An Initiative on Quality Assessment in the Title II Based Safe Motherhood and Child Survival Program of Catholic Relief Services, Lucknow, UP, India

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Annotation:

The current article is about the quality assessment of health program of Catholic Relief Services (CRS), Lucknow during the period from 1996 to 2001. The name of the program was Safe Motherhood & Child Survival (SMCS) program. The program was food aid based through the Indo-US agreement where CRS implemented the program through its Non-Governmental Organization (NGO) partners in Lucknow. During the period 1998 to 2000, CRS, Lucknow integrated a project to assess the program quality using the Lot Quality Assurance Sampling (LQAS) technique. The health program or the SMCS program of CRS, Lucknow implemented the LQAS intervention with all of its NGO partner implementing the SMCS program in various districts of Uttar Pradesh.

The article details out the outlines of the food aid programs between India & the United States & the role of CRS in the process. It also gives a glimpse of the health program of CRS, Lucknow that is known as the Safe Motherhood & Child Survival (SMCS) program & its components. Thereafter, it delves into the details of the LQAS technique integration in the program, lay out plan to build the capacity of the program staff to integrate the component in their programmatic areas in various parts of the state of UP.

The technique is highlighted through the samples that need to be selected for assessment of each of the components of the SMCS program thereby depicting the benefit of the integration. Explanations are also given & illustrated lucidly for the simplification of the process of application of the LQAS technique in the SMCS program. The article is a reflection of how far the state of UP has moved ahead in the field of assessment of the quality of Maternal Neonatal Child Health & Nutrition (MNCHN) that is reflected through the introduction of the Quality Assurance (QA) wing since the introduction of National Rural Health Mission in 2005. A lot has been done regarding qualitative assessment both qualitatively & quantitatively since the last two decades when the introduction of LQAS technique was done in the SMCS program. The current article is based on quantitative aspect through which qualitative aspects were deuced to improve program quality.

KEYWORDS: Title I, II, III & IV, SMCS, CRS, LQAS, Growth Monitoring, Health Education session, MNCHN, ICDS, NGO, PL 480

INTRODUCTION

The food situation in India was marked by severe shortages in early 1940s [1]. To overcome shortages, the Government of India felt the need for reserve of food grains as there was wide fluctuations in production of food grains. Secondly, the planned budgeting of activities in five- year plans was bound to put inflationary pressure in the food grain sector than elsewhere [2]. Thus, to create a buffer stock of out of imported food grains, the Indian Government entered into negotiations with the United States Government & signed an agreement in 1956 for import of agricultural commodities, mainly food grains under Public Law 480 [3]. *How to cite this paper:* Dr. Tridibesh Tripathy | Ms. Anjali Tripathy "An Initiative on Quality Assessment in the Title II Based Safe Motherhood and Child Survival Program of Catholic Relief Services, Lucknow, UP, India" Published in

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The Food for Peace program of the Government of United States operated under the Agricultural Trade Development & Assistance Act of 1954 (as amended), better known as the Public Law (PL) 480. The law authorized four types of special programs such as Title I, Title II, Title III & Title IV [4]. Title I focused on sale of surplus food grains, II on donations to governments for disaster relief, economic & community development, III on donations to voluntary agencies for distribution & IV on foreign buying of US farm products [4]. From 1956, Catholic Relief Services was engaged in Title III program in India [4].

The concept changed from food aid to food assistance in the period from 1990-2014. Use of food aid was more forthrightly in programs aimed at community development. These programs are best examples of United States efforts to reach people directly. Three-fourths of the food donations were administered by American Voluntary Agencies one of which was CRS [5]. To increase the flexibility of food aid, the United States Government allows sale of food in recipient countries to generate cash resources for other programs addressing the causes of hunger, a practice known as monetization & CRS also used the monetized food to address hunger in India & from 1991 to 2001, levels of monetization of the non-emergency Title II food increased from 10% to 70% [6].

The Agency for International Development office in India operated the Title II program as USAID was given the responsibility to implement the Title II programs [7]. The Title II program in India was at the time the single largest humanitarian food donation program in the world providing food commodities through CARE, CRS, Lutheran World Relief, UNICEF & others [8].

CRS implemented projects from 1997 to 2010 in three sectors such as maternal & child health & nutrition, agriculture (watershed development) & education. CRS devoted its last project cycle called the Phase Out Plan (POP) to transitioning or phasing over their activities to Government of India programs [9].

SMCS program in public domain

The Safe Motherhood & Child Survival Program of Catholic Relief Services in India was operated in 13 states across the country serving 182, 121 pregnant & nursing mothers & children of 0-3 years of age from around 3169 villages. The program was operational through 600 social service wing of the dioceses as local partners thus reaching the inaccessible & the underserved. The goal of the program was to empower women to address their own health needs as well as those of their children & communities [10].

CRS India implemented baseline studies in the second project cycle in 2002 after the first Development Activity Project phase I (1997-2001) ended in 2001. The base line studies of SMCS program was done in 2002. The Development Activity Phase II was from 2002-2007. The baseline for the Phase out Plan (POP) was from 2007. End line evaluation for POP was done in 2010 for CRS, India. The end line evaluation was replicated in 2012 for CRS, India in a follow up quantitative survey implemented in a subset of the states in which the end line evaluations were conducted. Qualitative survey was also done. Uttar Pradesh was also one of the states in which the end line was done [9].

The end line evaluation of SMCS program reflected increase in institutional deliveries, immunization coverage, increase in prenatal & postnatal care. The underlying assumption was that improving maternal care practices would ultimately affect rates of malnutrition but the indicators on Early Initiation of Breast Feeding, Exclusive Breast Feeding, Complementary Feeding and continued breastfeeding & feeding during illness did not show any significant effect on the probability of a child being stunted [9]. This shows less effective implementation of these indicators as these are proved & effective interventions if done strategically [11]. However, the evaluation focused on identification of factors leading to the sustainability of those changes in activities, outcomes & impacts that were achieved by the project [9].

A peep into the article

One such effort to augment the SMCS programs of CRS, Lucknow was done in the first DAP period in the years 1998 to 2000. Many developmental blocks in UP where the SMCS program were operational were then non-ICDS blocks as Integrated Child Development Services (ICDS) was not universalized in the Nation by that time [12]. The ICDS program was universalized through a order of supreme court in December 2006 where by the Government of India was asked to cover all the blocks of the country through the ICDS by 2008 [12].

The approach was to implement the LQAS technique in all the SMCS projects at Non-Government Organizations (NGO) partners based in various districts of the state of Uttar Pradesh where the CRS supported Title II Safe Motherhood and Child Survival (SMCS) development program was already operational since 1997. CRS works with Non-Governmental Organizations (NGO) to implement the programs.

The current article has the simplified approach where the important contents of assessment of program quality through the key components so that the assessment is integrated into the SMCS program of all the NGO partners of CRS Lucknow. The benefits and impact of this approach was that it was being used at the grass root level. The integration envisages enhancement in program quality outcomes in the program areas of all NGO partners.

The article gives an overview of the LQAS technique process with explanation through desired sample sizes, the minimum cost involved in using the technique including person days, major contents of the capacity building planned for the workers of the program, implementation plan of the integration of LQAS technique in other state offices of CRS, India. It also highlights the process and the expected benefits from the integration of the sampling technique into the SMCS program.

SMCS program at a glance (1996-1999)

The health program of CRS, North India/Lucknow started in 1996 and has been gradually expanded to the present status catering to pregnant women and children up to 3 years covering 10 blocks spread over 8 districts of Uttar Pradesh in 2000. The program known as Safe Motherhood and child survival (SMCS) operates in the program villages where the Title II food commodities act as an incentive for the participants to participate in the program actively. The basic components of the program are growth monitoring, home visits, health education and maintenance of health information system. The children and pregnant mother's weight are monitored every month during the monthly food distribution. Home visits are done to counsel the priority cases like the malnourished children whose growth falters, pregnant women and recently delivered cases. Health education sessions are conducted for mothers on basic health topics like complementary feeding, Diarrhea management, importance of iodine and care of neonants etc. The health workers maintain records themselves regarding the child and mother care services, in the child register and pregnant

mother register respectively. In addition to that, they also maintain the plotting of the growth cards and a daily diary mentioning the home visits. To monitor the quality of the program, the Lot Quality Assurance Sampling (LQAS) technique was used to assess the above mentioned 4 components of the program in 1999 to 2001.

LQAS- An introduction¹⁴

Lot Quality Assurance Sampling (LQAS) is a type of random sampling that uses very small samples, say 6 to 30 observation, to determine whether the specific batch or "lot" of finished products produced by a specific production unit meets a specified threshold quality. This method was developed for industrial production but has recently been applied to health services. The "production unit" in Primary Health Center (PHC) may be an individual health worker, a service delivery group, an encounter, a session or a health center. Examples are: all Community Health Workers (CHW) in a project area; all growth monitoring sessions conducted in a month; all health centers operating in the city. Managers can use this technique to determine, for example, whether children are being weighed properly. LQAS does not tell a manager what proportion is weighed properly, just whether the proportion weighed properly is above or below a designated level.

The procedure requires the manager to specify a goal that the "batch" is expected to achieve and a minimal acceptable level of achievement. The manager must also specify the level of precision needed and the time and resources available for data collection. It is important to note that LQAS results should never be presented as a percentage because they would be very imprecise. Instead the method should be used only to determine whether or not performance is meeting a given standard.

Recap of the initial steps to integrate LQAS technique

The LQAS training was conducted for the SMCS program of CRS, North India/Lucknow in February 1998 by CRS, North India/Lucknow. The training was facilitated by Ms. Nancy of Plan International, USA. The objective of the training was to learn about the application of LQAS to assess the quality of the SMCS program. The process involved development and application of simple checklists for various activities of the program through field visits to SMCS program villages. This experience gave the lead author the base for developing the quality assurance system for SMCS program of CRS, North India. This system was applied to assess the quality of CRS North India SMCS program in 1999.

Structure of the article

The article focuses on the quality assessment of 4 components of the SMCS program such as health education, home visit, growth monitoring and record review or Management Information System (MIS) of the program. The quality assessment was done separately for each component in five different programs (which were operational since more than two years) at five partner locations. For each component, the process of doing the assessment is explained along with the findings of the review. The assessment tool (checklists) and the result sheets showing each health worker's performance (the Village Health Worker of the program (VHW) was the unit for review). To do this assessment unbiasedly and timely, the health team of CRS, Lucknow hired one consultant to assess the growth

monitoring component of the program. Other three components were assessed by the health team members of CRS, North India/Lucknow. For each component, the process of doing the assessment is explained along with the cost incurred to do the assessment. The findings and lessons learned from each of the exercise is discussed for each of the component.

Research Methodology

From across the five partners the performances of 14 Village Health Worker (VHW) were reviewed during the assignment. The above figure of 14 was decided to reduce the total risks as per the requirements of LQAS technique. To decide the respondents under LQAS study, stratified random sampling method was used. For the above the organizations were classified into two groups where the two group of partner organizations were chosen on the number of years with CRS SMCS program. The first group of partners consisted of partners with two and more years old program experience and the second group consisted of partners with program experience of one year.

GROUP 1: This group consisted of five partners with a total strength of 93 VHWs. These partners were having program that was more than two years. So out of every 7 VHWs one VHW was chosen as respondents. In this way equitable representation from each partner was ensured. In this group of five partners three components namely health education, home visit and growth monitoring were reviewed.

GROUP 2: This group consisted of five partners with a total strength of 83 VHWs. These partners were having program experience that was one year old. So out of every 6 VHWs one VHW was chosen as respondents. In this way equitable representation from each partner was ensured. As this group had less programmatic experience, in this group of five partners only one component namely record review/MIS was reviewed.

In the section below, the quality assessment of each of the four components are given. Following that, the findings of the assessment is given. Subsequent to that, the plan to use the technique at the partner & CRS level is given along with the cost & the person days to be involved for each of the component. The plan envisaged is not only for CRS, Lucknow but for other state offices as well. This technique can be applied at all partner places for many other programs where the program components can be assessed for quality improvement.

HEALTH EDUCATION FINDINGS

For assessing the health education component, the research tool (checklist) was used only to address the general quality aspects of a health education session. The assessment indicates that the quality of health education session across the program is below quality expectations. In other words, health education session held in the program do not meet even half of the quality standards that the program set for quality assessment. Of the 14 VHWs observed, just 3 of them passed and all the rest failed. This implies we need to make more focussed efforts in training VHWs for health education. A closer look at the performance of each lot reveals that the "content" and "method" of the health education sessions, (question # 12-17 of the research tool) is where our efforts should be focussed.

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SAMPLE FRAME Stage I Production unit:	Training of supervisors in the communication of health messages by CRS
Lot:	Cohort of trained VHWs
Threshold:	Upper- 80% Lower- 50%
Targeted Services:	Imparting basic health knowledge to mothers through the health education sessions
Decision Rule:	14: 4 i.e. from a sample of 14 VHWs, if more than 4 fail then the lot fails. (provider risk 0.13 + consumer risk 0.09 = 0.22)
Type of data needed:	Knowledge and skills of VHW in imparting the health messages
Research tool:	checklist for a general health education session
Applications:	Identify areas for improvement in the method of giving health education
Stage II Production Unit:	Training of supervisors by CRS on imparting health messages
Lot:	Cohort of trained VHWs
Threshold:	Upper- 90% Lower- 40%
Decision Rule:	6:2 i.e. of a sample of 6 sessions, if more than 2 fail, then the lot fails. (provider risk: 0.02 + consumer risk: 0.17 = total risk:0.19)

PROCESS

In SMCS program, each VHW provides services to about 100 mothers. For the purposes of health education, mothers are organised in small groups of 20-25, thus each VHW will have 4 small groups. Each group receives 2 health classes in a month, thus a VHW conducts a total of 8 sessions in a month. As per the sample frame, we selected at random 14 vhws for observation. In the event of non availability of the selected vhw we prepared a replacement list and for each selected VHW there were two standbys in order of priority. For field observation, the health team roped in the services of four supervisors of NGO partners. Each of the team members observed six health education sessions for one VHW. For each VHW, the topic of the session was same for all the six sessions. The checklist only addressed the general quality aspects of a health education session.

COST

In all the assessment of this one component took 17 person days. The cost involved is:

Travel	: 9700
Hotel and perdiem	: 5300
Consultant charges	: 5815

Total : RS. 20,815

LESSONS LEARNED

Six health education sessions per VHW was observed. Care has to be taken to see that the health worker gets sufficient time to prepare in between two sessions so that the quality of the sessions does not suffer. While reviewing, the reviewer should act as a facilitator creating a friendly environment so that the worker conducts the sessions to the best of his or her potential. The checklist used here was only addressing the general aspects of a health education session. Similarly, different checklists can be developed based on various health topics and assessment can be done accordingly.

HOME VISIT

FINDINGS

While assessing the home visit component, the research tools (checklist) used were developed as per the priority cases for home visits. The priority cases that needs home visits are –

- Houses of children nearing 6 months of age.
- Houses of children whose growths are faltering.
- Houses of pregnant women.
- Houses of recently delivered cases.

The assessment indicates that the quality of counselling during the home visits across the program is below our expectations. Like the health education component, the process of counselling during the visits to the houses of the priority cases, among the program participants, is nowhere near the quality standards that the program set for quality assessment. Of the 14 VHWs observed, just 3 of them passed and all the rest failed. Thus, our efforts should center around training the VHWs or supervisors in communication skills development. If we analyze the performance, it reveals that the counselling for 'pregnant women' and 'growth faltering children' needs to be improved while visiting their houses.

SAMPLE FRAME Stage I	
Production unit:	Training of NGO partner staffs for conducting home visits by CRS
Lot:	Cohort of trained VHWs
Threshold:	Upper – 80% Lower - 50%
Decision Rule:	14: 4, i.e. of a sample of 14 vhws, if more than 4 fail the test, then the lot fails (provider risk: 0.13 + consumer risk: 0.09 = Total risk: 0.22)
Targeted Services	Home visits for counselling and follow up of pregnant women, growth faltering children, recent delivery and children nearing 6 months of age.
Type of data needed	Knowledge and skills of VHWs for conducting home visits
Research tools	checklist for pregnant mother, growth faltering children, recent delivery and children nearing 6 months of age.
Applications	To monitor the quality of home visits to correct the lacunae observed.
Stage II Production Unit	Training of NGO partner staff on home visits by CRS, Lucknow
Lot	Cohort of trained VHWs Research and
Threshold	Upper- 90% Lower- 40%

Decision rule 6:2 (Out of 6 houses, 4 houses are to be visited for children 0-3 years and 2 houses to be visited for mothers). [provider risk: 0.02 + consumer risk: 0.17 = total risk: 0.19]

PROCESS

In SMCS program, each VHW visits the houses of the priority cases and the houses of those program participants who do not participate actively in the program activities such as attending health education sessions, coming to the distribution center with the child etc. The supervisor helps the VHW, to identify these cases from the child register and the pregnant Register. The purpose of the visit is to aware the family members of the program participants regarding the program activities to ensure active participation of the mothers.

As per the sample frame, we selected 14 VHWs at random for observations. In the event of non availability of the selected VHW, we prepared a replacement list and for each selected VHW, there were two standbys in order of priority. For field observation, the health team roped in the services of 4 supervisors working with NGO partners. Each of the team members observed six home visits for one VHW. For each VHW, 2 houses each for 'children nearing 6 months of age' and 'growth faltering' cases were visited for review. One house each for 'pregnant women' and 'recently delivered' cases.

COST

In all, the assessment of this component took 6 person days. The cost involved is:

Travel :	2700
Hotel and per-diem:	300
Consultant charges:	700

Total Rs 3700

LESSONS LEARNED

During review, care has to be taken so that the health worker gets adequate time in between two visits so that the essence of the visits is not lost. The review was done for 4 priority cases only. Checklists can be developed for other cases like those program

participants who do not actively participate in the program activities like health education and monthly distribution. After the observation, the reviewer should help the VHW during counselling so that the program participants are counseled properly.

GROWTH MONITORING FINDINGS

The assessment indicates that our growth monitoring sessions are up to our expectations as the lot has passed with out any failure. Analyzing further, it is seen that Q # 5 and 6 of the checklists used are the areas where maximum number of VHWs have failed. Thus, our efforts should be focussed to improve the counselling during the growth monitoring sessions. The activities like the weighing of children and plotting of the cards are properly done but the program performance lags behind in the area of counselling.

SAMPLE FRAME STAGE I	
Production Unit:	Growth monitoring sessions
Lot:	Cohort of trained supervisors
Targeted services:	weighing of children < 3 years Plotting of weight for age in MC card Counselling for mothers
Thresholds:	Upper- 90% Lower- 40%
Decision rule:	14: 4 i.e. from a sample of 14 Growth Monitoring Plan (GMP) sessions conducted by 14 VHWs, if more than 4 VHWs fail, then the lot fails. (provider risk: 0.13 + consumer risk: 0.09 = total risk: 0.22)
Type of data needed	Knowledge and skills of VHW on growth monitoring
Tool:	GMP checklist
Applications	To assess the effectiveness of supervisors training of VHWs on GMP and to provide support if necessary.
STAGE II	
Production unit:	Training of NGO partner staffs on GMP by CRS, Lucknow
Lot:	Cohort of trained VHWs
Threshold:	upper- 80% Lower- 50%
Decision rule:	10: 3, i.e. of a sample of 10 children, if more than 3 are not weighed, plotted and counseled correctly, then the lot fails. (provider risk: 0.12 + consumer risk: 0.17 = total risk: 0.29)

PROCESS

Every month during the distribution, the children (up to 3 years) and the pregnant women are weighed to monitor their health status. Here the assessment is done only for the growth monitoring of children. For field observation, 14 growth monitoring sessions were reviewed. Every partner has their fixed distribution days. As the growth monitoring session is clubbed with the distribution days, the review had to be done during the distribution days. An external consultant was hired to review the sessions. The consultant was briefed about the program in detail and to familiarize him with the sessions, he witnessed one GM session along with me at one of our partner locations. There after, he reviewed the sessions on his own at the partner locations.

The consultant reviewed the sessions using a checklist. The checklist addresses to review the performance of two VHWs as another VHW helps the health worker or VHW whose performance is being reviewed. This help is needed as the Growth Monitoring session has multiple activities. In each session, 10 children were chosen randomly and the checklist was used for each one of them. In this way, the performance of the two health workers were assessed with the help of the checklist.

COST

The assessment of this component took 14 person days. The cost involved is-

Travel:		3653
Hotel and perdiem:		4174
Consultant charges		1400
Total	Rs	9227

LESSONS LEARNED

It is interesting to note that the lot has passed because the checklist incorporates 3 major activities such as weighing the children, plotting the cards and finally counselling the mothers. This implies that separate checklists can be developed for each of these activities. As all these activities were incorporated in to one checklist, the VHWs passed even if they do not do one activity properly but do the rest activities properly. What is learnt from this exercise is that a detailed checklist will help us to do a better review as that will incorporate all the activities.

RECORD REVIEW/MIS

FINDINGS

To assess the performance of the health workers in the maintenance of SMCS MIS, the various data entries made by the health workers in the pregnant mother register, child register and the mother-child cards were reviewed. This review was done at 5 partner locations where the program was just one year old in those program communities.

The results of the assessment indicated that the quality of the data entries in the registers needs a lot of improvement. They are much below the quality standards that the program has set. Of the 14 VHWs observed, just 3 of them passed and the rest failed. Thus, it is evident that there is a need to make more concrete efforts to train VHWs regarding correct data entries in the SMCS registers. A closer look at the performance reveals that the entries in the pregnant register are poorly filled in comparison to that in the child register and the mother-child card.

SAMPLE FRAME Stage I			
Production unit:	Health MIS training by CRS		
Lot:	Cohort of trained VHWs		
Threshold:	Upper – 80% Lower – 50%		
Targeted services:	Accuracy of recordings by VHWs		
Decision rule:	14: 4 i.e. from a sample of 14 VHWs, if more than 4 VHWs fail, then the lot fails (provider risk: 0.13+ consumer risk 0.09 = Total risk: 0.22).		
Type of data needed:	Knowledge of VHW on recording, utility and maintenance of program data		
Applications:	Identify areas of difficulties in filling the registers and its correction.		
Tool:	Record review checklist		
Stage II Production unit: Training of NGO partners on health MIS by CRS, Lucknow.			
Lot:	Cohort of trained VHWs		
Threshold:	Upper – 80% Lower – 50%		
Decision rule:	8: 2 (5 children and 3 pregnant mothers in the registers and their Mother Child cards.) [out of 5 children, 3 children should be below one year of age and 2 children of 6 months of age from the date of data validation. Out of 3 mothers, 2 delivered in last 3 months from the date of data validation and 1 currently pregnant] (provider risk: 0.21 + consumer risk: 0.17 = total risk: 0.38).		

PROCESS

In SMCS program, the various records maintained by the health workers are the child register pregnant register, mother child card and the daily diaries. Here, only the child register, pregnant register and the mother child card were reviewed. The daily dairy written by the VHWs was reviewed during the assessment of the home visit component.

For field observation, the CRS health team reviewed these records at the five partner locations.

Among the records, the Pregnant Women Register (PR), Child Register (CR) and the Daily Diary (DD) is kept by the health worker themselves and the mother-child card is kept with the beneficiaries. For reviewing the data entries in the records, the following sampling technique was followed to select the beneficiaries from the various SMCS records:

A. 5 children from the child register (out of this five, 3 children were below one year of age and the other two of 6 months of age).

B. 3 mothers from the pregnant register (out of this three, 2 mothers who had delivered in last 3 months and one mother currently pregnant).

The data of these beneficiaries were reviewed from the registers and the Mother Child cards. As per the sample frame, we selected 14 vhws at random for observation. In the event of non availability of the selected VHW, we prepared a replacement list and for each selected VHW, there were two stand byes in order of priority.

COST

The assessment of this component took 5 person days. The cost involved is – Travel: 5800

Hotel and perdiem:	1100
Consultant charges:	Nil
Total:	RS 6900

Lessons learned

Maintenance of records is a process which needs constant monitoring. As the programs were only one year old, the lot failed and only 3 VHWs passed from among the total of 14 VHWs. The VHWs take time to learn to fill the columns of the various SMCS records correctly. How ever, the columns of the Mother child card and the Child register were relatively better filled than the Pregnant register. Thus, we could can conclude that our efforts should be more focussed in training the VHWs regarding filling the columns of pregnant register. To have valid data, we should ensure that the VHWs should realize the importance of the entries in the registers. Correct entries can come in to the register only if the other three components are in place. This implies that data entries in the registers is directly proportional to the activities of the program.

Efforts have to be put also to strengthen the other three components in these programs so that in turn the program quality improves.

Implications of findings for CRS North India/Lucknow

The implementation of the "Quality assurance system" gave constructive feedback to the CRS, Lucknow health team about our program quality. It not only helped us to know our weak areas but also, we could identify those health workers whose performance needs improvement. To make our health education sessions interesting, we developed Information Education Communication (IEC) materials on topics like anemia, vitamin A, colostrum feeding and complementary feeding etc. which caters to the SMCS program components. We also conducted puppetry training at our partner locations for the SMCS personnel. The IEC materials are used by the health worker while conducting the health education sessions. Puppetry shows are conducted on various health topics in the program villages by the SMCS personnel who received training conducted by CRS North India/Lucknow. This method has enriched the health education sessions. In order to strengthen the home visit component, CRS, Lucknow conduced an IEC training for supervisors so that they train their health workers regarding communication skill development. For improving the quality of growth monitoring sessions, training programs was conducted at each NGO partner level regarding the importance of growth monitoring. The Management Information System (information management system of the program) training both at CRS level and the NGO partner level were held from time to time to remind the workers regarding the various entries in the registers. In addition to that, the regular monitoring and supervision visits by the health teams of CRS & NGO partners constantly supports the workers to improve upon their performance.

The supervisors are also trained in using the 'VHW curriculum', (training guide developed by CRS for the health workers) which covers the training strategies to be adopted by them while training the health workers. In order to build the capacity of the health supervisors, they were trained as trainers. This training enabled them to help the CRS, Lucknow health team to conduct the basic health training at our NGO partner locations.

LQAS application in other state offices of CRS, India

This is an effort to use LQAS to assess the quality of SMCS program of CRS, Lucknow. As evident from the cost and the number of person days required to do the assessment, it is cheap, cost effective and not time consuming. It helps the health team to identify weak areas of performance and also the personnel whose performance needs to be improved. From this feedback, concentration of efforts are to be done accordingly to improve the quality of the program. The biggest advantage of using this system across all other state offices of CRS, India is that we can train the SMCS personnel regarding the use of LQAS and they can use it at their level to review the quality of the program. Properly developed checklists trapping the detailed activities are very important to do a better assessment while using LQAS. Checklists should be updated from time to time and they should be based on different activities. Each state office of CRS, India can have their own strategy to use LQAS while assessing the quality of the program.

Current health program of CRS, Lucknow

After the Phase Out Plan of SMCS program in 2010, CRS, Lucknow continued to work in the field of Maternal & Child Health. Since April 2011, CRS, Lucknow is operating the project named Reducing Maternal & Newborn Deaths (ReMiND). The strategy of the project is entirely different from that of the SMCS program. The details of the project can be obtained from the site given in the reference [13]. The SMCS program can be called as the precursor of the current project.

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Conflict of interest

Nil

Declaration

The authors declare that the contents are as of 22 years ago. There have been changes in the research methodology guidelines for LQAS application as a sampling technique both at state & center level since then. The contents can be categorized as a small step towards development of future strategies in quality assessment of programs in the field of Maternal, Neonatal & Child Health Nutrition (MNCHN).

Supplemental Files

Here the note from the lead author written in 2001 to the Head Quarters of CRS at Baltimore regarding sending the said LQAS technique is attached. The book by Joseph Valadez arch ar is given in the reference of the article.

From : Dr. Tridibesh Tripathy

То

Dr. Anwer Aqil, Senior health technical advisor, Program quality support department 209, West Fayette street, MD-21201, Baltimore, Maryland, USA.

Sub: LQAS report

Date: 10.1.01

Please find a copy of the LQAS report mentioning the SMCS program quality with respect to the basic components of the program. Kindly go through the report and see the means of applying it across various programs. Your feedback and suggestions are welcome. It would be nice if you give me the postal and e-mail address of Joseph Valadez so that I can also forward a copy to him. You can mail me the address in the office mail address. This is in reference to the QAS report that I gave you during your Lucknow visit.

Regards



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