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TRIP REPORT

BASICS

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**INTEGRATED MANAGEMENT OF THE
SICK CHILD TRAINING COURSE FOR
INTERNATIONAL CONSULTANTS**

Addis Ababa, November 13 - 24, 1995

World Health Organization
Ministry of Health, Ethiopia

John Murray

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ACRONYMS

BASICS	Basic Support for Institutionalizing Child Survival
ICM	Integrated Management of the Sick Child
WHO	World Health Organization

EXECUTIVE SUMMARY

In order to begin the process of supporting countries and other organizations who will be involved in the implementation of ICM (Integrated Management of the Sick Child), the World Health Organization conducted an ICM training course for international consultants in Addis Ababa, Ethiopia, from November 13 -24, 1995. The purpose of this course was to train consultants in the ICM approach and to familiarize them with the strengths and weaknesses of the training course and materials. At the same time, it was hoped that technical issues regarding the content and structure of the course and implementation of ICM in the field would be further clarified and discussed. The two week ICM training workshop was followed by a session to plan a training seminar and a workshop on the adaptation of the ICM materials for local country settings, both essential for preparing for implementation. It is hoped that trained consultants will be involved with implementation of ICM in early-use countries. Three BASICS staff were involved with training activities; John Murray and Mutumbo wa Mutumbo attended the two week training course and Bob Pond attended the planning of the training seminar and the adaptation workshop.

A number of observations were made about the training course and these are discussed. In general, the participants found the basic ICM algorithm to be effective in the clinical setting and to provide a useful and practical strategy for the management of sick children. A number of positive observations were made about the training course including: 50 percent of training time was allocated to clinical practice in health centers and the teaching hospital; the use of classroom learning aids including role-plays, drills and video; and, an emphasis on individual attention by trained facilitators. A number of concerns were raised including: the amount of individual reading contained in the course and the potential effectiveness of this approach to change the knowledge and behavior of first-level health workers; lack of time to cover all training modules included in the ICM course; and, total time required to conduct ICM with each mother and child which may be difficult for health workers under time-pressures.

A number of these issues can be addressed by careful evaluation and monitoring of ICM implementation in early-use countries. Operations research will be a critical component of these early programs in order to identify barriers and solutions to effective training and implementation. For this reason, early implementation will need to begin on a small-scale, probably in a few regions in selected countries, before going to scale. The process of implementing ICM is seen as a long-term one. A complementary ICM training course, currently under development by the BASICS project, is likely to have an important role in the training of lower-level health workers.

BACKGROUND

In November 1995, WHO made ICM training materials available to countries wishing to begin the process of integrating the delivery of primary health care for infants and children. The ICM

training course had previously been field-tested in Ethiopia and in Tanzania and a number of modifications had been made based on these trials. In order to begin the process of supporting countries and other organizations who will be involved in the implementation of ICM, an ICM training course for international consultants was conducted in Addis Ababa, Ethiopia from November 13 -24, 1995. The purpose of this course was to train consultants in the ICM approach and to familiarize them with the strengths and weaknesses of the training course and materials. At the same time, it was hoped that technical issues regarding the content and structure of the course and implementation of ICM in the field would be further clarified and discussed. The two week ICM training workshop was followed by a "planning of training" seminar and a workshop on the adaptation of the ICM materials for local country settings, both components being essential for preparing for implementation. It is hoped that trained consultants will be involved with implementation of ICM in early-use countries. A list of participants is attached in Appendix A. Three BASICS staff were involved with training activities; John Murray and Mutumbo wa Mutumbo attended the 2 week training course and Bob Pond attended the planning of training seminar and the adaptation workshop.

OBJECTIVES

The principle objectives of this activity were:

1. To participate in the WHO ICM training course;
2. To participate in discussions regarding the implementation of ICM in developing countries; and,
3. To understand better the technical basis for the sick child algorithm.

SCHEDULE

Training days were split between classroom sessions and practice sessions in health clinics or the teaching hospital. Each piece of the algorithm was practiced in the clinical setting before moving on to the next. The first five days were spent learning, revising and practicing the ICM core algorithm (assess and classify) for the sick child two months to five years of age. Three days were then spent on treatment and counseling the mother, one day on the algorithm for the young infant aged one week to two months and one day on follow-up. At the end of each training day technical seminars were held during which the technical rationale behind the ICM algorithm was presented and discussed. The training timetable is included in Appendix B.

ICM TRAINING

Training was conducted according WHO ICM facilitators guidelines (WHO/CDR, 1995). ICM training materials were adapted to the Ethiopian context. The adaptation process includes the

identification of local expressions for medical terms such as diarrhea, pneumonia, chest-indrawing, measles and modification of the ICM algorithm according to local policy guidelines. Key policy information includes: the use of ORS and household available fluids, and use of locally recommended antibiotics for the treatment of malaria, ARI, dysentery and cholera based on local antimicrobial sensitivity data and policies regarding the administration of antibiotics by first-level health workers (see ICM adaptation guidelines WHO/CDR, 1995). Adapted materials were presented as six modules: management of the sick child aged two months up to five years; identify treatment; treat the child; follow-up; counsel the mother; management of the sick young infant aged one week up to two months (see WHO ICM course materials WHO/CDR, 1995). Participants were broken into groups with two facilitators allocated to groups of approximately eight participants.

Classroom teaching using training modules required that participants read the modules individually and complete book exercises for approximately 80 percent of total classroom time. In the classroom, individual reading was then supplemented with drills, role plays, group discussions, and video. Training modules outlined the approach to all non-reading exercises.

Practical training in health clinics involved practicing the ICM approach with children and mothers in the clinical setting. Participants saw cases individually or in pairs and then presented the case to the clinical instructor using the ICM recording form as a guide. Hospital cases were selected in advance and teaching focused on the clinical examination portion of the algorithm; cases tended to be sicker and to demonstrate signs of severe illness. By the end of the course, most participants had seen all key signs required by the algorithm, including corneal opacities, convulsions and measles.

A summary of key observations made by participants during the training course is as follows:

- The ICM algorithm is intuitive for health workers and presents a clear and logical framework for assessing, classifying and deciding on treatment for sick infants and children. It was liked by most participants and worked well in the clinical setting. Most participants felt that the algorithm could be applied relatively quickly in the clinical setting. The additional components (counseling of the mother including nutritional counseling and follow-up) add substantially to the total interview time.
- The course involves considerable individual reading. It remains unclear how effective this approach will be when used with first-level health workers. Currently the course involves 430 pages of reading or about 45 pages per day. In order to make reading easier, the English grade-level of the materials has been held at grades five to six and the word list has been reduced so that a limited number of words are used. In addition, the course will be translated, wherever possible, into the national language. Participants still felt that less educated or less literate health workers will have difficulty learning ICM with the amount of reading contained in the current course. In addition, this approach to training, even for well educated health workers, may not be the most effective technique for

encouraging learning and behavior change. It is for this reason that the BASICS project is undertaking the development of a complementary course which will be reduce the amount of reading and apply principles of adult learning. This concern was voiced frequently in Ethiopia and many participants felt that the current materials should be carefully targeted to health workers with an appropriate educational level; persons who will become trainers or course facilitators may be best suited to the course in its current form. There is a need for careful evaluation of first-level health worker training in order to monitor their performance with the current reading materials.

- Many participants felt that the course did not allocate enough time to the training for modules on management of the young infant aged one week to two months and on follow-up. Both of these modules were allocated one day each and were taught at the end of the course, while the ICM algorithm was allocated five days in the first week. Both of these areas are critical to effective case management. Consideration could be given to balancing these course components better. It was not possible to increase the total number of training days any further. A number of participants questioned whether the module on the management of the young infant should be a component of the basic ICM course. Consideration could be given to teaching this module separately. This would free up at least one to one and a half days of course time which could be allocated to the follow-up module.
- Concerns were raised regarding the total time required to complete the full ICM process with each mother and sick child. The treatment, counseling and follow-up steps will add considerable time to each clinical interview and since many health workers already face time pressures it may be difficult for them to implement the full ICM protocol for every child. There is a need for more experience with implementation under field conditions and a careful evaluation of barriers and solutions to effective practice. In Ethiopia, participants discussed the possible reallocation of health worker responsibilities at health centers. One possible allocation of tasks would be to make one health worker responsible for the assessment, classification and treatment of each child according to the ICM algorithm, while other health workers would be responsible for counseling and giving instructions on follow-up to caretakers. A division of labor would reduce the total interview time for each health worker but would require changes in both clinic organization and the ICM training strategy. Implementation trials of alternative strategies are required in early-use countries.
- Non-reading training strategies which were used in the classroom (role plays, drills, exercises and video) were thought to be effective. Clinical teaching was thought to be a powerful and effective learning strategy that reinforced all aspects of ICM in practical, real-life settings. Participants generally thought that clinical teaching was most critical to the success of the training course and the most difficult to arrange and coordinate. ICM training sites will need to have access to large in-patient and out-patient facilities in order to provide an adequate number and variety of cases. This has important implications for

the selection of training sites and the number of persons that can be trained at any given time. Good facilitation will be critical to the overall quality of training and investments will also have to be made in the training and support of facilitators.

- The organization, coordination and management of ICM training activities are likely to require a full-time staff. The development of ICM training sites and the staff to manage these sites as well as training activities will be a key task for countries beginning the process of implementing ICM.

TECHNICAL BASIS FOR ICM

The technical basis of all key components of the ICM algorithm were discussed in detail. A list of essential references are presented in Appendix C. The technical background for each component (danger signs, diarrhea, ARI, malaria, nutrition, measles, ear infections) is presented and discussed in the adaptation guide (WHO/CDR, 1995). Criteria for designing the case management approach and interventions to include in the ICM algorithm were as follows:

1. Epidemiological data.

Selected diseases comprise over 70 percent of all mortality for children <5 years of age and a high proportion of total morbidity in developing countries.

2. Effective interventions are available to reduce mortality and disability from these conditions.

Pneumonia, diarrhea (dehydration, persistent diarrhea, dysentery), meningitis, malaria, measles, undernutrition and ear infections can all be effectively managed with simple treatment available at first-level health facilities. Ear infections are associated with pneumonia and measles.

3. Preventive interventions are available to reduce morbidity , mortality and disability.

The ICM approach can increase immunization coverage by reducing missed opportunities. Nutrition counseling and breastfeeding support will reduce overall mortality from many infectious diseases which are associated with undernutrition. The provision of vitamin A may reduce the mortality and morbidity from measles and other infectious diseases.

4. Selection of age cutoffs.

Most childhood mortality occurs between the ages of six months and three years which is the age group addressed by the core algorithm. Management of the antenatal period to

one week after birth requires different skills and often a different group of health workers; mother-baby packages usually include the management of neonates to one week of age. The ICM course does not address this period. The period one week to two months is addressed with a separate algorithm because young infants manifest signs differently from older children and require different assessment techniques.

5. Referral and follow-up.

The algorithm assumes that it will be possible to refer all cases with a severe classification to a higher level facility which is able to provide more comprehensive care. Referral is often not easy in the African setting and a part of the implementation process should investigate barriers and possible solutions to effective referral. Similarly, the algorithm assumes that close follow-up will be possible for certain cases. This may not be feasible at health facilities which already have very high case-loads and should be considered when planning ICM implementation.

6. Use of general danger signs.

General danger signs are used to identify children who are severely ill and who require referral (not able to drink, vomits everything, convulsions, lethargic or unconscious). These signs are not disease-specific but are good observable measures of severity at the clinic level where health workers do not have the skills or equipment to make sophisticated diagnoses. These signs were selected because they are relatively sensitive and specific for severity. It was noted during the training course that these signs and symptoms can be difficult to interpret, especially when they are described by local terms and expressions.

APPENDICES

APPENDIX A

List of Participants

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APPENDIX B

Training Timetable

**MANAGEMENT OF CHILDHOOD ILLNESS
TRAINING COURSE FOR WHO/UNICEF CONSULTANTS
ADDIS ABABA, ETHIOPIA 30 OCTOBER-24 NOVEMBER 1995**

Day 1. Monday, 13 November 1995

0830-0900	Registration ✓
0900-1000	Opening ceremony ✓
1000-1030	Coffee/Tea break ✓
1030-1230	Small group work: ✓ Module <i>Introduction</i> Module <i>Assess and classify the Sick Child</i> <i>age 2 Months up to 5 years</i>
1230-1330	Lunch
1330-1515	Small group work: ✓ Module <i>Assess and classify the Sick Child</i> <i>age 2 Months up to 5 years</i>
1515-1530	Coffee/Tea Break ✓
1530-1730	Small group work: ✓ Module <i>Assess and classify the Sick Child</i> <i>age 2 Months up to 5 years</i> Video: <i>Danger signs, cough & difficult breathing</i>

Starting from Tuesday, 14 November work in small groups:

Each group starts at 0800

Lunch from 1230 to 1330

End of small group work at 1700

Technical seminars daily from 1700 to 1800

Coffee/Tea Breaks:

in the morning - according a group schedule

in the afternoon - 1515 to 1530

Day 2. Tuesday, 14 November 1995

Outpatient session:

Assess and classify the Sick Child: ✓
Check for danger signs ✓
Assess an classify cough and difficult breathing ✓

Inpatient session:

Check for danger signs ✓
Assess an classify cough and difficult breathing ✓

Module:

Module *Assess and classify the Sick Child* ✓
age 2 Months up to 5 years

Video:

Diarrhoea ✓

Day 3. Wednesday, 15 November 1995

Outpatient session:

Assess and classify the Sick Child: ✓
Assess an classify diarrhoea ✓

Inpatient session:

Assess an classify diarrhoea ✓

Module:

Module *Assess and classify the Sick Child* ✓
age 2 Months up to 5 years

Video:

Fever ✓

Day 4. Thursday, 16 November 1995

Outpatient session:

Assess and classify the Sick Child:
Assess an classify fever

Inpatient session:

Assess an classify fever

Module:

Module *Assess and classify the Sick Child*
age 2 Months up to 5 years

Video:

Ear Problem, Malnutrition and Anaemia.

Day 5. Friday, 17 November 1995

Outpatient session:

Assess and classify the Sick Child:
Assess and classify ear problem
Check for malnutrition and anaemia

Inpatient session:

Assess and classify ear problem
Review assess and classify process

Module:

Module *Identify Treatment*

Day 6. Saturday 18 November 1995

Outpatient session:

No Outpatient session on Saturday

Inpatient session:

Assess and classify malnutrition and anaemia

Module:

Module *Treat the Child*

Sunday 19 November 1995

Day off

Day 7. Monday, 20 November 1995

Outpatient session:

Identify the Treatment - Treat the Child:
Identify the Treatment
Teach the mother to give oral drugs
Advise the mother when to return immediately

Inpatient session:

Assess and classify sick children

Module:

Module *Treat the Child*

Day 8. Tuesday, 21 November 1995

Outpatient session:

Treat the Child:

Plan A - Treat Diarrhoea at home

Plan B - Treat some dehydration with ORS

Inpatient session:

Plan B - Treat some dehydration with ORS

Plan C - Treat severe dehydration quickly

Assess and classify additional children

Module:

Module *Counsel the Mother*

Day 9. Wednesday, 22 November 1995

Outpatient session:

Counsel the Mother:

Counsel the Mother about feeding problems

Inpatient session:

Observe and practice Plan B and Plan C

Assess and classify additional children

Module:

Module *Counsel the Mother*

Module *Management of the Sick Young Infant*

Video:

Assess and classify young infant for bacterial infection.

Day 10. Thursday, 23 November 1995

Outpatient session:

Management of the Sick Young Infant:

Assess and classify bacterial infection and diarrhoea

Inpatient session:

Assess and classify bacterial infection and diarrhoea

Module:

Module *Management of the Sick Young Infant*

Video:

Assessment of breastfeeding

Positioning and attachment.

Day 11. Friday 24 November 1995

Outpatient session:

Management of the Sick Young Infant:
Assessment of breastfeeding
Correct positioning and attachment

Inpatient session:

Assessment of breastfeeding
Assess and classify young infants

Module:

Module Follow-up

Closing

APPENDIX C

Essential References

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SECTION B5 Measles and Other Causes of Fever

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SECTION B6 Child with Fever - Choice of Antipyretic

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SECTION B7 Child with an Ear Problem

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