Operational Guidelines For the Community Based Integrated Management of Childhood Illness (CB-IMCI) Program

2064 (July, 2007)
Operational Guidelines For The Community Based Integrated Management of Childhood Illness Program
2064 ( July, 2007)
Foreword

Every program needs continuous refinement and modification from time to time based on the situational analysis through monitoring and evaluation to make it more effective in terms of better outputs. IMCI was implemented a decade ago and it has been rectified and modified by Child Health Division ever since it was implemented in Nepal. More than half of the districts of Nepal have so far been covered by CB-IMCI and rest of the districts will have been covered in two years’ time. To make it more disciplined and compatible throughout the country, Child Health Division and the IMCI working group felt that guidelines need to be developed based on the evidences collected through monitoring and supervision reports and surveys from the CB-IMCI districts and from the rapid assessment results from three districts (Doti, Dang and Dhankuta) where implementing partners were different. Accordingly, based on the evidences, the recommendations and operational guidelines were developed by Child Health Division with the technical assistance from EDPs and NFHP to be used by all implementing partners and the CB-IMCI districts in future. I hope it will prove to be dexterous in guiding all the stakeholders in the implementing process as well as in the maintenance phase.

Dr. Yashovardhan Pradhan
Director
Child Health Division
# Table of Contents

Foreword ............................................................................................................................. 1
Table of Contents ................................................................................................................ 2
Introduction......................................................................................................................... 3
Objectives of the guidelines ............................................................................................ 3
Standard Core Elements of the CB-IMCI Program ........................................................... 3
  I. Standards related to policy ......................................................................................... 3
  II. Standards for planning and preparation ................................................................. 3
  III. Rollout .................................................................................................................... 4
  IV. Maintenance .......................................................................................................... 8
      A. Early Maintenance .............................................................................................. 8
      B. Late Maintenance .............................................................................................. 9
  V. Monitoring .............................................................................................................. 11
Summary of Additional Recommendations ...................................................................... 11
Operational Guidelines for The
Community Based Integrated Management of Childhood
Illness Program

Introduction

In order to provide districts with standardized compatible National Operational Guidelines for implementing CB-IMCI and later for maintenance, the IMCI working group under Child Health Division decided to develop a guidelines that incorporate the recommendations from the CB-IMCI strategic review, and provide districts with the core set of activities that should be undertaken with the introduction of CB-IMCI. These guidelines are being developed after careful review of monitoring data, available studies, surveys and program documents related to implementation in the existing CB-IMCI districts.

Objectives of the guidelines

1. To outline the most effective and least expensive training model for the country.

2. To create an environment in which all stakeholders are emboldened to undertake the training and other activities of CB–IMCI in a standardized way in all new districts.

3. To maintain the quality and consistency of training and services in all CB-IMCI districts after the implementation.

Standard Core Elements of the CB-IMCI Program

I. Standards related to policy

All agencies initiating CB-IMCI should follow the following CB-IMCI guidelines:

- Implementing districts must be approved by the IMCI Working Group
- Supporting Partners must be represented and active in the IMCI Working Group
- Any change in policy interventions modality, training materials, technical expertise requirement, etc approved nationally, must be adopted

II. Standards for planning and preparation
• **FCHVs:** The FCHVs staffing situation needs to be reviewed and analyzed with regard to the population served by FCHVs implementing CB-IMCI. If the FCHVs to population ratio is greater than 1:300, the district must review the staff situation by VDC to determine where additional FCHVs may be needed to insure adequate case identification and management for CB-IMCI. Districts can then seek approval for additional staff. Districts should also examine access issues, including the estimated walking time from communities served to health facilities, to help understand staffing needs for more remote communities.

• **Logistics supply:** Districts must review their logistics supply system to be sure that all drugs and supplies needed for CB-IMCI are included in their supply system, and thus readily available at the district center. Districts must develop a distribution plan to ensure that CHWs involved with CB-IMCI do not experience stock-outs, and have necessary equipment (timers, educational materials, registers etc.) at their disposal. Logistics supply for CHWs must be included in all HF training to ensure adequate CHW support.

• **Coordination:** Districts must work with concerning partners to ensure overall coordination of CB-IMCI and related activities. This should include coordination and quality of training, logistics supply, supervision and overall program management.

### III. Standards for Rollout

This section describes the standard activities required for initiation of CB-IMCI in new districts. The following set of activities must be included in CB-IMCI implementation:

1. **District planning and DDC orientation:** 2 days

   This is a 2 day activity in which the first day is used for a detailed planning of training activities (number of batches, date to start, venue and possible facilitators) done by the DHO staff with the help of the CHD, NFHP and other concerned Partner staff in the district. On the second day, DDC members, local decision makers, local political leaders and representatives of local NGOs are oriented on the CB-IMCI program and the various ways they can support it.

2. **District training-of-trainers**

   To make the District Health Staff feel program ownership and also realize the overall responsibility and commitment after the implementation, IMCI working group decided to involve some of the very competent health workers of the districts as facilitators through out the training process in the districts right from the Health Facility down to the community level. This strategy was introduced a few years ago and still exists. To create a pool of facilitators in a district, highest category of health workers (MO, HA and SAHW) are called in the first batch of health facility level CB-IMCI training and 10-12 competent health workers from this group are selected.
by the external facilitators and district health staff after the training is over, to be utilized through the subsequent trainings.

3. **Health Facility level training: 7+2 days**

For this training, all health workers (HAs, SAHWs, AHWs, Staff Nurses, SANMs, ANMs) including Medical Officers will be provided a 7 day standard IMCI training designed by WHO/UNICEF in batches of 20, in the district hospital with the help of CHD recognized NGOs/technical institutes on a contract basis.

In addition to the 7 day IMCI training, 2 day program management training is included, in which health workers are trained to build up their capacity in managing the health facilities in terms of reporting, recording, monitoring, supervision, logistics and community level training techniques. This activity is conducted immediately after the HF level training. This is an additional component to the WHO/UNICEF designed IMCI training course and is included only in Nepal. If this program management activity cannot be conducted immediately after the HF level training, it should be carried out before starting the community level training activities. Health facility level training activities are mostly conducted by the Government these days and community level training activities are conducted by the implementing partners. Therefore, there is certain gap between these two activities. During the first batch training of 2 day program management, possible trainers for future use should be invited from DHO/ HFs and trained. 8 to 10 competent trainers should be selected from this batch and 2 day TOT should be provided to them on training facilitation technique of how to conduct the ensuing training activities for the remaining batches at HF level including the training of VHWs/ MCHWs.

4. **Community level training:**

a. **VHW/ MCHW level training: 5+2 days**

When health facility level training activities are completed only then community level trainings are started and the first training is the VHW/ MCHW level training. They are trained for 5 days for CB-IMCI and 2 days for program management. During 5 days training, participants should be provided opportunity to practice their clinical knowledge and skill in real cases in the nearby community. For this purpose, participants should be divided into 2 sub groups and one NGO facilitator with rest of the DHO facilitators who took TOT, should facilitate and monitor one sub group.

b. **FCHV level Training: 5+2 days**

This training is divided into 2 phases. The first phase is designed to accommodate literate and non-literate FCHVs, and focuses on correct assessment, classification and treatment of pneumonia cases, recording and reporting. The duration of this first phase training is 3 ½ days. To conduct this training, there should be one facilitator
from NGO side and rest from DHO / HF in each batch. DHO/Partner supervisors should play a supervisory role.

Two to three months after the first phase training, the FCHVs are called back again to give the second phase, 2 day training. This interim period is provided to them to practice the knowledge and skill they learned during the first phase training on real ARI cases in household setting and also practice their recording and reporting skills. During the second phase training, the material taught on ARI is reviewed and the facilitators try to find out the number of ARI cases each FCHV assessed, and the number of pneumonia cases treated, referred, and whatever problems or constraints they faced while managing ARI cases. FCHVs are then taught about diarrhea, nutrition and immunization and they are provided with supplies such as Cotrim, ORS, Zinc, Blue plastic cup, Recording forms etc as per requirement. Provision for trainers and supervisors should be same as in the first phase training.

c. **VDC orientation**

VDC members’ orientation, including local NGOs, HFMC members, religious and local leaders and teachers, will be conducted on the fourth day of the FCHV training for a half day to get the commitment from the members and their support to the program so that it can be made locally sustainable. This is the opportunity to have interaction between FCHVs and VDC members as well.

d. **Mothers group orientation**

Following the fourth day of FCHV training activities, there is another one day meeting on the fifth day called mother’s group meeting where all mothers with their <5 years children suffering from ARI in their respective wards are called upon in a suitable site by the trained FCHVs. In this meeting, FCHVs inform mothers of the ARI training they have received and of their ability to manage the ARI cases at home. They then assess, classify and treat <5 sick children suffering from ARI. This is actually the opportunity for them to practice their knowledge and skill on sick children. This type of clinical practice is conducted under the supervision of community-level facilitators, HF staff and VHWs/MCHWs. This meeting creates awareness among the mothers and also helps disseminate the health messages across the wards.

The training activities noted above must use the standard training and educational materials approved by the Government for CB-IMCI. While stakeholders may supplement these, and include some additional activities, these must be done in such a way that they do not adversely affect the expected results from the standard CB-IMCI activities. Partners adding other activities must take consent from IMCI working group. They should also ensure that the monitoring system remains adequate to track quality of service delivery, and thus monitor the impact of the additional activities on expected CB-IMCI results.
The following activities are considered optional, but may be important for some districts, and should be considered based on evidence specific to the district:

- **Drug Sellers and Traditional Healers Orientation**

  A one day drug retailers orientation on ARI and diarrhea is optional in Nepal but can be fruitful if it can be done, because mothers frequently visit drug retailers directly for medical care of their <5 sick children. This orientation may also make the referral mechanism more effective. Emphasis must also be given on the drug sellers that they should practice the rational use of drugs while treating ARI and Diarrhea cases.

  Traditional healers are often the first contact point for sick children. Traditional healers are still very influential in the community and can keep the sick children lingering for many days, which might result in death. Aiming to establish effective community-level referral mechanisms for pneumonia and diarrhea cases, four traditional healers from one VDC who see <5 sick children will be trained for one day on case management for ARI and diarrhea. They will also be taught to recognize the danger signs of ARI and diarrhea and to refer immediately to FCHVs or to the nearest health facility for appropriate treatment. During the orientation, preparation of ORS will be demonstrated and provided them with some packets of ORS and Blue plastic cup to measure appropriate volume of water while preparing ORS.

- **Follow-Up After Training Activities**

  When health facility trainings are over, this activity can be conducted preferably within 4-6 weeks after the training is completed. Seven to ten days should be spent for this activity depending on the size of the district and number of health workers in the district. During follow up, visited health workers are assessed for their knowledge and skill and problems in the health facilities are identified. Then their skills are reinforced and support to the health facilities is provided to the extent possible through DHO/DPHO.

5. **Training Materials and Job Aids**

CHD with the help of partners has developed standard training modules, follow up module with check lists, wall charts, training Video films, interactive CDs, IMCI OPD register, monthly and yearly reporting forms, mothers card for HWs and similar types of materials and job aids for the Community HWs and FCHVs to be used during and after the training in the IMCI districts. IEC materials and job aids will be revised as and when situation demands.
IV. Standards for Program Maintenance

This section describes the activities needed to maintain the program to ensure that the results achieved are sustained into the future. There are two dimensions to maintenance: a) activities that are needed in the early stages of maintenance, that is the period immediately following initiation of the program in a given district, and b) the ongoing activities that are expected to continue into the future, until the program is fully integrated, programmatically and financially, into national and district health plans.

A. Early Maintenance

Following rollout, the MOHP and Partners are expected to support the following for a 2 years period:

1. The established job description for the DHOs/DPHOs should be in use and they should be oriented about it during implementation of CB-IMCI so that the program remains sustained and effective later.

2. Support for 1 full time position for the CB-IMCI program, beyond the normal district staffing pattern, to help with monitoring and supervision

   The supervisor should work in close coordination with the focal person of the district while supervising/monitoring the HWs and HFAs and should also help him in gradually transferring knowledge and skill of CB-IMCI
   This should also include strengthening of the data base to be used for IMCI established in CHD or in the offices of the concerned partners, and CB-IMCI districts should be encouraged to send the monthly report in prescribed time so that the reports are analyzed and necessary feedback is provided to the districts.

3. Oversight of all levels of health workers in CB-IMCI activities
   Supervision and monitoring are crucial in determining the success and failure of a program in any given country, and this is particularly true for introduction of CB-IMCI. Therefore, program personnel and implementing partners must pay close attention to staff performance and supervision for at least 2 years.

   Technical support visits from all levels should be provided to strengthen the program in the district. These should include: central and regional level to the district, DHO to all HFAs and HFAs to FCHVs. Existing standard supervision check lists should be used in each visit and the visits should provide supportive supervision. If any problems or constraints are seen in the HFAs or with the FCHVs, these should be immediately solved so that HF staff and FCHVs overtly see that there are people behind to help them out and they can be made committed in their duty.
4. Annual 2 day program Review / Monitoring Meetings

District level meeting:

For this annual meeting, the in-charges of all the health facilities are called to the DHO with their reports from the past 6 months, and their IMCI OPD register. Using these materials, they make a presentation in front of the DHO staff and other participants. After the presentation there is a discussion in which all of them try to identify problems and constraints and possible solutions to further improve the program. They also discuss the plan for the CHW level annual reviews in terms of the number of batches, dates, sites, budget and materials to be used. CB-IMCI OPD registers should be checked by the facilitators and feedback should be given as per need. IMCI register is the real evidence for the supervisors to find out whether the HWs are doing case management correctly or not in their HFs.

Community level meeting:

The community level monitoring review meeting is conducted by the health facility in-charges and staff in their respective HFs with VHW/MCHWs and FCHVs. The CHWs and FCHVs are asked to bring their report of last 6 months and recording/reporting forms and other materials used in assessing <5 sick children in their wards. The facilitators check their recording and reporting forms to see how they are performing their job and try to find out their problems and provide feedback accordingly.

B. Late Maintenance

Without substantial changes in the funds available to the MOHP, programs such as CB-IMCI are likely to need some additional partner support for a certain period of time following rollout. Exactly how long this late maintenance support is needed is not clear, nor is there solid programmatic evidence from other programs. However, the experience to date suggests that this additional support is critical to sustaining program achievements.

The following are expected to need partner support for minimum 2 years, or until the program shows stability without external input:

1. National level focal persons meeting

Focal persons from all CB-IMCI districts are invited to this important meeting every year where they follow a prescribed format to report on the past 6 months performance. During the first 2 days, presentations are made by CHD, implementing partners and focal persons, followed by discussion. On the last day, panel sessions are conducted by the facilitators. In the first panel session, some focal persons from selected districts with good IMCI results are called to the dais and rest of the focal
persons or audience ask them the program related questions. During the second session, the IMCI section chief and representatives from implementing partners are invited to the dais and focal persons ask them questions. This review meeting provides opportunity for interaction among all program personnel about the program status, problems and constraints and the future direction to be followed.

2. **Orientation of new health workers**

Each year an average of 20 IMCI trained health workers are transferred out from a CB-IMCI district to other non-IMCI districts. To maintain the compatibility in the program within the district, a 3-day IMCI orientation course should be given to them as soon as possible. After implementation of CB-IMCI throughout the country gradually, there will be less number of untrained health workers to be trained.

2. **Monthly FCHV meetings**

This monthly meeting could be crucial to update the knowledge of FCHVs through the feedback in the meeting and to strengthen them by supplying the essential commodities in time. This type of meeting is held in some of the VDCs of some districts. In Dhankuta all the VDCs from this year onwards, are preparing to hold this kind of monthly review meeting regularly. DHO/ DPHO should try to incorporate this meeting in CB-IMCI and stakeholders should encourage other CB-IMCI districts to hold such monthly review meeting.

3. **Continued adequate supervision**

Supervision/ monitoring visits from centre have revealed that program quality has declined in those districts where supervision has become irregular, frequency of supervision has been reduced or there was no supervision at all. Dhankuta and Dang districts can be taken for example. Therefore, continuous and regular supervision and monitoring activities need to be carried out at all levels.

4. **Backstopping for logistics supply to address unexpected disruptions in critical supplies**

Training materials, recording/reporting registers, forms, timers, drugs etc. are provided during the training to HFs and FCHVs. To make the HWs change their behavior and transfer the IMCI skill into practice, these commodities need to be re-supplied on a regular basis to the IMCI districts. Partners are expected to provide some additional support for logistics supply for at least 2 years following introduction of IMCI.
V. Monitoring

The CB-IMCI program has evolved over time in part based on strong monitoring data that have demonstrated improvements in the expected number of cases receiving treatment, good quality of care provided by CHWs, and good community acceptance of the CB-IMCI approach. It is imperative that the program maintains this evidence base to ensure there is good evidence that the results achieved are sustained.

The following monitoring activities should be supported:

1. **Regular Review of HMIS, with activities undertaken to strengthen data quality and use**

   The raw data received from districts are compiled by the HMIS section and are distributed to the respective divisions and sections. Divisions/sections analyze those data to see the direction of the program and also to identify the strengths and weaknesses of the program in terms of planning, strategies, implementation, budgetary allocation etc. so that they could be revised to improve the program in the future.

2. **Use of the established standard monitoring and evaluation guidelines and indicators developed by the CB-IMCI program**

   To guide the program and make it gradually effective over time, it is vital to monitor it on a regular basis for some years and intensively initially. For this purpose, CHD, Partners and all program districts should use the Monitoring / Evaluation tools and indicators developed by CHD.

**Summary of Additional Recommendations**

Following the recent CB-IMCI review, the IMCI rapid assessment team has recommended the following to further improve the HF level as well as to strengthen the community level IMCI in the country in coming years:

**Community Level:**

1. All mothers of children irrespective of age of the children should also be briefly oriented on CB-IMCI on fifth day of FCHV training which will help disseminate health messages across the VDCs creating better awareness thereby in the community.

2. All FCHVs should be trained to diagnose and treat pneumonia except those who are not capable to perform the job.

3. The concept of Watch Groups composed of mothers, selected local resource persons, and FCHVs in a VDC can be applied in IMCI districts wherever possible because
these activities can create awareness and demand and also empower the communities to sustain the program at the local level. The Watch Groups in Dang district operate an Emergency Obstetrics Care Fund, a micro credit type fund that can be utilized by community members in emergency. This activity compels them to hold mothers group meeting regularly.

**District Level:**

1. The DHO should strictly instruct all trained HWs to follow the IMCI chart booklet for classification and fill up the IMCI OPD register while assessing <5 sick children.

2. District supervisory activities are limited, and need improvement particularly for initial phase of CB-IMCI. DHOs should intensively focus on this issue and all HF s should be asked to provide regular supportive supervision down to the FCHV level and check monthly report and treatment slip of CHWs before sending the report to upper level.

3. DHOs should maintain continuous communication with the center and the HF s so that problems/issues can be addressed immediately.

4. Ilaka level meeting is one of the opportunities to provide feedback to HWs which could fortify the program in the long run. Therefore, all CB-IMCI districts should conduct this meeting on a regular basis.

5. DHO / DPHO should monitor at least some FCHVs as per their time availability. Such practice provides them opportunity to get familiarized with the program.

**General**

1. Two to three years after the implementation of CB-IMCI, districts not functioning well should be selected to be given priority for refresher training.

2. Some Partners are interested in implementing CB-IMCI in particular districts. Whichever districts they are allowed to take up, they should cover the whole district and complete all the training activities of CB-IMCI within 2 years’ time period.

3. With the rapid expansion of CB-IMCI, many districts were taken up at a time and follow-up after the training was not possible to carry out in the prescribed time period. Therefore, follow-up after the training should be conducted within 4-6 weeks after the IMCI training is over by only the IMCI trained facilitators.

4. Within next 2-3 years, CB-IMCI will be functional throughout the country but with the passing of time, HWs will need their knowledge and skill to be reinforced from time to time. Therefore, a 3-5 day refresher training course for them needs to be developed.
5. Supply of second line antibiotics and drugs/injections for under 2 months sick young infants should be managed by centre.

7. Importance should be given on the procurement of the quality of drugs.

8. A collaborative supervision and monitoring model used by DHO and Partners in Sarlahi district looks to be very much conducive in maintaining better performance by HWs in the district. Other CB-IMCI districts may also adopt this type of model wherever and whenever possible.
Community-based Integrated Management of Childhood Illness Program Review
Nepal

2064 (JULY, 2007)

Evidence Based Recommendations
I. Introduction and background

The Integrated Management of Childhood Illness (IMCI) program in Nepal was implemented in Mahottari district towards the end of December 1997, with the adaptation and translation of the WHO/UNICEF designed generic IMCI training materials into Nepali. A community-based component (CB-IMCI) was introduced in 1999, that evolved from the community-based pneumonia treatment program. As of end of 2006, CB-IMCI has been scaled up to cover 35 districts that provides IMCI related health services to more than 57 percent of the under-five children in Nepal. During this initial scaling up, a number of different partners have been involved, and different approaches used. The IMCI strategy has been reviewed several times by the IMCI working group from the very beginning and modifications were made when needed and several training approaches were applied to make the program more effective, less expensive, and ownership oriented.

Recently, the IMCI working group decided that the CB-IMCI strategy should be reviewed to assess the impact of the different modalities used, and to identify weaknesses that might need to be addressed. This review was done in anticipation of more rapid scaling up, with all 75 districts to be included over the next 2 years. These recommendations are then to be incorporated into standardized operational guidelines for CB-IMCI. These guidelines are being developed after careful review of monitoring data, follow up results, available studies, surveys, recommendations from rapid assessment of 3 districts and program documents related to implementation in the existing CB-IMCI districts.

This document presents the findings from the CB-IMCI review, and includes a review of the key issues addressed, the evidence relating to those issues, and the recommendations for improving the program and for helping standardized initiation in new districts.

II. Objectives

The objectives for the CB-IMCI review included the following:

1. To determine the most effective and least expensive training model for the country.

2. To create an environment in which all stakeholders are emboldened to make the training and other activities of CB–IMCI compatible in all districts.

3. To gather useful and feasible recommendations and suggestions from health workers and stakeholders to further improve CB–IMCI in coming years.

III. Methods

In preparation for the review, the members of the IMCI working group organized a meeting on 4 December 2006 at Child Health Division of the Ministry of Health, and discussed a number of identified issues and possible solutions to be rummaged during the review. The members also assigned a smaller group of members to review these issues in detail and come up with the evidence based recommendations. The small group held a meeting at NFHP on 26 January, 2007 and reviewed carefully the monitoring data, follow up after training data, available study and survey reports and program documents related to implementation in the existing CB-IMCI districts. Issues related to various disciplines were identified by the group and decided to address them appropriately through the recommendations and operational
guidelines. In the mean time a small team, consisting of members from CHD and NFHP was made in coordination with CHD in order to make a rapid appraisal of the 3 selected CB-IMCI districts The team finished the work in the middle of March in Doti and Dang and the suggestions of the district health staff were also included in the guidelines. The draft guidelines was presented before the CHD staff, a few IMCI focal persons, NFHP child health staff and a consultant in a focal persons` meeting in Pokhara on 4 May and comments of the participants were noted down. The assigned small group decided that the guidelines should be divided into two parts, one containing the evidence based recommendations and another component containing the operational guidelines that should include CB-IMCI core activities and maintenance. Dhankuta district was visited by the assessment team later in the middle of May due to disturbances in the eastern region of Nepal and the suggestions of the district are also included in the recommendations.

IV. Identified Issues

In the course of the review, a number of issues were identified that required review. Some of these reflect potential weaknesses or vulnerable aspects of the program, while others relate to the efficiency of introduction and maintenance of the program.

A. Policy and Planning related issues:

1. Vacant posts due to phased out VHWs and upgraded MCHWs to ANMs.
2. Population or geography based FCHVs vs. ward based FCHVs.
3. CB-IMCI training and FCHVs based in Municipalities
4. Increasing FCHV drop-out rate
5. Linkage between CB-IMCI and Community Drug Program (CDP).
6. Expansion of Zinc treatment in the Community-based management of diarrhea.
7. Anticipation of the potential expansion of community-based management of neonatal sepsis, conducted through different models in some districts Approval for the treatment by FCHVs of pneumonia among under 2 months old infants with cotrimoxazole pediatric tablets
8. CB-IMCI and other child survival programs.

B. Training related issues:

1. Length of CB-IMCI training.
2. Standardization of training modality conducted by implementing Partners
3. Place of training: zonal vs. district level training.
4. Catch-up training for HF level transferred in staff
5. DDC/ VDC/ HFMC orientation.
C. Maintenance and supervision related issues:
1. Presence of Partners supported supervisors in CB-IMCI districts.
2. Inadequate supervision and monitoring by district health staff
3. Annual review / monitoring meetings.
4. Pneumonia case follow-up and the issue of cotrimoxazole resistance.

D. Logistics supply related issues:
1. Inadequate supply of commodities such as ORS, cotrimoxazole and other essential CB-IMCI drugs, timers, recording/reporting forms, CB-IMCI registers etc.
2. Quality of cotrimoxazole.

E. IEC related Issues:
1. Low health facility use rate by mothers of under-five children.
2. Poor counseling of mothers by health workers
3. Inadequate behavior change/communication activities.
4. Broadcasting of health messages during non prime time.

The recommendations below are evidence-based and will hopefully help all program personnel, IMCI district staff, implementing partners staff and other stakeholders run the CB-IMCI effectively and smoothly so that the quality of training and services provided are well maintained and standardized throughout the country.

V. Evidence-Based Recommendations

A. Policy and Planning related issues

1. Health facility staff management

VHWs play an important part in CB-IMCI. Currently, the Government is phasing out this level of old health facility workers. In addition, MCHWs are in the process of receiving further training that increases their skill level to that of an ANM. These changes will result in fewer health workers at the health facilities for some time, in sub-health posts and will definitely disturb community level activities of the CB-IMCI program for the time being but the posts will not remain vacant forever and they will be fulfilled by the newly recruited health workers in due course of time VHWs have been responsible for collecting monthly reports and providing supportive supervision to FCHVs, apart from their role in assessing and treating <5 sick children in the community.
Recommendations:

- AHWs and ANMS should be made responsible by the DHO/DPHO for collecting the monthly reports where there are posts lying vacant for the time being.
- A monthly report collection mechanism should be developed by the districts through organizing a monthly meeting at the health facility level in coordination with the VDCs.
- The job description of AHWs and ANMS needs to be revised to reflect these staff changes, and to ensure that the responsibilities of the VHWs are covered.

2. Population vs. ward based FCHVs and service provision

FCHVs are mostly ward-based, that is, there is one FCHV per ward, regardless of population. In some districts, there are additional FCHVs assigned, based on population. Program data show that provision of care for pneumonia is higher where FCHVs have fewer households to cover. (figure 1). At present, community-based pneumonia treatment is available only in 5 wards of a VDC in Terai, as the FCHVs in the remaining wards have only been trained in referral.

Figure 1 (Source: CH Monitoring data & HMIS)

Recommendations

- With the consent of CHD, all CB-IMCI districts should convert the remaining 4 referral FCHVs of the VDCs to treatment FCHVs. This would mean that at least one FCHV in each ward would be trained to be a treatment FCHV to achieve optimal coverage and for this kind of training activity, FCHV level Annual Review meeting could be utilized as an opportunity by districts.
- Districts may also increase the number of treatment FCHVs in high population areas if the situation demands it in coordination with VDCs as per FCHV policy.
3. FCHVs in Municipalities

Municipality FCHVs are not managed in the same way as other FCHVs by the Ministry of Health and Population and therefore, they are commonly left out of health related training activities. Many under-5 year old children become sick in those municipalities, and they can not and should not be ignored. Before the formation of Municipality, some of the VDCs with already CB-IMCI trained FCHVs usually come to that Municipality and these VDCs and the FCHVs are maintained by the IMCI program as usual but the remaining VDCs with Municipality recruited FCHVs are left out by the program. Greater attention to maintenance, supervision, monitoring of the CB-IMCI program is important and, hence a substantial budget is needed which is not affordable for the huge number of Municipality FCHVs by CB-IMCI program. The total number of FCHVs working in 58 Municipalities is 2892 (Report on National Survey of Female Community Health Volunteers of Nepal -2007).

There is some evidence suggesting that a larger percentage of expected cases of pneumonia receive treatment in rural areas compared to urban areas, perhaps reflecting less activity among FCHVs in urban areas and care seeking in private sector..

Figure 2 % of Expected Pneumonia Cases Treated In CPD

Recommendations:

- Municipalities should include FCHVs in training efforts to improve their ability to manage the CB-IMCI activities in close coordination with DHOs. Municipalities in this endeavor, must provide the basic training to their FCHVs and also make commitment to maintain the program including reporting/recording logistics supply and monitoring/supervision after the training is provided by DHOs.

4. Replacement FCHVs and ongoing training

Each year, a significant number of FCHVs either leave their volunteer job due to unavoidable reasons or die. As per the FCHV policy, the Family Health Division enunciated through a circulated letter that the replacement FCHVs who have not undergone basic training, are not eligible for add-on training. There are many replacement FCHVs in each district, and thus it creates a significant delay in the service provision to the population served by these FCHVs.
The following table 1 shows that there are no replacement FCHVs in 4 districts (Parsa, Mahotari, Makwanpur and Doti) but in other 36 CB-IMCI districts, 3131 replacement FCHVs did not receive CB-IMCI training, which comes to be about 14% among total FCHVs. Among those 3131 replacement FCHVs, 731 FCHVs in 7 districts did receive FCHV basic training in FY 2062/63 but the remaining FCHVs are waiting to get basic training, prior to being eligible for add-on training.

<table>
<thead>
<tr>
<th># of CB-IMCI Districts (2 days CB-IMCI training)</th>
<th># of FCHVs</th>
<th># (% of replacement FCHVs who did not take CB-IMCI training)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>2434</td>
<td>0</td>
</tr>
<tr>
<td>36</td>
<td>22694</td>
<td>3131 (14%)</td>
</tr>
</tbody>
</table>

**Recommendations:**

- A request has already been made by CHD to FHD to give priority to CB-IMCI districts in providing the basic training to replacement FCHVs
- A request has also been made to all partners to provide basic training for these FCHVs, if financial conditions permit.

5. **Community Drug Program Vs CB-IMCI**

Data from several follow-up studies following IMCI training activities revealed that the availability of IMCI essential drugs was better in those districts where CDP was also functional. CDP seems to be a complementary program to CB-IMCI.

**Recommendations:**

- When selecting IMCI districts, functional CDP districts should be one of the criteria for selection.

6. **Zinc treatment in the community management of diarrhea**

Recent studies in several developing countries including Nepal, have shown that zinc used in the treatment of diarrhea reduces the severity, duration and mortality of diarrheal diseases among < 5 year old children when given along with low Osmolar ORS for 10 days. Zinc was introduced in Rautahat and Parbat districts in FY 2062/63 with assistance from USAID/NFHP and PLAN-Nepal. CHD has expanded zinc treatment in 20 more districts in the last fiscal year with the help from UNICEF. A small survey on the effectiveness of zinc has been done only in Parbat which showed the following encouraging results:

a. Of the 49 FCHVs interviewed, 98% had Zinc tablets in stock (1 FCHV did not attend the zinc training).

b. Of the 48 FCHVs who received training on zinc all had Zinc card with them at the time of interview.
c. Of the interviewed FCHVs 94% said that zinc cures diarrhea, 58% said it prevents future episode, 60% said it keeps child healthy and 17% said it works like a Vit. A.

d. All of the interviewed FCHVs had knowledge on correct dose and duration of Zinc treatment of diarrhea.

Another survey is in the process of implementation in both districts.

Recommendations:

- Zinc training should be carried out along with CB-IMCI training in IMCI districts, and be conducted separately in non-IMCI districts.
- For the community level training (VHW/ MCHW/ FCHVs), any kind of opportunity (e.g. review meetings, monthly FCHV meetings, etc.) in the districts should be utilized for zinc orientation.

7. Improving Community-Based Neonatal care

Under-5 mortality has declined significantly in Nepal over the past decade. However, though infant mortality has contributed to this decline, neonatal mortality has still remained high. Thus the proportion of under-5 deaths from neonatal mortality has increased from 40 to 60%, and reductions in neonatal mortality are needed to reach the MDG goals. Keeping this critical issue in mind MOHP has endorsed the National Neonatal Health Strategy developed by FHD in 2004. One component of this strategy was to explore the possible approach to bring services closer to the communities for neonatal care. There are different models in some districts of Nepal (MIRA, MINI etc.) designed to see whether FCHVs can classify neonates as having sepsis, initiate treatment with cotrimoxazole, and facilitate treatment with injectable gentamicin given by VHWs & MCHWs. After the evaluation, if results are encouraging and recommendations are in favor of replication, the MOHP may try to replicate this model in other districts with the support from interested partners.

Recommendations:

- In anticipation of the potential expansion of and having close linkage of Neonatal Care Package with CB-IMCI, the MOHP should review the Essential Drug List for IMCI treatment protocol for HFIs to ensure that gentamicin is included.
- Given the contribution of pneumonia to young infant (under 2 months) infection, the MOHP should consider modification of policies to allow FCHVs to treat < 2 months infants for pneumonia with cotrim.
- Recommendations from the expansion of these models to hill districts should lead to review of policies and strategies to address neonatal sepsis in mountain and hill districts.

8. CB-IMCI and Other Child Survival Interventions

Although ARI, Diarrhea and Nutrition are the major components of CB-IMCI, this program also addresses other programs mostly through counseling to mothers such as immunization, sanitation and hygiene. The National Survey of Female Community Health Volunteers 2007, by and large, focusing on 7 communication skills on family planning shows that more than 60 percent of FCHVs mentioned asking the clients about their
problems, providing related information and treating them with respect. Specific interpersonal communication skills such as maintaining eye contact or assuring confidentiality were not often mentioned. (Table 2)

<table>
<thead>
<tr>
<th>Skills Mentioned by FCHVs</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inter-Personal Communication Skill</td>
<td></td>
</tr>
<tr>
<td>-Asking the clients about their problems</td>
<td>82</td>
</tr>
<tr>
<td>-Providing relevant information</td>
<td>83</td>
</tr>
<tr>
<td>-Treating the clients with respect</td>
<td>60</td>
</tr>
<tr>
<td>-Listening carefully</td>
<td>44</td>
</tr>
<tr>
<td>-Greeting the clients hospitably</td>
<td>40</td>
</tr>
<tr>
<td>-Maintaining eye contact and smiling</td>
<td>9</td>
</tr>
<tr>
<td>-Assuring confidentiality</td>
<td>7</td>
</tr>
</tbody>
</table>

Source: National Survey of Female Community Health Volunteers of Nepal - 2007

**Recommendations:**
- To make these components effective and fruitful, emphasis must be given to improve the communication skills of health workers during CB-IMCI training including the CHWs and FCHVs.

**B. Training related issues**

1. **Duration Of CB-IMCI training**
   There have been concerns about the cost and the amount of time HF staff are out of duty station related to training. As a result, the initial 11 day course for CB-IMCI was curtailed to 9 days and subsequently to 7 days without compromising with the quality of training. Although the duration of IMCI course was reduced, a new 2-day program management component was introduced to make HWs more competent to manage their respective health facilities with the limited government resources. The evidence in figure 3 suggests that there is not much disparity in the knowledge and skill among health workers who were trained for 11 days and health workers who were trained for 7 days, nevertheless, surprisingly the 7 day course looks better.

**Figure 3**

Correct Assessment after 11 day vs 7 day CB-IMCI training

Source: CHD, Follow up after the training
**Recommendations:**

- Maintain the 7 day training modality for future CB-IMCI trainings but days can be adjusted with the new adopted programs.

2. **Standardization of Training Modality**

The training modality for CB-IMCI has been changed several times. Initial trainings were conducted by CHD and JSI (NFHP) staff with the help of a few pediatricians, but with the rapid expansion, it was not possible to continue this approach due to limited manpower. Therefore, the IMCI working group decided to hire the services of local capable NGOs to conduct the training in two phases: health facility level and community level.

The recent training model introduced two years ago, involves around 50 percent facilitators from the district public health office and 50% from NGOs. This model is designed to create a sense of program ownership and responsibility among the district health workers. Districts using this 50/50 percent approach were compared to approaches with 100 percent NGO staff used for training. Surprisingly the knowledge and skill of health workers in the 50/50 percent districts were better in assessing the sick children and in prescribing the drugs correctly, than those with 100% NGO trainers. (figure 4 & 5).

**Figure: 4**

![Case Assessment by Training Model](image)

**Figure : 5**

![Correct Treatment by Training Modality](image)
**Recommendations:**

- Training for future IMCI districts should be done with 50% NGO and 50% District Trainers Model as per the current approach.

3. **Place of Training: Zonal vs. District level Training**

Program personnel and partners have been concerned about the quality of the health facility-level training of health workers, because at present trainings are conducted in the district hospital where it is assumed that the influx of <5 sick children could be inadequate for clinical practice during training. Training at the district level was important to efface the extra financial burden to the government in providing travel cost while coming from remote districts to Zonal or Regional hospitals. WHO recommends that HF level training should be conducted preferably in a zonal or regional hospital where sufficient numbers of children, preferably more than 30, are brought for medical care.

The study of data from two different training sites revealed that a slightly higher percentage of health workers having training at district hospitals, assessed cases correctly compared with those health workers who were trained at zonal hospitals (figure 6). These data suggest that the availability of types of cases is adequate at the district hospital.

**Figure : 6**

![Case Assessment by Site of Training](image)

**Source: FU after training data**

**Recommendations:**

- District based training is more cost effective and time saving for the program and for the health workers, as compared with zonal/regional level training, and should be continued for future IMCI training but situational adjustment may be done like taking the participants to the nearby community, simulation of cases, more focus on video exercises etc when enough sick children are not available in the district hospitals.
4. Catch-up training for transferred in HF level staff

Every year an average of 20 health workers are transferred in from the non(IMCI) districts to IMCI districts. This creates a problem of incompatibility in the performance of health workers, and their ability to deliver quality services. Often, the government and implementing partners budget is not sufficient to provide training to these transferred-in staff.

During monitoring and supervisory visits, the central level persons observed that the newly transferred in HWs did not assess, classify and manage the < 5 sick children and many of them did not follow IMCI guidelines at all.

Recommendations:

- Therefore, the IMCI working group has developed a concise 3-day orientation course for those transferred-in staff and recommends that all partners should follow it in their respective districts as early as possible to maintain the uniformity of performance of HWs and supervision/monitoring quality by them at community level. If budget is available they can be provided with 7 day training.
- Implementing Partners should allocate budget for such activity in their districts.

5. DDC/ VDC/ HFMC Orientation

The objective of DDC/VDC/HFMC members’ orientation is to inform them of CB-IMCI program, its benefits and their role in making it locally viable and fruitful. In the past, in many districts, VDCs supported the CB-IMCI program by providing drugs, blue plastic cups, uniforms to FCHVs or other incentives once they became convinced of the value of the CB-IMCI approach. These orientations are seen as an important activity for FCHV support, logistics supply, and overall community awareness.

Recommendations:

- More emphasis should be put on the continuation of this kind of orientation by program personnel in coming years by including even wider categories of people such as local political leaders, religious leaders in the orientations.

C. Maintenance and supervision related issues

1. Presence of Partners supported supervisors in CB -IMCI districts

After the CB- IMCI trainings are over in a district, it takes some time for the program to be fully functional. To help the trained health workers transfer their knowledge and skill into practice, they need regular and supportive supervision and monitoring for some 2-3 years. The evidence suggests that when the supervision and monitoring component is strengthened, performance improves. It is unambiguous in the following three figures:
Twenty three percent of diarrhea cases among under 5 children were treated by the health workers in the 22 districts where NFHP supported supervision but only 18 percent of diarrhea cases were treated in districts without this extra supervision. Similarly, the average percentage of health facilities having the year round stock of cotrimoxazole, ORS and gentamicin in the 22 districts with NFHP supported supervision was better than in the government supported districts (figure 7, 8 & 9).

Source: CH Monitoring data and HMIS

Source: LMIS
Recommendations:

- Therefore, implementing partners in their working districts should keep at least one experienced supervisor per district for supervision and monitoring purpose for at least 2 years to veer the district in the right direction.

2. Inadequate Supervision and Monitoring by District Health Staff

A multi-country evaluation of IMCI done in Tanzania recommended that supervision must be strengthened to improve the quality of health services. Here in Nepal in many IMCI districts where supervision was inadequate, the performance of the health workers was not up to standard. Supervision is essential to motivate the health workers, to reinforce their skill and knowledge through feedback, and to maintain the logistics supplies in the health facilities. Monitoring is critical to ensure that there is adequate information to assess performance. Joint supervision with the implementing partners’ supervisors if present in the districts is more fruitful, as noted above.

Recommendations:

- All IMCI districts must strengthen supervision and monitoring by using standardized tools or indicators for this purpose
- CHD has allocated separate budget to be utilized by the CB-IMCI districts from the current fiscal year, and districts should utilize this opportunity to strengthen supervision and monitoring activities.
3. **Annual Review / Monitoring Meeting**

One of the most important and crucial activities for the maintenance of CB-IMCI is the yearly review/monitoring meetings at HF level as well as at the community level FCHVs to be conducted by the districts with the assistance from CHD, NFHP and related partners. The community level review meeting is more important because this forum provides a golden opportunity for health workers to intimately interact with all FCHVs regarding knowledge and skill, recording/reporting and logistics supplies. This is also a good opportunity to provide FCHVs with necessary feedback.

The impact of this review meeting was seen in a small FCHV survey conducted by NFHP in 2005, which showed that the percentage of FCHVs having cotrimoxazole and ORS was higher in districts conducting the review meeting, than in the districts without the review meeting (figure 10).

**Figure : 10**

<table>
<thead>
<tr>
<th>Status</th>
<th>Average % of FCHVs having ORS</th>
<th>Average % of FCHVs having cotrimoxazole</th>
</tr>
</thead>
<tbody>
<tr>
<td>Districts having CLRM</td>
<td>73</td>
<td>63</td>
</tr>
<tr>
<td>Districts not having CLRM</td>
<td>86</td>
<td>80</td>
</tr>
</tbody>
</table>

*Source: FCHV Survey 2005*

**Recommendations:**
- All implementing partners including the government should support both district (for HF level staff) and community-level (for FCHVs) review meetings.

4. **Pneumonia Case Follow-up and the Issue of Cotrimoxazole Resistance**

In the management of pneumonia, mothers are expected to have a follow-up visit on the third day following initiation of treatment, whether at the community level or at a HF. The third day follow up visit by mothers is very poor at HFs as seen during central level supervision. The reason probably is that the advice by health workers is not appeasing mothers or is incomprehensive or that the cotrimoxazole is still working or the mothers do not perceive a need for follow-up. District supervisors should pay attention to delve this problem. At the community level, the percentage of referred cases of pneumonia who come for follow up with FCHVs on the third day is only 0.5 percent (89 out of 18581 pneumonia cases). This may indicate that the cotrimoxazole is still working, while in vitro studies in many developing countries, including Nepal, have shown about 80 percent bacterial resistance to cotrimoxazole.
Recommendations:

- Program personnel should be vigilant, and should pursue mothers strongly for the follow-up visit of treated cases.
- A cotrimoxazole resistance study in the rural setting is imperative.

**D. Logistics supply related issues**

1. **Availability Of Commodities**
   
   There has commonly been a shortage of essential drugs critical to the IMCI program. To address the dearth of essential IMCI drugs like ORS and cotrimoxazole, district storekeepers in many districts have suggested that procurement should be done centrally. In spite of the central procurement, many districts still experience scarcities or delays in logistics supply.

Recommendations:

- The logistics supply system for IMCI drugs should be carried out with the help of implementing partners or partner NGOs as and when possible if government channel is not available immediately.
- The Essential Drug List revised by DDA (it is in the process of printing) should be reviewed to see the types of drugs listed for different level of health facilities and a request should be made to DDA by CHD to include gentamicin and other essential IMCI drugs in the list for health posts and sub-health posts.

2. **Quality of Cotrimoxazole**
   
   There has been some apprehension among stakeholders about the quality of cotrimoxazole available for use in IMCI program in various districts, since there have been many different brands available in the past. Oversight for the quality of these imported drugs is often inadequate.

Recommendations:

- To maintain the quality, uniformity and availability of cotrimoxazole throughout the country, CHD should try to get an approval from the DHS/ MOHP for LMD to purchase it directly from the Nepal Drugs, which is a government undertaking organization.

**E. IEC related Issues**

1. **Behaviour Change Communication**
   
   The HF use rate by mothers of under-5 sick children is still low, around 40 percent (NDHS 2006). This could be due to inadequate knowledge about health, inappropriate counseling, ineffective BCC strategies, and other causes. Frequent interaction motivates people to change their behavior, and BCC strategies need to be improved to increase HF use rates.
**Recommendations:**

- Interpersonal communication skill should be promoted to the maximum extent possible through community health workers and in particular FCHVs.
- BCC materials should be improved, developed and appropriately utilized.
- Health messages should be broadcast during the prime time in the TV and Radio.