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BASICS

REPORT

FIRST IMCI TRAINING IN ZAMBIA

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

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**FIRST IMCI TRAINING
IN ZAMBIA**

Lusaka, Zambia

May 13 - June 14, 1996

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B

TABLE OF CONTENTS

ACKNOWLEDGMENTS

ACRONYMS

EXECUTIVE SUMMARY	1
INTRODUCTION	4
BRIEF HISTORY OF IMCI TRAINING DEVELOPMENT IN ZAMBIA	4
IMCI TRAINING DEVELOPMENT	5
Changes Identified in the <i>Assess and Classify the Sick Child age 2 months up to 5 years Chart</i>	5
Changes Identified in the <i>Treat the Child Chart</i>	6
Changes Identified in the <i>Counsel the Mothers Chart</i>	7
Changes Identified in the <i>Assess and Classify the Sick Young Infant Age 1 Week up to 2 Months</i>	7
Changes Identified in the <i>Treat the Young Infant and Counsel the Mother</i>	7
OVERVIEW OF THE TRAINING OBJECTIVES AND STRUCTURE	8
Training Methods and Techniques	8
Training Schedule and Content	9
Training Sites, Dates, and Opening Session	9
Participants' Profiles	10
Facilitators' Profile	10
Administration of the Training Workshops	11
TRAINING MONITORING, AND EVALUATION	11
Evaluation Techniques	11
Lessons Learned	11
Program participants	12
Program design and execution	12
Program content	12
Changes required to apply learning	12
Organizational context	12
Community/societal forces	13

TABLE OF CONTENTS
(continued)

FOLLOW UP AND RECOMMENDATIONS 13

- Comments on the Adaptation 13
- Appropriateness of the Training Methods and Techniques 13
- Preparation for the Application of Learning 14
- Approaches to the Evaluation of the IMCI Training 15
- Follow-up Plan 15

APPENDICES

- A. List of Participants, Facilitators/Trainers, Clinical Instructors and Administrative Support
- B. List of Participants to the IMCI Three-day Workshop February 6 - 8, 1996
- C. List of the Advisory Committee
- D. Minutes of the IMCI Technical Advisor Group on the Adaptation to Match National Policies
- E. IMCI Training Skills Development
- F. Training Budget and Expenses



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Finally, our thanks go to the course directors and facilitators for their dedication, commitment to IMCI initiative, and savoir faire.

ACRONYMS

AFRO	African Regional Office (WHO)
ARI	Acute Respiratory Infections
BASICS	Basic Support for Institutionalizing Child Survival
CDD	Control of Diarrheal Disease
CHW	Community Health Worker
CMAZ	Church Medical Association of Zambia
CO	Clinical Officer
DHMO	District Health Management Office
DHMT	District Health Management Team
EHT	Environmental Health Technician
EPI	Expanded Programme on Immunization
GRZ	Government of the Republic of Zambia
HQ	Headquarters
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
NFNC	National Food and Nutrition Commission
NMNC	National Malaria Control Centre
ODA	Overseas Development Agencies
PHC	Primary Health Care
PHMO	Provincial Health Management Office
PHMT	Provincial Health Management Team
PP	Project Paper
PHN	Population, Health and Nutrition
RN	Registered Nurse
Q&As	Questions and Answers
QAP	Quality Assurance Project
SARA	Support for Analysis and Research in Africa (USAID Project)
TA	Technical Assistance
UNZA	University of Zambia
UNICEF	United Nations Children's Fund
UTH	University Teaching Hospital
UTH/DTU	University Teaching Hospital/Diarrhea Training Unit
WHO	World Health Organization
ZCHP	Zambia Child Health Project
ZEN	Zambia Enrolled Nurse
ZEM	Zambia Enrolled Midwife
ZMOH	Zambia Ministry of Health

EXECUTIVE SUMMARY

The BASICS training coordinator and the BASICS technical representative for Zambia traveled to Lusaka to participate in the coordination and facilitation of the first IMCI training in Zambia. These training workshops were held in Lusaka from May 13-24, 1996, for the Introduction of the Case Management of Childhood Illnesses course to potential trainers. The facilitator trainings were held from May 27-June 3, and the training for first-level health workers was held June 3-14. This series of training workshops was organized in collaboration with WHO/HQ, WHO/AFRO, and UNICEF. Logistical support was provided by BASICS/Zambia in collaboration with the ZMOH.

The MOH/HRIT and other senior officials at the MOH were introduced to the concept of integrated management of childhood illness (IMCI) early last year by Dr. Bob Pond, BASICS technical representative for Zambia. A Technical Advisory Committee composed of representatives of the disease-specific programs at the national level was established. This was done after almost a year of constant negotiations and the organization of a three-day sensitivity workshop (February 6-8 1996) for key MOH officials and collaborating partners.

With BASICS technical assistance, the IMCI Advisory Committee, following the steps of the WHO/UNICEF Adaptation Guide, proceeded in reviewing program-specific policies and guidelines, and identified the necessary adaptations in the final production of printed charts and clinical modules.

The first IMCI training is designed to train health workers in first-level health facilities (outpatient clinics and health centers) to manage major childhood illnesses (pneumonia, diarrhoea, fever/malaria, measles, and malnutrition) effectively in sick children between the ages of 1 week to 5 years in an integrated fashion. This training is part of Objective 2 of the Zambia Child Health Project (ZCHP) which aims at improving pre-service and in-service training of health center staff.

This series of IMCI training workshops lasted 11 days for the first case management workshop, followed by a 7-day facilitator training, and a subsequent 11-day training of an additional group of health workers. Except for the very first day of training, the mornings were spent in the clinic or hospital to gain experience in assessing, classifying, identifying treatment, and treating and counseling (done over 10 clinical sessions). The afternoons were spent at the training site going over the modules. This IMCI training workshop uses 7 training modules of a total of 530 or so pages, with more than 55 exercises which incorporate 82 photographs and six video presentations, with 300 or so individual Q&As, demonstrations, case studies, and role plays.

Many factors have been identified as inherent barriers or enhancers depending on how they play out in the transfer-of-learning process. These include participants' perceptions about the value and practicality of training content, the presence or absence of follow-up strategies, and organizational attitudes towards changes required to apply what has been learned.

Recommendations and Follow Up

Although we recognize the tremendous effort made by the IMCI Advisory Committee in the adaptation of the training materials, further revision of the adapted training materials is warranted. Ethnographic and clinical studies are needed to better understand local practices and to develop culturally acceptable strategies for counseling the mother about feeding recommendations and home treatments. In addition, an evaluation plan should be developed. This is because of limited information to date on the impact of IMCI training and the desired effect of the initiative on childhood related illnesses. Evaluation should be designed to produce information that will lead to better training methods and techniques, and to ensure the transfer of learning onto the job situation. We would recommend a skill-based method of evaluating IMCI in-service training in Zambia.

Follow-up Plan

- Conduct the first IMCI training workshop for first-line health workers, preferably Zambian enrolled nurses (ZENs) and environmental health technicians (EHTs), to be held in Lusaka from July 29-August 9, 1996.
- Prepare for in-country complementary IMCI course development process.
- Observe the first-line health workers training by World Education staff.
- Review and refine selected district plans to include IMCI training. BASICS in-country staff, in collaboration with the MOH/HRIT, will provide TA.
- Organize a national IMCI seminar to inform and advocate for support of the implementation of IMCI.
- Organize the first IMCI training workshop for selected health workers in Ndola, Copperbelt Province, in September 1996.
- Conduct the second IMCI facilitator training workshop following the case management workshop in the Copperbelt in September 1996.
- Conduct an IMCI training workshop for health workers from selected health centers in Ndola Urban District in September/October 1996.
- Develop an IMCI Evaluation Team to implement sustainable approaches to monitor the quality of health care services in facilities in collaboration with QAP.
- Develop guidelines and appropriate evaluation instruments to ensure that the new skills are maintained.

- Evaluate the first and second IMCI training outcomes to assess the competence of the trainees in applying their new knowledge and skills, and advance consideration of how evaluation results will be summarized and translated into action.

INTRODUCTION

The BASICS training coordinator and the BASICS technical representative for Zambia traveled to Lusaka to participate in the coordination and facilitation of the first IMCI training in Zambia. This combined training workshop was held in Lusaka from May 13-24 for the introduction of the case management of childhood illness course to potential trainers, from May 27-31 for the facilitator training, and from June 3-14 for the first-level health workers training. This training workshop was organized in collaboration with WHO/HQ, WHO/AFRO, and UNICEF. Logistical support was provided by BASICS/Zambia in collaboration with the ZMOH.

One of the major goals of the ZCHP is to strengthen the ZMOH's capacity to deliver quality child survival services to the majority of the underserved in both the urban and rural communities in the country. BASICS/USAID, in collaboration with key officials at the MOH/HRIT, has agreed to undertake the tedious task of introducing the new concept of the Sick Child Initiative to Zambia. The new WHO/UNICEF course has been extensively revised and adapted to the Zambian situation and the MOH/HRIT, with the technical assistance of WHO, UNICEF, and BASICS, is now initiating an implementation phase in selected provinces in the country.

BRIEF HISTORY OF IMCI TRAINING DEVELOPMENT IN ZAMBIA

The MOH/HRIT and other senior officials at the MOH were introduced to the concept of Integrated Management of Childhood Illness (IMCI) very early last year by Dr. Bob Pond, BASICS technical representative for Zambia. A Technical Advisory Committee composed of representatives of the disease-specific programs at the national level was established. This was done after almost a year of constant negotiations and the organization of a three-day sensitivity workshop (February 6-8, 1996) for key MOH officials and collaborating partners. This coordinating body (Technical Advisory Committee) has as its primary task the revision of the national case management policies on ARI, CDD, EPI, malaria, nutrition, and drugs as they relate to IMCI.

The committee has identified inconsistencies between current case management policies and the new IMCI case management as developed by WHO and UNICEF. Consequently, the WHO/UNICEF IMCI generic training materials have been adapted, at least for now, amid some further adaptation all along the implementation phase. Although many of the managerial functions for case management by levels of the health care system (IMCI policy, coordination, supervision process, drug procurement, and national, provincial and district implementation plans) have yet to be completed, the decision has been taken to introduce the first IMCI training in Zambia.

IMCI TRAINING DEVELOPMENT

Adaptation Process

Although the guidelines for the 'generic' IMCI training materials are expected to be applicable in most developing countries where infant mortality is high, a certain degree of adaptation to situations in each country is required, taking into account the different disease patterns and country-specific policies and guidelines. With BASICS technical assistance, the IMCI Advisory Committee, following the steps of the WHO/UNICEF Adaptation Guide, proceeded in reviewing program-specific policies and guidelines, and identified the necessary adaptations to the final production of printed charts and clinical modules. Considerable changes were made in the wall chart and chart booklet. There were six wall charts altogether: one *Assess and Classify the Sick Child age 2 months up to 5 years*, two *Treat the Child* charts, one *Counsel the Mother*, one *Assess and Classify the Sick Young Infant age 1 week up to 2 months*, and one *Treat the Young Infant and Counsel the Mother*.

Changes Identified in the *Assess and Classify the Sick Child age 2 months up to 5 years* Chart

In the 'Assess and Identify Treatment' columns of the management of ARI, **wheezing management** was added because of the apparent prevalence of asthma in Zambia. Oral salbutamol is given to a child with wheezing who does not have a danger sign or chest in-drawing or stridor.

In the 'Diarrhoeal' section, a supplementary dose of vitamin A was added to the 'Identify Treatment' rows. Vitamin A is to be administered as a single dose to children ages 6 to 24 months who have not had a dose in the last six months. Only one dose is administered to children age 24 months up to 5 years who have not had a dose in the last 12 months.

In the 'Fever' section, the assessment and classification of fever was adapted to the current management of all fever or history of recent fever with an antimalarial drug, thus classifying all fever as a febrile disease requiring urgent hospital referral or malaria.

In the 'Malnutrition and Anemia' section, the assessment for growth faltering was added, and the 'Classification and Identify Treatment' columns were modified.

In the section titled 'Check the Child Immunization Status,' the Zambian immunization schedule is very different from that of the WHO-recommended schedule. OPV-0 is not given at birth and DPT-1 and OPV-1 are given at 8 weeks rather than 6 weeks. This was not, however, changed in either the wall chart or the chart booklet pending additional adaptation of the IMCI Advisory Committee.

A 'Check Whether the Child Should Receive Vitamin A' section was added to the charts. According to this section, all children age 6 to 24 months should receive vitamin A every 6 months, and all children age 2 years to 5 years should receive vitamin A every 12 months.

Although the 'Assessment of the Mother's Health Needs' was added at the very end of the 'Assess and Classify' charts, very little has been said on how best to proceed with an adequate assessment of the mother's problems in the sick child consultation.

Changes Identified in the *Treat the Child Chart*'

The original 'generic' chart was divided into two separate *Treat the Child* charts. One chart is to *Carry out the Treatment Steps Identified on the "Assess and Classify"* and the other to *Give Extra Fluid for Diarrhoea and Continue Feeding*. For the selection of the appropriate oral drug and the determination of the dosage and schedule, very few adaptations have been made. Cotrimoxazole is the drug of choice (first-line antibiotic) for the treatment of pneumonia, ear infection, or very severe disease, but is not used to treat malaria. For dysentery, the first-line antibiotic is nalidixic acid. Resistance to cotrimoxazole is frequent, especially in the Copperbelt. As for cholera, the first-line antibiotic is erythromycin; a resistant strain has been identified to both cotrimoxazole and tetracycline. A planning and policy review meeting is scheduled for September 1996 to discuss this matter. Chloroquine and sulfadoxine-pyrimethamine are the first-line and second-line antimalarial drugs.

One important aspect of the case management of the febrile child in Zambia is that if fever persists after antimalarial treatment for two days, the treatment is repeated with chloroquine under observation. This may be done in a hospital, or, if admission is not possible, the child can be brought back to the health facility once a day. If fever still persists after the second day of chloroquine, therapy under observation then a second alternative drug is used or the child is referred.

Iron is given for palmar pallor unless the child is severely ill or is known to have sickle cell anemia. For chronic ear infection, the Zambian adaptation recommends giving an antibiotic for five days to reduce the chances of complications and satisfy the mother's expectation. However, after five days of an antibiotic regimen, treatment should be discontinued even if discharge continues. In the box 'Give These Treatments in Clinic Only,' one additional drug besides chloramphenicol was added to the chart, benzylpenicillin, to be administered to children being referred urgently who cannot take oral antibiotics. For the child having a convulsion, specific instructions have been added to the charts and module. Participants were asked to add to their booklet (page 11 and module page 51) the following doses for intra-rectal administration of diazepam solution.

Age	Dose
2 months up to 4 months	1/4 ml
4 months up to 12 months	½ ml
12 months up to 3 years	½ ml
3 years up to 5 years	3/4 ml

In addition, specific information was given on how to proceed in 'Treating for Severe Wheezing in Children.'

The second *Treat the Child* chart has three major headings: 'Give Extra Fluid for Diarrhoea and Continue Feeding,' 'Immunize Every Sick Child, As Needed,' and 'Give Follow-up Care.' As for the latter, because malaria is endemic in Zambia, all children with a history of fever, feeling hot, or having a temperature of 37.5 C or above are classified as having malaria and are treated as such. However, if the fever persists after two days, it is commonly believed that the mother did not administer the drug properly and repeating the treatment under observation for three days is recommended. For chronic ear infection, treatment should stop after five days. For 'Growth Faltering,' follow up in 30 days after the initial visit to measure the child's weight gain as for 'Very Low Weight.'

Changes Identified in the *Counsel the Mothers* Chart

This chart has three major headings; 'Food,' 'Fluid,' and 'When To Return.' The *Foodbox* has three subtitles: *Assess the Child's Feed, Feeding Recommendations During Sickness and Health*, and *Counsel the Mother About Feeding Problems*. In *Feeding Recommendations During Sickness and Health*, it is recommended to exclusively breastfeed the child for as long as up to 6 months of age and to add complementary foods only if the baby is not gaining weight after the age of 4 months. In addition, one more section, *Feeding Recommendations for a Child Who is Not Feeding Well During or After an Illness* was added.

Changes Identified in the *Assess and Classify the Sick Young Infant Age 1 Week up to 2 Months*

No major changes in the adaptation of this chart, except for the feeding classification where 'Growth Faltering' was added to the yellow row, and a section on the 'Assessment of the Mother's Health Needs' was added at the end of the chart.

Changes Identified in the *Treat the Young Infant and Counsel the Mother*

There were no apparent changes made to this chart.

OVERVIEW OF THE TRAINING OBJECTIVES AND STRUCTURE

The first IMCI training is designed to train health workers in first-level health facilities (outpatient clinics and health centers) to manage major childhood illnesses (pneumonia, diarrhoea, fever/malaria, measles, and malnutrition) effectively in sick children between the ages of 1 week to 5 years in an integrated fashion. This training is part of Objective 2 of the ZCHP which aims at improving pre-service and in-service training of health center staff. In addition to improving the management of childhood illnesses, this training course for first-line health workers will—

- Encourage the implementation of significant prevention of disease through promotion of breastfeeding, counseling to solve feeding problems, immunization of sick children, and vitamin A supplementation
- Improve coverage and quality of curative activities that contribute to child health
- Increase attention to missed opportunities
- Increase efficiency in training, and reduce drug costs by selective use of essential drugs

The initial training plan was to target primary health care staff in four health provinces, the MOH/MCH department, one training institution in Lusaka, and the University Teaching Hospital staff and to introduce them to the new approach in integrated management of childhood illness. Some of this first group of trainees were selected to participate in the first IMCI facilitator training and were asked to facilitate the June 3-4 IMCI workshop. This cadre of trainers/facilitators will participate in several subsequent training activities over the life of the project.

Training Methods and Techniques

The IMCI training was developed for first-level facility health workers with the ability to read with ease and understand the written learning materials. The full 11-day training workshop combines didactic work and hands-on clinical practice built around the integrated case management guidelines. The seven training modules incorporate a wide selection of training techniques suited in particular situations to get the participants' attention and interest, and to create challenges. These include photographic and video exercises, individual feedback on exercises, group discussions and drills, and role plays. These training techniques 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 also in on-the-job situations.

In addition, several training aids have been developed, such as six new wall charts, the chart and photographs booklets, and videotapes. The course was collaborative in nature and every participant was encouraged to fully participate and contribute to the numerous exercises during the different sessions.

Training Schedule and Content

The first IMCI training workshop lasted 11 days, followed by a 7-day facilitator training, and a subsequent 11-day training of an additional group of health workers. Except for the very first day of training, the mornings were spent in the clinic or hospital acquiring substantial experience in assessment, classification, treatment, and counseling over a period of 10 clinical sessions. The afternoons were spent at the training site going over the modules.

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, and acute and chronic ear infections. In addition, practical treatment and follow-up instructions to be given to the mother, feeding is to be assessed, and counseling on feeding problems to be provided based on locally available food sources.

The facilitator training lasted five days. Participants were selected after they had been able to master the IMCI materials and had shown confidence in both the outpatient and inpatient hands-on clinical practice. During the training workshop, the facilitator trainees learned how to practice the different techniques that are used in the modules as described in the *Facilitator Guide For Modules*. The trainees went to the DTU of the UTH for outpatient clinical sessions twice during the training. They had the opportunity to lead the group in clinical practice, identify sick children who had relevant clinical signs, and demonstrated the skills to other trainees as they managed the patients. In addition, they gave feedback as necessary and completed the necessary 'Checklist for Monitoring the Clinical Sessions.'

What they did not learn is how to motivate, encourage, and inspire trainees and they did not have the opportunity to discuss strategies for helping adults learn better and faster. One important footnote is that the *Facilitator Training Guide for Modules* is only a guide and not a training manual as such and should not be used as a means to develop training skills or learn how to set practical training goals.

Training Sites, Dates, and Opening Session

The IMCI training workshops were held at the Andrews Hotel and the University Teaching Hospital, both in Lusaka and the Chawama and Kanyama health centers. Later, the

Kamwala Health Center was used as a clinical training site. The workshop was officially opened by an MOH/HRIT official in the presence of various representatives from WHO/AFRO and other cooperative agencies in Zambia.

Participants' Profiles

There were 20 participants in the program: six from Lusaka, three from the Copperbelt Province, four from the Northern Province, three from the Western Province, two from WHO/AFRO, and two from BASICS. Fifteen of the participants were Zambians and four were expatriate consultants. In addition, there was one expatriate senior medical officer working in the Northern Province. The participants came from a range of disciplines: eight medical doctors, six clinical officers, and six nurses. Ten were selected after they had demonstrated skill competency and some degree of skill proficiency and able to participate in the following facilitator training workshop. These were four medical doctors, four clinical officers, and two nurses. As for the subsequent first-line health workers IMCI training workshop which was held from June 3 - 14, 21 participants from Lusaka Province were trained. In total, 41 participants were trained in the most innovative training for health workers in first-level facilities developed by WHO/UNICEF.

Facilitators' Profile

Eight trainers/facilitators with considerable experience in IMCI training participated in the development and implementation of the first ICM training workshop in Zambia. Dr. Samira Aboubaker from WHO/HQ Child Health and Development was a course director for the first training workshop. Dr. Doyin Oluwole, medical officer WHO/AFRO, facilitated the first training workshop and was a course director for the facilitator training. Dr. Eric A. F. Simoes, an associate professor at the Division of Pediatrics Infectious Diseases at The Childrens' Hospital in Denver, Colorado, was the inpatient clinical instructor during the first training workshop. He was assisted by Dr. Elwyn Mwika Chomba, head of the Department of Paediatrics of UTH. Dr. Tesfaye Tessema, assistant professor, Department of Pediatrics at the Gonder College of Medical Sciences in Ethiopia, facilitated the first training workshop and became the inpatient clinical instructor during the second IMCI training, along with Dr Chomba. Dr. Teshome Desta, of the Department of Paediatrics at the Gonder College of Medical Sciences in Ethiopia, facilitated the three training workshops. Dr. Helene Lefevre Cholay, a UNICEF health officer, facilitated the first training workshop. Dr. Bob Pond, BASICS technical representative for Zambia and the chairman of the IMCI Working Group, participated in the development and facilitation of the first ICM training workshop. Dr. Paulre P. Desrosiers, BASICS training coordinator and a member of the IMCI Working Group, facilitated the first IMCI training workshop and the facilitator training. Dr. Desrosiers was the focal person for the development of the complementary IMCI training course for the less literate health worker.

Administration of the Training Workshops

All the administrative arrangements were provided by the BASICS office in Zambia as were drugs and 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 and funded by the ZCH project for the frequent trips to and from the UTH and health centers for inpatient and outpatient clinical practice sessions.

TRAINING MONITORING, AND EVALUATION

Evaluation Techniques

Several forms for collecting data have been developed to evaluate participant performance and assist in developing necessary skills:

- The *Group Checklist of Clinical Signs* was used to provide quantitative information on the observation of particular clinical signs
- The *Checklist for Monitoring Outpatient Sessions and Inpatient Sessions* was used to provide information on—
 - 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 help identify common and special problems that participants were having. They were useful in comparing the participants' performance in both the outpatient and inpatient settings.

The 'End-of-Course Evaluation' was used to determine the participants' opinions on the workshop's content, training methods, and techniques.

Lessons Learned

Many reasons have been identified to explain the degree to which participants in the IMCI training workshop are able to apply what they have learned once they have returned to their work place. These include their perception about the value and practicality of training content, the presence or absence of follow-up strategies, and organizational attitudes toward changes required in order to apply what has been learned.

Six key influencing factors have been identified as inherent barriers or enhancers, depending on how they play out in the transfer-of-learning process (they do not blindly apply to every training program). They are—

Program participants

The set of personal values and belief systems, field experience, and other personal characteristics that participants bring to training programs surely influence both what they learn and whether they can and want to apply what they have learned to their workplace.

Program design and execution

Training managers should include strategies for the transfer of learning as one of the important elements of their training plan. They can choose to implement these strategies before, during, and/or after the program has been completed. In addition, they should choose transfer strategies that will be the most useful in assisting participants to apply what they have learned; for instance, assess the child, classify the illness, identify the treatment, treat the child, counsel the mother, and give follow-up care.

Program content

The challenge of this training initiative is to train the greatest number of people to use an innovative approach to case management of the sick child. WHO and UNICEF have developed a standardized curriculum that includes both content and suggested teaching methods targeted to different categories of health workers and different levels in the health care system. Trainees may not learn this material, either because they choose not to, or because its pre-determined content, format, and instructions to trainers fail to take into account their existing skill levels, or because there isn't any national capacity to support the regional adaptation process of the material.

Changes required to apply learning

The nature and amount of changes that the participant, the organization, and the community have to make to apply the learning describe the scope, depth, and enduring consequences of these changes. The preparatory guide developed by SARA spelled out the necessary prerequisite for the effective implementation of this innovative approach.

Organizational context

This consists of the health workers, the organizational structure, and the culture which can either support or inhibit the transfer of learning. The context includes the degree of governmental/organizational commitment to in-service training, efforts to support local adaptation of the pre-packaged material, building of national/regional training capacity, and the degree to which both *wants* (*which imply interest and perhaps motivation, but may*

not reflect a discrepancy of any type) and demands (which suggest a willingness to commit to this endeavor and that will address a given situation) for this innovative approach relate to the needs that are to be met.

Community/societal forces

Political patronage, socio-cultural norms, and economic conditions can have a considerable impact on management of these changes. The complexity of the new IMCI approach demands that careful attention be paid to the internal and external contextual factors, including the structural aspects, the people, and the cultural milieu of the planning situation. The transfer-of-learning process can become more difficult because of the magnitude of the changes that this new approach entails and the limited control over organizational and community forces.

FOLLOW UP AND RECOMMENDATIONS

Comments on the Adaptation

Although we recognize the tremendous effort made by the IMCI Advisory Committee in the adaptation of the training materials, further revision of the adapted materials is warranted. In the outpatient management of wheezing, the question that usually comes to mind is the rationale regarding the assessment of wheezing when first-level health workers do not have the drugs, equipment, and expertise to adequately manage serious wheezing.

The immunization schedule may need to be reviewed and refined by the EPI staff (OPV-0 is not given at birth, DPT-1 and OPV-1 are given at 8 weeks rather than 6 weeks).

Children age 2 to 6 years only received vitamin A supplements once a year. Chronic ear infection is treated with an initial course of antibiotics. The assessment of growth faltering in the classification of malnutrition and the assessment of the health needs of the mother during the sick child consultation are all necessary details which need serious attention and guidance from the IMCI Advisory Committee.

Appropriateness of the Training Methods and Techniques

Methods and techniques should be chosen to maximize learning for a particular subject matter and type of learning described. Retention is a critical factor in the learning process. In introducing a specific kind of change, certain methods are more effective than others. This IMCI training workshop uses 7 training modules of approximately 530 pages, with more than 55 exercises which incorporate 82 photographs and 6 video presentations of approximately 300 individual Q&As, demonstrations, case studies, and role plays.

The workload is tremendous and very labor intensive and the degree of absorption will depend on the ability of each participant to process the information received through re-integration of their own experience. Because of the amount of reading involved in this training, the threshold for boredom is very high and is not conducive to trainees' motivation. Learning requires time for processing information, and in the process of learning, the participant should have an opportunity to raise his/her doubts, air his/her misunderstandings, and become involved in verbalizing the subject. Participants should be given an opportunity to *internalize* the subject and relate the new learning to their previous experience.

Preparation for the Application of Learning

The overall objective of any training program is to obtain training outcomes that are applicable, practical, and can foster change. However, training audits have shown that over 90 percent of newly learned skills are forgotten just three months after the training program. Other educational experts believe that well over 80 percent of the knowledge and skills gained by workers are not fully applied at the job sites, and that much of these trainings are wasted. There are many issues and concerns related to the delivery of training, the development of curricula responsive to the changing needs of health workers, the availability of commodities, etc., that are of great importance to a successful IMCI training initiative. What should not be left to chance is whether the health workers, as a result of attending the IMCI training workshop, can apply what they have learned in real life situations. In other words, planning for the transfer-of-learning must be a high priority.

The transfer-of-learning is the effective application of what the participant has learned as the result of attending a training program. It is very often referred to as the 'so what' or 'now what' phase of the learning process. "So what does this all mean, and how can what was learned be applicable to my situation?" In the case of integrated case management, it is essential that a plan be developed to help participants apply what they have learned. Participants in this training initiative will need assistance to use their new information in real life situations.

Integrated case management training leads to more accurate identification of illnesses, ensures more appropriate (and combined) treatment of most major illnesses, and speeds up the referral process of severely ill children. So what does this all mean and how can this new knowledge and skills be applicable in real life situations? Some of these changes may be easy and welcome. Others may be difficult and painful, such as spending additional time to accurately assess, classify, and, particularly, counsel the mother.

Although the initiative for integrated management of childhood illness focuses on improving the performance of health workers at first-level health facilities, often some of the newly learned skills cannot be applied unless changes are also made in current practices, organizational culture, and the community beliefs and values. This is especially so when what is learned has to be applied in a totally different setting and depends on others having

to agree or be willing to make those changes. In Zambia, for example, while the tasks of assessing, classifying, and treating are usually done by the same health worker, the counseling of the mother on how to administer the medications is done by the drug dispenser or not at all. Furthermore, a health worker may want to apply what he/she has learned during the training workshop, but encounters a stumbling block in his/her clinic where the supervisor may voice strong opposition, or his/her co-workers may refuse to collaborate.

Approaches to the Evaluation of the IMCI Training

Improving and maintaining high-quality services requires a broad spectrum of training and quality assurance strategies. Because of limited information to date on the impact of IMCI training and the desired effect of the initiative on childhood related illnesses, an evaluation plan should be developed to—

- Assess the quality of the IMCI training while it is in session
- Assess the competence of the trainees in applying their new knowledge and skills at the end of the training
- Assess the contextual factors other than lack of skills that may be influencing the quality of health worker performance following the training
- Identify key constraints to good IMCI, suggest possible causes of these constraints, and propose potential solutions for further consideration by the IMCI Advisory Committee

Initial identification of intended benefits strengthens evaluation. The assessment of benefits is likely to be more efficient and the results more convincing when the desired outcomes are decided before data is actually collected. Ethnographic and clinical studies are needed to better understand local practices and to develop culturally acceptable strategies for counseling the mother about feeding recommendations and home treatments. In addition, evaluation should be designed to produce information that will lead to better training methods and techniques, and to ensure the transfer of learning in the job situation. We would recommend a skill-based method of evaluating IMCI in-service training in Zambia.

Follow-up Plan

The second IMCI training workshop for first-line health workers, preferably ZENs, is to be held in Lusaka from July 29-August 9, 1996. This will allow World Education staff to observe the training. The results of these observations will assist World Education in designing the proposed IMCI complementary course.

Preliminary preparations are being made for in-country complementary IMCI course development process. World Education staff will work with BASICS in-country staff, the IMCI Advisory Committee, and selected MOH staff to elaborate on specific learning objectives for the less literate first-line health workers.

BASICS in-country staff, in collaboration with the MOH/HRIT, will review and refine selected district plans to include IMCI training (Copperbelt, Northern, Western, and Lusaka provinces); select priority target groups; refine or develop a supervisory system for monitoring of trained health workers, in collaboration with QAP; assess factors that may influence the effectiveness of the IMCI training workshop; propose solutions; assess the availability of essential drugs required for case management of the sick child; review training materials; identify and assess the quality of the training sites; and select facilitators.

A national IMCI seminar should be organized to inform and advocate for support of the implementation of IMCI. Key national and provincial staff and managers of specific health programs (family health, MCH, malaria, EPI, etc.) should be invited to attend.

The third IMCI training workshop for first-line health workers should be held in Ndola, Copperbelt Province. The target group will be medical and clinical officers and registered nurses, preferably in supervisory roles.

The second IMCI facilitator training workshop should be held in the Copperbelt Province. Participants will be selected after they have demonstrated end-of-training mastery of the new skills during the case management training.

IMCI Evaluation Teams will be developed to implement sustainable approaches to monitor the quality of health care services in facilities, in collaboration with QAP.

Guidelines and appropriate evaluation instruments will be developed to ensure that the new skills are maintained and updated using a modified version of the BASICS/IMCI health facility survey used in Eritrea and Madagascar.

The first and second IMCI training outcomes will be evaluated to assess the competence of the trainees in applying their new knowledge and skills, and advance consideration of how evaluation results will be summarized and translated into action. We would recommend the development of a skill-based method of evaluating IMCI training in Zambia four to five months after the training.

An IMCI complementary course development seminar (World Education) will be designed and implemented, and the first field test of the modified IMCI course will be organized.

APPENDIXES

APPENDIX A

**LIST OF PARTICIPANTS, FACILITATORS/TRAINERS,
CLINICAL INSTRUCTORS, AND ADMINISTRATIVE SUPPORT**

APPENDIX A

List of Participants, Facilitators/Trainers and Clinical Instructors

List of Participants

Dr. Alex Harrie Simwanza	Senior Medical Officer
Dr. Kasonde G. Mulenga Mwinga	Registrar
Dr. Barry Smith	Regional Technical Advisor
Dr. Elizabeth Mason	MO/CDR
Dr. Richard L. M. Peeperkorn	Senior Medical Officer Advisor PHC
Dr. Ini Huijts	APO/WHO-MCH/FP Unit
Dr. Adama Kone	BASICS Regional Director
Dr. Lastone Chitembo	District Health Medical Director
Mr. Elastus Lwando	Chief Medical Officer
Mr. Denes Mwanza	Clinical Officer
Mr. Issac Nyirenda	Clinical Officer
Mr. Richard Mapopa	Senior Tutor
Ms. Rose L. Nzala	
Ms. Martha A. Mwendafilumba	Nurse Tutor
Mr. Richard S. Bweupe	Clinical Teacher
Ms. Dorothy Sinkala	Public Health Nurse
Ms. Emily Moonze	Nurse CDD/ARI focal person
Ms. Wedlock C.K. Mulubwa	Principal Nursing Officer
Mr. Mulonda Kabika	Clinical Officer
Ms. Kabuku Sinyinda	Nursing Sister

List of Facilitators

Dr. Samira Aboubaker	Medical Officer, WHO/CHD
Dr. Doyin Oluwole	Medical Officer WHO/AFRO
Dr. Paultre P. Desrosiers	Technical Officer/Training Coordinator, BASICS
Dr. Bob Pond	Technical Officer, BASICS
Dr. Tesfaye Tessma	Assistant Professor, Dept. Pediatrics, Gonder College of Medical Sciences
Dr. Helene Lefevre Cholay	UNICEF Health Officer
Dr. Eric A. F. Somoes	Associate Professor, Division of Pediatrics
Dr. Teshome Desta	Professor of Pediatrics Gonder College of Medical Sciences

APPENDIX B

**LIST OF PARTICIPANTS TO THE
IMCI THREE-DAY WORKSHOP FEBRUARY 6-8, 1996**

APPENDIX B

LIST OF PARTICIPANTS FOR THE IMCI WORKSHOP FEBRUARY 6-8, 1996 ANDREWS' MOTEL, LUSAKA, ZAMBIA

1 Dr, G.L. Kasanda	DDMS-PHC, MOH
2 Ms. M. Siame	CDD Focal Person, UCI/CDD
3. Dr. Ahmed. Magan	UNICEF, Lusaka
4. E. Moonze	R.N. Paediatrics, CDD/ARI Focal Person *
5. L.B. Chivundu	UCI, Focal Person
6. Dr. J. Huijts	WHO-APO/CDR, MOH/MCH *
7. Mary Kaoma	MOH/MCH/FP *
8. Grace Sinyangwe	FP Focal Person, MCH/PP
9. Pamela Njekwa	SI/FPS
10 Dr. Steve Wiersma	Sr. Technical Advisor, USAID
11 Delia Kanguma	PPHN / Mansa
12 Theresa Mainga	PPHN / Livingstone
13. Noelli Xie	UNICEF, Lusaka
14. Derrina Mukupo	UNICEF, Lusaka *
15. Dorica S. Mwewa	CNO, MOH
16. Dr. D. Mulenga	Deputy Manager, NASTLP MOH
17. Felicitas C. Mwale	CPMO, MOH
18. Dorothy K. Sikazwe	Nutritionist, NFNC
19. Prof. G. J. Bhat	School of Med. Dept of Child UTH, Lusaka
20. Dr. A.M. Sitali	PMO, Mongu
21. Dr W M. Lungu	PMO, Copperbelt
22. Dr. H. Muzia	PMO, Central Province
23. Dr. R. Peeperkorn	SMO, Northern Province
24. Dr. Y. Ahmed	Head, Dept of G UTH
25. Dr. Dorothy Mulenga	Senior Scientific Officer, FTRU NCSR Lusaka
26. Mutinta Hambayi	Sr. Nutritionist, NFNC
27. Dr. Allan Soneka	A/PMO Health Northwest Province
28. Dr. G.C. Chishimba	PMO, Eastern Province
29. Clement Andala	Pharmacist, PSZ (Acting Registrar)
30. Dr. R.M. Chimba	National Epidemiologist
31 Dr. D.S. Phiri	Head of Department MCH/FP, MOH
32. Dr. Remi Sognuro	BASICS Project, Lusaka
33. Dr. Bob Pond	BASICS Project, USA
34. Prof. Chintu	Dean, School of Medicine, UNZA
35. Cathrine Mukwakwa	Zambia Family Planning Project, Lusaka
36. Dr E. Nangawe	PHC Advisor, MOH
37. Priscilla Likwasi	Nutritionist, NC Hospital
38. Mary Segall	Zambia Family Planning Project, Lusaka

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|-----------------------|---|
| 39. Dr Ron Waldman | Deputy Director, BASICS, USA |
| 40. Swide Tembo | Director Pharm. Services, MOH |
| 41. Oliver Hazemba | Senior Pharmacist, MOH |
| 42. Gideon Bulwani | Process Consultant Legend, MGT Consultant |
| 43. Dr. Chelemu | PMO, Northern Province |
| 44. Dr. Helen Mutambo | PMO, Lusaka |
| 45. Dr. H.B. Himonga | Sr. Consultant, Director National Malaria Control, MOH
Chairman of the IMCI Technical Advisory Committee |

APPENDIX C

LIST OF THE ADVISORY COMMITTEE

APPENDIX C

List of the IMCI Technical Advisory Committee

Dr. H.B. Himonga	Sr. Consultant Director National Malaria Control Centre MOH, Chairman of the IMCI Technical Advisory Committee
Dr. Remi Sognuro	BASICS Project, Lusaka
Emily Moonze	ARI Focal Person UCI/CDD/ARI
Dr. Ini J. Huijts	WHO-APO/CDR MOH/MCH
Mary Kaoma	MOH/MCH/FP
Derrina Mukupo	UNICEF, Lusaka
Prof. G. J. Bhat	School of Med. Dept of Child Health, UTH-Lusaka
Mutinta Hambayi	Sr. Nutritionist, NFNC
Dr. R.M. Chimba	National Epidemiologist
Dr. Dean. S. Phiri	Head of Department MCH/FP, MOH
Swide Tembo	Director Pharm. Services, MOH
Oliver Hazemba	Senior Pharmacist, MOH
Dr. Elwyn M. Chomba	Senior Consultant / Head of Department of Pediatrics UTH

APPENDIX D

**MINUTES OF THE IMCI TECHNICAL ADVISORY GROUP
ON THE ADAPTATION TO
MATCH NATIONAL POLICIES**

APPENDIX D

MINUTES OF THE IMCI TECHNICAL ADVISORY GROUP ON THE ADAPTATION TO MATCH NATIONAL POLICIES HELD ON MARCH 22, 1996 AT UTH/DTU

MEMBERS PRESENT

- | | | |
|----|-----------------------|---|
| 1. | Mrs. Mutinta Hambayi | CIO FAO, FHANIS |
| 2. | Mrs. Dorothy Sikazwe | NFNC |
| 3. | Mrs. Mary Kaoma | MCH/FP, (Recorder) |
| 4. | Dr. H.B. Himonga | NMCC/MOH (Chairman) |
| 5. | Dr. Abdikamal Alislad | Consultant, Basics |
| 6. | Dr. Remi Sogunro | USAID/BASICS, Project |
| 7. | Prof. G.J. Bhat | Paediatrics and Child Health
School of Medicine, UTH |
| 8. | Dr. Ini Huijts | MCH/WHO/APO |
| 9. | Dr. M.R. Sunkutu | PCB/HRIT |

Meeting called to order at 14.45 hours, by the Chairman with the following remarks:

1. Expressed disappointment on low membership as members present in the meeting did not form a quorum.
2. Slow progress on the confirmation of the IMCI Technical Advisory Committee.
3. Infrequency of IMCI Adaptation meetings as members involved are too busy.
4. ICM-TAG meetings to be called by the Permanent Secretary or the DDMS - PHC to provide high level commitment.

Dr. Remi Sogunro informed the members on the positive progress made with Ms. J. Nyoni on the follow-up of the briefing letter to the Permanent Secretary on IMCI

APPENDIX E
IMCI TRAINING SKILLS DEVELOPMENT
(PROPOSAL)

APPENDIX E

IMCI TRAINING SKILLS DEVELOPMENT (PROPOSAL)

Introduction

Overview of the Course

Goals
Objectives
Schedule

Identify Participant Expectations

Review of Course Materials

Course Directors Guide
Facilitator Guide for Modules
Facilitator Guide for Outpatient Clinical Practice
Facilitator Guide for Inpatient Clinical Practice
Case Management Modules

Key Principles of Adult Learning

Effective Interpersonal Communication

Creating Positive Training Climate

Understanding Change and Managing Transition
Co-Facilitation

Major Training Methods and Techniques Used in this Training

Introduction of a session
Summarize a session
Review day's activities
Effective questioning techniques
Case Discussion/case study
Role-Play Exercise
Group Discussion
Individual Exercise
Drill
Conducting Demonstration Exercise
Individual Feedback

Using Visual Aids

Introduction and Use of the Wall Charts

Using Audiovisual (video)

Introduction and use of the Chart Booklet

Using the Photographs

Coaching in Clinical Training

Preparation of Clinical Sessions

Conducting Clinical Sessions

Monitoring of Clinical Sessions

APPENDIX F

TRAINING BUDGET AND EXPENSES

Training Budget and Expenses

Development costs	\$2,000.00
Delivery costs	\$3,150.00
Travel expenses and visas	\$1,000.00
Lodging	\$20,000.00
Per Diem	\$3,800.00
Luncheon and closing ceremony	\$1,000.00
Total	\$30,950.00