Report of Technical consultation on IMCI training approaches and Pre-service IMCI

Geneva, Switzerland

19-23 November, 2007

World Health Organization

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WHO Library Cataloguing-in-Publication Data :

Report of technical consultation on IMCI training approaches and pre-service IMCI, Geneva, Switzerland 19-23 November, 2007.

1. Delivery of health care, Integrated - education. 2.Child health services - education. 3.Integrated management of childhood illness. I.World Health Organization.

ISBN 978 92 4 159715 9 (NLM classification: WA 320)

Printed in

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Acronyms

ADH	Adolescent Health
AFRO	Regional Office for Africa
AIDS	Acquired Immune Deficiency Syndrome
AMR	American Region
CAH	Child and Adolescent Health
CTEVT	Council for Technical Education and Vocational Training (Nepal)
DRC	Democratic Republic of Congo
EMR	Eastern Mediterranean Region
EUR	European Region
HIV	Human Immunodeficiency Virus
HIVC	Human Immunodeficiency Virus Infant Feeding Counseling
ICATT	IMCI Computerized Adaptation and Training Tool
ICMEG	Interagency Child Mortality Estimation Group
IMAI	Integrated Management of Adolescent & Adult Illness
IMCI	Integrated Management of Childhood Illness.
IMCNI	Integrated Management of Neonatal and Childhood Illness
IYCF	Infant and Young Child Feeding
MDG	Millennium Development Goal
MOH	Ministry of Health
MCE	Multi-Country Evaluation
NGO	Non Governmental Organization
PHC	Primary Health Care
SEAR	South-East Asia Region
UNICEF	United Nations International Children's Emergency Fund.
USAID	United States of Agency for International Development
WPRO	West Pacific Regional office
WHO	World Health Organization

Executive summary

The implementation of Integrated Management of Childhood Illnesses (IMCI) strategy has been shown to improve health workers performance and quality of service. The critical element of this strategy is the evidence-based integrated approach with a focus on identifying, treating and/ or referring the most common childhood conditions that are responsible for over 70 per cent of all deaths in children under the age of 5 years in resource poor settings.[1] Currently, more than 100 countries have adopted this strategy.

Initial efforts of IMCI implementation were focused on improving the skill of health workers through in-service training using the 11 day standard IMCI course. Pre-service IMCI training was later introduced in order to increase coverage and address the huge organizational and resource demand for in-service training. Despite these measures, the coverage of IMCI remains low. Among the challenges are: lack of resources, inadequate number of trained facilitators, long duration of training(11 days) and the need to expand/adapt the IMCI training materials to accommodate other conditions (e.g. HIV, Infant and Young Child Feeding (IYCF), Dengue, and care in the first week of life). Many countries have responded to local constraints on the delivery of training particularly in terms of time and finances, by adapting the way the courses are delivered.

In order to review IMCI training approaches, IMCI pre-service experience and make recommendations to increase IMCI coverage, the Child and Adolescent Health (CAH) Department of the World Health Organization (WHO) organized a Technical Consultation Meeting on IMCI training approaches and Pre-service IMCI from 19-23 November 2007. Thirty nine participants representing the 6 WHO regions, IMCI/CAH Regional advisors, IMCI national professional officers (NPOs), faculty members from teaching institutions, resource people in the area of curriculum and teaching materials development and partners attended the meeting. Preliminary results of a survey on IMCI training approaches, pre service IMCI and a meta- analysis of findings from studies on the effects of IMCI training duration and effectiveness were presented. The experiences from countries and regions were also shared. Two sessions of group work were convened with the aim of reaching a consensus on core/basic and complementary/ supplemental IMCI competencies and options for accelerating IMCI training to increase coverage and solutions to overcome the challenges for IMCI pre-service education.

A CAH/WHO commissioned survey reviewed the experience of training approaches in 26 countries from all 6 WHO regions. The results showed that the integrated approach of IMCI is beneficial and should be continued; the IMCI chart booklet is an essential component of any IMCI training package; clinical practice is an important and non-negotiable part of IMCI training package. It was also noted that IMCI trainees recognize the variety of the teaching methods as the strength of IMCI training course. The survey concluded that IMCI training is progressing slowly and the following were identified as the main barriers to rapid acceleration:

- inadequate funds for training,
- long duration of training,

[1] Where and why are 10 million children dying every year? The lancet 361.June 28, 2003.www.thelancet.com

- shortage of facilitators / clinical instructors and
- Lack of commitment of national authorities.

The respondents to the survey questionnaire recommended:

- To reduce the duration of IMCI course;
- To target different cadre of health workers with different durations of course;
- To design short courses for managers with focus on health systems strengthening;
- To integrate IMCI into routine district management and supervision;
- To use alternative training approaches such as distance learning, and integrating IMCI into other WHO training courses.

A Zambian study that compared the standard 11 day with a 6 day IMCI training course concluded that the skills of trained health workers from the two groups were comparable and that the shortened course was 40-50% cheaper. A similar study from Kosovo showed no significant difference in IMCI care by doctors trained in 8-day versus 11-day course. However, the training cost per participant fell from $430 for 11-day standard training to $240 for an8-day course. Both studies emphasized the importance of regular monitoring/supervision of health workers trained in IMCI for successful implementation of the strategy.

A meta-analysis that compared the effectiveness of the standard (11 day) IMCI in-service training with shortened training (<11 days) suggested that the standard in-service IMCI training course is more effective than short training; although the magnitude of the difference is unclear.

A cross sectional survey of pre-service IMCI experience from 36 countries showed that 83% have incorporated IMCI into the teaching curriculum. Early involvement of academic staff and commitment of MOH and stakeholders has facilitated implementation. The most frequently mentioned sources for financial and material support were WHO (69%) and MoH (51%). The main challenges facing pre-service IMCI implementation include lack of sustainable commitment/leadership of national authorities; complexity and diversity of curriculum across the different teaching institutions; limited availability of resources and large number of students making logistics and organization of clinical practice and supervision difficult.

The experience with distance education, lessons from Integrated Management of Adolescent & Adult Illness (IMAI) training, regional experience and IMCI Computerized Adaptation and Training Tool (ICATT) were discussed by a panel of experts. The discussion highlighted that ICATT and long distance learning provide alternative approaches to standard IMCI training The experience on distance learning showed that knowledge, skills, attitudes and behavior can be changed and improved using distance education. The use of local instructors to support the clinical practice was also found to be feasible. The experience from IMAI suggests that IMCI training can be accelerated with alternative training and learning methods. It was emphasized that there is need to explore these alternative approaches and link IMCI with existing training opportunities in other programs e.g. EPI, HIV, Malaria and IMAI.

Group work on IMCI training approaches defined and listed the core competencies of IMCI. Core competencies are those that address major causes of childhood deaths and those conditions that have effective interventions. Complementary competences were defined as those that address less important causes of mortality or other major causes of childhood morbidity. The group also discussed options to

accelerate IMCI training and made suggestions on training methods, changes in planning and scheduling, and sustainability of skills.

Group work on pre-service IMCI training identified challenges related to introduction, implementation and evaluation of pre-service IMCI in medical and paramedical schools and proposed solutions. The main challenges were: negotiating adequate time and placement of IMCI in the curriculum, ensuring adequate facilities and organization for clinical sessions, sustaining the supply of teaching materials and coordinating between different academic programmes.

The meeting recognized that official and unofficial adaptations are being made at country level including shortening the duration of IMCI training. Many countries have also introduced pre-service IMCI in medical and paramedical schools. However IMCI coverage is still limited within countries. Major challenges include high cost of the 11-day training, inadequate funds, high attrition rate of facilitators and lack of commitment from Governments and partners.

It was agreed that new approaches should be sought to facilitate increased IMCI coverage whilst optimising health workers skill and performance. The need to focus on a measurable set of core competencies that have maximum impact on under-five mortality was also emphasized and a list of core competencies was agreed upon. The meeting recommended:

1. To define a strategy and plan for increasing IMCI coverage with the necessary amendments to the duration and innovative approaches of IMCI training courses.
2. To develop/update a set of orientation and advocacy package targeting the different stakeholders and health cadres
3. To adopt a shortened competency based training package in line with the target health worker and pre service training course (e.g. medical and paramedical schools).
4. To advocate, support and implement alternative training approaches including distance learning, computer/web based training etc.
5. To introduce an going clinical mentoring (on-the-job training) to maintain and reinforce health worker skills, and teach additional skills incorporated in the adaptation of IMCI materials.
6. To strengthen monitoring and evaluation, including maintaining a database and mapping training coverage as an integral part of IMCI planning and implementation.

1 Introduction

The progress towards the achievement of the Millennium Development Goal (MDG-4-reducing child mortality by 2/3 by the year 2015) has been encouraging in some regions but remains a significant challenge among resource poor countries, such as South Asia and sub-Saharan Africa. In these settings, a limited number of health conditions (pneumonia, diarrhoea, measles and malaria, and neonatal causes such as, preterm birth, birth asphyxia, and infections) are responsible for over 70 per cent of all deaths in children under the age of 5 years. For a large proportion of these deaths, malnutrition is the single most important underlying cause[1]. Close to 40% or nearly 4 million of the under 5 deaths occur during the neonatal period (first 28 days of life). Since the dawn of the epidemic, HIV/AIDS has increasingly contributed to significant burden of childhood morbidity and mortality especially in Southern Africa.[1]

Among the challenges for improving under 5 survival are shortage/lack of trained health care workers, scarcity of diagnostic supports including laboratories, and lack of drugs and equipment. These challenges are particularly serious for the primary health facilities where most children obtain care and treatment.

Experience shows that the WHO/UNICEF training course on IMCI improves the case management skills of a broad range of first-level health professionals.[2] The IMCI clinical guidelines promote an evidence-based, syndrome integrated approach to the most common childhood conditions, with a focus on the prevalent causes of death. In addition, the use of this approach supports the rational, effective and affordable use of diagnostic tools and drugs.

However, in-service training in IMCI for all relevant health workers would require an enormous organizational effort and significant resources. In recognition of this, most of the countries that have adopted IMCI have introduced pre-service IMCI training into medical, nursing and other health professional schools to potentially broaden health system coverage by IMCI trained health workers in a cost-effective and sustainable manner. In addition, countries have implemented various approaches of in-service training to reduce cost. However the results of these changes have not been evaluated

Since the early 90's the content of IMCI has expanded, and knowledge has been generated through research in areas such as newborn health, management and treatment of children infected with HIV, IYCF, etc. As the content of IMCI expands, the implementation experience has generated a number of lessons that will need to be addressed systematically in order to look for ways of addressing challenges