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BASICS

REPORT

IMCI TRAINING FOR FIRST-LINE HEALTH WORKERS

LUSAKA, ZAMBIA

BASICS is an USAID-funded project administered by the Partnership for Child Health Care, Inc.

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IMCI TRAINING
FOR FIRST-LINE HEALTH WORKERS
IN LUSAKA PROVINCE

Lusaka, Zambia

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This IMCI training workshop for first-line health workers in Lusaka Rural could not have been achieved without the hard work and dedication of the BASICS office in Zambia. Also, our heartfelt thanks to the Board of Management of the University Teaching Hospital, especially the Department of Pediatrics, the Diarrhoeal Training Unit, and the Kanyama and Kamwala health centers' staff.

From USAID/Zambia, we give special thanks to Mr. Paul Hartenberger and his staff for their thoughtful guidance and assistance.

Finally, our thanks go to the course directors and facilitators for their dedication, commitment to the IMCI initiative, and a job well done.

ACRONYMS

ARI	Acute Respiratory Infection
BASICS	Basic Support for Institutionalizing Child Survival
BCG	Bacillus of Calmette and Guerin (tuberculosis vaccine)
CHW	Community Health Worker
CMAZ	Church Medical Association of Zambia
CO	Clinical Officer
DMO	District Medical Officer
DHMO	District Health Management Office
DHMT	District Health Management Team
DDH	District Director of Health
DTU	Diarrhoeal Training Unit
EHT	Environmental Health Technician
GDS	General Danger Signs
GRZ	Government of the Republic of Zambia
HF	Health Facility
HRD	Human Resources Development
HRIT	Health Reform Implementation Team
IMCI	Integrated Management of Childhood Illness
MCH	Maternal and Child Health
MOH	Ministry of Health
NGO	Non-Governmental Organization
ODA	Overseas Development Agencies
OPD	Outpatient Department
OPV	Oral Polio Vaccine
PHC	Primary Health Care
PMO	Provincial Medical Officer
PHMO	Provincial Health Management Office
PHMT	Provincial Health Management Team
RN	Registered Nurse
QAP	Quality Assurance Project
TBA	Traditional Birth Attendant
UNZA	University of Zambia
UNICEF	United Nations Children's Fund
UTH	University Teaching Hospital
WHO	World Health Organization
ZEN	Zambia Enrolled Nurse
ZEM	Zambia Enrolled Midwife
ZCHP	Zambia Child Health Project
ZMOH	Zambia Ministry of Health

EXECUTIVE SUMMARY

This Integrated Management for Childhood Illness Training Workshop for first-line health workers in Lusaka Rural is the second of many IMCI training workshops to be organized in selected districts of the country by USAID/BASICS, in collaboration with the ZMOH, WHO, and UNICEF. To date, three categories of health workers from four provinces have been trained, and health facility surveys have been conducted in selected health centers in Lusaka urban district and in three other districts of the province. Surveys of health facilities have shown that two other categories of health workers were involved in the screening and case management of the under-5-years-old children in many of the health centers, especially in the rural areas. The Zambia enrolled nurses (ZEN) and environmental health technicians (EHT) are often faced with the management of sick children with potentially life-threatening conditions, although their pre-service training may have been deficient and did not equip them with a systematic process for assessing fatal illnesses in children.

The following report is a summary of the IMCI training workshop targeted to this specific group of health workers (ZEN, EHT) who manage sick children in selected health centers in three rural districts of Lusaka Province. This second IMCI training course in Zambia was held in Lusaka for the enrolled nurses and the environmental health technicians from July 29 to August 9, 1996. Fifteen participants were selected from three districts of Lusaka Rural. Criteria for the selection of the participants was developed by the course directors and communicated to the PMO and the DMOs.

The objectives of this training were as follows:

- Train a selected number of health workers (ZEN, EHT) from three districts of Lusaka Province in integrated management of childhood illness.

- Assess the effectiveness of the adapted WHO/UNICEF standardized course for in-service training of ZENs and EHTs.

- Identify additional adaptations of the course and changes necessary in teaching methodology suitable for health workers with less basic training and/or limited literacy.

The training workshop was organized in collaboration with ZMOH and with logistical support from the BASICS/ZCH project. It was reviewed by the BASICS training coordinator, who arrived four days prior to the course.

BASICS also invited two World Education staff and one BASICS consultant to participate in this training as observers. They will provide their own assessment on the training course and propose alternative methods and techniques for the development of the complementary course.

The adapted training materials were used during this course. This IMCI training workshop was again held at the Andrews Motel in Lusaka. The inpatient clinical sessions took place at the Department of Pediatrics of the University Teaching Hospital, led by Dr. Elwyn M. Chomba, head of the Department of Pediatrics, and assisted by Dr. Paultre P. Desrosiers, BASICS training coordinator. The outpatient clinical practice sessions were held at the Kamwala and the Kanyama health centers. All participants were able to see a wide range of sick children and had, therefore, good practice at recognizing the various signs. The IMCI training was perceived by the participants as a completely new course and not as a tool to help them organize their approach when looking after children. During the first clinical session, most participants took an average of 25 minutes to check for general danger signs and to assess and classify cough or difficult breathing. By the seventh day of the inpatient session, most of the participants had developed more confidence in assessing and classifying the sick child and were able to apply the IMCI process at an acceptable level of performance.

The checklists for monitoring inpatient and outpatient sessions were filled out every day and given to the course directors at the daily facilitators' meeting.

Although the course was considered to be a success and a good learning experience for this audience, many key issues related to the learning process still need to be refined. We would recommend, therefore—

a) More active participation of trainees, i.e. two-way communication

b) Quicker feedback

c) Less reading and more dissemination of only those facts which the participants need to know (i.e., 'cut the fat and get right to the bone')

d) The utilization of methods during the demonstrations which are applicable to the work environments of the participants

e) The use of equipment and supplies which are available to participants in the field

f) More time for hands-on clinical practice

g) Better videos and photographic materials which can enhance active learning

h) More consideration of the learners' interests and motivation

INTRODUCTION

In accordance with the Ministry of Health's new vision within the framework of the Health Reform and the objective of the Zambian Child Health Project, BASICS/USAID conducted, in collaboration with WHO and UNICEF, a series of (IMCI) workshops developed for first-line health workers who manage sick children in urban and rural health facilities. The integrated management of childhood illness approach is to improve the performance of the front-line health worker through training, support, and change of the behavior of families and their response to the sick child.

To date, three categories of health workers from four provinces have been trained. Health facility surveys have been conducted in selected health centers in Lusaka urban district and in three districts of Lusaka Province. This was done before and after the training in order to provide baseline information and to assess the impact of the new concept on performance of health workers. In addition, two other categories of health workers are involved in the screening and case management of the under-5 population in many of the health centers, especially in the rural areas. Surveys of health facilities have shown that Zambian enrolled nurses and environmental health technicians are often faced with the management of sick children with potentially life-threatening conditions, although their pre-service training may be deficient and did not equip them with a systematic process for assessing fatal illnesses in children.

BASICS/USAID, in collaboration with the MOH, decided to introduce this new concept to these two cadres of health workers with limited pre-service training in the management of childhood illnesses and who may require more active facilitation. BASICS also intended to use this training course for these categories of health workers to determine its effectiveness in training health workers with less basic training and those who are not fully literate. World Education has been selected to develop a complementary course to accommodate this group of health workers.

The following report is a summary of the IMCI training workshop targeted to this specific group of health workers (ZEN, EHT) who manage sick children in selected health centers in three rural districts of Lusaka Province.

ORGANIZATION OF THE TRAINING

The training course was held in Lusaka for the ZENs and EHTs from July 29 to August 9, 1996. Fifteen participants were selected from three districts of Lusaka Rural. Criteria for the selection of the participants was developed by the course directors and communicated to the PMO and the DMOs.

The objectives of this training were to—

- Train a selected number of health workers (ZEN, EHT) from three districts of Lusaka Province in integrated management of childhood illness;
- Assess the effectiveness of the adapted WHO/UNICEF standardized course for in-service training of ZENs and EHTs
- Identify additional adaptations of the course and necessary changes in teaching methodology which would be suitable for health workers with less basic training and/or limited literacy

TRAINING PREPARATION

This training workshop was organized in collaboration by ZMOH, with logistical support from the BASICS/ZCH project. IMCI training of three cadres of first-line health workers from Lusaka Urban had been already held, June 3-14. Following this course, the IMCI Advisory Committee overseeing the implementation of IMCI in Zambia, concurred to the request of the BASICS/ZCH project to train two additional categories of health workers who manage sick children in selected health centers of three additional districts of Lusaka Province.

Subsequently, two IMCI-trained Zambian facilitators, Emily Moonze, a paediatric nurse/midwife and ARI focal person at the MCH Unit, and Mr. Elastus Lwando, chief clinical officer/MOH, were selected as course directors, along with Desrosiers. A visit to three outpatient training sites was undertaken by the course directors to assess both their availability and suitability for training. At the end of the visit, two sites were retained: the Kanyama and Kamwala health centers. They demonstrated adequate patient flow and extra room for the assessment of the patients and group discussions. The DDH of Lusaka Urban District, Dr. Rosemary K. Phiri, was informed about the choice of the clinical training sites.

In addition, the course directors met with Dr. Elwyn M. Chomba, head of the Pediatric Department, and also the clinical instructor for the course, to plan for the inpatient sessions at the UTH and the DTU. BASICS/ZCH project Logistic Officer Ms. Angela Chilanga met with the Andrews Motel's management to arrange accommodation and meals for participants and facilitators. In addition, Chilanga looked at available classrooms and organized transportation to and from the clinical practice sites.

The course directors paid a courtesy call to the PMO, Dr. H. Mutambo, to tell her of the upcoming IMCI course and debriefed her on the last course which had taken place (June 3-14, 1996) for first-line health workers in Lusaka Urban District. They then met with the three districts' directors (Chongwe, Kafue, and Luangwa) to discuss course participant selection

criteria. The course facilitators and the inpatient clinical instructor were selected and contacted individually with the venue and dates of the workshop.

BASICS invited two World Education staff members and one BASICS consultant to participate in this training as observers. They will provide a report on the organization of the course, the technical and reading skill levels of the participants, identify specific problems or issues which participants had in the course of this training, and enlist the facilitators and participants in discussions on how a simplified/modified course might best be able to serve this specific target audience. The results of their observation will be the basis for the development of a course more user-friendly and tailored to this category of first-line health workers in Zambia.

PARTICIPANTS' PROFILE

Fifteen participants were selected by their respective DHMT. Six EHTs and nine ZENs were selected from fifteen health centers in the three selected districts of Lusaka Province. All selected participants are involved in the screening of sick children in their respective health centers. The participants came from varied educational backgrounds and experiences. All of the ZENs completed their studies in a 2-year course, while the EHTs spent 3 years in training. Among the six men selected, only one is a ZEN, the other five are EHTs. Eight of the female participants are ZENs, one is an EHT. Seven participants attended the Chainama College of Health Sciences, the remaining nine graduated from various Zambia Enrolled Nursing Schools around the country. In addition, three of the ZEN have completed a 1-year midwifery training program after at least four years of service. Seven participants have nine or more years of job related experience, five have between two and four years of service, and two participants have been in service for seven and nineteen years respectively. All participants are able to read and write English, although they may have different levels of understanding. Participants were divided into three working groups of five trainees each.

OBSERVERS

The observation team was made up of two World Education staff with considerable experience in training and one BASICS consultant who participated in the assessment of training needs in Zambia last year. Each observer was assigned to a training group and was asked to stay in the same group for the entire workshop so as to minimize the impact of their role in the group. In general, the observation went very smoothly without major disturbances, except for one instance when facilitators in one group complained about their observer's passionate involvement in the training methodology and constant interference in the training process.

FACILITATORS

Eight facilitators were selected among those who previously participated in the first IMCI training course in Zambia and who had mastered the material during facilitator training. Two were selected as course directors, the remaining six were divided among the three groups, with a two to five ratio. The clinical instructor is the head of the Department of Pediatrics at UTH and is currently active in clinical care. Although she will participate in a WHO course in September in Tanzania, she is nevertheless very familiar with the integrated case management process and has experience using it while assisting in the previous clinical training in Zambia. She was assisted by the BASICS training coordinator. Two facilitators were assigned to each working group and stayed with their same group throughout the entire workshop. The course directors were used as backup facilitators to assist when needed. The facilitators' style and the pattern of instruction was pretty much dictated by the *Facilitator Guide for Modules*. The facilitators have little room to truly engage participants in the learning process. A learning guide was used to assess the facilitator's performance throughout the course. In addition, the facilitators were evaluated by the participants on their ability to communicate and to manage their respective groups efficiently. Facilitators' performance was good throughout the training course and they managed to maintain a positive learning climate, except for a misunderstanding about the observers' roles and responsibilities in the course, which, at times, led to too much involvement of some observers in the learning process.

TRAINING SITES, DATES, AND OPENING SESSION

The IMCI training workshop was held at the Andrews Motel in Lusaka and the University Teaching Hospital. The Kamwala and the Kanyama health centers were used as clinical training sites. The training sites were found to have sufficient cases of under-5-year-olds with signs related to the five main symptoms of the case management. In addition, they had adequate space for clinical sessions and group discussions and were within reasonable distance of lodging and classrooms. The clinics have an average of five health workers involved in the management of childhood illnesses.

The workshop was officially opened by the PMO, Dr. H. Mutambo, in the presence of a representative from the USAID Mission/Lusaka, BASICS/ZCHP—Dr. Oluremi Sogunro—and the chairman of the IMCI Technical Advisory Committee, Dr. B. Himonga. The closing ceremony was followed by a reception at Kaingo Lodge.

TRAINING SCHEDULE AND CONTENT

The IMCI training workshop lasted 11 days. Except for the very first day of training, which was spent entirely in the classroom, the mornings were dedicated to clinical practice in the health centers or the pediatric wards at UTH. The afternoons were spent at Andrew's Motel going over

the modules. The adapted training materials were used during this course. The seven training modules are built around four major symptoms (cough or difficult breathing, diarrhoea, fever, and ear problems) and disease-specific clinical skills, such as the assessment, classification and treatment of pneumonia, diarrhoea/dehydration, malaria/fever, measles, acute and chronic ear infections, and nutritional status. In addition, practical treatment and follow-up instructions are given to the mother, feeding is assessed, and counseling on feeding problems are provided using locally available food.

ADMINISTRATION OF THE TRAINING WORKSHOPS

All the administrative arrangements were made by the BASICS office in Zambia, which also provided most of the supplies for the training. The course training materials, including wall charts, training modules and chart booklets, were revised and refined by BASICS staff. Transportation was provided for the frequent trips to and from the UTH and health centers.

TRAINING MONITORING AND EVALUATION

Clinical Practice in the Inpatient Ward

The inpatient clinical sessions took place at the Department of Pediatrics of the University Teaching Hospital, led by Dr. Elwyn M. Chomba, head of the Department of Pediatrics, who was assisted by Dr. Paultre P. Desrosiers, BASICS training coordinator. The sessions took place in various wards of the Pediatrics Department, such as the Admissions Ward, the Infectious and Communicable Diseases Ward, the Nutrition Ward and the Diarrheal Training Unit.

The focus of the Inpatient sessions was to practice assessing and classifying clinical signs, especially signs of severe illness. There were ten clinical sessions for each of the three groups, and the clinical practices were presented in the order that they were learned in the classroom. During the first three days of the training, participants were slow in assimilating the IMCI concept and this was very much reflected in their ability to learn and apply the process of assessment and classification at an acceptable level of performance. This was partly due to the fact that there were no demonstrations of any clinical signs in the beginning, and some participants did not have time to watch the video before the clinical practice in the Inpatient Ward.

Each morning, children with appropriate clinical signs were selected to be assessed by participants. During the first clinical session, most participants took an average of 35 minutes to check for general danger signs and assess and classify cough or difficult breathing. The second inpatient session was not any better. Participants continued to show a lack of confidence in assessing sick children and misclassified most of the symptoms. Participants were constantly being reminded to refer to the chart booklet before classifying so as to get themselves more

familiar with the IMCI concept. They had particular difficulty in assessing *lethargic or unconscious, chest in-drawing, and palmar pallor.* Attempts were made by the clinical instructor to include these signs as frequently as possible so that by the fourth session most participants were classifying the signs correctly. Unfortunately, no child with *stridor* was demonstrated—efforts were made by the clinical instructor to mimic stridor.

Initially, the recording form was not being filled out properly as danger signs were missed when classifying febrile illness. However, after some active learning intervention from some of the facilitators, participants became quite familiar with the general danger signs and their application in the classification of cough and fever. During the presentations, the participants were, at first, very timid about reading the signs on the recording forms. This was a reflection of their fear and uncertainty about this new concept and the amount of information that was given to them all at once. The IMCI training was perceived by some participants as a completely new course and not as a tool to help them organize their approach when looking after sick children. However, on the seventh day of the inpatient sessions, most of the participants had developed more confidence in assessing and classifying the sick children and were able to apply the IMCI process at an acceptable level of performance. There were less errors in assessing and classifying the sick children and they were finally using their chart booklet more readily.

All the participants were able to see a wide range of sick children and got good practice at recognizing the various signs. Severe mouth ulcers, mastoiditis and corneal clouding were not seen, as these have become rare in Zambia. Stridor is a relatively common sign, but we did not have any child admitted with stridor during this training.

Most participants were confused at having a general danger sign (lethargic or unconscious) being included again as a sign in the assessment of dehydration. They suggested that *lethargic or unconscious* in the pink row of the dehydration classification column be replaced by *any danger sign* because a lethargic or unconscious child is also *not able to drink or drinks poorly.*

In a nutshell, participants have been able to practice most of the clinical skills necessary to properly assess and classify the sick child aged 2 months up to 5 years, and the sick young infant aged 1 week up to 2 months. However, the sick young infant chart and module do not emphasize one of the most important signs of that age group, which is pus draining from the eyes, usually due to chlamydia and/or gonorrhea, and very common in many countries.

The checklists for monitoring inpatient sessions were filled out every day and given to the course directors at the daily facilitator's meeting. These checklists were used, for the most part, to help identify common and special problems that participants were having, and were also useful in comparing the participants' performance in both the inpatient and outpatient settings.

Clinical Practice in Outpatient Clinics

The outpatient clinical practice sessions have been taking place in three OPDs in Lusaka: the Diarrhoeal Training Unit at UTH, and the Kanyama and Kamwala health centers. The participants were divided into three groups of five, and each group traveled to an outpatient clinic each day, following a prepared schedule. The sessions were supervised by two facilitators per group, and each participant had the opportunity to practice using their skills in a setting that resembled their own. They were able to assess a daily average of three sick children with differing combinations of signs. The children were preselected by a nurse who is familiar with the integrated case management process. In each clinical practice site, the case management charts were hung on a wall accessible to the participants. Although some participants had difficulties during the first three days of outpatient clinical practice, they were, in general, able to perform correctly most of the clinical skills that were demonstrated by the end of the fifth day of training.

Evaluation Techniques

Several forms for collecting data were developed to monitor and evaluate the participants' and facilitators' performance and to assess the effectiveness of the training workshop. The forms were developed to improve the quality of the training and to determine whether the participants and facilitators have acquired the knowledge, skills, and attitudes necessary to do their respective jobs. The results of the monitoring and evaluation of this course will be used not only in the planning of future IMCI training workshops, and especially in the development of the simplified/modified course that is being developed in collaboration with World Education.

- The *Group Checklist of Clinical Signs* was used to provide quantitative information on the observation of particular clinical signs.

- The *Learning Guide for Classroom Management, Clinical Demonstration, and Coaching Skills:* This learning guide was used to assess facilitator performance of each step that was observed. The rating has been carefully done and as objectively as possible. The facilitator's performance was rated on a three point scale as follows:

    - **Needs Improvement**: Step or task not performed correctly or out of sequence (if necessary) or omitted.

    - **Competently Performed**: Step or task performed correctly in proper sequence (if necessary), but does not progress from step to step efficiently.

    - **Proficiently Performed**: Step or task efficiently and precisely performed in proper sequence (if necessary).

- The *Session Evaluation* was used twice during the course by the participants to evaluate the facilitators' management of the sessions and to determine whether the content was relevant to the participants work.

- The *Checklist for Monitoring Outpatient Sessions* and *Inpatient Sessions* was used to provide information on the—

    - number of sick children managed per participant
    - number of sick young infants managed per participant
    - number of children with various classifications seen
    - proportion of cases managed with/without errors by each participant

In addition, these checklists were used to identify common and special problems that participants were having and were useful in comparing the participants' performance in both the outpatient and inpatient settings.

The World Education team has also developed their own data collection instruments. They will provide their own assessment on the training course and propose alternative methods and techniques for the development of the simplified and modified course.

The *End-of Course Evaluation* was used to determine participants' opinions on the workshop's content training methods and techniques and to measure whether the training objectives were met. An outcome evaluation will be part of the follow-up activity which will be conducted (as part of the HF survey) to see if the trainees have been able to use their new knowledge, skills, and attitudes on the job site.

It would be interesting to measure the impact of this initiative and whether the new IMCI approach to training has indeed contributed to the overall goal of improving the performance of health workers, thereby reducing mortality significantly.

Comments

This group of participants was quite different from the three previous categories of health workers. Their educational background was limited to two to three years post high school, and their experience varied from two to five years, with only one participant having over ten years on the job. As such, it was more difficult for them to quickly absorb or assimilate the tremendous and very labor-intensive reading of the modules. Many participants were unable to finish on time, the average gap in time between two participants was 25 minutes. There was not enough time for them to process this new information or to *internalize* the subject matter and relate the new learning to their previous experience. Facilitators had to develop training techniques which required active participation of the trainees. They were encouraged to air their misunderstandings of many aspects of the training process, from the difference between the *general danger signs* to what they themselves perceived as being danger signs. Participants

thought that *chest in-drawing, stiff neck, tender swelling behind the ear,* etc., should also be *danger signs. General danger signs* should be highlighted, preferably in red, in the GDS box and in each column where they are required for the classification of severe illnesses.

Upon returning to their job sites, trainees may have difficulties in assessing fast breathing because they, in general, have no access to a timing device. Although, according to the report of the Lusaka HFS, 62 percent of health workers interviewed claim that they would count the breath in assessing for cough or difficult breathing, only 12 percent had a watch or clock with a second hand available to them when screening patients.

The English formulation on the charts for *stridor* or *wheezing* is misleading. In the module, *stridor* is mentioned on page 13 and explained on page 16. There are no local words for *stridor* or *wheezing*, and if these clinical signs are not demonstrated, it will be very difficult for the trainees to assess and classify it adequately. Some participants were very slow readers, and there was, at any time, a 45 minute gap between the participant who finished first and those who finished last.

In assessing for diarrhoea, some of the participants had difficulties in assessing and classifying for dehydration. *Lethargic or unconscious* is identified as a general danger sign in the general danger signs box and as one of the signs of *dehydration* in the pink row, along with the *ability of the child to drink.* Then again, if the child is *lethargic or unconscious*, the child is not *able to drink or drinks poorly.* Since only two signs are needed to classify having *severe dehydration,* a child who is *lethargic or unconscious* would have to be classified in the pink row because he would *not have been able to drink.* The suggestion is, then, to add *any general danger signs* to the pink row for the classification of *severe dehydration.* Again, in assessing for dehydration, participants have noticed that there were no options for the child who is able to drink normally and has no drinking problems.

Because there is only one classification for *dysentery,* participants were wondering how to classify in cases where dehydration is present and thought that a pink row should be added to the dysentery section.

In assessing for skin turgor, however, *very slowly* and *slowly* are the only two choices on the charts. In the module (pg 35-36), it is written that, when releasing the skin, look to see if the skin pinch goes back either slowly, very slowly, or *immediately.*

Because of the way that the fever box is organized, some participants have a tendency to classify measles first, before fever. According to the participants (and the observers), the dotted line in the fever box is misleading and the question, " *Has the child had measles within the last three months?*" which is before the dotted line, and the statement, "*If the child has measles now or within the last three months"* are quite confusing. When do you look for signs of measles? The dotted line seems to separate *fever* and *measles.* Yet, one starts looking for signs of measles before the dotted line and complications of measles after the dotted line. Although it is important

to assess or classify for fever before assessing for measles, some participants had difficulties in following this section of the chart in a logical way. In addition, participants were not able to assess deep and extensive mouth ulcers because there were no spatulas or pen lights available for them to look inside the mouth. This may also be the case in their respective health centers.

In assessing for pus draining from the eyes, it would be important to ask the mother if there was pus draining. Mothers have often cleaned the child's eyes beforehand and the health worker can easily misclassify a child if they do not see pus draining from the eyes.

In checking for malnutrition and anemia, participants had difficulty in assessing for *palmar pallor* because of certain cases of hyperpigmentation of the palms. The cut-off point between some *palmar pallor* and *severe palmar pallors* was not always well defined to the participants. In addition, some participants were confused by having to classify a child with only *severe palmar pallor* as having *severe malnutrition or severe anemia* when there are no signs of malnutrition present. The major nutritional problems in Zambia are protein-energy-malnutrition (PEM), nutritional anemia, iodine deficiency disorders (IDD) and vitamin A deficiency (VAD). Some surveys have estimated that about half of the under-5 children are affected by iron deficiencies. Lack of vitamin A has long been identified as a public health problem in several parts of the country and health workers are asked to give vitamin A capsules to children between 6 and 60 months old.

The standard immunization schedule recommended by WHO is used in the IMCI training course, although it has not been officially implemented in most health facilities in the country. The IMCI Advisory Committee made some favorable recommendations to the MCH Unit which will affect decisions regarding necessary changes. One important caveat in the implementation of this schedule in many rural areas of the country is that, traditionally, neonates are not allowed to venture outdoors before at least 1 month of age, and health workers living in the community are not expected to violate this cardinal rule. Therefore, it may not be possible to administer OPV-0 and BCG at birth in some rural settings (unless if the TBA were trained to administer vaccines). It also cannot be given after 14 days for fear that the vaccination will interfere with the dose given to children at 6 weeks old.

Although participants were asked to tell mothers to wash theirs hands before certain tasks, participants were not asked to wash their own hands with soap before and after each case management. Many health centers (50 percent, Lusaka HFS) have no running water, and supplies can be very scarce at times.

The photographs were not always as helpful a training aid as they should have been. For example, in photograph #33, the shading of light makes the eyes look like there is clouding of the cornea. Some of the pictures were misleading, and the same picture seems to have been used twice.

Some of the groups did not have the time to watch the video before going to clinical practice, and facilitators did not have time to demonstrate for the participants any new part of the assessment process.

RECOMMENDATIONS

Appropriateness of the Training Methods and Techniques

The training methods and techniques used throughout this course were spelled out in the facilitator guide developed by WHO. At the back of this facilitator guide is a section titled "Guidelines for all Modules" which describes training techniques to use when working with participants during the course. These include photo and video exercises, individual feedback on exercises, group discussions, drills, and role plays. These training techniques provide and promote active participation of trainees, quick feedback, transfer of learning, desirable behavior patterns, and motivation of participants to improve their level of performance while in training and in on-the-job situations. In addition, several training aids have been developed, such as the six wall charts, the chart and photographs booklets, and videotapes. The facilitators'style and the pattern of instruction was pretty much dictated by the Facilitator Guide for Modules. Facilitators have little opportunity to truly engage participants in the learning process.

For this particular audience many questions arose, for instance—

- Is this method suitable for this group or a group with a similar background?
- Does this method require more background knowledge or skills than this audience possesses?
- Is this method appropriate for the size of the learning group?

In addition, knowledge and skills are not always sufficient to complete a task effectively. While the training methodology used in the IMCI training may be appropriate for the acquisition of new knowledge and specific skills, it is deficient in the teaching of attitudes. Attitude is the key to relationships between health workers and the caretakers. We would recommend—

a) More active participation of trainees, i.e., two-way communication

b) Quicker feedback

c) Less reading and the dissemination of only those facts which the participants need to know (i.e., 'cut the fat and get right to the bone')

d) The utilization of methods which are applicable to the work environments of the participants during the demonstrations

e) The use of equipment and supplies which are available to participants in the field

f) More time for hands-on clinical practice

g) Better videos and photographic materials which can enhance active learning

h) More consideration of the learners' interests and motivation

i) Follow up at the participants' workplace

APPENDIXES

APPENDIX A

List of Participants, Facilitators/Trainers, Clinical Instructors

A. List of Participants, Facilitators/Trainers, Clinical Instructors and Observers

Integrated management of childhood illnesses course

LIST OF PARTICIPANTS

KAFUE DISTRICT

1.	Ms. Precious Kalubula	EHT
2.	Mrs. Vivian Kangwa	ZEN
3.	Mrs. Hazel Monde Imasiku	ZEN
4.	Mr. Donald Zulu	EHT
5.	Ms. Rosemary Chando	ZEN

LUANGWA DISTRICT

1.	Mr. Charles Zulu	EHT
2.	Mr. Patrick Chitula	EHT
3.	Mr. Edwin Lungu	ZEN
4.	Mr. Innocent Muyasani	EHT
5.	Ms. Maggie Mwila	ZEN

CHONGWE DISTRICT

1.	Ms. Alice Ngondo	ZEN
2.	Mrs. Joyce Simbamoyo	ZEN
3.	Mr. Peter Mthetwa	EHT
4.	Mrs. Rabecca Sitali	ZEN
5.	Mrs. Seraphine Haamamba	ZEN

LIST OF FACILITATORS

Dr. Alex Harrie Simwanza	Senior Medical Officer	Western Province
Dr. Lastone Chitembo	District Director	Copperbelt Province
Mr. Issac Nyirenda	Clinical Officer	Northern Province
Mr. Richard Bweupe	Clinical Officer	Northern Province
Mrs. Martha A. Mwendafilumba	Nurse Tutor	Chainama College
Mr. Mulonda Kabika	Clinical Officer	UTH, Dept. Pediatrics

CLINICAL INSTRUCTOR

Dr. Elwyn Mwika Chomba	Head, Dept of Pediatric	UTH

APPENDIX B

LIST OF OBSERVERS AND COURSE DIRECTORS

LIST OF OBSERVERS

Dr. David W. Kahler	Manager, Training and Development Division	World Education
Mrs. Beth Gragg	Senior Program Officer	World Education
Mr. David McCarthy	Consultant	BASICS

LIST OF COURSE DIRECTORS

Ms. Emily Moonze	RN/M/Pediatrics/ ARI/IMCI Coordinator	MOH/MCH/FP
Mr. Elastus Lwando	Chief Clinical Officer	MOH
Dr. Paultre P. Desrosiers	Technical Officer/ Training Coordinator	BASICS

APPENDIX C

COURSE SCHEDULES

Schedule for clinical practice
29 July - 03 August 1996

GROUP A

DAY 2: TUESDAY, 30 JULY 1996

08:00 - 09:00	Inpatient UTH
09:00 - 09:10	Break
09:25 - 12: 15	Kamwala Health Center
12:30 - 13:30	Lunch Break
13:30 - 17:30	Andrews Motel

DAY 3: WEDNESDAY, 31 JULY 1996

08:00 - 08:45	Classroom, Andrews Motel
09:00 - 11:00	OPD UTH
11:00 - 11:10	Break
11: 10 - 12: 15	Inpatient UTH

DAY 4: THURSDAY, 01 AUGUST 1996

08:00 - 09:45	Kanyama Health Center
10:00 - 11:00	Inpatient UTH
11:00 - 11:10	Break
11:25 - 12:30	Classroom, Andrews Motel

DAY 5: FRIDAY, 02 AUGUST 1996

08:30 - 09:30	Inpatient UTH
9:30 - 9:40	Break
10:00- 12:15	Kanyama Health Center

DAY 6: SATURDAY, 03 AUGUST 1996

8:00 - 10:30	Classroom, Andrews Motel
10:30 - 10:40	Break
11:00 - 12:30	Inpatient UTH
13:30 - 13:30	Lunch Break
13:30 - 17:30	Classroom, Andrews Motel

DAY 7: MONDAY, 05 AUGUST 1996

8:00 - 8:45	Classroom, Andrews Motel
09:00 - 11:00	OPD UTH
11:00 - 11:10	Break
11:10 - 12:30	Inpatient UTH

DAY 8: TUESDAY, 06 AUGUST 1996

8:00 - 9:45	Kanyama Health Center
09:00 - 11:00	Inpatient UTH
11:15 - 11:25	Break
11:45 - 12: 30	Classroom, Andrews Motel

DAY 9: WEDNESDAY, 07 AUGUST 1996

08:15 - 09:30	Inpatient UTH
09:30 - 9:40	Break
10:00 - 12:30	Kanyama Health Centre

DAY 10: THURSDAY, 08 AUGUST 1996

08:00 - 8:45	Classroom, Andrews Motel
09:00 - 11:00	OPD UTH
11:00 - 11:10	Break
11:10 - 12:30	Inpatient UTH

DAY 11: FRIDAY, 09 AUGUST 1996

08:00 - 09:45	Kanyama Health Centre
10:00 - 11:00	Inpatient UTH
11:25 - 12:30	Classroom, Andrews Motel
12:30 - 13:30	Lunch Break

Schedule for Clinical Practice
30 July - 09 August, 1996.

GROUP B

DAY 2: TUESDAY, 30 JULY, 1996

08:00 - 09 45	Kanyama Health Center
10:00 -11:00	Inpatient UTH
11:00-11:10	Break
11:25 - 12:30	Classroom, Andrews Motel

DAY 3: WEDNESDAY, 31 JULY, 1996

08:00 - 09:00	Inpatient UTH
09:00 - 09:10	Break
10:00 - 12:15	Kanyama Health Center

DAY 4: THURSDAY, 01 AUGUST 1996

08:00 - 08:45	Classroom, Andrews Motel
9: :00 - 11:00	OPD UTH
11:00 - 11:10	Break
11: 10 - 12: 15	Inpatient UTH

DAY 5: FRIDAY, 02 AUGUST 1996

08:00 - 09:45	Kanyama Health Center
10:00- 11:00	Inpatient UTH
11:00 - 11:10	Break
11 :25 - 12:30	Classroom, Andrews Motel

DAY 6: SATURDAY, 03 AUGUST 1996

08:00 - 09:15	Classroom, Andrews Motel
09:30 - 11:00	Inpatient UTH
11:00 - 11:10	Break
11:25 - 12:30	Classroom, Andrews Motel
12:30 - 13 30	Lunch Break
13:30 - 17:30	Classroom, Andrews Motel

DAY 7: MONDAY, 05 AUGUST 1996

08:00 - 09:00	Inpatient UTH
09:00 - 09:10	Break
09:25 - 12:15	Kamwala Health Centre
12:30 - 13:30	Lunch Break
13:30 - 17:30	Andrews Motel

DAY 8: TUESDAY, 06 AUGUST 1996

08:00 - 08:45	Classroom, Andrews Motel
09:00- 11:00	OPD UTH
11:00 - 11:10	Break
11:10 - 12:30	Inpatient UTH

DAY 9: WEDNESDAY, 07 AUGUST 1996

08:00 - 09:45	Kanyama Health Center
10:00 - 11: 15	Inpatient UTH
11:15 - 11:25	Break
11:45 - 12:30	Classroom, Andrews Motel

DAY 10: THURSDAY, 08 AUGUST 1996

08:00 - 09:00	Inpatient UTH
09:00 - 09:10	Break
09:25- 12:30	Kamwala Health Centre

DAY 11: FRIDAY, 09 AUGUST 1996

08:00 - 08~45	Classroom, Andrews Motel
09:00 - 11:00	OPD UTH
1 1:00 - 1 1:10	Break
11:10- 12:30	Inpatient UTH

Schedule for Clinical Practice
29 July - 09 August, 1996

GROUP C

DAY 2: TUESDAY 30 JULY 1996

08:00 - 08:45	Classroom, Andrews Motel
09:00 - 11:00	OPD UTH
11:00- 11:10	Break
11: 10 - 12: 15	Inpatient UTH

DAY 3: WEDNESDAY 31 JULY 1996

08:00 - 09:45	Kanyama Health Center
10:00- 11:00	Inpatient UTH
11:00 - 11:10	Break
11:25 - 12:30	Classroom, Andrews Motel

DAY 4: THURSDAY 01 AUGUST 1996

08:00 - 09:00	Classroom, Andrews Motel
09:00 - 09:10	Break
09:25- 12:15	Kamwala Health Center

DAY 5: FRIDAY 02 AUGUST 1996

08:00 - 08:45	Classroom, Andrews Motel
09:00 - 11:00	OPD UTH
11:00- 11:10	Break
11: 10 - 12: 15	Inpatient UTH

DAY 6: SATURDAY 03 AUGUST 1996

08:00 - 09:15	Classroom, Andrews Motel
09:30 - 11 :00	Inpatient UTH
11:00 - 11:10	Break
11:25 - 12:30	Classroom, Andrews Motel
12:30 -13:30	Lunch Break
13:30 - 17:30	Classroom, Andrews Motel

DAY 7: MONDAY 05 AUGUST 1996

08:00 - 09:45	Kanyama Health Center
10:00 - 11:15	Inpatient UTH
11:15 - 11:25	Break
11:45 - 12:30	Classroom. Andrews Motel

DAY 8: TUESDAY 06 AUGUST 1996

08 00 - 09:00	Inpatient U TH
09:00 - 09:10	Break
09:25 - 12:30	Kamwala Health Center

DAY 9: WEDNESDAY 07 AUGUST 1996

08:00 - 08:45	Classroom. Andrews Motel
09 00 - 11:00	OPD UTH
11: 10 - 12:30	Inpatient UTH

DAY 10: THURSDAY 08 AUGUST 1996

08:00 - 09:45	Kanyama Health Centre
10:00 - 11:00	Inpatient UTH
11:00 - 11:10	Break
11:25 - 12:30	Classroom. Andrews Motel

DAY 11: FRIDAY 09 AUGUST 1996

08:00 - 09:00	Inpatient IOTA
09:00 - 09:10	Break
09:25 - 12:15	Kamwala Health Center
12:15 - 12:30	Classroom. Andrews
12:30 - 13 :30	Lunch Break
13:30 - 17:30	Classroom, Andrews Motel

Analysis of Registration Forms

INTEGRATED MANAGEMENT OF CHILDHOOD ILLNESS
ANALYSIS OF REGISTRATION FORMS

1. Age Range

23 - 29	4
30 - 39	10
40 -	1

2. Kind of Facility

Urban Health Center	2
Rural Health Center	13

3. Educational Level Completed

9th - 11th grade	5
12th or more	10

4. Training School Attended

Chainama College of Health Sciences	7
Mansa School of Nursing	2
Monze School of Nursing	2
Mukinge School of Nursing	2
Chitambo School of Nursing	1
Mwami School of Nursing	1
St Francis School of Nursing	1

5. Duration of Training

ZEN	(2 years)	9
EHT	(3 years)	6

6. Duration on the job

12 - 23 months	2
24 - 48 months	5
5 - 8 years	1
9 or more	7

7. Who usually supervises the participants

Clinical Officer	7
No Supervisor	5
Doctor	2
RN	2
ZEN	2
RM	1

8. Most difficult problems faced by participants

Staff shortages	11
Lack of supplies and or/stock	8
Inadequate Transport	6
Lack of training	5
Lack of feedback on performance	5
Lack of supervision	4
Mothers don't bring children to the clinic	1

9. Training received in the past year

1 -	5
2 -	2
3 -	2
4 -	1
None	5

10. Kind of training received

Malaria	2
CDD	1
HIV	1

11. Other health workers from health center who have received training in the past year

1 -	4
2 -	4
3 -	3
4 -	2
none	1
no response	1

12. Kind of training others received

QA	-	7
Malaria	-	3
Polio	-	3
CDD	-	2
AIDS	-	1
Leprosy		1
TB	-	1
STD	-	1
Dental	-	1
Eye	-	1

13. Clinical practice in last training

No	-	9
yes	-	3

APPENDIX D

MONITORING AND EVALUATION INSTRUMENTS

D. Monitoring and Evaluation Instruments

LEARNING GUIDES FOR CLASSROOM SESSIONS, CLINICAL DEMONSTRATIONS AND COACHING SKILLS

The Integrated Management of Childhood Illness training initiative is designed to produce competent first-line health workers and more importantly, qualified facilitators, trainers and supervisors. Full qualification as an IMCI trainer is attained after satisfactory performance of the IMCI skills, the demonstration of training skills following the IMCI Facilitator course and the participation in the delivery of one or more IMCI courses for health workers through co-training while being assisted by an advanced trainer.

The learning guides are used to develop skills to conduct IMCI training courses for service providers at first-line health facilities. It can be used by the advanced trainer to evaluate the facilitator/trainee performance of each step that the advanced trainer observes. It is important that the rating be done carefully and as objectively as possible. The participant's performance will be rated on a three point scale as follows:

1 **Needs Improvement:** Step or task not performed correctly or out of sequence (if necessary) or omitted.

2 **Competently Performed:** Step or task performed correctly in proper sequence (if necessary) but does not progress from step to step efficiently.

3 **Proficiently Performed:** Step or task efficiently and precisely performed in proper sequence (if necessary).

LEARNING GUIDE FOR CLASSROOM MANAGEMENT SKILLS

1	**Needs Improvement:** Step or task not performed correctly or out of sequence (if necessary) or omitted.
2	**Competently Performed:** Step or task performed correctly in proper sequence (if necessary) but does not progress from step to step efficiently.
3	**Proficiently Performed:** Step or task efficiently and precisely performed in proper sequence (if necessary).

STEP/TASK		OBSERVATION				
1.	Presents an effective introduction					
2.	States the objectives of the session					
3.	Manages the group effectively					
4.	Uses participant names					
5.	Maintains eye contact					
6.	Provides positive feedback					
7.	Responds to participants questions					
8.	Praises participants as often as necessary					
9.	Promotes a friendly, cooperative relationship					
10.	Moves about the room					
11.	Uses the training aids effectively					
12.	Monitors the progress of each participant					
13.	Follows the facilitator guide for modules					
14.	Leads group activities (discussions, oral drills, role plays etc...) effectively					
15.	Presents an effective summary					

LEARNING GUIDE FOR CLINICAL DEMONSTRATION SKILLS

1	**Needs Improvement:** Step or task not performed correctly or out of sequence (if necessary) or omitted.
2	**Competently Performed:** Step or task performed correctly in proper sequence (if necessary) but does not progress from step to step efficiently.
3	**Proficiently Performed:** Step or task efficiently and precisely performed in proper sequence (if necessary).

STEP/TASK	OBSERVATION				
1. Uses the instructions in the facilitator guides					
2. Presents an effective introduction					
3. States the objective(s) of the demonstration					
4. Arranges the demonstration area so that participants are able to see each step in the procedure clearly					
5. Never demonstrates incorrect procedures or shortcuts					
6. Asks questions or encourages participants to ask questions					
7. Maintains eye contact with participants as much as possible					
8. Projects voice so that all participants can hear					
9. When using training aid, ensures that all participants can visualize it					
10.Provides participants opportunities to practice the skill activities under direct supervision					

LEARNING GUIDE FOR COACHING SKILLS

1	**Needs Improvement:** Step or task not performed correctly or out of sequence (if necessary) or omitted.
2	**Competently Performed:** Step or task performed correctly in proper sequence (if necessary) but does not progress from step to step efficiently.
3	**Proficiently Performed:** Step or task efficiently and precisely performed in proper sequence (if necessary).

STEP/TASK	OBSERVATIONS				
BEFORE CLINICAL OUTPATIENT SESSION					
1. Explains the session objectives					
2. Makes sure the participants know what to do during the session					
3. Demonstrates the appropriate case management skills					
4. Reviews any special techniques to be practiced today					
5. Gives participants an opportunity to ask any questions					
6. Distributes copies of the appropriate recording form					
7. Assigns patients to participants					
DURING PRACTICE SESSION					
1. Observes the participants as s/he practices the skills or tasks					
2. Takes note of the patient's condition					
3. Asks participants to present the case					
4. Compares his/her observations with participant's findings					
5. Asks clarifying questions as needed					
6. Provides positive reinforcement and suggestions					
7. Discusses the case with participants and verifies the assessment, classification and treatment of the case					
8. Provides specific feedback for each case that the participant sees					

STEP/TASK	OBSERVATIONS				
AFTER CLINICAL OUTPATIENT SESSION					
1. Asks the participant how s/he felt about the practice					
2. Asks the participant to identify those steps s/he did well					
3. Provides positive reinforcement regarding those steps or tasks the participant performed well					
4. Asks the participant to identify those steps where her/his performance could be improved					
5. Offers specific suggestions for improvement					
6. Encourages the participants to discuss their observations about the day's cases					
7. Reinforces the use of good communication skills					
8. Leads a discussion to summarize the session					
9. Returns the children to regular clinic staff for further assessment and treatment					
10. Completes the Checklist for Monitoring Outpatient Sessions					

SESSION EVALUATION
(To be completed by **Participants**)

Session Title:_____**Trainer/Facilitator**_____

Instructions: Please circle the number that reflects your reaction to the session presentation, using the following rating scale:

5-Strongly Agree 4-Agree 3-No opinion 2-Disagree 1-Strongly disagree

1.	The trainer clearly stated instructional objectives.	**5 4 3 2 1**
2.	The trainer communicated effectively.	**5 4 3 2 1**
3.	The information presented was new to me.	**5 4 3 2 1**
4.	The trainer encouraged participation of the learner.	**5 4 3 2 1**
5.	The session content was well managed.	**5 4 3 2 1**
6.	The session content was practical and not too theoretical.	**5 4 3 2 1**
7.	The trainer asked questions and kept me involved in the session.	**5 4 3 2 1**
8.	The session content was relevant to my work.	**5 4 3 2 1**
9.	The trainer provided good individual feedback.	**5 4 3 2 1**
10.	The trainer kept the session focused and lively.	**5 4 3 2 1**

General Comments:

Suggestions: