed their newborn child after 2 days of delivery. Over 65 percent respondent reported that they did not put anything on the cord stump of the newborn child to make it dry. Over 50 percent of the respondents reported that their child received PNC check-up within 7 days of delivery.

### Knowledge of child care

The prevalence of knowledge of diarrhea prevention and ailments/symptoms of pneumonia has been presented in Table 6. Giving salt and sugar solution to prevent diarrhea was the most common answer reported by the respondents. The knowledge on use of zinc tablet for diarrhea prevention was very low (about 9 percent).

**TABLE 6** Estimates of knowledge of child care

Outcome variables	Mentor supported lots (n = 332)	Non-mentor supported lots (n = 336)	P value (Z-test)
<b>Knowledge of diarrhea prevention, %</b>			
Give salt and sugar solution	50.6	57.1	NS
Give ORS	21.7	22.6	NS
Zinc tablet/ medicine	9.3	8.6	NS
<b>Correct knowledge of pneumonia, %</b>			
Fast breathing	49.7	54.2	NS
Chest drawing in	39.2	47.0	0.041
Sound in breathing	19.0	24.1	NS

Among different symptoms of pneumonia, fast breathing was reported by about half of the respondents. The other common answer was in-drawing of the chest and significantly higher proportion of respondents of the non-mentor supported lots reported their knowledge of this symptom.

### Estimates of process variables

Table 7 presents the estimates of output variables. About 60 percent of the respondents reported SHG and Swasth Sakhis as their sources of knowledge for maternal and child health. Around 20 percent respondent reported their mother-in-laws and ASHA/ ANM/AWW as their source of knowledge. Higher percentage of the respondents reported receipt of the 'Good Luck' letter and 'Congratulation' letter than leaflets of maternal and newborn health. Nearly half of the respondents reported that they took part in health discussions in any SHG meeting during their last pregnancy.

Most of the outcome variables and process variables did not show any significant difference in between mentor supported lots and non-mentor supported lots. The observation results however, had shown that quality of data was relatively better

**TABLE 7** Estimates of process variables

Output variables	Mentor supported lots (n = 332)	Non-mentor supported lots (n = 336)	P value (Z-test)
<b>Source of knowledge, %</b>			
SHG/ <i>Swasth Sakhi</i>	59.6	64.0	NS
Mother-in-law	23.8	21.1	NS
Local doctor	4.2	4.8	NS
AAA	23.8	23.2	NS
<b>Received leaflets/ letters, %</b>			
Maternal health leaflet	33.4	29.2	NS
Newborn health leaflet	22.9	26.5	NS
Good luck letter	44.9	39.9	NS
Congratulation letter	45.5	36.3	0.015
<b>Participated in Health discussion, %</b>			
	50.3	45.5	NS

than for interview with mentor as compared to without mentor. Given the small number of observations made, one could rely more on the results of the validation survey. Therefore, it can be concluded that the respondents practicing certain maternal and child health related behavior were evenly distributed in both types of lots within a block; and there was no significant bias in the validation data between the lots with or without mentor support in validation study.

## DEGREE OF CONSISTENCY IN LQAS-2 IN COMPARISON WITH VALIDATION SURVEY

Same respondents participated both in LQAS-2 and in validation survey. Therefore, the degree of consistency between the two surveys has been calculated to examine the pattern of errors in LQAS-2, if any, and whether the pattern differs between mentor supported and non-mentor supported lots.

Calculation of consistency between LQAS-2 results and the findings of the validation survey has been done using the process explained in following example. In validation survey 588 respondents out of 668 total respondents reported that they delivered their last child in a hospital. So the rest i.e. 80 respondents delivered their last child at home. However, in LQAS-2 the distribution of the place of last child delivery of the same respondents were 599 as hospital delivery and 69 as home. So, if the two sets of data are tabulated we get the distribution of the place of delivery as shown in Table 8.

The two cells in green shade represent the consistency in reporting of place of delivery between the two surveys i.e. LQAS-2 and validation survey. The cell in red shade represents the false positives that mean those respondents actually did not have a hospital delivery but in LQAS-2 they were classified as cases of hospital delivery. The cell in white shade represents false negatives, who actually had hospital delivery but in LQAS-2 they were reported as home delivery. From the program point of view, false positives are more alarming because encouraging people for the hospital delivery is one of the important program activities. So, more false positives will over-report the impact of the project.

**TABLE 8** Distribution of place of delivery between two surveys (example of consistency)

		LQAS-2		Total
		Home/ Other	Hospital	
Validation survey	Home/ Other	56 (a)	24 (b)	80 (a+b)
	Hospital	13 (c)	575 (d)	588 (c+d)
	Total	69 (a+c)	599 (b+d)	<b>668 (N)</b>

The percentage of consistency, false positive rate and Cohen's Kappa are calculated for each of the program related variables separately for mentor-supported lots and non-mentor supported lots. The calculation of those statistics has been described using the example given in Table 8.

Percentage of consistency =  $(a + d) / N = 631 / 668 = 0.945$  i.e. 94.5%

The false positive rate =  $a / (a+c) = 24 / 80 = 0.3$  i.e. 30.0%



$$\text{Cohen's kappa } (k) = (Pa - Pe) / (1 - Pe)$$

Where, Pa (probability of agreement) =  $(a+d) / N = (56+575) / 668 = 0.945$

Pe (probability of agreement by chance)

$$= \{(a+c) / N\} * \{(a+b) / N\} + \{(b+d) / N\} * \{(c+d) / N\}$$

$$= \{(a+c) * (a+b) / N^2\} + \{(b+d) * (c+d) / N^2\}$$

$$= \{[(a+c) * (a+b)] + [(b+d) * (c+d)]\} / N^2$$

$$= \{(69 * 80) + (599 * 588)\} / 668^2$$

$$= (5520 + 352212) / 446224 = 357732 / 446224 = 0.802$$

So,  $k = (0.945 - 0.802) / (1 - 0.802) = 0.721$

Table 9 shows the percentage of consistency, false positive rates, and Cohen's kappa for maternal health related variables separately for mentor supported lots and non-mentor supported lots. The highest degree of agreement was reported for hospital delivery ( $k > 0.8$ ). The degree of consistency were also high for receipt of 3 or more ANC, consumption of 100 or more IFA tablets, saving money as delivery preparation. For mentor supported lots a significantly higher percentage of consistency was for identification of health facility as delivery preparedness. For non-mentor supported lots significantly higher false positive rates for three out of eight variables of maternal health practices.

**TABLE 9** Measurement of consistency of the LQAS-2 data in comparison with validation survey for maternal health related practices

Program related variables	Mentor supported lots (n = 332)			Non-mentor supported lots (n = 336)		
	% of consistency	False positive rate	Cohen's kappa	% of consistency	False positive rate	Cohen's kappa
<b>3 or more ANC</b>	76.5	35.4	0.50	72.3	35.1	0.42
<b>100 or more IFA consumed</b>	72.9	30.4	0.46	74.1	27.3	0.48
<b>Hospital delivery</b>	96.1	20.0*	0.81	92.9	40.0*	0.63
<b>Delivery preparedness</b>						
Identification of health facility	48.2*	61.8*	0.08	36.6*	77.4*	0.06
Arrangement of transport	67.8	65.4	0.20	67.9	71.6	0.19
Saving money	79.8	64.7*	0.30	80.1	87.0*	0.15
Care for children at home	56.6	47.5	0.16	57.1	48.8	0.19
Accompany of family members	58.1	46.7	0.18	55.7	52.3	0.14

\* Significant difference between mentor supported lots and non-mentor supported lots

Table 10 shows the degree of consistency between two surveys for knowledge of different maternal and newborn danger signs separately for mentor supported lots and non-mentor supported lots. Overall the percentages of consistency varied between 60 to 70 percent. The degree of agreement between the two surveys for these knowledge related variables were poor ( $k < 0.2$ ) to fair ( $k 0.2 < 0.4$ ). Mentor supported lots had significantly higher percentage of consistency for no breastfeeding and redness of cord as newborn danger signs. For non-mentor supported lots significantly higher false positive rates for seven out of twelve variables of maternal and newborn danger signs.

**TABLE 10** Measurement of consistency of the LQAS-2 data in comparison with validation survey for knowledge of maternal and newborn danger signs

Program related variables	Mentor supported lots (n = 332)			Non-mentor supported lots (n = 336)		
	% of consistency	False positive rate	Cohen's kappa	% of consistency	False positive rate	Cohen's kappa
<b>Danger signs of pregnancy</b>						
Vaginal bleeding	60.8	47.6	0.22	57.7	57.3	0.16
Bleeding after delivery	63.0	34.2	0.20	58.6	42.5	0.16
Swelling/ headache	57.5	51.9*	0.17	52.4	68.5*	0.09
Labor pain > 12 hrs	57.8	43.7	0.12	52.7	51.5	0.10
Faintness	71.4	27.0*	0.23	66.1	35.9*	0.23
Vaginal discharge/ foul smell	62.7	48.1*	0.25	59.8	60.2*	0.18
<b>Danger signs of newborn</b>						
No breastfeeding	59.9*	37.5*	0.06	49.7*	53.9*	0.06
Redness of cord/ discharge	78.0*	18.6*	0.03	71.1*	26.7*	0.13
Chest drawing in/ pneumonia	62.3	55.5*	0.20	59.2	62.3*	0.01
Sudden pulling	75.3	22.4	0.06	75.0	23.1	0.17
High fever	66.9	74.1*	0.16	63.1	86.3*	0.07
Diarrhea	56.9	67.9	0.07	56.8	77.2	0.10

\* Significant difference between mentor supported lots and non-mentor supported lots

Table 11 shows the degree of consistency between two surveys for home based newborn care practices separately for mentor supported lots and non-mentor supported lots. Overall the percentages of consistency were mostly around 70 percent. The degree of agreement between the two surveys for home based newborn care related variables were fair ( $k$  0.2 to < 0.4) to moderate ( $k$  0.4 to < 0.6). Mentor supported lots had significantly higher percentage of consistency for practice of KMC and warming the room with fire. For non-mentor supported lots significantly higher false positive rates for five out of eight variables of home based newborn care.

**TABLE 11** Measurement of consistency of the LQAS-2 data in comparison with validation survey for practice of home based newborn care

Program related variables	Mentor supported lots (n = 332)			Non-mentor supported lots (n = 336)		
	% of consistency	False positive rate	Cohen's kappa	% of consistency	False positive rate	Cohen's kappa
<b>Thermal care</b>						
Gave KMC	61.7*	40.4*	0.24	53.9*	59.6*	0.10
Wrapped by warm cloths	69.0	90.3	0.07	62.8	89.2	0.08
Keeping fire in room	88.9*	10.1*	0.07	80.6*	18.2*	0.06
<b>Correct knowledge or KMC</b>	64.2	44.1*	0.30	60.1*	58.7*	0.20
<b>Exclusive breastfeeding,, (24 h)</b>	73.8	64.3	0.24	73.5	77.6	0.13
<b>Delayed bathing (&gt; 2 days)</b>	70.8	56.5	0.36	66.7	57.8	0.27
<b>Clean Cord care</b>	71.4	44.5*	0.35	69.6	64.5*	0.23
<b>PNC check-up within 7 days</b>	73.5	47.7*	0.47	67.0	64.9*	0.28

\* Significant difference between mentor supported lots and non-mentor supported lots

Table 12 shows the degree of consistency between two surveys for knowledge of child care practices separately for mentor supported lots and non-mentor supported lots. Overall the percentages of consistency were mostly around 70 percent. The degree of agreement between the two surveys for knowledge of child care variables were poor ( $k$  < 0.2) to fair ( $k$  0.2 to < 0.4). Mentor supported lots had

significantly higher percentage of consistency for giving ORS for diarrhea and sound in breathing for pneumonia. For non-mentor supported lots significantly higher false positive rates for five out of six variables of home based newborn care.

**TABLE 12** Measurement of consistency of the LQAS-2 data in comparison with validation survey for knowledge of child care

Program related variables	Mentor supported lots (n = 332)			Non-mentor supported lots (n = 336)		
	% of consistency	False positive rate	Cohen's kappa	% of consistency	False positive rate	Cohen's kappa
<b>Diarrhea prevention</b>						
Give salt and sugar solution	68.1	44.5*	0.36	65.8	59.0*	0.27
Give ORS	72.6*	25.4*	0.33	61.3*	43.1*	0.23
Zinc tablet/ medicine	82.2	14.3	0.25	79.8	16.3	0.14
<b>Knowledge of pneumonia</b>						
Fast breathing	53.3	58.7*	0.07	49.7	81.2*	0.06
Chest drawing in	58.1	52.5*	0.20	52.4	81.5*	0.09
Sound in breathing	62.0*	35.7*	0.12	53.3*	46.3*	0.04

\* Significant difference between mentor supported lots and non-mentor supported lots

Table 13 shows the degree of consistency between two surveys for process variables separately for mentor supported lots and non-mentor supported lots. Overall the percentages of consistency were mostly around 65 to 70 percent. The degree of agreement between the two surveys for process variables were mostly fair ( $k$  0.2 to  $<$  0.4). Mentor supported lots had significantly higher percentage of consistency only for receipt of newborn health leaflet. For non-mentor supported lots significantly higher false positive rates for two out of nine process variables.

**TABLE 13** Measurement of consistency of the LQAS-2 data in comparison with validation survey for process variables

Program related variables	Mentor supported lots (n = 332)			Non-mentor supported lots (n = 336)		
	% of consistency	False positive rate	Cohen's kappa	% of consistency	False positive rate	Cohen's kappa
<b>Source of knowledge</b>						
SHG/ Swasth Sakhi	69.0	56.0*	0.32	65.8	74.4*	0.16
Mother-in-law	70.5	20.2	0.20	72.0	25.3	0.30
Local doctor	95.2	1.3	0.18	93.2	2.2	0.03
AAA	72.9	15.0	0.20	75.9	12.4	0.27
<b>Received leaflets/ letters</b>						
Maternal health leaflet	58.1	50.7	0.21	55.7	53.4	0.18
Newborn health leaflet	61.1*	44.5*	0.25	51.5*	56.8*	0.13
Good luck letter	65.1	37.7	0.30	63.1	40.1	0.27
Congratulation letter	64.2	39.8	0.29	62.5	45.3	0.28
<b>Participated in Health discussion</b>	69.6	41.8	0.39	65.5	50.3	0.33

\* Significant difference between mentor supported lots and non-mentor supported lots

Overall, the degree of consistency between the two surveys varies between 60 to 70 percent. The degree of agreements were better for practice related variables than knowledge related variables. The difference in percentage of consistency between mentor supported and non-mentor supported lots were not significant for majority of the variables. Similarly, the difference in false positive rates between mentor supported and non-mentor supported lots were also not significant for majority of the variables except for knowledge on child care practices. Therefore, the degree of accuracy of the data did not differ much when mentors were present or not present.

## FINDINGS OF THE OBSERVATIONS OF LQAS INTERVIEWS

The observations of the LQAS interviews were done to understand the process of administering the LQAS questionnaire in the field. The observations also tried to explore the nature and extent of possible misreporting, if any, during the interview so that the findings can be utilized to train CRDIs better in upcoming rounds of LQAS.

For any field-based interviews, introducing the survey to the respondents is very important. Observations on how the interviewer introduced the survey revealed that the quality of introduction was different. Some of the examples are given below:

**Proper introduction:** *“I am ..... I am here to conduct a brief interview on maternal and newborn health. It will take about 15 minutes of your time.”*

**Vague introduction:** *“I am here to ask you a few questions. It will not take long.”*

**No introduction:** *“Your name please? [Starting with the first question]”.*

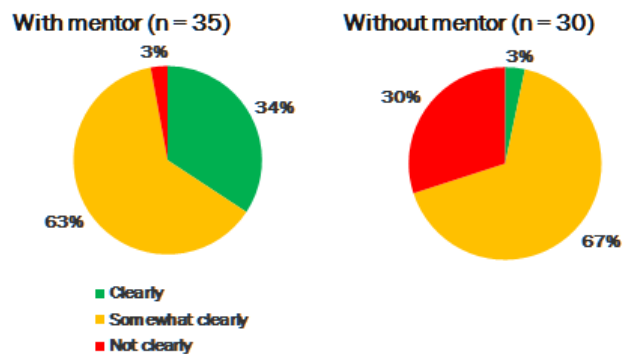
The result of the observation study revealed that although two-third of the interviewer in the mentor supported lot gave the proper introduction, majority of the interviewer in the non-mentor supported lots did not give any introduction.

Figure 3 presents the result of the structured observation of how clearly the questions were asked in LQAS survey. Since the interviewers often asked the question in their own way, an observation was also made how clearly the interviewers were asking the questions. If an interviewer asked and explained the questions without changing its meaning, it was categorized as ‘clearly’. If the questions were asked without changing its meaning but the respondent did not understand it was categorized as ‘somewhat clearly’. If interviewer asked a questions wrongly or asked by changing its meaning, it was categorized as ‘not clearly’.

Most of the interviews were categorized into ‘somewhat clearly’ and the percentages were similar with mentors and without mentor. However over all the interviews with monitored were slightly better in case of mentor-supported interview than the non-mentor interview. For example in about one third of interviews in case of mentor-supported interview the questions were asked ‘clearly’ where the corresponding figure was only 3 percent in case of non-mentor interview. Further, in case of without

mentor in 30 percent of the interviews the questions were not asked clearly which was only 3 percent when a mentor was present.

**FIGURE 3** Clarity in asking questions



**FIGURE 4** Explaining the questions

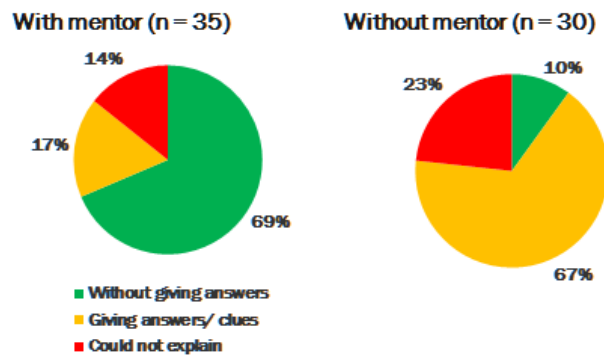


Figure 4 presents the result of the observation of how good the questions were explained in LQAS survey. Since the interviewers often asked the question in their own way, an observation was also made whether the investigators explained the questions properly or not. It was also observed whether during explanation the investigators were giving away the answers/ clues or not.

Most of the interviews with mentor support (69 percent) were explained without giving away answers or clues. However, in 67 percent of the interviews without mentor the interviewers gave away answers or clues in some of the questions while explaining the questions. Even with mentor support in 14 percent of the interviews the questions were explained wrongly and without mentor support in 23 percent of interviews the questions were wrongly asked.

The following conversation is an example of how the answer clues became the part of explaining the questions and that sometimes led to over-reporting. This conversation was based on asking the question regarding the delivery preparedness.

**Question:** During your last pregnancy what are the preparations you or your family have done to manage complication ?

*Interviewer:* What are the preparation you or your family have done before your last delivery to avoid any complication ?

*Respondent:* Cloth, hot water

*I:* Didn't you arrange anything in advance ?

*R:* Yes, money. [Interviewer coded 'Saved money'.]

*I:* For what?

*R:* For car.

*I:* Why did you need a car?

*R:* To go to hospital. [Interviewer coded 'Arranged vehicle'.]

*I:* Did you know which hospital to go?

*R:* Yes. [Interviewer coded 'Identified health facility'.]

*I:* Did you go to hospital alone?

*R:* No. My M-I-L was with me. [Interviewer coded 'Family member accompanied'.]

Figure 5 presents the result of the observation of whether the interviewers read out the answer keys along with asking the questions. In LQAS survey, interviewers were not instructed to prompt the respondents with different answering options.

With mentor support about 75 percent interview did not prompt for any answers, in 12 cases the interviewers gave away answers in some of the questions and 14 percent of the cases they gave away answers in most of the questions even when the mentor was present.

The corresponding figures was poorer in case of interview with out mentor and was onserved in case of 7 percent, 60 percent and 33 percent

**FIGURE 5** Read out options

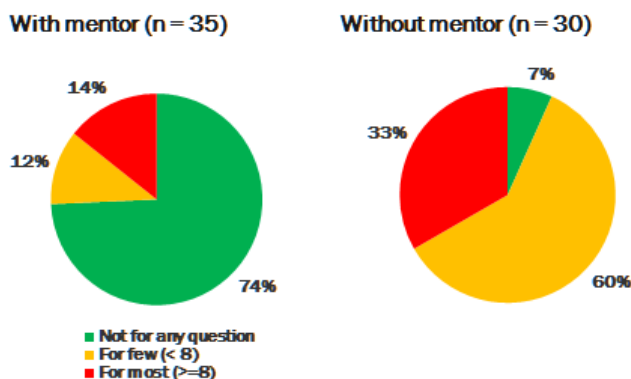


Figure 6 presents the result of the observation of whether the interviewers showed pictorial answers to the respondents or not. In LQAS survey, the answer keys in the LQAS form were shown in the pictorial format to facilitate data entry for the interviewer. However, if the respondents see the pictorial answers while answering the question there will be a chance of over reporting.

Generally interviewers did not show pictorial answers to the respondents. Especially when mentors were present during the interview, 80 percent of time interviewer did not

show the pictorial answers; while the corresponding figure for interview without mentor was 57 percent. Without mentor interviewer were twice likely to show the answers to the respondents, and 23 percent of time they showed the pictorial answers even for most of the questions (8 or more questions).

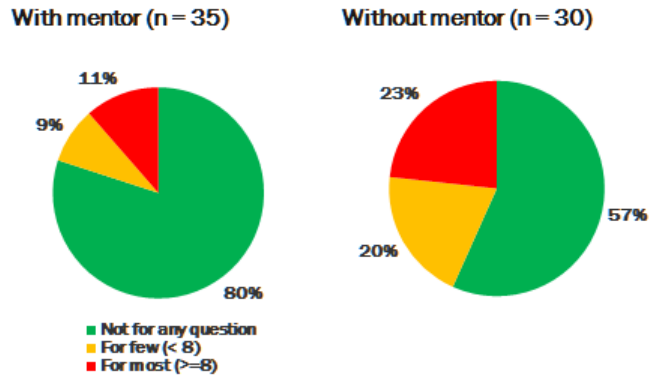
Figure 7 presents the result of the structured observation of whether the interviewers coded the answers correctly or not. Since the CRDIs need to interpret the responses given by the eligible women and record the code in the survey form there were chances for incorrect coding.

With mentor support, in above 83 percent interviews all the answers were correctly coded. When the mentor support was not available, only 10 percent of interviews were correctly coded for all questions. With the mentor support still in 17 percent

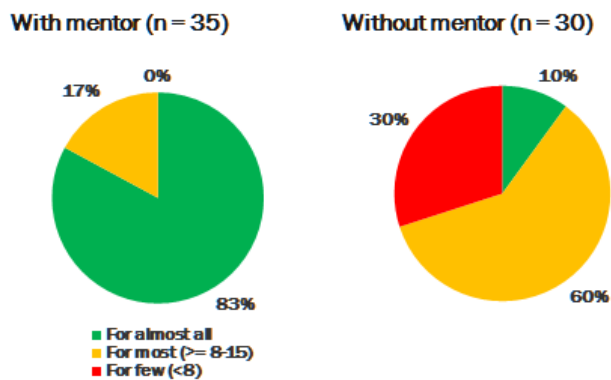
of the interviews few questions were coded incorrectly, while without mentor 60 percent of the interviews few questions were coded incorrectly. In this group 30 percent of the cases only few questions were coded correctly.

The observation of the interviews supplemented the findings of the validation study that the interviewers administered the questions more properly with mentor support. The mentor support was made available to the CRDIs in the initial 5 days of the LQAS interviews in a particular block. However, after the withdraw of mentors the interviewers doing those mistakes in data collection which they should not do. This indicates that during the mentor support the interviews were more dependent on the mentors in conducting the interviews instead of learning how to conduct the interviews properly. This indicates need for more intensive data collection training before the next round of LQAS survey.

**FIGURE 6** Showed pictorial answers



**FIGURE 7** Coded the answers correctly



# Discussions

The LQAS surveys in UPBCM project were conducted jointly by PHFI and RGMVP to monitor the program in a periodic basis. The major objective of the first two rounds of the LQAS was to assess the level of maternal and newborn health related knowledge and practices of women of SHGs and SHG households. The other objective of the LQAS surveys was to identify those lots not reaching coverage benchmark so that the block organizations can be informed to take required decisions to achieve project objectives.

The LQAS surveys were conducted by CRDI staff to make it more sustainable even after the end of UPBCM project. Since many of the community member lack experience in how to conduct health related surveys, PHFI provided mentor support to half of the lots. Since LQAS was planned as a community driven survey, it was decided that Population Council should make an independent validation, the M&E partner of the consortium

The validation study used two approaches: (1) a validation survey by interviewing a subsample of LQAS-2 participants to examine the accuracy of LQAS-2 data and (2) conduct some observation of LQAS-2 interviews to get some soft data on the process.

The LQAS-2 was conducted in 100 intervention blocks. For the validation survey 25 blocks were selected using a systemic random sampling method out of those 100 blocks. From each block one mentor supported lot and one non-mentor supported lot were randomly selected and all the respondents of that lot were revisited. In total 668 respondents participated in the validation survey, of them 332 were from mentor-supported lots and 336 were from non-mentor supported lots.

The finding of the validation study suggested that there was not much difference in estimates of maternal and newborn health knowledge and practices among the respondents of mentor supported and non-mentor supported lots. The analysis of accuracy of LQAS-2 data between mentor supported and non-mentor supported lots showed the followings:

- Over all there were 60 to 70 percent consistency between the data of LQAS-2 and the validation survey
- The false positive rates vary for different health related variables
- The agreements between the findings of two surveys (as shown by kappa value) were mostly fair (0.2 to <0.4) to moderate (0.4 to <0.6). However, for some variables especially the knowledge related variables and delivery preparedness the agreement were mostly poor (i.e. < 0.2).
- The consistency between mentor supported lots and non-mentor supported lots were similar for majority of the variables. The variables, which showed statistically significant difference for percentage of consistency between the two types of lots, showed higher consistency in mentor supported lots.
- Similarly the false positive rates between mentor supported lots and non-mentor supported lots were similar for majority of the variables. The variables which showed statistically significant difference for false positive rates between the two types of lots showed lower false positive rates in mentor supported lots.

The observation of the LQAS-2 interviews was done in 7 districts. The observations were made on how the CRDIs introduced the survey, administered the LQAS questionnaire, and recorded the answers. In total 65 interviews were observed of those 35 were mentor supported and 30 interviews were without mentor. The key findings of the observation of the LQAS-2 interviews were following:

- With mentor support the interviewers introduced the survey more properly.
- Regardless of presence or absence of the mentors the interviewers asking the questions in their own way. Sometimes it was necessary to do so to explain the questions properly to the respondents.
- With the mentor support the CRDIs were explaining the question more clearly and without changing its meaning

- Without mentor CRDIs gave away the answer keys especially when they were struggling to explain the meaning of the questions to the respondents
- Overall the interviewers did not show the pictorial answer to the respondents
- With the mentor support the interviewers recorded correct answer codes

All these findings suggested that the CRDIs needed more training. The training should highlight explaining the meaning of all the questions, and how they should explain to the respondents without giving away the answers. They should be instructed not to record the answers wrongly. Otherwise all these things especially lead to increase of false positive cases and that may hamper the proper monitoring of the project activities. Moreover, CRDIs should be trained about the purpose of the LQAS survey.

These findings of both the validation survey and observation of the interviews confirm that a better training is required for the CRDIs before engaging them for the data collection of the LQAS. Special attention should be given in the training to avoid the reporting of false positive cases.

## **PROGRAMMATIC RECOMMENDATIONS**

In view of the key findings of the both activities of the LQAS validation study the following programmatic recommendations can be made.

- A longer training of the interviewers (CRDIs) is necessary. The training should include explaining the purpose of the LQAS, which is to monitor the project activities and taking corrective measures, not to evaluate anybody's performance. In the training CRDIs should be informed about the possible common mistakes that they could commit while interviewing and how to avoid those mistakes.
- A prolonged mentor support should be replaced by limited mentoring. It was found that when mentors were not available the mistakes retained by the interviewer. Therefore, instead of making the interviewers dependent on the mentors it is necessary to train them better so that they can properly interview even without mentoring support.
- Small scale validation survey can be done to measure the error level of the LQAS survey for taking corrective steps, if necessary.



# Appendix

## Appendix 1

### महिला प्रश्नावली (जिनकी डिलीवरी पिछले 6 महीने में हुई है)

ब्लॉक	ग्राम पंचायत	सी टी का नाम	आई एस सी का नाम
महिला का नाम.....		मोबाइल नंबर.....	बच्चे की उम्र.....
क्या आपको पढ़ना लिखना आता है? हों (1) नहीं (2) सिर्फ पढ़ना (3) सिर्फ लिखना (4)			
आपके परिवार से कौन समूह का सदस्य है? आप स्वयं.....1 आपकी सास.....2 अन्य कोई.....3		सहयोगी सदस्य: एल.व्ही.ए.एस. मेन्टर (1) सी.आर.डी.सी. (2) अकेला (3)	
जाति: अनुजाति/ जनजाति (SC/ST).....		अन्य पिछड़ी जाति (OBC).....	अन्य (Others).....

**कृपया किसी भी प्रश्न का उत्तर पढ़कर न बताएं / पूर्ण**

1. पिछली गर्भावस्था के दौरान **आपने** कितनी बार प्रसव पूर्व जाँच करवाई थी?

0   
  1   
  2   
  3   
  4 या इससे अधिक   
  याद नहीं



2. गर्भावस्था के दौरान **आपने** कितनी आयरन की गोलियाँ खाई थी?



3. **आपके** सबसे छोटे बच्चे का जन्म (डिलीवरी) कहाँ हुआ था?



अन्य

4. गर्भावस्था के दौरान या डिलीवरी के बाद खतरे के कौन-कौन से लक्षण हैं जिनके लिए महिला को स्वास्थ्य केन्द्र/अस्पताल जाना चाहिए?



खून आना



प्रसव (डिलीवरी) के बाद अधिक खून आना



सूजन, शिर में तेज दर्द या देखने में परेशानी



12 घंटे से अधिक प्रसव पीड़ा



दौरे पड़ना



बुखार, भूय, हरा या बदबूदार पानी आना

पता नहीं

5. पिछली गर्भावस्था के दौरान आपने / परिवार ने प्रसव की जटिलताओं से निपटने के लिए पहले से कौन-कौन सी तैयारियाँ की थी?

अस्पताल की पहचान



वाहन की व्यवस्था



पैसे की बचत



घर पर बच्चों की देखभाल की व्यवस्था



अस्पताल जाने समय परिवार के सदस्य का साथ होना



6. नवजात शिशु को किन जटिलताओं का सामना करना पड़ सकता है जिसके लिए उसे तुरंत अस्पताल/स्वास्थ्य केन्द्र ले जाना चाहिए?



माँ का दूध ना पीना



नाल लाल पड़ जाना/ खून आना/मवाद आना



निमोनिया/ पसली चलना



झटके पड़ना



बुखार होना



दस्त

पता नहीं

7. डिलीवरी के बाद **आपने** बच्चे के शरीर को गर्म रखने के लिए क्या किया था?



के एम.सी./ त्वचा से त्वचा का संपर्क



शिशु को गर्म कपड़े में लपेटकर रखना



कमरे को आग से गर्म रखना

कुछ नहीं

8. नवजात शिशु को गर्म रखने के लिए किस प्रकार से के एम सी (त्वचा से त्वचा संपर्क) दे सकते हैं?



खुले सीने से लगाकर



कपड़े पहने हुए सीने से लगाकर

अन्य किसी तरीके से

पता नहीं

9. पिछले 24 घंटे में **आपने** शिशु को अपने दूध के अलावा और क्या-क्या खिलाया-पिलाया था?



खाना



पानी



ऊपरी दूध

कुछ नहीं

10. जन्म के बाद नवजात को पहली बार कब नहलाया गया था?

1 दिन	2 दिन	3 दिन	4 दिन	5 दिन	6 दिन	7 दिन	?
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पता नहीं



11. डिलीवरी के बाद आपने शिशु की नाल सुखाने के लिए क्या लगाया था?



तेल



टेलकम पाउडर



हल्दी



नीली दवा



यख



सुपारी

कुछ नहीं

पता नहीं

12. डिलीवरी के बाद, पहले हफ्ते (7 दिन के अंदर) आशा बहन आपकी या आपके बच्चे की कितनी बार जांच करने आयी थी?

1	2	3	3 से अधिक	नहीं आयी
---	---	---	-----------	----------



13. अगर किसी बच्चे को दस्त (डायरिया) लग जाए तो आप दस्त के उपचार के लिए क्या सलाह देंगी?



नमक चीनी का घोल



ओ आर एस



जिंक की गोली/दवा

पता नहीं

14. निम्नोनिया के क्या लक्षण हैं?



खांसी के साथ तेज सांस चलना



पसली चलना



नाक से घुसघुसने की आवाज

अन्य

पता नहीं

15. आपको मातृत्व, नवजात और बाल स्वास्थ्य के बारे में ऊपर दी गयी जानकारी और सन्देश किसने दिया?



समूह सखी / समूह से



अपनी सास से



स्थानीय डॉक्टर से



आशा / ए एन एम / अंगनवाड़ी से

अन्य किसी से

16. पिछले 6 महीने में आपको इनमें से क्या-क्या मिला है? (दिखाकर पूछें)



मातृत्व स्वास्थ्य



नवजात स्वास्थ्य



शुभकामना पत्र



बधाई पत्र

इनमें से कुछ नहीं

17. पिछली गर्भावस्था के दौरान क्या आपने किसी समूह बैठक में हिस्सा लिया जहाँ आपको स्वास्थ्य सन्देश मिला?

हाँ

नहीं

याद नहीं



Appendix 2

**COMMUNITY MOBILIZATION PROJECT IN UTTAR PRADESH**

**LQAS VALIDATION**

**OBSERVATION SHEET**

<b>Identification</b>		<b>Code</b>	
District name जिले का नाम		□ □	
Block code ब्लॉक का नाम		□ □ □	
GP code जी पी कोड का नाम		□ □ □ □ □	
Village/Purva name & code गाँव/पुरवा का नाम _____		□ □	
Name of interviewer who is administering LQAS questionnaire			
The interview was aided by:		LQAS mentor.....1 CRDC.....2 Alone.....3	
Name of the PC investigator पपुलेशन काउन्सिल के प्रश्नकर्ता का नाम		DD MM YYYY DATE □ □ □ □ □ □ □ □	
S.N.	Questions	Coding categories	Codes
A1	Did the interviewer introduce and explain the purpose of visit? क्या सवाल पुछनेवाले ने अपने बारे में और यहाँ आने का कारण बताया?	Yes properly हाँ, सही तरीके से Yes, vaguely हाँ, ऐसे ही No नहीं	1 2 3
A2	Did she read the questions or asked question in her own way? क्या उसे सवालों को पढ़ा या उसने अपनी तरह से सवाल पुछें?	Read the questions as in the questionnaire जैसे प्रश्नावली में सवाल थे वैसे ही पढ़ा Asked the questions in her own way अपने तरिके से सवाल पुछें	1 2
A3	Did he or she ask each question clearly, somewhat clearly or not clearly? क्या उसने हर सवाल को बिलकुल सही तरह से पुछा, कुछ हद तक सही तरिके से, बिलकुल सही तरह से नहीं?	Clearly सही तरह Somewhat clearly कुछ हद तक सही तरिके से Not clearly बिलकुल नहीं	1 2 3
A4	If questions have to be explained, did she explain properly without giving answer or in the process gave the answer also? अगर सवाल को समझाने की जरूरत हो तो क्या उसने बगैर उत्तर बातें सही तरिके से समझाया या उसने बातों बातों में सवाल का उत्तर दिया?	Explained question properly without giving answer सही तरिके से समझाया बिना उत्तरों को बताये In the process of explanation gave answer उत्तर बताने की प्रक्रिया में उत्तरों को समझाया Could not explain properly सही तरह से नहीं समझाया	1 2 3
A5	Did she read out the options of the questions? क्या उसने सवाल के संभवित उत्तर भी पढ़ें थे?	Yes, for almost all (15+) questions हाँ, लगभग पुरे सवालों का (15+) Yes, for some (8-14) questions	1 2 3 4

S.N.	Questions	Coding categories	Codes
		हाँ, (8-14) सवालों का Yes, for some (1-7) questions हाँ,(1-7) सवालों का No, did not read options for any question किसी भी सवाल का उत्तर नहीं पढ़ा	
A6	Did he show the pictures of questionnaire while asking the questions? क्या सवाल पूछते समय उसने सवालों को दर्शाने वाले चित्र भी दिखाएँ?	Yes, for almost all (15+) questions हाँ, लगभग सभी सवालों के (15+) Yes, for some (8-14) questions हाँ, (8-14) सवालों के Yes, for some (1-7) questions हाँ, (1-7) सवालों के No, did not show picture for any question किसी भी सवाल के लिए चित्र नहीं दिखाया	1 2 3 4
A7	Did she fill the answer correctly? क्या उसने सही जवाब कोड किये	Yes, for almost all (15+) questions हाँ, लगभग पुरे सवाल (15+) Yes, for some (8-14) questions हाँ, (8-14) सवालों का Yes, for some (1-7) questions हाँ, (1-7) सवालों का No, did not fill answer correctly for any question किसी भी सवाल का सही उत्तर नहीं भरा	1 2 3 4
A8	Is a compiled list of eligible woman (EW) available with the interviewer? क्या प्रश्नकर्ता के पास योग्य महिलाओं की सूची उपलब्ध थी?	Yes हाँ No नहीं	1 2



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