# Highlights

Progress Report 2008



# CHILD AND ADOLESCENT HEALTH AND DEVELOPMENT

World Health Organization

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# MESSAGE FROM THE DIRECTOR

**PRESENTING HIGHLIGHTS OF THE WORK OF WHO'S DEPARTMENT OF CHILD AND ADOLESCENT HEALTH AND DEVELOPMENT (CAH) IS A CHALLENGE BECAUSE OF THE BREADTH AND RICHNESS OF ACTIVITIES UNDERTAKEN DURING 2008 AT HEADQUARTERS, REGIONAL AND COUNTRY LEVELS. I HOPE, HOWEVER, THAT THE SELECTION PRESENTED IN THIS REPORT PROVIDES AN OVERVIEW OF THE KEY AREAS OF CAH'S WORK AND PERHAPS ENCOURAGE YOU TO GET MORE INFORMATION FROM OUR WEBSITE OR THROUGH CONTACTING US DIRECTLY.**

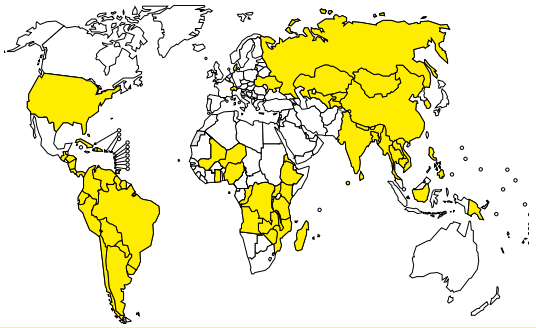
2008 provided many good developments for child and adolescent health and development. The 2008 report of the 'Countdown to 2015: tracking progress in maternal, newborn and child survival' showed that coverage of key interventions is increasing, and some countries have made tremendous strides towards achieving the fourth Millennium Development Goal (MDG 4). However, less progress has been made on MDG 5, with some 500,000 women still dying every year, many in their youth or adolescence. The Countdown conference in Cape Town, South Africa, in April 2008 brought together parliamentarians from more than 60 developing countries, facilitating dialogue on how to rapidly improve progress. Overall donor funding for maternal, newborn and child health has increased in recent years, but this positive trend may be under threat. In 2008, the world entered an unprecedented financial crisis, and we know from previous experience that women and children are among the first to be affected these circumstances. We must seize every opportunity to protect these most vulnerable groups and pre-empt the adverse effects on their health.

CAH conducts and supports research to build the evidence for policies, norms and standards for child and adolescent health. Key achievements in this area in 2008 include papers published on the results of research on the home-based management of pneumonia and the effectiveness of community-based neonatal care, which have informed the development of new guidelines.

Gathering strategic information and using data for better planning and implementation is critical to the work of CAH. In this year's highlights, we have produced a statistical annex covering key indicators for child health in a selection of countries with high under-five mortality rates, as well as adolescent health profiles for five countries. 2008 also marked the finalization of the Multi-Country-Evaluation of the Integrated Management of Childhood Illness (IMCI), and the lessons learned from this evaluation are being applied for the expansion of key child survival interventions.

Implementation of WHO's Medium Term Strategic Plan started in 2008. For Strategic Objective 4, to reduce morbidity and mortality and improve health during key stages of life, CAH collaborated closely with the departments of Making Pregnancy Safer and Reproductive Health and Research, and contributed to seven other Strategic Objectives, reflecting the broad and cross-cutting nature of the work in Child and Adolescent Health. Our work at regional and country levels has been further strengthened, and in 2008 CAH had a record number of staff based at country level. In addition, there are now regional advisers on both child and adolescent health in every region.

CAH STAFF AROUND THE WORLD



In 2008, we continued working in partnerships within WHO, with other UN agencies such as UNICEF, UNFPA, and the World Bank, and with key bilaterals, foundations, NGOs, and professional organizations. CAH is also an active member of the Partnership for Maternal, Newborn and Child Health, leading the working group on effective interventions.

There are many challenges ahead, but as these highlights show, we have a sound foundation of research, development, strategic information and experience in implementation upon which to build. Child and adolescent health are at the core of the renewal of Primary Health Care proposed by WHO in 2008, and the pressure for universal coverage and access to services that are people-centred must be sustained. Please join us in these efforts.

**Dr Elizabeth Mason**
Director, CAH

# Introduction

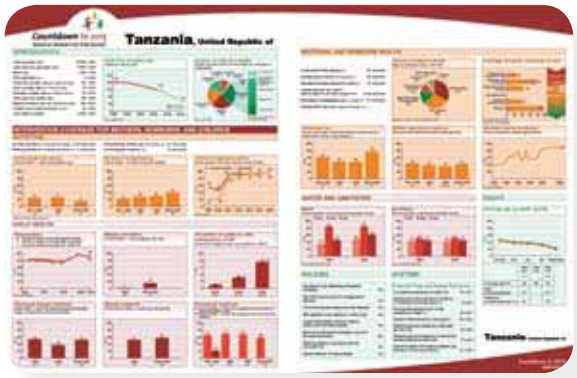
THE MAIN GOAL OF THE DEPARTMENT IN THE AREA OF NEWBORN AND CHILD HEALTH IS TO CONTRIBUTE TO EFFORTS TO ACHIEVE MDG4. IT DOES SO BY ADDRESSING, THROUGH RESEARCH AND DEVELOPMENT OF TOOLS, THE MAJOR CAUSES OF CHILD MORBIDITY AND MORTALITY, AND THE PROMOTION OF OPTIMAL CHILD HEALTH AND DEVELOPMENT. THE TEAM WORKS TO QUANTIFY THE BURDEN OF DISEASE IN CHILDHOOD; GENERATE EVIDENCE OF EFFECTIVE INTERVENTIONS AND DELIVERY STRATEGIES TO ADDRESS THE BURDEN OF CHILDHOOD ILLNESS; DEVELOP GUIDELINES AND TOOLS FOR IMPLEMENTATION; FACILITATE EARLY APPLICATION OF NEW TOOLS AND CONTRIBUTE TO PROGRAMME DEVELOPMENT; AND TO COMPILE LESSONS LEARNED FROM IMPLEMENTATION AND IDENTIFY NEW RESEARCH PRIORITIES.

DURING 2008, IN THE AREA OF NEWBORN AND CHILD HEALTH, THE DEPARTMENT SUPPORTED MORE THAN 20 RESEARCH PROJECTS AND 8 SYSTEMATIC REVIEWS. WE WORKED ON THE DEVELOPMENT OF 17 NEW TOOLS FOR THE SUPPORT OF INTERVENTIONS – FROM POLICY STATEMENTS AND CLINICAL GUIDELINES TO TRAINING COURSES FOR COMMUNITY HEALTH WORKERS. OVER 64 SCIENTIFIC PAPERS WERE PUBLISHED IN PEER-REVIEWED JOURNALS RESULTING FROM RESEARCH THAT WE SUPPORTED. MORE THAN 300 INSTITUTIONS AND EXPERTS COLLABORATED WITH US IN THESE ACHIEVEMENTS.

## New global and regional cause-specific mortality estimates for newborns and children

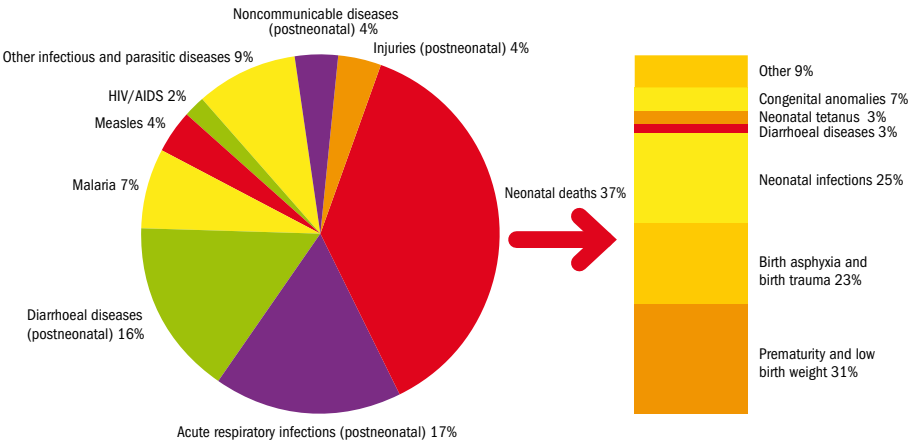
During 2008, we updated estimates of the distribution of under-five and neonatal cause-specific mortality at global and regional levels using the latest available data. This unique piece of work was carried out in collaboration with the Child Health Epidemiology Reference Group (CHERG) which is led by CAH, WHO's Department of Health Statistics and Informatics, and UNICEF's Division of Policy and Planning. The resulting global and regional pie-charts are available on the CAH web site: http://www.who.int/child_adolescent_health/data/en/

## Working in partnership - the Countdown to 2015




The mission of the 'Countdown to 2015' is to track progress made towards the achievement of MDGs 4 and 5 and promote evidence-based information for better health investments and decisions by policy-makers regarding health needs at the country level. Leading global health experts, policy-makers and parliamentarians convened in Cape Town 17-19 April 2008 for the launch of the 2008 Countdown report *Tracking Progress in Maternal, Newborn & Child Survival,* and to address the urgent need to reduce deaths if internationally-agreed targets are to be met. The report showed that few of the 68 developing countries that account for 97% of maternal and child deaths worldwide are making adequate progress with providing the critical health care needed to save the lives of women, infants and children.

### MAJOR CAUSES OF DEATH IN NEONATES AND CHILDREN UNDER-FIVE IN THE WORLD




### 35% OF UNDER-FIVE DEATHS ARE ASSOCIATED WITH UNDERNUTRITION

**Sources:**
For estimates of causes of neonatal and under-five deaths: World Health Organization. The global burden of disease: 2004 update.
For estimates of undernutrition: Black R et al. Maternal and child undernutrition: global and regional exposures and health consequences. Lancet 2008; 371:243-60.
Sources: (1) WHO. The Global Burden of Disease: 2004 update (2008); (2) For undernutrition: Black et al. Lancet, 2008

CAH contributed to the Countdown in 2008 and coordinated the working group on the assessment of health systems and policy environments needed to achieve positive outcomes for maternal, newborn and child health. Results on 13 policy indicators were published in The Lancet medical journal, showing gaps in policy adoption as well as weaknesses in other health system building blocks. In addition, as part of the monitoring work of the Countdown, CAH worked with the Departments of Health Systems Financing, Making Pregnancy Safer and Reproductive Health and Research to provide a methodology and track domestic expenditures for maternal, newborn and child health.
For more information on the Countdown to 2015, see: http://www.who.int/child_adolescent_health/news/archive/2008/17_04/en/index.html

### Cutting neonatal mortality through community care

WHO/ JL Ray

A large cluster-randomized trial supported by CAH was undertaken in Hala, Pakistan, to evaluate the effectiveness of an intervention to provide perinatal and postnatal care in the community through the public sector. The intervention included training Lady Health Workers (LHWs) and Dais (traditional birth attendants), as well as supporting the creation of community health committees and quarterly women's group meetings facilitated by LHWs.
Health facility strengthening to improve the management of newborn health problems was done in both intervention and control clusters.
Results of the study were overwhelmingly positive. They indicated significant improvements in care seeking from government facilities – both for delivery and other types of care. Breastfeeding initiation, delayed bathing, and good umbilical cord care all showed significant improvements in the intervention group as compared with the control group.
Overall, the intervention reduced neonatal mortality by around 15 per cent and still-births by 20 per cent. Based on these striking findings, the government of Pakistan is now working on the expansion of the intervention beyond the study area.

## Regional highlight - Americas

### PAHO Governing Body adopts Regional Strategy and Plan of Action for Neonatal Health

In September 2008, one of the Pan American Health Organization's key governing bodies, the Directing Council, adopted a new Regional Strategy and Plan of Action for Neonatal Health, noting that its approach is in line both with the needs of the Region and with the MDGs. The plan encompasses four interdependent strategic areas:

(1) The creation of an enabling environment for neonatal health promotion;
(2) Health systems' strengthening and improved access to maternal, newborn, and child health care services;
(3) Promotion of community interventions; and
(4) Creation or strengthening of surveillance systems, monitoring, and evaluation.

The Council emphasized the need for an intersectoral approach and for a renewed commitment to neonatal and maternal health, and welcomed the emphasis on the need for monitoring and evaluation. Delegates noted that, to date, the success rate in reducing neonatal mortality has varied sharply from country to country, and highlighted the need for specific strategies to bring about further reductions in countries where the rate is already relatively low. The need for sensitivity to indigenous culture and practices was also stressed. Based on the new Regional Strategy, four countries have already developed their national plans.

WHO/Pierre Virot

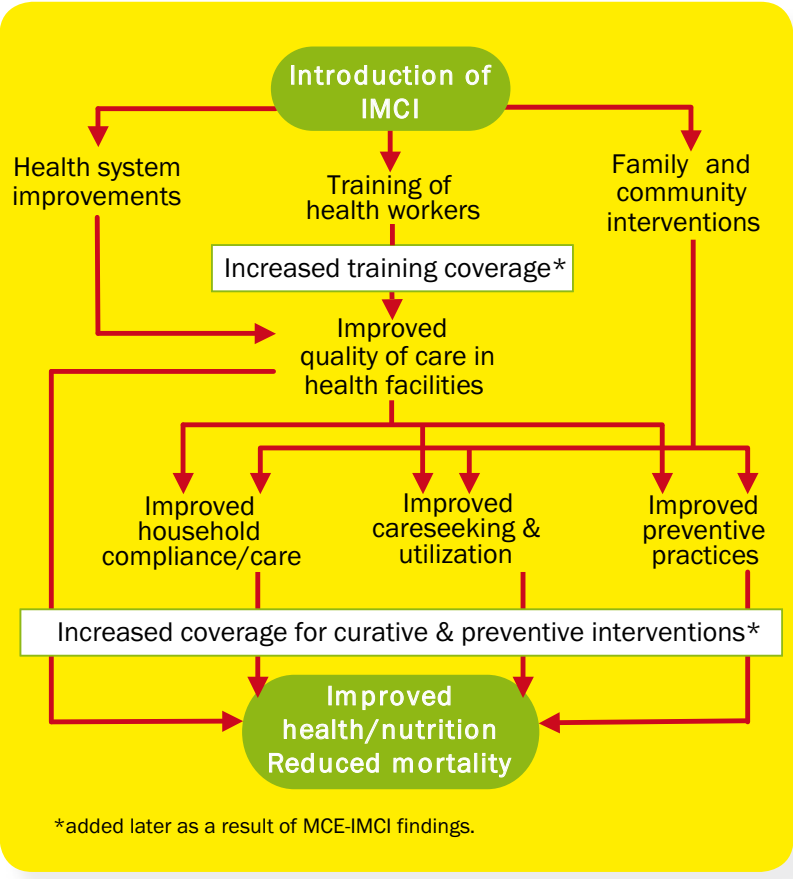
## Special report on MCE

The Integrated Management of Childhood Illness (IMCI) was launched in 1997 as a strategy for reducing mortality among children under five years of age. The IMCI strategy includes three components - improving: health worker skills, the health system, and family and community practices.

**CAH launched the Multi-Country Evaluation (MCE) of IMCI in 1999. The MCE included three study types:**

1. *Assessments of IMCI implementation in 12 countries*. Findings provided information on the validity of implementation activities across the three IMCI components.
2. *In-depth studies in five sites*. Sites were selected on the basis of the 12 country studies. The MCE was completed by December 2008 in Brazil, Bangladesh, Peru, Uganda and Tanzania.
3. *Cross site analyses*. The use of standard indicators permitted comparisons across the five in-depth study sites.

**The MCE evaluated IMCI according to a step-wise impact model:**




*added later as a result of MCE-IMCI findings.

**The MCE was testing whether IMCI implementation could:**

1. improve quality of care at first level government facilities;
2. contribute to strengthening health systems support;
3. increase utilization and intervention coverage (in response to improved quality of care);
4. reduce under five mortality;
5. be cost effective.

Selected MCE findings are presented below. The variability in the recommendations reflect the diversity of the study methods and implementation efforts in various sites.

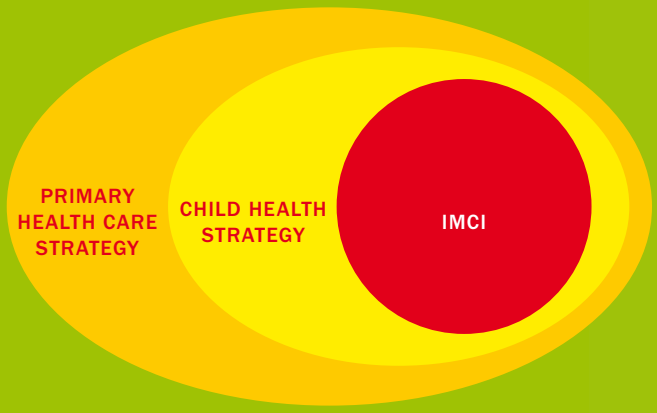
1. IMCI case management training improves health worker performance and the quality of care for children under five at first level facilities. Thus, IMCI is recommended as the gold standard for case management of under fives in first level facilities.
2. While the availability of essential medicines improved in some study settings, for example Bangladesh, IMCI case management training by itself does not strengthen health systems. Health system strengthening requires specific inputs. Therefore, the routine implementation of child survival interventions needs to be complemented by specific activities that strengthen health systems support.

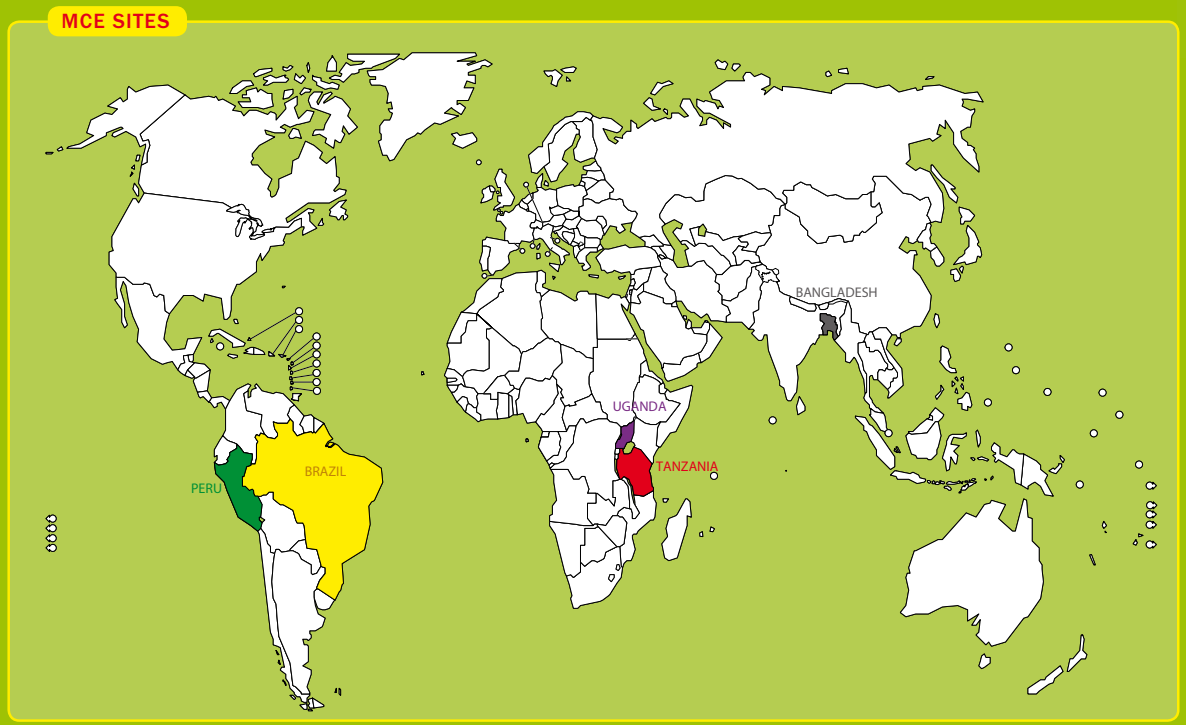
3. The effect of IMCI on utilization and intervention coverage is context specific. In Bangladesh, initial facility utilization was low. IMCI implementation at community and facility levels led to more sick children attending first level facilities. At a population level, IMCI was associated with increased coverage levels of care seeking for pneumonia and ORT for diarrhoea management. Early initiation and exclusive breastfeeding rates were higher in IMCI areas. In Uganda, small increases in exclusive breastfeeding and ITN coverage were noted after IMCI implementation.
4. Limited data from Tanzania and Bangladesh suggest that IMCI case management training coupled with adequate health system inputs may reduce under-five mortality. However, under-five mortality reduction cannot be solely attributed to IMCI. The observed declines are difficult to separate from ongoing rapid reduction in mortality due to broader improvements in socio-economic and health system circumstances.
5. IMCI case management training leads to better quality of care at costs that are similar to investments in routine child health services. Therefore, IMCI is worth the investment.

The MCE has been cited as “an unusually thorough effort to assess how well a prominent global health initiative works in the field”. Its high quality publications helped to formulate lessons learned, disseminate key research messages and reach audiences engaged in evidence-informed implementation.

**The MCE results have implications for IMCI itself as well as for the development of broader child health strategies:**

- IMCI needs to be placed as a core component of any national child health strategy.
- In a national child health strategy, IMCI needs to be adapted, based on the local situation, to address the largest mortality burden in under fives and care seeking practices. Thus, the national child health strategy will give due attention to the sick newborn and older child, as well as to healthy under fives in a Primary Health Care context. A set of standard child survival indicators, ranging from input to health status indicators, will help assess progress in achieving the goals set forth in the child health strategy.



## Prioritizing research for greatest impact on child survival

WHO/M Ehling

In 2008, the Department led an exercise to prioritize issues for research on the major causes of child mortality. Groups of experts were asked to systematically list research questions on the major childhood diseases -- pneumonia, diarrhoea, low-birth-weight, birth asphyxia, neonatal sepsis, malnutrition, HIV and AIDS, and malaria -- in four key domains:

(i) epidemiological research;
(ii) health systems and policy research;
(iii) research targeted at improving the existing interventions; and
(iv) research to develop new interventions.

For each of these topics the final list of proposed research questions was further assessed according to the likelihood of their:

(i) answerability in an ethical way;
(ii) potential contribution to effectiveness;
(iii) deliverability, affordability and sustainability;

## Zinc and ORS - even more effective in practice than in trials

In 2008 CAH continued supporting countries to implement the new WHO/UNICEF treatment strategy for acute diarrhoea – reduced-osmolarity oral rehydration salts (ORS) combined with zinc supplements. We supported large studies in India, Mali and Pakistan to assess the possible constraints to countries' large-scale implementation of the guidelines.

The mother of a child treated for diarrhoea by a community health worker in the Bougouni region of Mali was impressed with his remarkably quick recovery, and said "he has gained strength and energy unlike ever before". Other women in the village noticed that their children became active and started playing immediately after beginning treatment.

The results of the studies were very encouraging. They showed that the addition of zinc to case management actually encourages greater uptake of ORS and reduces inappropriate drug use. In addition, the rate of hospitalization for diarrhoea was significantly reduced in the countries that measured this outcome.

A consultation to review the results of the studies, which also aimed to identify the best possible delivery channels for zinc supplements, was held in New Delhi, India, in January 2008. The meeting identified key lessons on product acceptability and use (ORS and zinc), training of health workers, behaviour change promotion and illness recognition.

The key challenge now is to ensure the recommendations are applied by health care providers on the frontline so that they reach every child with diarrhoea. The traditional approach -- using only public and private health facilities -- does not suffice, as it does not reach every child with diarrhoea in a timely manner. New delivery strategies have to be identified along with strengthening health systems. Two proposals for research have been developed to test innovative delivery approaches. In Tanzania and Ethiopia, the new ORS and zinc tablets will be made available through small local drug shops and also through village retail shops as "Diarrhoea Treatment Kits". It is hypothesized