



# Technical Advisory Group (TAG) on IMCI

## Report of the Fourth Meeting

Toledo, Spain  
16-17 November 2004



**Pan American  
Health  
Organization**



Regional Office of the  
World Health Organization



**Integrated Management of Childhood Illness (IMCI)**  
**Child and Adolescent Health (CA) Unit**  
**Family and Community Health (FCH) Area**

---

# Technical Advisory Group (TAG) on IMCI Report of the Fourth Meeting

---

Managing Directorate of Primary Care of Toledo,  
SESCAM, Castile-La Mancha

Castile-La Mancha Health Research Foundation (FISCAM)

Ibero-American Medical Association of School and  
University Health (AIMSEU)



**Toledo, Spain,**

16-17 November 2004



PAHO Headquarters Library – Source Cataloging

Pan American Health Organization

Technical Advisory Group on IMCI (TAG): report of the Fourth meeting.

Washington, D.C: PAHO, © 2005.

(Seres OPS/FCH/CA/05.15.I) — 78 p.

ISBN 92 75 12605 4

I. Title II Series

1. CHILD WELFARE
2. COMPREHENSIVE HEALTH CARE
3. CHILD HEALTH SERVICES
4. CHILD CARE
5. INFANT MORTALITY
6. HEALTH EDUCATION

NLM WA 320

The Pan American Health Organization welcomes requests for permission to reproduce or translate its publications, in part or in full. Applications and inquiries should be addressed to Child and Adolescent Health, Family and Community Health, which will be glad to provide the latest information on any changes made to the text, plans for new editions, and reprints and translations already available.

Organización Panamericana de la Salud  
525 Twenty-third Street, N.W.  
Washington, D.C 20037, EE.UU

The designation employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the Secretariat of the Pan American Health Organization concerning the legal status of any country, territory, city, or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

The mention of specific companies or certain manufacturers' products does not imply that they are endorsed or recommended by the Pan American Health Organization in preference to others of a similar nature that are not mentioned. Errors or omissions excepted, the names of proprietary products are distinguished by initial capital letters.

---

This document contains a summary of the Fourth Meeting of the Technical Advisory Group (TAG) on IMCI, as well as the conclusions and recommendations of the TAG, on the basis of the current status of the problems targeted by the IMCI strategy and the progress achieved with respect to its implementation in the Region of the Americas.

The Fourth Meeting of the TAG was held on 16-17 November 2004, in Toledo, Spain, under the auspices of the Castile-La Mancha Health Research Foundation (*Fundación para la Investigación Sanitaria en Castilla – La Mancha*), with the support from Primary Care Management of Toledo (*Gerencia de Atención Primaria de Toledo, Castilla-La Mancha*), on 16-17 November 2004. The Meeting was coordinated by Dr. Antonio Carlos Sáez Crespo, President of the Ibero-American Association of Medicine and School Health (OMEPSpain), a TAG member.

# Contents

---

---

1.	Foreword .....	5
	Dr. Mirta Roses Periago, Director Pan American Health Organization Regional Office of the World Health Organization. ....	5
	Remarks of Dr. Francisco Fernández Páez, Managing Director of Primary Care of Toledo President of the Spanish Association of School and University Health .....	7
	Remarks of Dr. Antonio Sáez Crespo, President, Ibero-American Medical Association of School and University Health. ....	9
	Remarks of Dr. Joaquín Chacón Fuentes, Managing Director of the Castile-La Mancha Health Service (SESCAM) .....	11
	Remarks of Dr. Blanca Parra Vázquez, Director Castile-La Mancha Health Research Foundation (FISCAM) .....	13
2.	Introduction .....	15
3.	Meeting Objectives .....	17
4.	Challenges of Expanding Interventions for Child Survival, Growth, and Development .....	19
5.	Advances in the Perinatal/Neonatal Component .....	31
6.	The IMCI Community Component and its Contribution to Improving Family Health .....	35
7.	The IMCI Strategy and Achieving the Millennium Development Goals in the Region of the Americas. ....	47
8.	8. Key Aspects of the IMCI strategy. Integration of Interventions for the Survival and Healthy Growth and Development of Children, Adolescents and Young People at the Family and Community Level .....	53
9.	Conclusions and Recommendations .....	63
10.	Annexes .....	67
	Annex I: Progress and Prospects of the Region of the Americas in terms of Attaining the Millennium Development Goals (MDGs). ....	67
	Annex II: International Charter of Toledo on the Rights of Children and Young People to Health Care, 2004 .....	69
	Annex III: Meeting Agenda .....	73
	Annex IV: TAG-IMCI Members .....	76

---

---



# 1. Foreword

Dr. Mirta Roses Periago  
Director, Pan American Health Organization  
Regional Office of the World Health Organization

---

---



Child survival and healthy growth and development during the first years of life are the inescapable priorities if we are to achieve just societies with a human approach. The final decade of the 20th century has shown that if we organize our energies around common and ethically unquestionable objectives we can reorient efforts and make faster progress in achieving them.

The goals set at the World Summit for Children, which included a one-third reduction in the 1990 level of mortality in children under five years old by 2000, are examples of such esprit-de-corps efforts. Designed to motivate the international community to action, these goals served as guidelines for organizing the efforts of governments, international cooperation agencies, and nongovernmental organizations on behalf of the populations of the Americas, in order to guarantee child survival.

As a whole, by 2000, the Region of the Americas had reached and exceeded this specific goal, demonstrating that joint action focused on achieving a just goal can be successful. The fact that this goal was achieved is even more significant upon factoring in the numerous social, economic and sanitary crises occurring in countries of the Region during the 1990s.

The overall degree of achievement in the Region, however, conceals differences among the various countries in the struggle for child survival. In fact, by the end of the 20th

century, the risk of dying during the first five years of life was the same as it was at the beginning of the 1990s. Some countries with high levels of infant mortality failed to reach the goals' one-third reduction. Moreover, the greater decline of mortality in children under five seen in the developed countries of the Americas and in other developing countries only exacerbated the situation of inequity for children in the Region, whether by country, geographical area, or population group into which they were born.

At the crossroads of the new millennium, and aware that, despite the progress achieved, child survival had not yet been adequately addressed in term of guaranteeing healthy growth and development during childhood, the countries adopted the new challenge posed by the Millennium Development Goals (MDGs). A two-third reduction in the 1990 level of mortality in children under five by 2015 is one of the MDGs that will again require coordinated, joint action to save children's lives.

In order to ensure this reduction is achieved not only at the regional level, but also in each country, an even greater effort is needed than that to meet the targets set by the 2000 World Summit for Children. Additionally, if we hope to bridge mortality in children under five years gap between countries, we will need to redouble our efforts in those countries with the highest levels of child mortality and focus on the most vulnerable geographical areas and population groups. Only in this way can we reduce disparities and ensure that geography or family circumstances do not threaten child survival

---

---

and healthy growth and development during the first years of life.

Regional fulfillment of the goals of the World Summit for Children was possible thanks to the implementation and expansion of actions aimed at preventing and treating the main diseases threatening child health. Our progress toward reducing mortality from diarrheal and respiratory diseases was one example, the benefits of which will be passed on to future generations, thus helping to increase life expectancy in the Region.

The inclusion of these and other specific interventions in the Integrated Management of Childhood Illness strategy, IMCI, has helped boost the countries' efforts to improve child health. IMCI also strengthened child health care, systematically incorporating health promotion actions as an integral part of the health care of children, whether at the health services, in the community, or in the home.

IMCI has made significant qualitative progress. It consolidated the change in the approach to care, which was previously based on treating individual diseases, adding a comprehensive evaluation to assess children's health conditions, treat all

their problems, and instruct and educate parents on how to improve the care of children in the home.

We expect IMCI to make a significant contribution toward reducing, by 2015, mortality rates of children under 5 by two-thirds of their 1990 levels. IMCI's integrated approach gives it enormous potential to address the current mortality profile during the first five years of life, which includes persistent infectious, respiratory diseases, and perinatal disorders as the leading causes of mortality. Moreover, the three components of IMCI strengthen the combination of essential elements to guarantee child health, including adequately trained health workers, efficient operation of the health services, and community participation, which together form the basis of primary health care.

Consequently, our efforts to strengthen and expand IMCI in the countries of the Americas continue to be a priority. To this end, the Technical Advisory Group on IMCI (TAG-IMCI), formed in 2001, which, since that time has contributed to the implementation of the Strategy in the Region, will continue to play a key role to ensure that all children of the Americas enjoy the benefits of healthy growth and development during childhood.

**Dra. Mirta Roses Periago**

Director, Pan American Health Organization  
Regional Office of the World Health Organization

# Remarks of Dr. Francisco Fernández Páez, Managing Director of Primary Care of Toledo President of the Spanish Association of School and University Health

---



The Toledo Health District of the Castile-La Mancha Health Service (SESCAM), one of Spain's largest in terms of geographic coverage and number of inhabitants, is honored to host—in these recently inaugurated facilities of the Castile-La Mancha Health Research Foundation (FISCAM)—

this exceptional Fourth Meeting of Technical Advisory Group on the Integrated Management of Childhood Illness (TAG/IMCI) of PAHO/WHO. We have taken special care in preparing this Meeting. I would like to welcome Dr. Yehuda Benguigui and each of the prestigious members of this important international group.

The Managing Directorate of Primary Care of Toledo wishes to take full advantage of the benefits this event will no doubt provide, and has organized—to coincide with your first meeting in Europe—the First International Week of Primary Care for Children and Young People, whose theme is “Comprehensive Care for Children and Young People: A Strategy for Action.” This event will bring together 32 international institutions and 10 universities of the Americas and Europe, in addition to Toledo-area health professionals. During the event, participants will have opportunities to share their most successful experiences which include: adolescence and health; violence and child abuse; vaccines and preventable infectious diseases; ethical and legal issues involving children; health promotion and the prevention of risky behaviors; children's health research, school-aged children, and adolescents; issues regarding the quality and management of primary care; and emerging health protection strategies.

Also, several international symposia will be held on health promotion targeting young people, nursing and school health, dentistry, school podiatry, and physical therapy.

You are all invited to discuss your strategy and results to our pediatricians, physicians, nurses, midwives, dentists, and physical therapists.

We applaud PAHO/WHO for making the IMCI strategy their official policy—the primary tool used to reduce child morbidity and mortality in the world, especially with regard to the most vulnerable groups.

Here, our strategy of integrated care has its own sphere of action. Here, childhood immunization coverage is more than 95% and early detection of newborn metabolic disorders—such as congenital hypothyroidism or phenylketonuria—is almost 100%. However, prevalent problems for the Castile-La Mancha Health Plan include smoking, eating disorders, anorexia and bulimia, AIDS, traffic accidents involving young people, alcohol consumption, and other drugs.

All of these health problems are being observed in increasingly younger patients. We know, for example, that 70% of preventable adult deaths are tied to behaviors learned during their school years, and this is one of the challenges facing young people in the 21st century.

The decision to hold the TAG-IMCI meeting in Toledo, in addition to providing a real opportunity to share experiences, will showcase our enthusiastic commitment to presenting the scientific community with evidence of the best strategies and organizational changes concerning the health of children and young people.

Accordingly, and in honor of the First International Week of



---

---

Primary Care for Children and Young People, we propose—looking to the future—to turn the Toledo Health District into an international reference center for the health care of children and young people, under the tutelage of a high-level scientific advisory board, and we would be indeed honored to have you participate in this regard.

Provided that the Castile-La Mancha Ministry of Health and SESCAM are in agreement, this initiative could become the first European pilot experience of the IMCI strategy adapted to our conditions here, taking advantage of this Fourth Meeting of TAG-IMCI in Toledo, the first time the Meeting has been held outside the Region of the Americas.

**Francisco Fernández Páez**

Managing Director of Primary Care of Toledo

President of the Spanish Association of School and University Health

Moreover, during these scientific activities, the School and University Health Council, in accordance with the sentiment expressed by the Ibero-American Association of School Health, will see to the preparation of the International Charter of Toledo on the Rights to the Health Care to the Childhood and Young People 2004 (Annex II).

We eagerly await the final conclusions of your Meeting.

We hope that during your stay here in historic Toledo, a city of three cultures, you will enjoy the unique charms of our fair city, preserved as a UNESCO World Heritage site.

Remarks of Dr. Antonio Sáez Crespo, MD, PhD, MPH, MBA  
Professor (EU) of Health Public and Community  
Nursing at the Universidad Complutense de Madrid,  
and President of the Ibero-American Medical Association of  
School and University Health (AIMSEU)

---



Dear friends and members of the Technical Advisory Group on IMCI (TAG-IMCI), on behalf of the Ibero-American Association of School and University Health (AIMSEU), we are delighted to welcome you to Spain. We would like to thank you for accepting our invitation to come to Toledo

to study and evaluate the very efficient progress made by PAHO/WHO's Integrated Management of Childhood Illness (IMCI) in the Region of the Americas.

The Ibero-American Medical Association of School and University Health is an organization dedicated to defending the rights to health and well-being of schoolchildren, and, as such, we are ambassadors of Ibero-American childhood to the international community. We are committed achieving the Millennium Development Goals and are confident that this decision is the surest way to guarantee optimal health conditions for children and their growth and development. Promoting the health and protection of the school-aged population are essential for sustaining economic and social development and also contribute to improving the quality of life and chances for peace worldwide. However, some Ibero-American countries still have work to do if they are to achieve a one-third reduction in child mortality by 2015. This enormous effort is our challenge: we must humanize the globalization process and turn it into a promise, a project if you will—bring meaning to it all. Accordingly,

the survival of all children shall be one of the pillars of this new social contract. In other words, this is the goal for the 21st century and the major undertaking of the next decade through 2015.

It is also my honor to inform you that the General Assembly of the AIMSEU, meeting at the Universidad Complutense de Madrid on 26 June 2004, voted unanimously to bestow its highest international prize in the field of child health; the Dr. Tolosa-Latour Institutional Award, to the IMCI program—the official policy of PAHO/WHO for defending the rights of children, including their survival, health, and well-being. This honor was given in recognition of the fact that the IMCI strategy is currently the best intervention available for reducing child morbidity and mortality and for improving the status of children's health. In fact it is the key strategy for achieving the Millennium Development Goals (2015), for guaranteeing healthy growth and development during the cycle of life, and for facilitating the promotion of family health. Consequently, on behalf of the Executive Committee of AIMSEU, we salute your achievements.

The Dr. Tolosa-Latour Institutional Award is an international award given annually to public health organizations and institutions for their outstanding work in defense of children's rights to health and well-being. Accordingly, it justly recognizes the contributions of PAHO/WHO, through its IMCI strategy, to improving the status of children's health and to the progress made in terms of implementing the strategy in Region of the Americas since 1996. This award will be given during the closing ceremony of the International Week of

---

---

Primary Care for Children and Young People, which begins today in Toledo, from 15 to 19 November 2004.

In addition, we are working to promote the nomination of the IMCI strategy for the Prince of Asturias Award for International Cooperation, because IMCI is the most suitable strategy for helping countries to achieve the best possible conditions for child health and survival, with a view to achieving the Millennium Development Goals (MDGs).

PAHO's leadership has secured the Region of the Americas a privileged place with regard to the progress made in implementing the IMCI strategy. In fact, regional and national mobilization efforts have helped extend the reach of the IMCI strategy to the most remote areas and most vulnerable population groups, thereby providing effective treatment of child health problems, and expanding its sphere of action to preventive strategies and maternal-and-child health promotion. This fact, together with PAHO support for the ongoing education of health professionals at medical schools, nurse training institutions, and nutrition schools, has resulted in a multiplier effect. Moreover, PAHO leadership has helped secure the commitment of community leaders through efforts of regional- and national-level promotion of key family practices for healthy growth and development. These efforts have helped to bring the IMCI community component to priority groups of the population with high under-5 morbidity and mortality levels.

**Dr. Antonio Sáez Crespo, MD, PhD, MPH, MBA.**

President of the Ibero-American Medical Association of School and University Health .

During this international forum we are working to show that our activities at the Ibero-American Medical Association of School and University Health are in keeping with the framework of the International Convention on the Rights of the Child, with a view to promoting and disseminating knowledge about said Convention, as well as evaluating the targets met in 2005 under the agenda of the MDGs, and the twentieth anniversary of the International Youth Year.

We are confident that these advances in the Region of the Americas are due in no small part to the ongoing efforts of thousands of health workers, and the support of organizations and institutions working to bring a better tomorrow for all Ibero-American boys and girls. Accordingly, the Ibero-American Medical Association of School and University Health is proud to contribute its knowledge, scientific experience, and good practices to this effort.

We are confident of the success of this important event, and we thank you for your participation in this noble task of working to defend the rights to health and well-being of all children and school-aged kids.

# Remarks of Dr. Joaquín Chacón Fuentes, Managing Director of the Castile-La Mancha Health Service (SESCAM)

---



As an organization responsible for managing public health care in this autonomous community, it is indeed a privilege for the Castile-La Mancha Health Service (SESCAM) to cosponsor, along with the Castile-La Mancha Health Research Foundation (FISCAM)—an agency of the Ministry of Health—the Fourth Meeting of the Technical Advisory Group on the Integrated Management of Childhood Illness (TAG-IMCI) of the Pan American Health Organization, (PAHO), Regional Office of the World Health Organization (WHO) for the Americas.

If I may, I would like to point out the national and international significance of this meeting. Indeed, this presents a unique opportunity to work together and to learn from all of the professionals attending this event, and is, moreover, an incentive and important reason to redouble our health care efforts on behalf of the youngest members of our population.

In fact, our young people's survey [consulta joven] launched at Castile-La Mancha Health Centers in 2005—announced by Health Secretary Roberto Sabrido as our government's strategy in the Regional Parliament—is, from now on, likely to become a permanent activity of the Primary Care Teams.

Likewise, this initiative will make it possible to address, from the primary level of care, most of the risk factors affecting young people.

In addition, the Castile-La Mancha Health Plan (2001-2010) establishes that all localities with more than 500 children shall have a pediatrician on staff to serve the needs of children up through 14 years of age.

The design of SESCAM's Child Health Program provides for 14 actions aimed at keeping children healthy. Accordingly, these actions are carried out to prevent disease and promote health, through offering health advice and other health education activities. These instruments are evaluated periodically with a view to determining their scope and practical application and, where necessary, to introduce improvements.

As is well known, all children have free access to these resources, in addition to office visits for health problems, where they are seen by teaching staff, pediatricians, physicians, and nurses.

The primary justification of any health system is its contribution—both potential and real—to improving the health of its inhabitants. Therefore, and because the Castile-La Mancha Health Service has set its sights on attaining the highest standards of quality care, we are indeed pleased to host this Meeting of the TAG-IMCI here in Toledo.

We sincerely hope this Meeting provides the opportunity and impetus to continue incorporating the necessary changes, and to increase the resources for and improve the services and benefits of health care for children and young people, as this will allow us to continue our progress in the right direction toward achieving the 2015 Millennium Development Goals (MDGs), established by the WHO.

On behalf of SESCAM, I am pleased to welcome each and every one of you and the organizations you represent to the Meeting of the TAG-IMCI of PAHO/WHO, and you can all rely on this Health Service to put your conclusions and recommendations into practice for the benefit of children and young people.

**Joaquín Chacón Fuentes**

Managing Director of the Castile-La Mancha Health Service



# Remarks of Dr. Blanca Parra Vázquez

## Director, Castile-La Mancha

### Health Research Foundation (FISCAM)

---



FISCAM headquarters was honored to host to the Fourth Meeting of the Technical Advisory Group on the Integrated Management of Childhood Illness (TAG-IMCI), as part of the activities of the First International Week of Primary Care for Children and Young

People, held from 15 to 18 November 2004 in the city of Toledo, the theme of which was “Comprehensive Care for Children and Young People: A Strategy for Action.” In fact, this was the first time TAG held its meeting outside the United States, and the fact that our city and Foundation were chosen for this event made us very proud indeed.

FISCAM’s main objectives are to support research, disseminate knowledge in the field of health, and forge ties between all health professionals. Accordingly, this scientific event—one that has an appreciable impact at both the national and international levels—with the participation of some 600 health professionals, 32 associations, and 10 universities, is without a doubt an opportunity for our Region and one that we should all take advantage of.

Research is essential for guaranteeing and promoting the search for excellence, and for ensuring that this profession continues to provide quality health care. The services provided by health professionals must be grounded in sound knowledge—the result of research and empirical evidence.

The Government of Castile-La Mancha has long understood this. That’s why the main objective of the Castile-La Mancha Health Plan 2001-2010 has been to promote research and training in health sciences by setting up a foundation for scientific research.

Within this framework, and at the initiative of the Ministry of Health, the Castile-La Mancha Health Research Foundation (FISCAM) was established in May 2001. FISCAM’s objectives include disseminating health knowledge throughout our region, forging ties between all health system actors, ensuring a flexible framework is in place for capturing and disseminating ideas, and providing resources for health education and research. In short, FISCAM’s mission is to ensure that our citizens enjoy modern, effective, and quality-based health care, but above all, ready access to such care. Consequently, the work of health professionals in primary care field is crucial.

Moreover, I should like to take this opportunity to point out that Castile-La Mancha investigators are the source of 6 of every 100 articles published in Spain on primary care. Accordingly we rank fifth among the autonomous communities in terms of articles published on the first level of care and first in terms of scientific output in all of Spain.

Much remains to be done, however, since, as we know, one does not become part of the vanguard of science in the space of one or even five years, but by working day in and day out, and with the commitment of governments to overcome this historical deficit. Moreover, meetings such as these, which declare the Managing Directorate of Primary Care of Toledo an international reference center for children and young people, and the approval of the Charter of Toledo on young people’s right to health, are no doubt going to contribute to this effort.

Again, I wish to thank the TAG-IMCI for having chosen us, and to recognize the hard work of all those who have helped contributed to the success of this meeting.

**Dr. Blanca Parra Vázquez**

Director, Castile-La Mancha Health Research Foundation



## 2. Introduction

Remarks of Dr. Gina Tambini

Area Manager, Family and Community Health (FCH)  
Pan American Health Organization/World Health Organization,  
PAHO/WHO

---

---



The health of children continues to be a priority for our countries, as is achieving the commitments assumed under the Millennium Declaration. In the coming years, these commitments will pose significant challenges, especially for the Region of the Americas.

Studies carried out to determine

the current status of child health and its prospects for the next decade indicate that if the current trend observed in the countries continues they will not reach the proposed two-thirds reduction of mortality in children under five years old by 2015. Although these projections vary according to estimates of different international organizations, PAHO/WHO has warned that greater investment and an integrated approach to the health of children will be necessary—including the health of the newborn and the mother—both regionally, as well as at the department and municipal levels of some countries, in order to reverse the situation and speed up the reduction of mortality in children under five.

Additionally, during the 1990s, the Region of the Americas witnessed a widening of the gap both between and within its countries, and, consequently, the Americas now rank among the regions with the greatest inequality. Given this situation, efforts to reduce child mortality should specifically target the most neglected areas and population groups, in which mortality levels are several times higher than the regional and individual country averages. Only in this way

will attaining the MDGs actually help to improve equity and put the benefits of available health interventions and strategies for child health and development within the reach of the most vulnerable groups.

According to the current mortality in children under five years old profile in the countries of the Americas, basic health interventions for preventing and treating infectious diseases, respiratory illnesses, and nutritional disorders are still critically important to child survival. However, the growing importance of the disorders and problems of the perinatal/neonatal period have underscored the need for incorporating supplemental interventions designed to improve the mother's health, provide appropriate care during pregnancy, childbirth and the puerperium, and ensure proper delivery and resuscitation of the newborn and adequate neonatal care.

The Integrated Management of Childhood Illness (IMCI) strategy, which, in recent years, has helped strengthen the application and expand coverage of key child survival interventions aimed at preventing deaths from infectious disease, respiratory illness, and malnutrition, should have a key role in this new epidemiological scenario.

IMCI, including its supplementary perinatal/neonatal component, covers the prevention, treatment, and follow-up of the leading causes of mortality during the first years of life, which are responsible for at least two-thirds of deaths of children under five years old in the countries of the

---

1 Torres C, Mujica OJ. Health, Equity, and the Millennium Development Goals. *Pan American Journal of Public Health* 2004;15(6):430-439.

2 Pan American Health Organization. *Millennium Development Goals and Health Targets*. 45th Directing Council. Washington, D.C., USA, 2004



---

---

Americas. Furthermore, IMCI includes not only child survival interventions, but also others designed to promote healthy growth and development during childhood, thus improving boys and girls' chances of reaching their full development and going on to become healthy and productive adolescents, young people, and adults.

However, if these benefits are to reach all boys and girls of the Region—especially our most vulnerable children—we must expand coverage of the strategy and focus on activities that target areas with the highest levels of child morbidity and mortality. Likewise, in order to strengthen IMCI's life cycle approach it must reinforce its ties with other interventions and strategies covering the care of different age groups and all members of the family, positioning itself as a catalyst for implementing such interventions. IMCI should also strengthen the continuum of health care, not only through the life cycle approach, but also the continuum between services and the community.

Consequently, the challenge facing IMCI in the coming years is not only to continue expanding the program and

strengthening its effective implementation through the health services and the community, but also to increase its scope in order to address the changes in children's health conditions as they grow, and to supplement the strategy with interventions aimed at improving the health of adolescents and young people, with a family- and community-health-based approach.

In view of this new scenario, analysis of the future prospects of the IMCI strategy is crucial to the discussions and deliberations of the Technical Advisory Group on IMCI (TAG-IMCI). Moreover, the fact that this fourth meeting is being hosted by the Ibero-American Medical Association of School and University Health lends an appropriate framework for enriching discussions on how to better link the strategy to the different interventions covering the life cycle. Accordingly, we hope to lay the groundwork for IMCI to continue growing and strengthening its benefits for improving children's health conditions, as well as to design these benefits in such a way as to encourage healthy family behaviors that ensure improved growth and development during childhood and adolescence.

**Dr. Gina Tambini**

Area Manager, Family and Community Health Area  
Pan American Health Organization  
World Health Organization (PAHO/WHO)

# 3. Meeting Objectives

---

---

- ✦ Review the progress made with regard to implementing TAG-IMCI recommendations issued at previous meetings; identify any obstacles to effective implementation and propose alternatives to overcome them;
- ✦ Analyze proposals and mechanisms for strengthening the integration of the IMCI strategy with other family and community health interventions and strategies within the context of the Millennium Development Goals (MDGs), and the initiative to provide treatment to 3 million people living with HIV by 2005;
- ✦ Propose measures to expand the IMCI strategy and to help improve the health and development of children under five years old;
- ✦ Analyze the strengths of IMCI with a view to improving family health and encouraging implementation of a family approach to health care through the health services and at the community level.



# 4. Challenges of Expanding Interventions for Child Survival, Growth, and Development

---

Dr. Yehuda Benguigui, Unit Chief, Child and Adolescent Health (CA)  
Family and Community Health (FCH), PAHO/WHO

## INTRODUCTION

The last several decades have witnessed very significant scientific and technological advances in the prevention and treatment of diseases affecting human beings. Our expanded knowledge of the inner workings of the germs that cause the most common diseases and ability to identify noninfectious agents that can determine the occurrence of disease, has not only led to a better understanding of the health-disease process, but also to the identification of alternatives to halt or control the progression of diseases, and, in many cases, prevent them altogether. As a result, many diseases have been declining. In fact, several are on the road to being eliminated and in some cases their incidence has become so low as to no longer pose a problem for public health in most countries of the Region.

Yet despite their marked reduction, many diseases still continue to impact the health of the population which, in the case of children, reduces their chances for healthy growth and development. These diseases do not affect all boys and girls alike. In fact, the distribution of their occurrence and severity of episodes underscore the disparities in the health conditions of children throughout the world.

The contributions of knowledge and technology in terms of identifying interventions for the prevention or treatment of disease have not always been accompanied by mechanisms that make such interventions available to the population as a whole. As a matter of fact, millions of people still do not have access to simple, low-cost measures that can prevent

the onset of diseases or ensure that they do not threaten healthy growth and development.

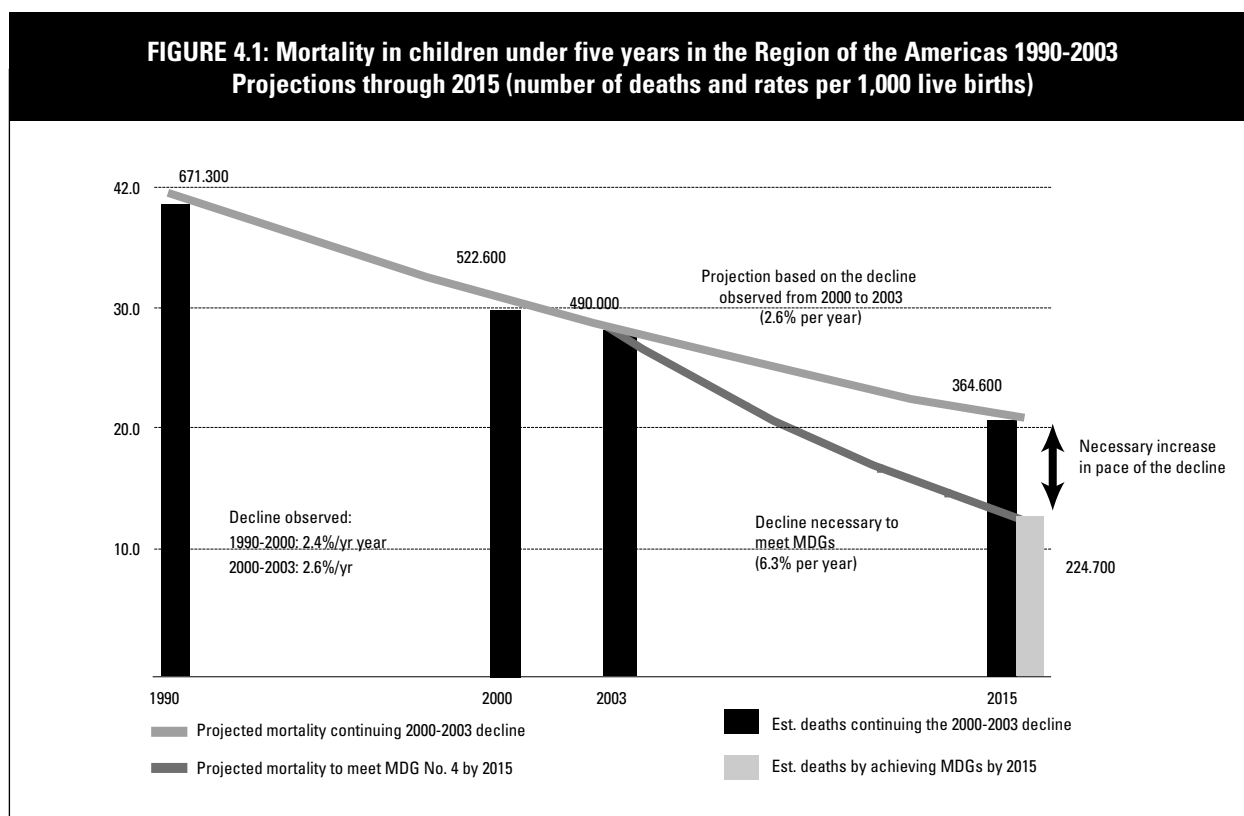
In recent years, countries have increasingly placed greater emphasis on expanding the population's access to basic disease prevention measures, treating diseases and health problems, and disseminating knowledge and key practices aimed at diminishing the risk of becoming ill. This has led a succession of governments to adopt commitments aimed at correcting the disparities in the health of their populations in the closing years of the 20th century and to make even greater strides during the new century. The Millennium Development Goals (MDGs), adopted in 2000 as a means to continue building on the Goals of the 1990 World Summit for Children, are a prime example of the decision to move forward with coordinated efforts aimed at improving the health and well-being of our populations. In terms of the countries of the Americas, these commitments have helped accelerate a drop in mortality rates due to infectious diseases which, in previous decades, represented the leading causes of death, especially among children. As a result, life expectancy increased and many diseases—particularly infectious diseases—no longer constituted the leading causes of death during the first years of life.

In this new era, our ability to continue down this path and attain the MDGs by 2015, is key to forging ahead toward achieving better conditions for child growth and development in the Americas, and to addressing another topic still pending from decades past: child survival.

## THE REGION OF THE AMERICAS AND THE MDGS

According to 2004 estimates presented by the Pan American Health Organization during the 45th Directing Council, “presently, the Region as a whole does not seem set to reach the ambitious targets for infant and maternal mortality,” and, moreover, “trend analysis shows that if current trends continue, the reduction of mortality in infants and children under five years old in the Region would reach 54%, well below the two-thirds established in the [MDGs].” Simply stated, this situation is indicative of the gap between the downward trend in mortality in children under five the Region experienced during the 1990s and the trend that would be necessary to achieve the stated MDGs by 2015 (figure 4.1).

During the 1990s, mortality in children under five years declined significantly in the Americas—by a full 22%. In fact, the rate of decline in mortality of this age group increased even faster from 2000 to 2003, resulting in an additional 8%-reduction. However, even if the current trend were to continue it would still fall short of reaching the proposed MDG goal of reducing mortality in children under five years to only one-third of its 1990 level by 2015. In order for this goal to be achieved, the rate of decline between 2003 and 2015 must be three times higher those recorded during the first four years of this century—this is the only way to reduce mortality in children under five years by two-thirds of its 1990 level by the 2015 deadline. Should the goal be



Source: Estimates of the Child and Adolescent Health Unit (FCH/CA), based on data from the Health Analysis and Information Systems (AIS) Area. Pan American Health Organization/World Health Organization (PAHO/WHO). 2004.

- Pan American Health Organization. The Millennium Development Goals and Health Targets. Document CD45/8 approved by the 45th Directing Council of PAHO/WHO. 27 September through 1 October 2004. Washington, D.C.
- Figure 4.1 and the accompanying analysis are those presented during the Fourth Meeting of the TAG on IMCI in November 2004. According to subsequent estimates, based on a UN study published in early 2005, the outlook for attaining the MDGs in the Americas is more favorable. This new information, included in Annex IV, is based on publications subsequent to the Fourth Meeting of the TAG on IMCI and offers a more up-to-date perspective of the current situation and prospects for the coming years.

---

---

achieved, the estimated number of deaths in children under 5 years of age in the Americas would be a little over 200,000, which amounts to three times less than those recorded back in 1990, or less than half of those recorded in 2000.

Depicted here is the regional average of the existing gap between the pace of the decline of mortality in children under five years old necessary to achieve Goal No. 4 of the MDGs and the pace of the decline observed in the Americas during the first years of the new century. Upon analyzing the situation of the individual countries of the Region, we can see which are achieving annual declines of mortality in children under five years, consistent with the those required for meeting MDG No. 4, and which countries are achieving an appreciably faster rate of decline.

The first group includes Bolivia and Peru, which, in recent years, have achieved annual rates of decline in under-5 mortality of 4.5% and 5.0%, respectively. In both cases, these figures are close enough to the annual targets for each year between 2003 and 2015 to ensure that mortality in children under five years old rate meets the goal set by the MDGs. In contrast, Haiti, which has managed to stabilize its mortality in children under five years old rate in recent years, would need to have annual reduction rates higher than 7% during the next decade in order to ensure, by 2015, a one-third reduction of its 1990 under-5 mortality rate.

Analysis of the trends observed in each country during recent years also underscores that some countries have enjoyed a comparative advantage and were able to achieve high rates of decline in mortality in children under five. These countries are much closer to achieving the established MDG target for 2015, and need only achieve small reductions in their rates over the next ten years to meet the target.

Based on the different trends observed with respect to mortality in children under five in the countries, it is imperative that we step up prevention and control activities in those countries that continue to register high rates of mortality if we hope to decrease disparities and achieve a more equitable situation with regard to the risk of dying during the first years of life.

According to regional estimates for 2003, under-5 mortality in the countries has a range of more than 100 points (figure 4.2). Accordingly, the relative risk of death is 17 times higher in Haiti than in Canada—the countries on the extreme ends of this range

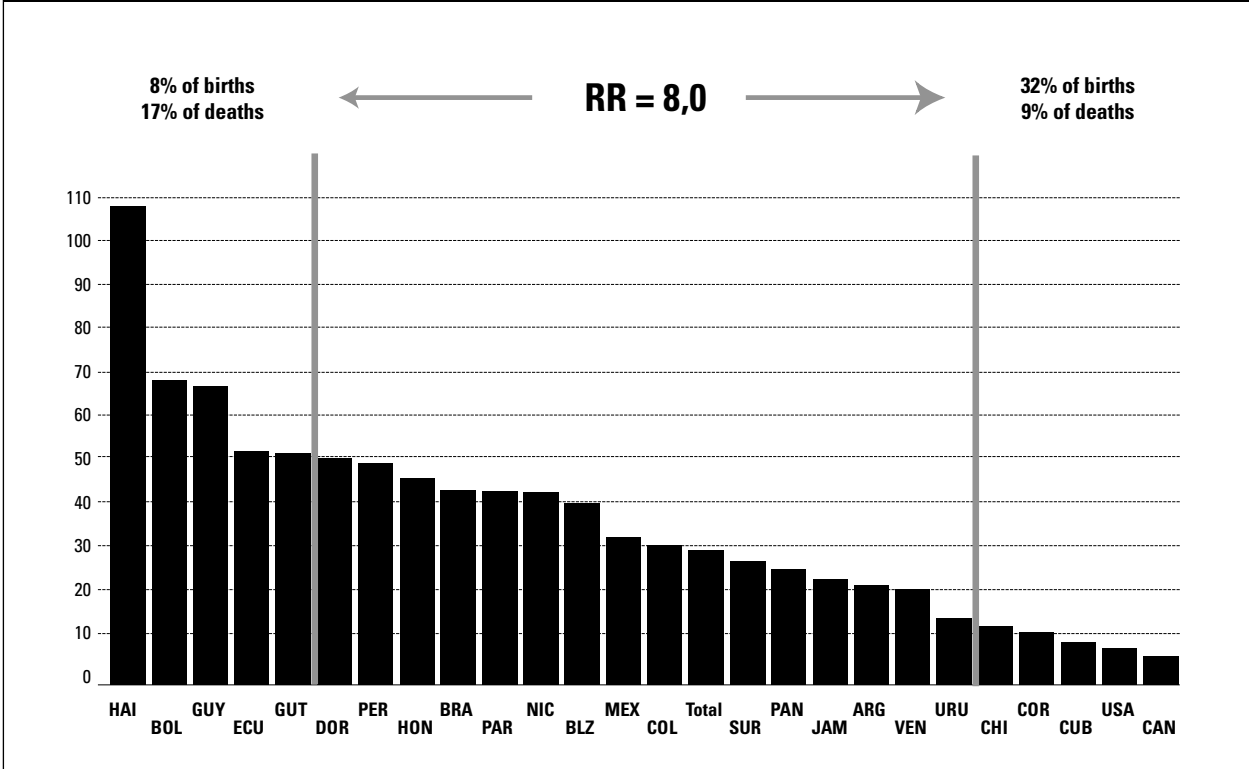
The five countries of the Region with the highest levels of mortality account for 8% of the Region's annual births and 17% of deaths of children under 5. On the other hand, the five countries with the smallest levels of mortality account for 32% of births, yet their mortality rate for children under 5 is only half or 9%. This underscores inequality in the chances of survival of newborns based on the country in which they are born, since the risk of dying at birth in one of the five countries with the highest rates is 8 times higher than for children born in a country with the five lowest rates. The leading causes of death among children under 5 are associated with the perinatal period, infectious diseases, respiratory illnesses, and malnutrition. Moreover, death from external causes (i.e., unintentional injuries) also contributes to deaths in this age group, especially among children between the ages of 1 and 4 (figure 4.3).

In the Region as a whole, one out of four deaths of children under 5 years of age is caused by infectious diseases, respiratory illnesses, and malnutrition, which combined are responsible for more than 100,000 deaths annually. Proportional mortality due to these causes varies by country—lower than 5% in countries with the lowest mortality, and up to 40% in those with the highest rates. In these countries, and even in areas with intermediate mortality values, the diseases of this group account for at least one out of every three deaths during the first years of life.

Although still a persistent problem, this group of diseases is no longer responsible for the number of cases and deaths witnessed in the early 1990s. This reduction, however, has increased proportional mortality due to perinatal causes.

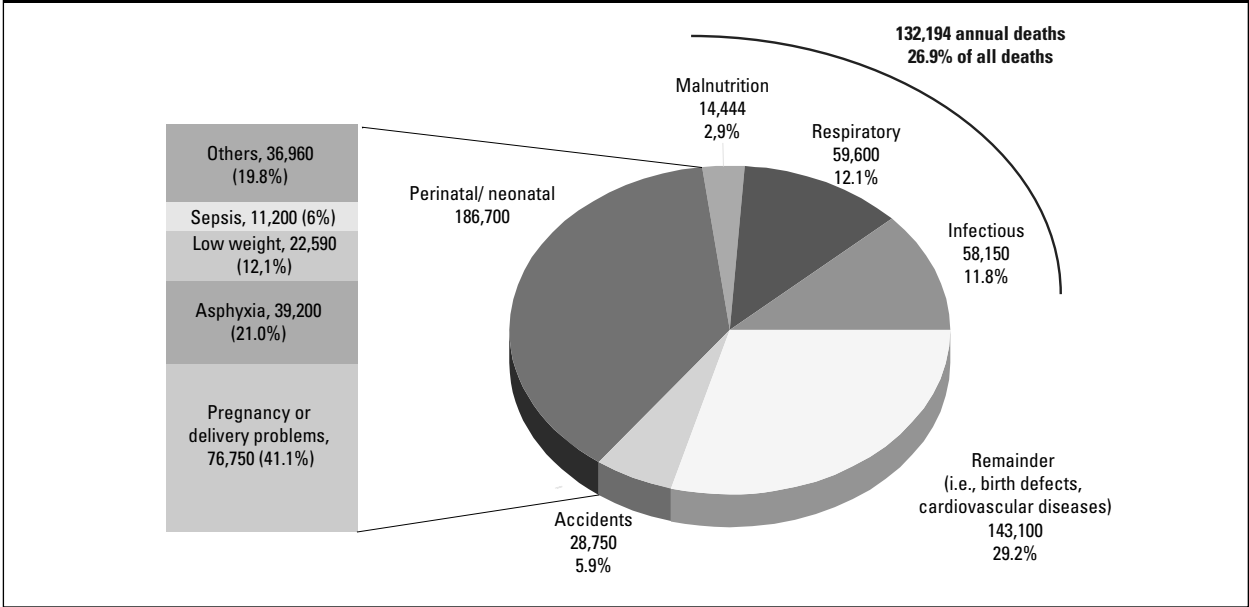
In the Americas, mortality associated with pregnancy and delivery, and with problems originating during the first weeks of life currently accounts for some 200,000 deaths annually or 38% of the total number of annual deaths of children under 5 in the Region of the Americas. With

**FIGURE 4.2: Mortality in children under five in the Region of the Americas. Estimates 2003**



Source: Estimates of the Child and Adolescent Health (FCH/CA) Unit, based on data from the Health Analysis and Information System (AIS) Area. Pan American Health Organization/World Health Organization(PAHO/WHO). 2004.

**FIGURE 4.3: Leading causes of under-5 mortality in the Region of the Americas, 2003 Estimates**



Source: Estimates of the Child and Adolescent Health (FCH/CA) Unit, based on data from the Health Analysis and Information System (AIS) Area. Pan American Health Organization/World Health Organization(PAHO/WHO). 2004.

---

---

respect to only those deaths of children under 1 year, perinatal causes are responsible for 60% of all such annual deaths in the Americas.

This group of diseases includes the leading causes of deaths—those associated with problems that are detectable during pregnancy or that originate during labor and childbirth. In fact, these causes are responsible for more deaths than all those attributable to infectious diseases during the first five years of life.

In addition to these diseases, asphyxia and sepsis at birth or within the first days of life are responsible for roughly the same number of deaths as respiratory illnesses in children under 5. Finally, low birth weight is responsible for approximately the same number of deaths as those attributable to accidents and external causes, from birth through 5 years of age. This, however, does not reflect the impact of low birth weight as a key determinant for the highest incidence and severity of illness during childhood, and as a crucial factor of growth and development.

Overcoming these persistent problems, which claim the lives of many thousands of children in the Americas, is a challenge all our countries need to address. Health interventions in the developed countries, and in some developing countries, have made significant progress toward reducing these problems. The gaps in mortality rates from these causes, in addition to revealing inequity in the health situation of children, proves that reducing mortality is feasible.

Successful experiences, both between and within many of the countries, are crucial in terms of their commitment to achieving the MDGs, especially in view of the fact that the current rate of decline in mortality in children under five years in many of them is not enough to achieve the proposed goals.

Analyzing these experiences and adapting them to the current profile of child morbidity and mortality are key to ensuring that our interventions and strategies are appropriate for more widespread application in the countries, with emphasis on the most vulnerable areas and population groups.

## REACHING THE MOST VULNERABLE – PROGRESS AND MAIN HURDLES

Although the boys and girls of the Region of the Americas continue to be at risk from a group of diseases and health problems that are preventable and/or treatable with simple, low-cost interventions, the burden represented by these diseases is considerably less today than in previous decades. This new situation is attributable to a number of general measures taken to improve living conditions of the population and interventions to prevent and treat diseases.

Building on progress made in the use of specific interventions during the 1970s and 80s, the Integrated Management of Childhood Illness (IMCI) strategy was launched in the mid-90s and its interventions have helped strengthen those achievements and provided an integrated strategy for addressing children's health.

The IMCI strategy was adapted to the existing epidemiological and operational conditions of the countries of the Americas, and most have adopted it as fundamental for improving children's health conditions. During this process, the IMCI strategy continued to grow and incorporate new contents that complemented the basic set of health problems and diseases it was originally designed to prevent and treat.

IMCI's integrated health care concept also helped to coordinate the efforts of the health system and other sectors, primarily at the local levels. The community component of IMCI thus became a catalyst for efforts to promote community participation in the prevention and control of childhood illnesses and health problems and, particularly, it helped to strengthen the role of health services team in these activities.

Given the key role of health workers with regard to the implementation and expansion of the IMCI strategy, during the program's expansion a closer coordination developed with academic institutions responsible for training these personnel. The efforts of teaching staff at medical schools, schools of nursing, nutrition institutes, and



---

---

schools of public health aimed at adapting the strategy was strengthened through the progressive incorporation of its teaching as part of undergraduate and graduate level courses.

All progress in this regard was periodically evaluated via operational studies and research carried out at the country level, the results of which made it possible to adjust and adapt the strategy and its implementation—both regionally and at the country level.

The findings of an international evaluation carried out by PAHO during the final years of the 1990s showed that, for the most part, effective IMCI implementation depends on the strength of the health system responsible for implementing it, and that, likewise, its weakness have a determining effect on its implementation. For this reason, a greater emphasis was placed on improving weak points often observed in the health systems of developing countries, since their soundness is an essential and priority element in order to continue strengthening effective IMCI implementation.

Taking into account these findings, and based on regional information regarding the process of IMCI implementation in the countries of the Americas, some key activities of health systems can be identified with a view to guaranteeing access to, and adequate use of, the strategy. These include: periodic supervision of, and support to, health services personnel, primarily those who work in the first level of care with the most vulnerable population groups; ongoing training of health services personnel; organization and operation of logistical support systems (primarily to guarantee the ongoing availability of basic drugs); organizing referrals and counter-referrals of cases between health services at different levels of care; and improving information systems for monitoring and evaluation.

Accordingly, these key activities will ensure the effective implementation of the available interventions included within the IMCI strategy, thus guaranteeing that families have access to its benefits in order to improve children's health conditions and prevent the most common childhood diseases and health problems

## PROSPECTS FOR THE EXPANSION OF INTERVENTIONS AND STRATEGIES

The final decades of the 20th century have contributed much to our understanding of the health problems of the population, generally, and of children, specifically. Drawing on this knowledge, numerous interventions have been developed in the areas of disease prevention, early detection, and adequate treatment. Moreover, this understanding has made it possible to identify key practices that contribute to health protection and the promotion of healthy lifestyles, especially during childhood.

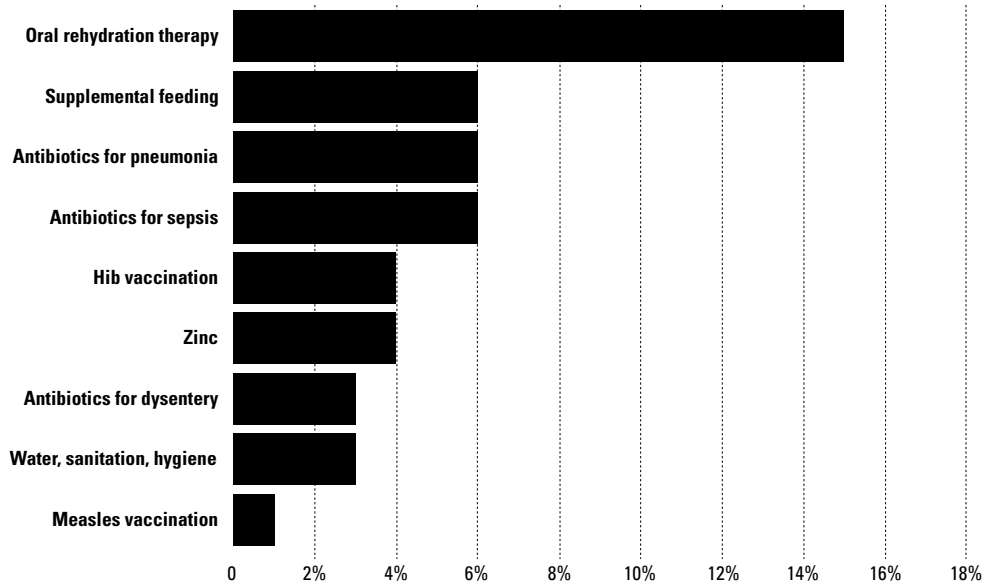
A limited set of these interventions has had a significant impact in reducing morbidity and mortality during the first years of life, and still harbors important potential for decreasing the number of deaths of children between 1 month and five years of age (figure 4.4).

As observed here, some simple, low-cost measures can help prevent many annual deaths of under-5 children. Moreover, in countries and areas that continue to have a very high incidence of infectious and respiratory diseases, or nutritional deficiencies, the impact of these interventions can be greater, thus helping to prevent more deaths in this age group. Likewise, increased access of the population to these basic interventions will help reduce proportional mortality due to these causes and, consequently, help bridge the gap between these countries or areas and the developed world.

In addition to the available interventions aimed at preventing and treating the most prevalent disease affecting the health of children after 1 month of age, there are also interventions that address the afflictions and most frequent problems associated with the perinatal period. A limited set of select interventions can also help reduce mortality during childhood and, particularly, during the first weeks of life (figure 4.5).

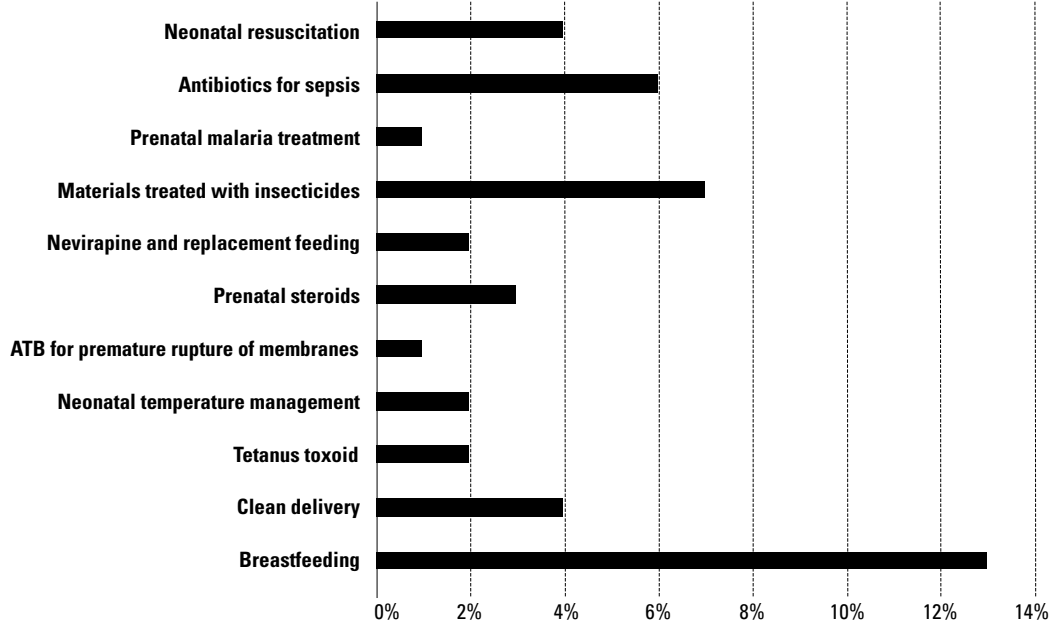
Breastfeeding is the intervention that prevents the greatest number of neonatal deaths. Consequently, it has the greatest impact in terms of reducing mortality during the first month of life. While some interventions only apply to specific countries, such as those containing areas with a high incidence of childhood malaria, others that are

**FIGURE 4.4: Estimated impact of a set of interventions for the prevention and treatment of health problems during the post-neonatal period. Percentage of deaths worldwide that could be prevented through the application of selected interventions. Global estimates**



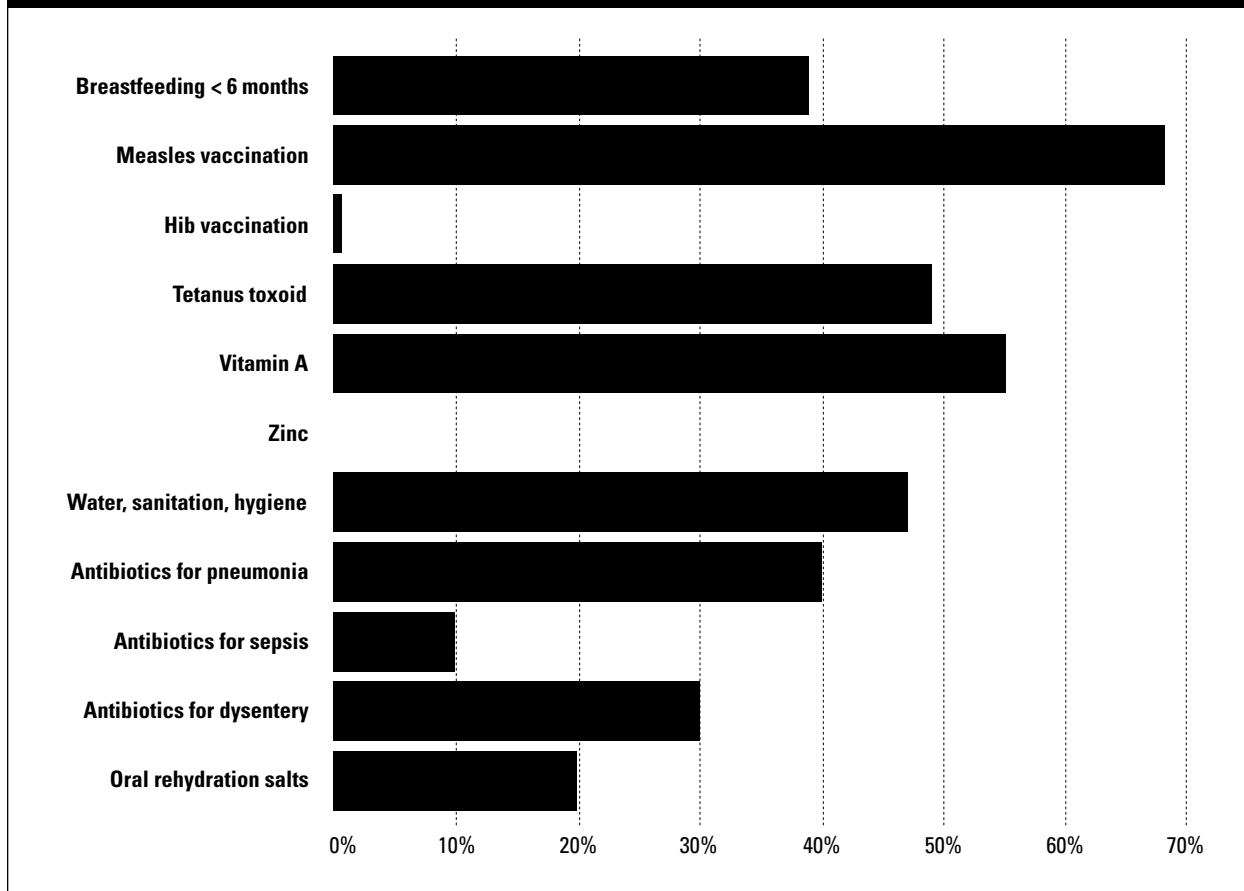
Estimates for 42 developing countries accounting for 90% of under-5 deaths worldwide in 2000.  
 Source: Jones G et al. How many child deaths can we prevent this year? The Lancet. Vol. 362, July 5, 2003.

**FIGURE 4.5: Percentage of deaths worldwide of children under 1 month of age that could be prevented via selected interventions. Global estimates for 42 countries accounting for 90% of under-5 deaths worldwide in 2000.**



Source: Jones G et al. How many child deaths can we prevent this year? The Lancet. Vol. 362, July 5, 2003.

**FIGURE 4.6: Current coverage of some available interventions for the prevention and treatment of diseases during the first years of life. Global estimates for 42 countries accounting for 90% of under-5 deaths worldwide in 2000.**



Source: Jones G et al. How many child deaths can we prevent this year? *The Lancet*. Vol. 362, July 5, 2003.

geared toward improving the quality of birth and delivery care (i.e., treating neonatal sepsis with antibiotics, neonatal resuscitation, clean delivery, neonatal temperature management) can also make a significant contribution to reducing newborn deaths).

Ultimately, these simple interventions do not contribute significantly to reducing mortality during the first five years of life because many families either do not use or lack access to these interventions (i.e., breastfeeding). These shortcomings explain the great disparities in child mortality and morbidity levels among countries at differing degrees of development.

The World Health Organization (WHO) estimates that cov-

erage of all these interventions is less than 70% and, in some cases, 10% or less (figure 4.6).

Although the estimates put forward by WHO are, in some cases, higher for the countries of the Americas (i.e., coverage with measles vaccine and tetanus toxoid), they underscore the challenge facing the Region in terms of ensuring that families benefit from these simple interventions to prevent and treat diseases affecting children's health.

Consequently, expanding coverage of this set of key interventions for the prevention and the treatment of the most prevalent diseases and health problems during the first years of life is the main short-term challenge developing

countries must face if they are to achieve the Millennium Development Goals.

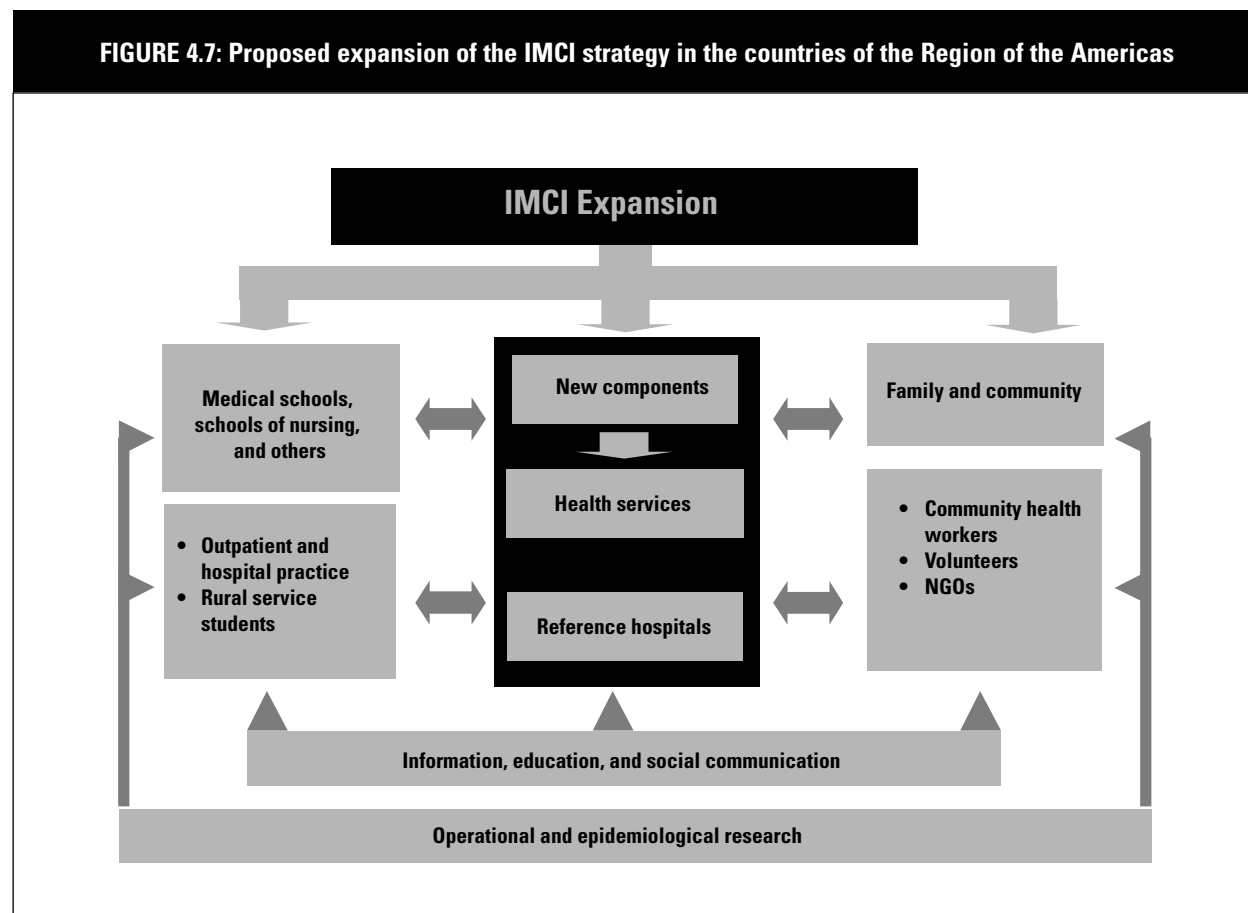
Since being launched in the Region of the Americas and worldwide, IMCI has proven to be a key strategy of promotion, healthy growth and development, disease prevention, and early detection of problems requiring immediate care, thus providing families with a set of essential interventions for the survival and protection of children. This is accomplished through the health services, community health workers, and other volunteers, or by being adopted within the key practices of each family group.

Moreover, the design of the IMCI strategy provides for the ongoing enrichment of its contents, incorporating new components of disease prevention and control based on the specific epidemiological and operational conditions found in each locality, as well as prevention measures and health

protection that families can adopt based on their living conditions.

The main challenges facing the developing countries are expanding the population's access to IMCI interventions, sustaining efforts of ongoing analysis, review, and supplementation of IMCI contents, and strengthening social communication with a view to ensuring that all families are aware of and adopt the key recommendations concerning child health care and treatment. Accordingly, countries should take stock of IMCI's potential for helping them to achieve the MDGs in the area of children's health.

Expansion of IMCI should also target the health services (mainly primary care facilities), institutions responsible for health worker training, and the community, by promoting an ongoing discourse among all these areas (figure 4.7).



---

---

The participation of medical schools, schools of nursing, nutritional institutes, and other institutions responsible for health worker training, is not only essential in terms of their contribution to ensuring all health workers are trained in IMCI. In fact, these institutions provide health care through their own services at the primary level and their hospitals, and are actively involved in the development of health policy and research—basic as well as epidemiological and operational. It is crucial for the IMCI to be incorporated within departments of pediatrics, epidemiology, public health, and other disciplines associated with the care of children—to become part of the teaching curricula and to ensure that the strategy is used in university health services and included in research lines.

The health services, including the various levels of care, health service management, and health policy-making levels, make up the main sphere of IMCI implementation. This is accomplished through monitoring and evaluation of results, and planning to ensure that the entire population has access to the strategy, particularly the most vulnerable groups. Moreover, the managerial and health care levels of the health services are in charge of identifying new components to be included in the strategy, and they work out the practical implementation of such components.

Finally, the family and the community, as well as community health workers—who generally serve as a link for the family and community with primary health care services—have a key role in terms of ensuring that boys and girls benefit from IMCI by receiving the essential care they need for survival and for healthy growth and development. Through their interaction with the health services and the needs expressed by families and the community, these health workers intervene to ensure that the definition and design of new components, as well as their practical application in the health services, are an appropriate fit with the conditions and potential of the majority of the population and, especially, those of the most vulnerable groups.

According to PAHO, implementing IMCI in the Region of the Americas could have a compatible impact in terms of achieving the Millennium Development Goals (MDGs) in

child health to which the Region's countries have committed. Only through its basic contents can IMCI help reduce deaths from infectious diseases, respiratory illnesses, and malnutrition among children under 5. Moreover, reducing such deaths by one-half would result in a 12% decline in total mortality of children under 5.

By incorporating a perinatal/neonatal care component, IMCI could help reduce mortality from disorders occurring during the perinatal period, which currently account for more than 40% of deaths of children under 5, and 60% or more of deaths of children under 1 year of age in the Region of the Americas. Its potential impact in terms of reducing mortality due to infectious diseases, respiratory illnesses, and malnutrition would thus be added to the IMCI perinatal/neonatal component's impact on problems associated with birth. Accordingly, this would result in a 20% reduction in total mortality of children under 5, based on a 50% reduction in mortality due to disorders occurring during the perinatal/neonatal period. Given that asphyxiation at birth, infections associated with inadequate childbirth care and delivery of the newborn, hypothermia, and inadequate care during pregnancy and childbirth account for most perinatal/neonatal deaths, implementation of the IMCI perinatal/neonatal component can make a significant contribution to child survival and a healthy birth and start in life.

However, the impact of IMCI components will be different between and within countries on the basis of different epidemiological conditions; and its impact will be greater in areas where infectious diseases, respiratory illnesses, and malnutrition still account for a significant number of deaths. For this reason, and in order to help bridge the disparities between countries and areas, it is crucial for us to identify those with the greatest levels of mortality and risk, with a view to ensuring that children living in those areas directly benefit from IMCI.

## ACTIONS AND NEXT STEPS

In its strategic objectives for 2008, PAHO has proposed actions aimed at achieving the child health goals the countries have committed to reaching under the MDGs and

---

---

the strengthening of the life cycle approach for integrating interventions. On the one hand, this includes the contribution inherent in expanding IMCI to respond to the countries' needs to reduce mortality in children under five years old, and on the other, directly favoring its reduction with an approach to equity aimed at reducing problems in the most vulnerable countries, areas, and population groups.

This expansion of the IMCI, which simultaneously seeks to encompass health workers and the health services, training institutions, and the family and the community, also helps to strengthen PAHO's role as a permanent forum for debate and dialogue on health matters. To this end, IMCI provides a number of integrated perspectives for addressing child health, including interventions in the areas of prevention, treatment, and health promotion. The strategy establishes an approach based on children's health conditions and not on the diseases that affect child health. Moreover, the strategy contributes to creative and participatory solutions adapted to the epidemiological and operational conditions in each country and its regions.

Implementation of the IMCI strategy also helps improve management processes by optimizing the use of human, therapeutic, technological, and organizational resources of the health systems. IMCI provides evidence-based standards designed to facilitate more rational use of resources, and includes the active participation of different health system and community actors.

In this way, IMCI expansion is strengthening PAHO's role as a producer of knowledge for use in improving health conditions of the Region's inhabitants, with special emphasis on achieving conditions of greater equity which allow the most vulnerable groups of society to access the benefits of available technologies for child survival and healthy growth and development in life. This process is carried out as an ongoing exchange among countries in which knowledge is both shared and developed jointly, thus facilitating the circulation of ideas and their adaptation and adoption by families and the community. This process helps to strengthen the building of networks and partnerships between and within

countries, following an interdisciplinary, multicultural, and democratic approach.

In this way, achieving better child health conditions can become a joint undertaking by all the countries, in which all help to generate knowledge that can be adapted to specific conditions with a view to benefiting more children in the Americas.

In this regard, the IMCI implementation process has served as a solid foundation for combining interventions in the areas of prevention, detection, treatment, and health promotion into a single strategy. IMCI is helping to develop new integrated health care strategies for children from 5 to 9 years of age and is also linked with strategies for the integrated care of adolescents, prenatal care, as well as with women's health care and protection. This approach, based on linked and complementary strategies, offers a more comprehensive response to family health promotion, using contact during office visits with different age groups as its starting point, taking advantage of each opportunity to identify problems and carry out disease prevention and health promotion actions.

In order to reach the population with these strategies, and drawing on experience gained through IMCI implementation, some lines of action have been proposed aimed at improving information and optimizing coordination for implementing strategies, in order to strengthen political will and increase financing for implementation, monitoring, and evaluation.

Actions geared toward improving information are primarily concerned with obtaining data to facilitate the stratification of geographical areas and population groups on the basis of child health status. Accordingly, this makes it possible to identify priority groups with the highest levels of child mortality and the gaps that exist between these groups and the rest. This not only will make it possible to evaluate the existing potential for reducing mortality, but also identify areas or population groups whose experiences could prove useful for its adaptation and implementation.

---

---

Implementation programs designed to include coordination with different sectors is also seen as essential in order to optimize the use of all available resources and promote local coordination. Introducing these programs in priority areas and population groups will also provide opportunities for the community itself to get involved and take stock of what needs to be done, and also allow it to participate in follow-up and evaluation activities.

The processes described above will require greater political will, both at the local and national level. Consequently, consensus-building activities will be needed regarding the importance of problems that affect child health, and the effectiveness of IMCI as the main strategy for addressing them. This consensus will make it possible for the working groups to continue their work and to promote effective, ongoing execution of the key IMCI implementation activities. In addition, this process will lay the foundation for incorporating the strategy as a key state policy, considering its contribution toward achieving the goals of the child health contained within the MDGs. The adoption of IMCI as a state policy will increase the likelihood that countries have the necessary resources for expanding and strengthening its implementation, and that these resources are always available.

The ability to mobilize support at the regional and country levels is also considered crucial in terms of increasing resources and efforts for ensuring that all children receive the benefits of the IMCI strategy. Developing coordinated projects will complement the implementation processes carried out through the public health services and also mobilize extra-budgetary resources at the local, country, and regional levels. In turn, this will facilitate the ongoing sharing of experiences and results, and help identify successful processes, as well as analyze their adaptation and provide for their speedy implementation in similar areas. All this is designed to accelerate better child health conditions in the Americas, especially in those areas and population groups that currently have the highest levels of childhood mortality and morbidity.

These are all considered important lines of action with a view to continuing progress on the effective implementation of IMCI and to expanding application of the strategy in terms of geographical coverage and its components. Strengthening the integrated approach, both in children's health care and in taking advantage of opportunities to provide family health care, IMCI can accelerate the implementation of complementary strategies that cover the life cycle and provide families with better health and development conditions.

## 5. Advances in the Perinatal/Neonatal Component

Dr. Rolando Cerezo and Dr. Gerardo Cabrera Meza, Consultants, FCH/CA, PAHO/WHO.

### INTRODUCTION

Of the 325,763 deaths of children in the Americas in 2003, 60% (195,458) were neonatal deaths. Although child mortality has declined progressively throughout the Region, changes in neonatal mortality have been minimal. Approximately two-thirds (117,275) of these neonatal deaths occurred during the first week of life due to perinatal causes, poor management of problems during delivery and improper management of asphyxia. Table 5.1 lists the leading causes of neonatal mortality in the Americas.

**TABLE 5.1. Causes of neonatal mortality in the Americas (OPS, 2003).**

Cause of death	No. of neonatal deaths	Percentage of all neonatal deaths
Infections	62,547	32
Asphyxia at birth	56,683	29
Low weight and preterm delivery	46,910	24
Birth defects	19,546	10
Others	9,772	5
<b>Total</b>	<b>195,458</b>	<b>100</b>

**Infections.** In 2003, some 32% (62,547) of newborns died due to infections (i.e., sepsis, meningitis, pneumonia, diar-

rhea, tetanus), two-thirds of which were associated with the birth process. Neonatal tetanus has declined in the Americas from 322 cases in 1996 to 114 cases in 2002, with the greatest number occurring in Haiti (60), Colombia (12), Ecuador (9), and Paraguay (8), respectively. The increase in vaccination coverage of pregnant women with tetanus toxoid has reduced this disease to such an extent that its eradication is foreseeable. For the most part, newborns are dying from infections associated with poor hygiene during delivery and the neonatal period. The women most at risk are those who deliver at home with the assistance of traditional midwives.

In the Region, the proportion of breast-fed newborns is high. However, the duration of exclusive breastfeeding and breastfeeding in general varies a great deal. Traditional practices, such as giving the baby fluids before allowing it to breastfeed or withholding colostrum, is normal some communities. The early suspension of breastfeeding, or the decision not to breastfeed at all, substantially increase the risk of infection and child/neonatal mortality.

In many countries with a high prevalence of sexually transmitted diseases and where the ocular prophylaxis is not practiced, neonatal conjunctivitis is a common cause of infection and blindness. Blind newborns have a greater risk of dying. Omphalitis, followed by poor practices of umbilical cord care following birth, and bad hygiene, also contribute to neonatal infection, sepsis, and increased mortality.

Approximately 28,146 newborns die from **pneumonia** each year. Some of these infections originate during labor and



---

---

delivery (i.e., chorioamnionitis) and others are acquired during the postnatal period; risk factors include poor hygiene, hypothermia, and improper diet. The signs of pneumonia in newborns are subtle and often not recognized until it is too late.

**Asphyxia at birth.** In the Americas, approximately 3% of newborns suffer from asphyxiation at birth; in fact, it is estimated that 56,683 neonates died of this cause (29%) in 2003. Moreover, an equal number of survivors suffer some neurological disorder and brain damage. Training for health workers that attend deliveries or that work with newborns should focus on increasing their ability to recognize danger signs during delivery, and to perform prompt, timely resuscitation in order to prevent most of these deaths and neurological disorders.

**Low birth weight and preterm delivery.** In the Americas, some 12% of all neonates (1,944,852) are born weighing less than 2,500 grams and 6% are born before the 37th week of pregnancy. Low birth weight is probably the single most important factor in neonatal mortality, and also a determining factor in child morbidity and mortality. Low birth weight can be secondary to many factors, most of which can be modified through interventions designed to reduce the risk of asphyxia at birth, infections, hypothermia, or improper diet.

There is very little data on the incidence of **hypothermia** during institutional deliveries and almost none on deliveries in the home. Consequently, it is not really known how many newborns die of this cause. However, evidence shows that hypothermia contributes significantly to newborn mortality in the case of preterm and low birth weight infants. Essential neonatal care should be implemented in all births, with emphasis on immediate drying, the use of clean, lukewarm clothing, and immediate mother-child contact following the birth.

**Birth defects.** In the Region of the Americas it is estimated that the major and minor congenital birth defects occur in up to 10% of cases, accounting for 19,546 deaths annually. Some such defects can be recognized at birth, others become apparent subsequently, and still others are never diagnosed.

Many deaths occurring during the perinatal period, secondary to birth defects, are due to lethal malformations, many of which do not allow for survival without complicated surgical interventions. Birth defects such as harelip and/or cleft palate, or talipes equino varus (clubfoot) can be corrected to ensure the normal development of the child.

Most problems associated with birth are specific to the perinatal period, which not only cause mortality, but morbidity and sequelae as well. These problems are the result of deficient maternal health, inadequate care during birth, inappropriate management and poor hygiene during delivery, as well as to the lack of essential neonatal care. If the mother dies during delivery or the postpartum, the chances her newborn will survive are much less.

Neonatal mortality cannot be reduced substantially without efforts to improve maternal health and diminish maternal deaths. Care given during pregnancy and childbirth should be followed up with appropriate neonatal care and measures designed to reduce morbidity and secondary mortality due to infections, hypothermia, and asphyxia. Most postnatal deaths are caused by preventable and/or treatable diseases, and preventive actions are simple, low-cost, available, and cost-effective.

Some countries of the Region (i.e., Guatemala, Peru and Bolivia) have a high percentage of home deliveries attended by midwives, many of whom are unskilled. Strategies designed to reduce neonatal mortality should also encompass traditional midwives, health promoters, families, and communities.

## ESSENTIAL INTERVENTIONS

As observed, most neonatal deaths can be avoided with preventive measures—such as clean delivery—and with effective management of complications (i.e., asphyxiation and infections). Interventions that improve maternal health have a significant impact on the health of newborns and this knowledge should be put into practice by all health workers who attend deliveries in the home, in health centers,

---

---

and in reference hospitals. Human resources are a critically important to implementing interventions. Consequently, plans are needed to develop human resources with a view to meeting the needs of the community; also needed are systems of supervision, logistics, reference, and monitoring and evaluation.

The proposed interventions are based on the following concepts:

1. Interventions should be linked to the existing interventions in the communities and child survival programs.
2. Interventions should be based on scientific evidence, cost-effectiveness, and its programmatic sustainability.
3. Existing interventions that have been implemented and proven beneficial should be continued.

### **1. Essential maternal interventions during the prenatal period**

#### **Nutrition**

- Iron and folates
- Iodine
- Caloric nutritional supplementation in needy populations

#### **Infections**

- Syphilis treatment
- Malaria treatment
- Prevention of vertical HIV/AIDS transmission
- Treatment of asymptomatic bacteriuria
- Treatment of symptomatic urinary infections
- Treatment of sexually transmitted diseases

#### **Behavioral changes**

- Programs to quit smoking
- Preparing for birth
- Education and prenatal check-up
- Counseling on the benefits of breastfeeding
- Recognizing danger signs

#### **Other interventions**

- Administering antenatal corticoids
- Tetanus vaccine

### **2. Essential interventions during delivery and immediate postpartum**

- Initiating breathing (resuscitation)
- Timely and clean tying off of the umbilical cord
- Hand washing and clean surfaces
- Prevention and/or management of neonatal hypothermia and hypoglycemia
- Early mother-child contact and beginning of breastfeeding
- Vitamin K and ocular prophylaxis
- Training of personnel that attend deliveries and of the family in recognizing danger signs and complications
- Weigh, measure size and cephalic circumference
- Identify high-risk newborns and mothers

### **3. Postnatal care interventions**

- Exclusive breastfeeding
- Mother-child rooming-in within 24 hours
- Skin and umbilical cord hygiene
- Education of the family in recognizing danger signs in the newborn and on timely referral for care
- Treatment of neonatal sepsis
- Immunizations

It is clear that a substantial number of perinatal and neonatal deaths in the countries of the Americas can be prevented through interventions that have proven to be both effective and affordable. However, in order to convince many politicians, program directors, and other interested parties to give more priority to the health care of newborns, and to implement interventions on a broader scale, we must show them that improving the health of newborns is now essential if we are to reduce child mortality in the Region and meet the Millennium Development Goals (MDG) by 2015.

It should also be emphasized that most interventions that save lives do not require highly sophisticated techniques or specialists. Neonatal mortality can be reduced even in very poor populations. To ensure that perinatal health activities are effective, accepted, and sustainable, they must be carried out within the broader context of

---

---

improving maternal and child health and integrated into existing programs and activities.

Neonatal survival actions should also encompass care given in the home, inasmuch as this is where a significant number of births and neonatal deaths occur. These actions should

consider the local socio-cultural determinants of health and disease; and efforts should be made to maintain or establish direct contact with health workers in the community and with reference centers.

## 6. The IMCI Community Component and its Contribution to Improving Family Health

---

Mr. Christopher Drasbek, Regional Advisor IMCI, FCH/CA, PAHO/WHO

In January 2000, the American Red Cross (ARC) and the Pan American Health Organization (PAHO) signed an agreement to establish a new regional Partnership in support of the *Healthy Children: Goal 2002* Initiative. The innovative five-year (2000-2005) Partnership is complementing the health program of work of the Red Cross Operating National Societies (ONS) in eleven countries: *Bolivia, Colombia,*

*Dominican Republic, Ecuador, El Salvador, Guatemala, Guyana, Honduras, Nicaragua, Peru, and Venezuela* (figure 6.1). A matching fund agreement between the American Red Cross and the United Nations Foundation/United Nations Fund for International Projects (UNF/UNFIP) was signed in January 2003 providing additional support to scale-up community IMCI activities.



---

---

The Partnership is maximizing the advantage of the Red Cross organizational structure, network and voluntary nature, and enhancing sustainable linkages between ONS activities and governmental National Child Health Plans in each country. The Partnership is increasing the capacity of PAHO to deliver community-based IMCI activities through non-governmental organizations (NGOs) and civil society, preventing deaths by concentrating interventions in local areas with infant mortality rates greater than 40/1000 live births. These actions are contributing significantly to increasing children's access to trained health professionals and giving them the chance to grow into healthy, productive adults.

The key Partnership element is supporting community IMCI activities implemented by ONSs and Ministries of Health (MOH) with support from community leaders, NGOs, families, and other local actors and institutions. It promotes the use of the WHO/UNICEF Key Family Practices for the prevention of common childhood illness and as the main intervention to change behaviors at the family and community level. The Partnership builds on existing community-based programs, promotes equitable access, improves health care access to quality care, builds local capacity and ownership, and makes the best and most cost-effective use of scarce resources.

The community participatory methodology designed and implemented by the Partnership is low-cost, easily replicable and scaled-up in other institutions, is sustainable using local resources and does not require expensive overhead and other capital costs to operate. The Partnership goal is to provide the leadership and support to make the community component of the IMCI strategy a national programming strategy, not a pilot activity, carrying forward the basic principles of primary health care. Focusing on the development and implementation of well-designed, technically-sound community projects and expansion activities will improve child health care and empower communities with the knowledge and skills to prevent common childhood diseases, recognize illness, and care for healthy as well as sick children.

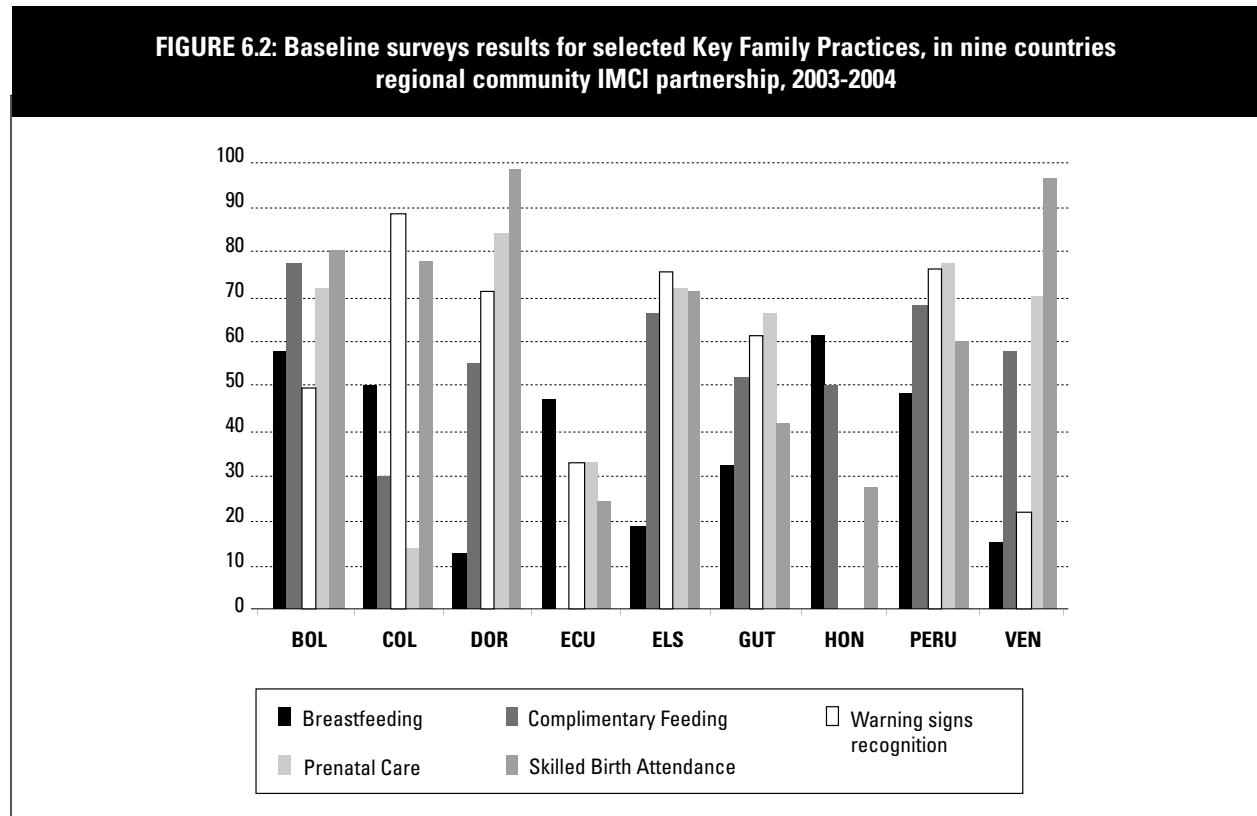
As of December 2004, 23 baseline surveys were conducted with over 5,100 people interviewed. Final results will provide important information to measure behavior change after community IMCI interventions. Annexes 6 and 7 describe the survey site and quantitative results and graphs for selected key family practices by country. The process of adapting the generic *Guidelines for Conducting Baseline Surveys for Key Family Practices* to fit each individual community profile, language and customs, has strengthened the technical knowledge of ONSs and ministries of health for the future.

**BOX 6.1**

Number of surveys carried out to date	Country	Community	Date	Surveyed population
1	Bolivia	Cotahuma	April 2003	408
2	Colombia	Pasto Urbano	April 2004	142
3		Pasto Rural	April 2004	103
4	República Dominicana	Sabana Grande de Boya	November 2003	503
5		La Caleta	November 2003	
6		Madre Vieja Norte	November 2003	
7	Ecuador	Pujilí	June 2002	365
8		Chimborazo	June 2002	318
9		Tena-Napo	June 2002	174
10	El Salvador	Texacuangos	June 2003	412
11		Nejapa	June 2003	
12		Panchimalco	June 2003	
13	Guatemala	OPS/ARC	October 2003	300
14		IFRC	October 2003	300
15	Honduras	Yamaranguilla	January 2002	130
16		San Luis	August 2004	300
17		Copan Ruinas	August 2004	300
18	Perú	Ayacucho	April 2004	425
19		Chao	September 2002	71
20	Nicaragua	Managua	January 2002	46
21		San Carlos	January 2002	132
22		Waspam	January 2002	57
23	Venezuela	Crespo	October 2003	535
<b>TOTAL</b>	<b>10</b>	<b>23</b>		<b>5,021</b>

Figure 6.2 shows the results of baseline surveys for selected key family practices in nine countries. The figure shows the unevenness among countries for same practices, further

justifying the methodology of community participation and selection of priority key family practices according to local realities.



According to the *Communication for Social Change* model, individual and social changes are necessary to attain sustained health improvement. Evidence shows that interventions that emphasized only individual health behavior changes have limited health improvements, after which behaviors return to baseline. The Partnerships' local actors' methodology has been fundamental changing social norms

and creating a sustainable environment for individual behavior change. Reports from selected communities in Peru and Bolivia include several testimonies from different local actors illustrating that a strong emphasis in participatory community assessment and planning has generated *changes in social norms* regarding key family practices (box 6.2).

**BOX 6.2 Country Testimonials**  
**Regional Community IMCI Partnership**

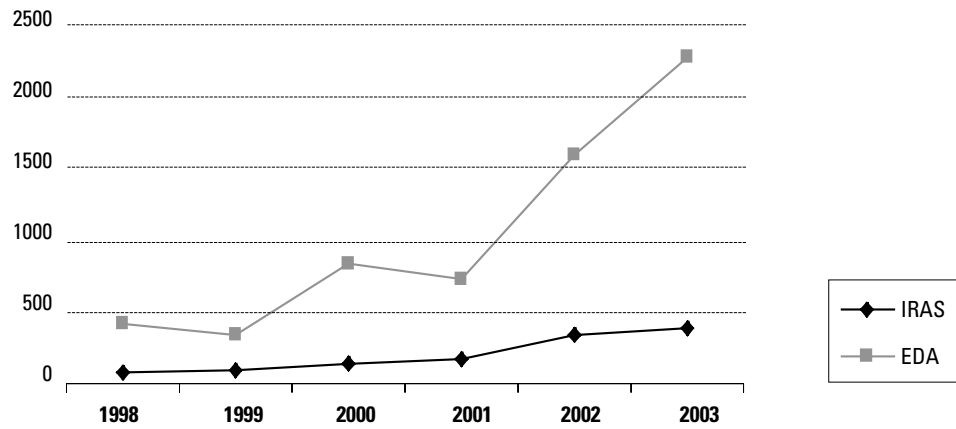
<ul style="list-style-type: none"> <li>• After community IMCI training we went out to inform our neighbors. Now mothers take their children to Health Centers. If you would have seen how they use to filled the Health Centers with mothers with their children. This way we prevent them from dying ...</li> </ul>	<p><b>Mr. Felipe Chavez- President</b> <b>Neighborhood Organization</b> <b>Cotahuma Alto, Bolivia</b></p>
<ul style="list-style-type: none"> <li>• For me as a public authority it's important to know how many women in my community are pregnant, how many of them have completed their control, and...those who have not completed it to go urgently to the health services ...</li> </ul>	<p><b>Mr. Governor Lieutenants- Yarecoya,</b> <b>Huancane, Peru</b></p>
<ul style="list-style-type: none"> <li>• In my Educational Center we take advantage of different moments, such as the salute to the flag, to talk about the vaccines practices, hygiene and dangerous signals with parents and students ...</li> </ul>	<p><b>Prof. Lucia Loza, (teacher)</b> <b>Hugo Banzer Suarez Educational</b> <b>Center, Bolivia</b></p>
<ul style="list-style-type: none"> <li>• I am applying what I have learned in the trainings with the children. Now they have gained some weight and all the children have their vaccines. Some mothers don't want to get the vaccines but we talk with them and they finally understand the importance to immunize their children.</li> </ul>	<p><b>Mrs. Elena Quispe</b> <b>Day care provider, Cotahuma, Bolivia</b></p>
<ul style="list-style-type: none"> <li>• When a child arrives with diarrhea to the day care, we know now how to provide oral rehydration treatment and the need to bring them to the health services ...</li> </ul>	<p><b>Mrs. Ebelin Balero –</b> <b>Day care provider, Cotahuma, Bolivia</b></p>
<ul style="list-style-type: none"> <li>• When they installed the water in my community they didn't teach us how to take care of the well... when they trained me and the lieutenants we talked to the people in town and now we are all organized... now the water is cleaner...</li> </ul>	<p><b>Mrs. Rosa Luque-</b> <b>Mothers Support Club</b> <b>Nva. Esperanza-Huancho Huancane,</b> <b>Perú</b></p>

Testimonies from different actors at the community level highlight the fact that community IMCI interventions are introducing key family practices *into the people's soul* and creating a *universal, common language* regarding these behaviors. Preliminary results show a change in care seeking behaviors of caretakers in selected communities that have finished their initial plan of action. These changes are

expressed by an increase in demand of consultations for diarrhea and respiratory infections in children under five years old (figures 6.3 and 6.4), increased immunizations rates (figure 6.5), increased prenatal care and skilled birth attendance (figures 6.6 and 6.7), and increased percentage of children receiving vitamin A (figure 6.8).

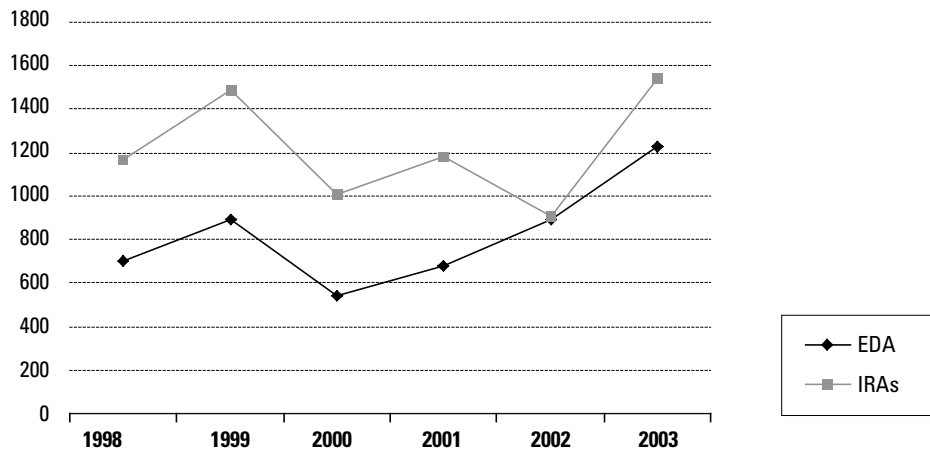


**FIGURE 6.3: Demand of consultations by diarrhea and respiratory infections in children under five years old in Pucarita, Bolivia, between 1998 and 2003**



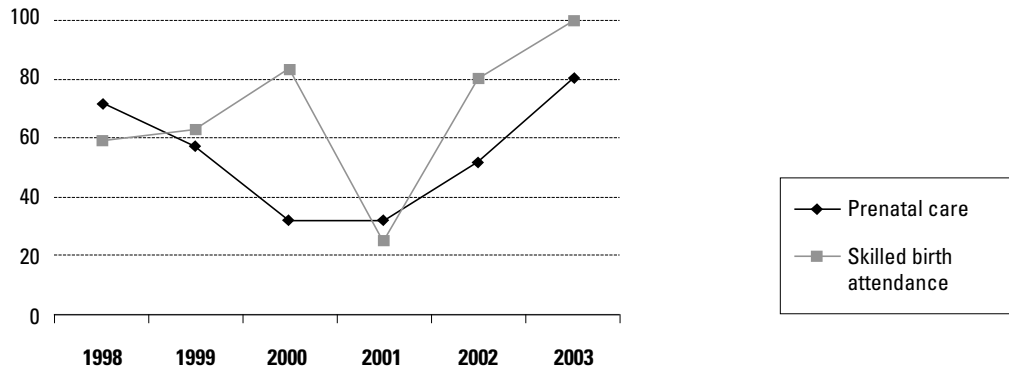
Source: Potosí's Community IMCI Final Project Report. Ministry of Health and Sports, Bolivia, March 2004.

**FIGURE 6.4: Demand of consultations by diarrhea and respiratory infections in children under five years old in Potosí, Bolivia, between 1998 and 2003**



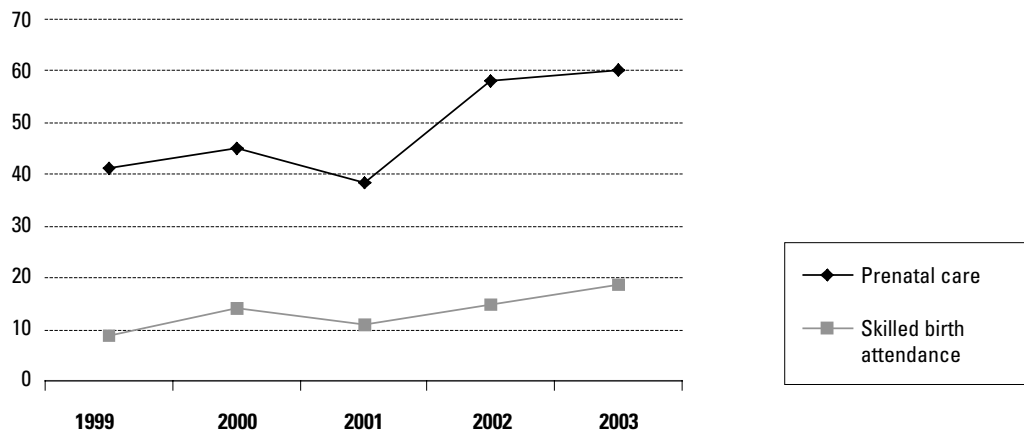
Source: Potosí's Community IMCI Final Project Report. Ministry of Health and Sports, Bolivia, March 2004.

**FIGURE 6.5: Immunization coverage in children under five years old in Potosí, Bolivia, between 1998 and 2003**



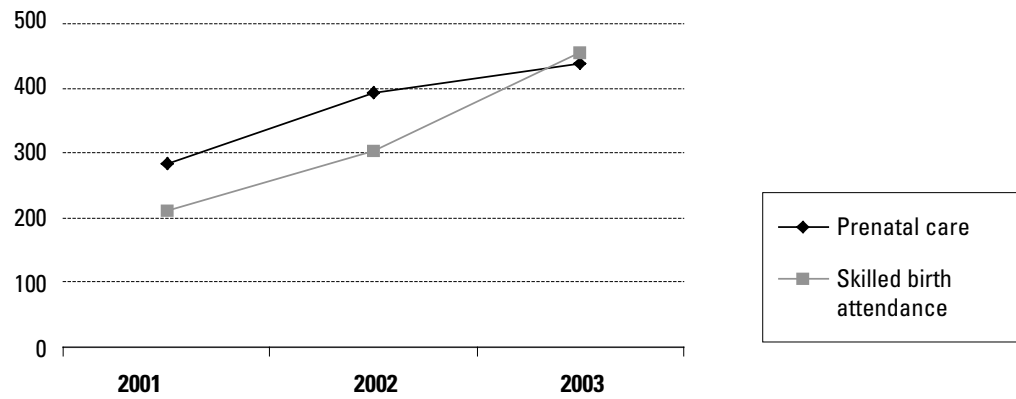
Source: Potosí's Community IMCI Final Project Report. Ministry of Health and Sports, Bolivia, March 2004.

**FIGURE 6.6: Tendency in skilled birth attendance and prenatal care in Cotahuma, Bolivia, between 1999 and 2003**



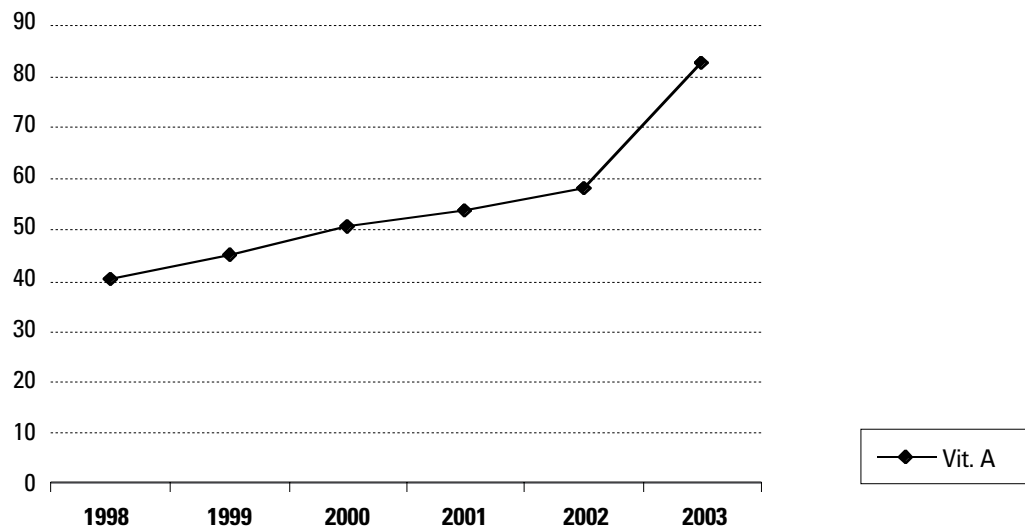
Source: Cotahuma's Community IMCI Final Project Report. Ministry of Health and Sports, Bolivia, March 2004.

**FIGURE 6.7: Tendency in skilled birth attendance and prenatal care in Huancane, Peru, Between 2001 and 2003**



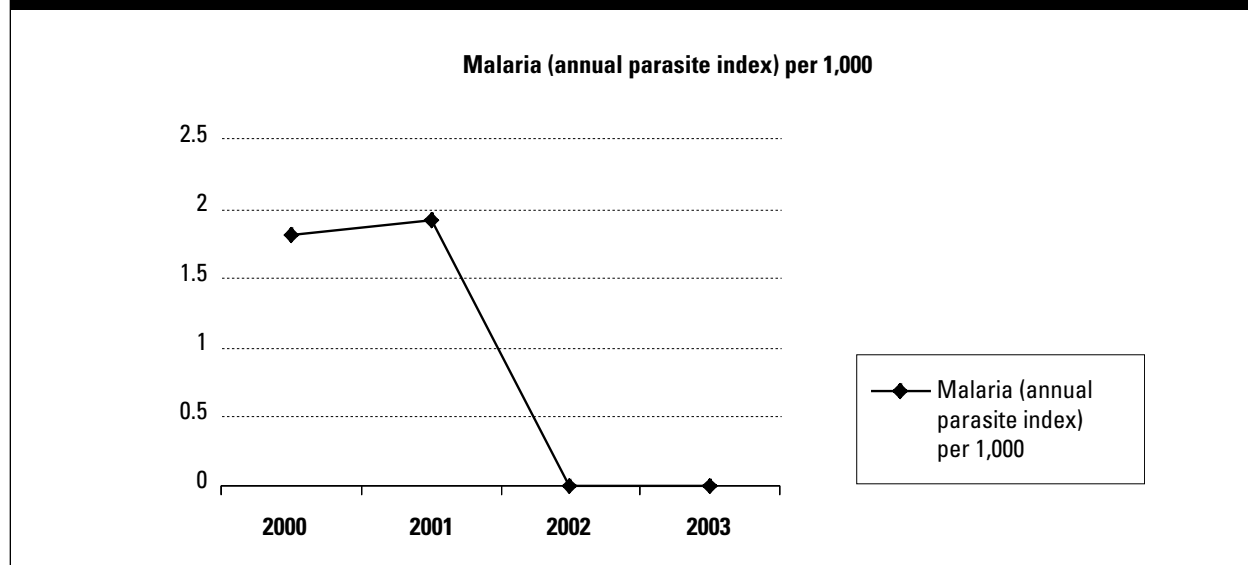
Source: Huancane's Community IMCI Final Project Report. Ministry of Health, Peru, March 2004.

**FIGURE 6.8: Percentage of children under 5 that received vitamin A; Potosí (Bolivia), 1998 to 2003**



Source: Potosí's Community IMCI Final Project Report. Ministry of Health and Sports, Bolivia, March 2004.

**FIGURE 6.9: Decrease in Annual Malaria Index, Chao, Peru between 2000 and 2002**



Source: Chao's Community IMCI Final Project Report. Ministry of Health and Sports, Perú, March 2004.

One of the most successful achievements was recorded in district of Chao, Peru, free of malaria for more than 2 years (figure 6.9). The community attributes this achievement to the community IMCI project implemented by the Partnership. One of the key factors identified to explain this success has been the involvement of the Mayor and active community participation.

Although it might be difficult to attribute direct change to particular aspects of the Partnership methodology, especially in communities that receive multiple interventions promoted by other initiatives (NGOs, etc), the community's perception of this change is strongly attributed to IMCI

activities implemented by the Partnership. Box 6.3 summarizes country accomplishments and next steps to expand the IMCI strategy within the ARC/UNF/PAHO Partnership.

...I think that since the IMCI activities started in the community, there have been positive changes, the approach with the community has improved, and the coverage of vaccines has improved; now mothers come to immunize their children ....

—Lic. Damiana Aranibal, Health center, Pailaviri, Bolivia

---

---

**BOX 6.3**  
**Country Activities and Next Steps to Expand the IMCI Strategy with**  
**Ministries of Health and the ARC/UNF//PAHO Partnership**  
**Regional Community IMCI Partnership**

**Bolivia:** A national IMCI coalition (*Mesa de trabajo AIEPI*) was established in 2004. The coalition, headed by the Ministry of Health and the Bolivian Red Cross, includes UNICEF, PROSIN (Ministry of Health and USAID), PROCOSI (a coalition of 27 NGOs), Plan international, and COTALMA (a local health care network). The coalition is expanding the community IMCI methodology to 150 new communities. A national plan is developed and under review.

**Colombia:** A national coalition between Ministry of Health and Colombian Red Cross is supporting the expansion of community IMCI to 10 country departments with a total population of 20 million habitants. Colombia has institutionalized IMCI by requiring that all municipalities secure funds for implementing IMCI activities. A national plan is developed and under review.

**Dominican Republic:** A national IMCI coalition is established with the Ministry of Health, Dominican Republic Red Cross and the National Center for Childhood (*Consejo Nacional por la Niñez, CONANI*) to introduce the key family practices in 156 CONANI centers in the country. A national plan is developed and under review.

**Ecuador:** The Ecuadorian Red Cross, using their own funds, is expanding the community IMCI methodology to new communities (e.g. El Boliche) and is planning to incorporate additional IMCI activities in the north frontier project. The ecuadorian Ministry of Health has incorporated the local assessment and planning methodology recommended by the regional community IMCI Partnership into the National Coverage Extension Program (*Programa de Extension de Cobertura*) reaching the 50 poorest districts in the country. Efforts are also being made to strengthen National IMCI coalitions between the ecuadorian Red Cross and Ministry of Health, and explore possibilities to include UNICEF and European Union country activities.

**El Salvador:** A national IMCI coalition is established with the Ministry of Health, El Salvadorian Red Cross, ISSI, CARITAS-CMMB/BMSF, PHR Plus and USAID. The salvadorian Red Cross is expanding the community IMCI methodology to local chapters and strengthening a national technical working group with Red Cross allies (Canadian Red Cross and Italian Red Cross) to include the IMCI strategy in the projects currently being financed by these partners. The National IMCI Coalition has already submitted a 2005 national IMCI expansion proposal and requested technical and financial cooperation.

**Guatemala:** The Guatemalan Red Cross has received technical and financial support from IFRC to expand the community IMCI methodology to 4 delegations, reaching 22,000 habitants in 32 vulnerable communities, including indigenous population and families affected by the armed conflict. With the new government, the guatemalan Red Cross is strengthening a national IMCI coalition with the Ministry of Health and exploring the possibility of expanding to 54 new municipalities with further funds and link activities to newly funded projects with CARE, INTERVIDA and HOPE.

**Honduras:** The Hondurans Red Cross (HRC) has introduced the IMCI methodology into national health programs. HRC is developing a proposal to expand IMCI activities by accessing World Bank funds available to support activities in 10,000 communities and advocating expanding the current AIN-C strategy to incorporate the social actors' methodology developed by the Partnership. Local municipalities are organizing themselves under the Regional Environmental Council (*Consejo Regional Ambiental*) and forming a National Association of Municipalities (*Mancomunidad de Municipios*) to expand the community IMCI methodology in the government sector.

**Nicaragua:** A national IMCI coalition is established with the Ministry of Health, Nicaraguan Red Cross, and the Movimiento comunal nicaragüense. This community-based organization, which has 1,500 volunteers, 1,200 health promoters, and 900 educators, has decided to adopt the community IMCI methodology and expand activities to 130 poor municipalities. Ministry of Health and Nicaraguan Red Cross representatives are working together to blend the AIN-C strategy with the community IMCI strategy, selecting best practices from both for vulnerable communities.

---

---

### BOX 6.3 (cont.)

**Perú:** Efforts are being made to reactivate a national IMCI coalition with the peruvian Red Cross, the Ministry of Health (DGPROMSA, DGSP), Ministry of Education, NGOs (Catalyst, CARE, Prisma), Wawa Wasi-MINDES, and Caritas, to scale-up community IMCI activities. New proposals have been developed for three additional communities (Ancash, Junin, and La Libertad). The national IMCI coalition has already submitted a 2005 national IMCI expansion proposal and requested technical and financial cooperation.

**Venezuela:** The national IMCI coalition between the Ministry of Health and venezuelan Red Cross is strengthening the expansion of the community IMCI methodology through the *Barrio Adentro* (13,000 health workers) and *Casas Comunitarias* (10,000 community centers) national initiatives.

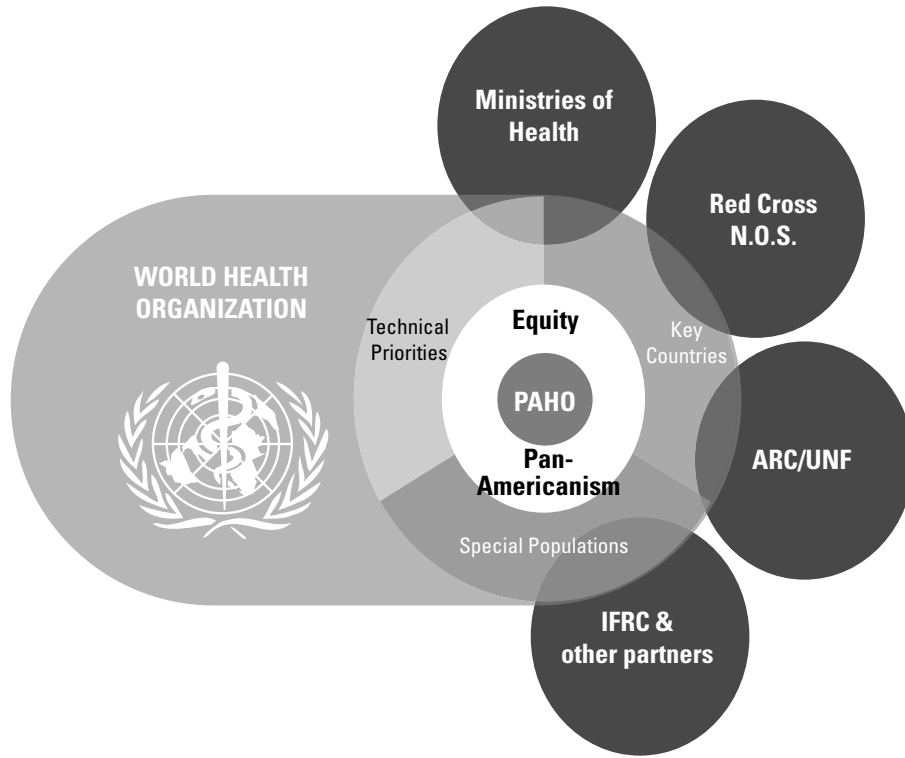
The commitment adopted by the countries during the United Nations Assembly in September 2001 to reduce mortality of children under 5 by two-thirds before 2015, poses a challenge that requires the participation and effort of all. The Pan American Health Organization (PAHO) is taking a leadership role to support countries in the Americas to achieve this challenge and other health related MDGs. The new PAHO Administration has placed particular emphasis on directing efforts to the most vulnerable populations to reduce growing inequalities of health conditions in the Region.

The Pan American Health Organization/World Health Organization is a key player among such international partners involved in setting the global health agenda. This agenda includes health values as equity and universal health care

access, implementing a broader vision of health beyond the traditional health sector area, covering public policy, patient care, medical prevention, promotion of healthy lifestyles, and addressing social and biological health determinants. Many interested international organizations and foundations (e.g.: United Nations Foundation, UNFIP, World Bank, WHO, USAID, BASICS-III, NGOs, etc.) are following this Partnership closely and perceive it as a best case example of inter-institutional collaboration between the United Nations, civil society, and the philanthropic sector.

Figure 12, shows an adaptation of the PAHO Director's presentation highlighting the importance of working in partnership with the global health community and applying this concept to the Partnership.

**FIGURE 6.10: Working in Partnership with the Global Community of Health**



# 7. The IMCI Strategy and Achieving the Millennium Development Goals in the Region of the Americas

---

Dr. Juan Carlos Bossio, Consultant, FCH/CA, PAHO/WHO

## INTRODUCTION

During the last decade of the 20th century, the international community rolled out a coordinated effort on behalf of child survival and to improve health status during the first years of life. The approval of the Goals of the World Summit for Children in 1990 was one such example, galvanizing global commitment to achieving a one-third reduction in the 1990 level of children under five mortality by the year 2000.

At the same time, the international technical cooperation and financing agencies, and the scientific community of the countries, began reviewing the available interventions with a view to determining how to help countries achieve these goals. Upon analyzing these interventions and the processes the countries used to implement them it was found that, in order to ensure that child survival includes healthy growth and development during childhood, it is crucial to have a strategy in place that gives the population access to the available interventions, which, in turn, are integrated in such a way as to reduce missed opportunities for prevention, treatment, and health promotion.

The Integrated Management of Childhood Illness (IMCI) strategy was designed precisely for this purpose. By integrating interventions that focus on the prevention and treatment of the most common life-threatening conditions affecting child health, the IMCI strategy made it possible to address more than one problem at a time, and also to complement treatment and prevention actions with health promotion activities.

The progressive adaptation and implementation of IMCI in the developing countries helped to strengthen the application of individual interventions that had already proven successful in previous decades. Consequently, IMCI was considered the strategy with the best cost-benefit ratio in terms of achieving the goals the countries set for themselves by the year 2000.

The countries' renewed commitment to continue working for child survival, adopted in the Millennium Development Goals, is part of the global effort to reduce poverty and improve the living conditions of the population. Accordingly, the countries face the challenge of continuing to reduce under-5 mortality to one-third of its 1990 level by the year 2015. IMCI, which incorporated new approaches and components during its implementation, continues to be a key strategy for achieving this new commitment, and for strengthening child survival with actions designed to promote healthy growth and development during the first years of life.

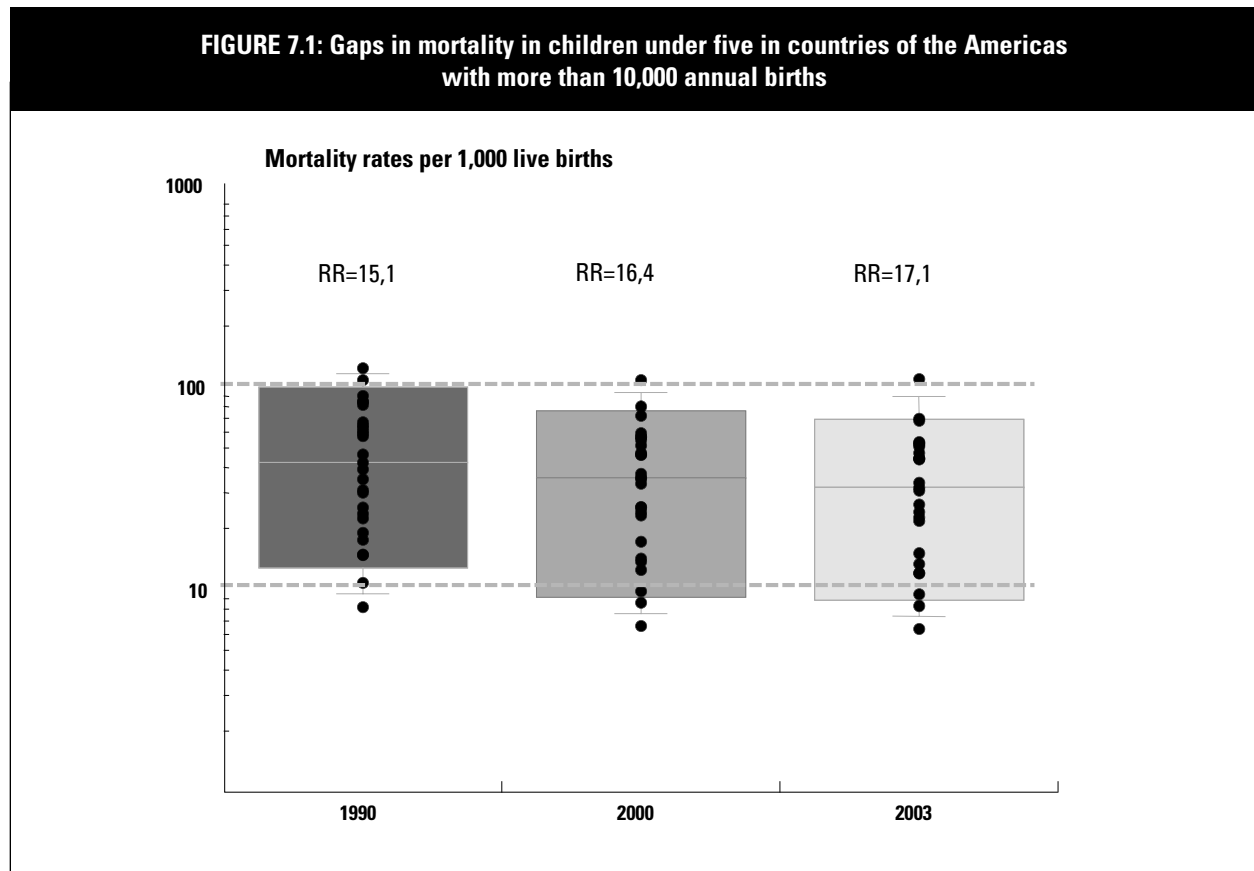
## MORTALITY IN CHILDREN UNDER 5: CURRENT SITUATION AND PROSPECTS

At the beginning of the 21st century it was estimated that approximately half a million children under 5 would die each year, resulting in mortality of 32.1 per 1,000 live births. But because this figure represents the regional average it conceals the marked differences that exist between the countries, thus underscoring the gaps in the risk of dying within



the first years of life, according to place of birth. In fact, these mortality gaps, when compared with those of the different countries that make up the Americas, have actually

increased over the previous decade of the 20th century, and continue to increase in the first years of the new century (figure 7.1).



Children born in a country of the Americas with the highest mortality had a 17.1 times higher risk of dying during the first five years of life than those born in the country with the lowest mortality rate. This risk was two absolute points higher than in 1990.

Despite the fact that more than ten years have elapsed, there is one country in the Region of the Americas that still has an under-5 mortality rate higher than 100 per 1,000 live births, while three countries—Canada, Cuba, and the United States—have mortality rate below 10 per 1,000 live births. During the 1990s, while the country with the highest rate of mortality in children under five years was only able to manage an 11% reduction, the countries with the lowest levels of mortality further decreased their rates by an average of 33%.

Respiratory diseases and diarrhea continue to be the two leading causes of mortality in children under 5; however, their weight in the mortality profile has been decreasing over the last decades of the 21st century. According to the available data for 2003, these causes are currently responsible for less than 15% of total deaths of children under 5 in the Americas. Disorders originating in the perinatal period have now become the leading cause of mortality, which are responsible for approximately 40% of deaths in this age group, and for 60% of deaths in children under 1 year.

This mortality profile for the first five years of life is different from the one observed at the end of the 1980s, when one out of every three deaths in children under 5 was caused by diarrhea or pneumonia. The reduction in mortality from both of these causes, which had already begun in the late

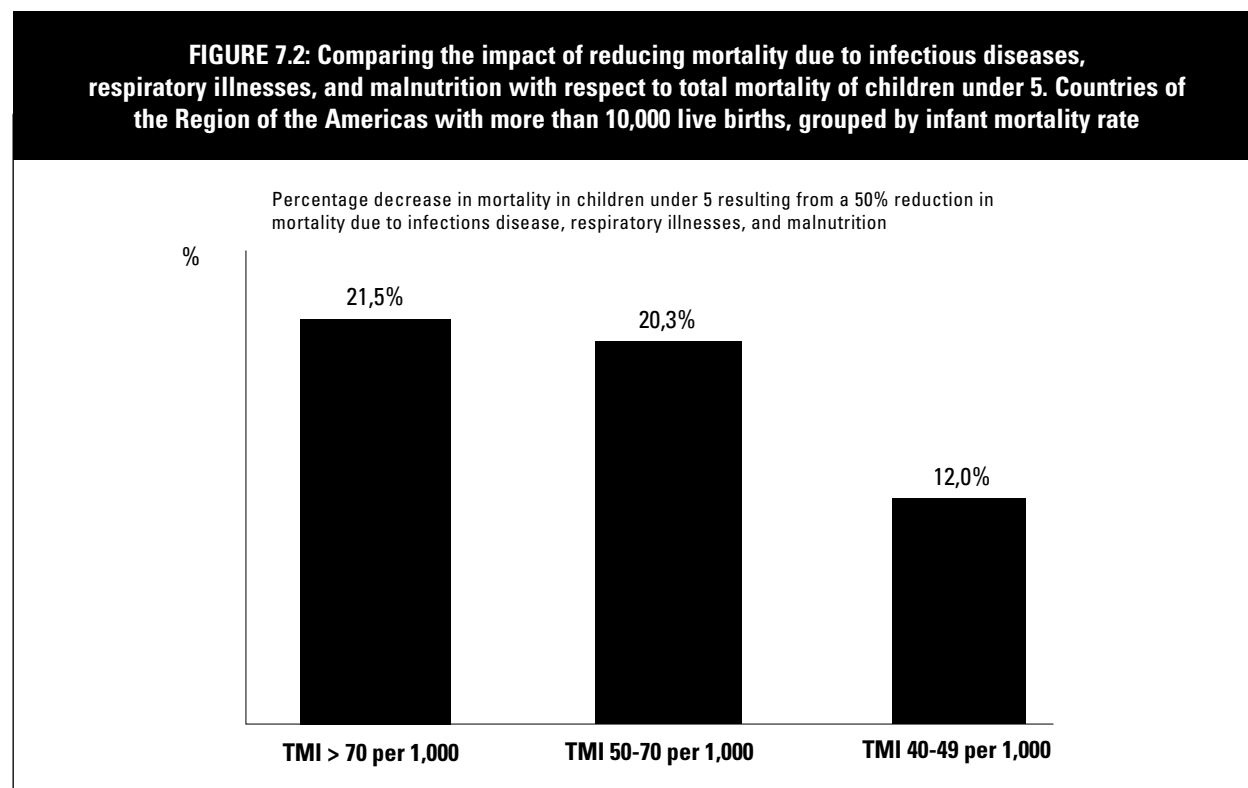
1970s, represented a significant contribution to achieving a one-third reduction in under-5 mortality, as established in the Goals of the World Summit for Children.

Given this change in the mortality profile, if the countries are to make good on their commitments adopted within the framework of the Millennium Development Goals, they must expand interventions to address other health problems that influence child survival, especially disorders originating in the neonatal and perinatal periods.

Taking into account of mortality in children under five profile at the beginning of the 21st century, the impact of a 50% reduction in total mortality due to respiratory illnesses, infectious diseases, and perinatal disorders, would be very different. A reduction of such magnitude in mortality due to perinatal disorders would result in a 20% decrease in total mortality, whereas if mortality due to respiratory illnesses or infectious diseases in children under 5 were reduced by half, the contribution to the decline in total mortality of children under 5 would be only 6% or less.

The greater weight of perinatal disorders currently observed in mortality during the first five years of life makes them the main threat to child survival. Therefore, achieving a two-thirds reduction in under-5 mortality is not possible unless specific steps are taken to address appropriate, early treatment and prevention of disorders associated with pregnancy, delivery, and the first weeks of life.

Simply reducing mortality during the perinatal and neonatal periods, however, will not be enough to achieve the proposed MDGs. Moreover, the change in the mortality profile expressed as the regional average does not reflect the profile of each country: in those with high rates of under-5 mortality, respiratory illnesses, and infectious diseases continue to be leading causes of death and, in some, are responsible for up to 40% of the deaths during the first years of life. In these countries, a reduction of mortality due to these causes would have a very high impact in terms of reducing total mortality of children under 5 (figure 7.2).



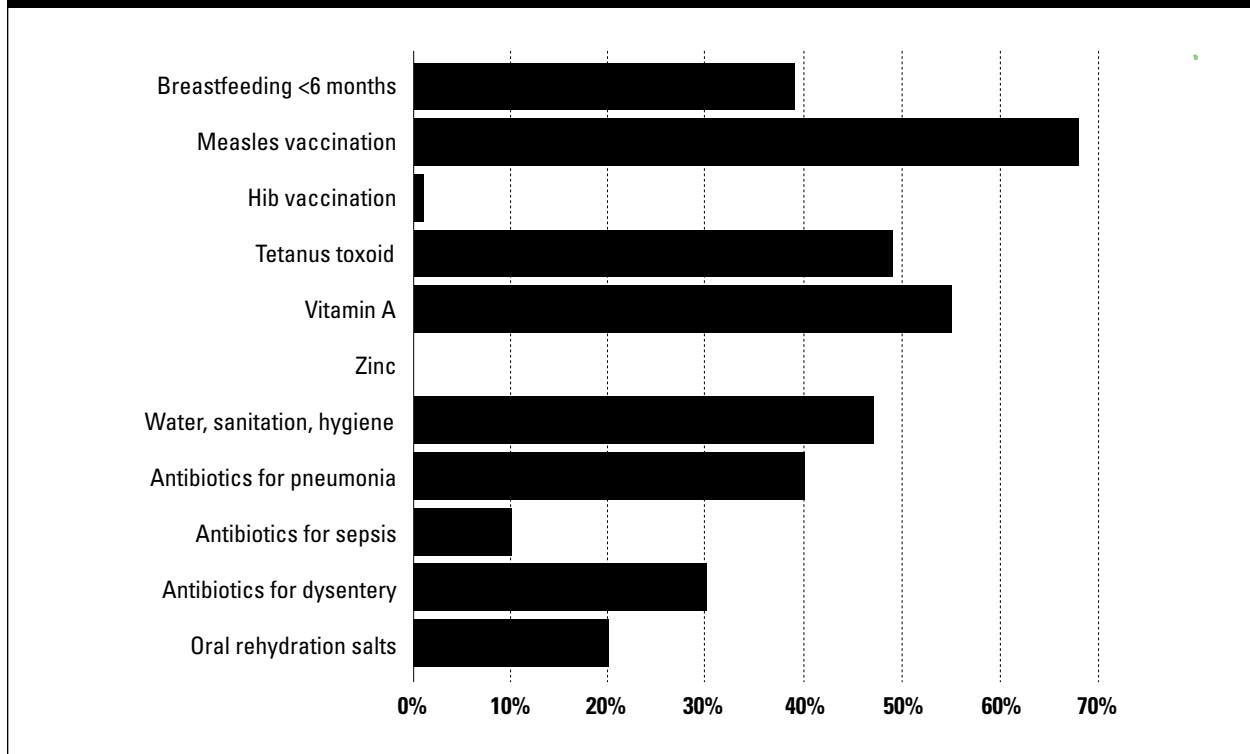
If the countries of the Region of the Americas with high infant mortality were able to achieve a one-half reduction in the number of deaths of children under 5 due to infectious diseases, respiratory illnesses, or malnutrition, it would have roughly the same effect as the Region as a whole would achieve by reducing mortality due to disorders originating in the perinatal period. In these countries with high mortality, strengthening interventions that have proven effective during recent decades at reducing deaths due to infectious diseases and respiratory illnesses continue to be priorities with a view to advancing the work of child survival and meeting the targets proposed in the MDGs. This will also help provide thousands of families with the benefits already available to many others living in developing countries with lower mortality, and in this way fulfill the commitment of the countries of the Americas to improve

equity in the access to and use of basic measures of disease prevention and treatment.

#### AVAILABLE INTERVENTIONS FOR REDUCING MORTALITY IN CHILDREN UNDER FIVE YEARS OLD: POTENTIAL IMPACT AND CURRENT COVERAGE

A limited set of available interventions can help reduce mortality due to infectious diseases and respiratory illnesses in children under 5. These include treatment interventions such as oral rehydration therapy (ORT), the use of antibiotics to treat pneumonia, sepsis, dysentery, and *Haemophilus influenzae* vaccination. On average, it is estimated that these interventions could prevent one-third of deaths of children under 5, with ORT accounting for at least half of this reduction.

**FIGURE 7.3: Current coverage of selected interventions for preventing deaths in children. Estimates for 42 developing countries accounting for 90 % of deaths of children under 5 in 2000**



Source: Jones G. et al. How many child deaths can we prevent this year? The Lancet. Vol. 362, July 5, 2003.

---

---

According to surveys conducted in some of the developing countries of the Americas, the percentage of children between 2 and 6 months of age who are exclusively breastfed during the weeks immediately preceding the survey was less than 50%. These percentages were higher in only a few countries, but never more than 60%.

The failure to adopt practices that contribute to child survival and improve growth and development only is not only observed in the population, but also in the health services. Evaluations at the country level to determine the degree to which key child survival interventions have been implemented underscore the significance of missed opportunities by health workers in terms of the early detection and appropriate treatment of children's health issues during office visits. In most cases, contact with health workers was not used to provide the family with information and training designed to improve family know-how and care and treatment of children in the home.

#### PROSPECTS AND CHALLENGES TO IMPROVING CHILD HEALTH IN THE AMERICAS AND ACHIEVING THE MDGS

Given the change in mortality profile of children under 5, if we are to continue reducing mortality during the first years of life and thus, improve child survival, multiple interventions will be required. Interventions targeting the prevention and treatment of infectious disease and respiratory illnesses, which have already proven their impact on mortality, will continue to be a priority since, on average, they still account for at least one out of every four deaths of children under 5 in the Americas.

Moreover, the burden of these diseases attributable to childhood death is greatest in the countries of the Americas with infant mortality rates of 50 or more per 1,000 live births. Given the priority of reducing mortality in these countries as a way to contribute to greater equity in child health conditions, the implementation of interventions to prevent and treat infectious diseases and respiratory illnesses is indispensable.

However, in order to meet the proposed reduction of mortality in children under five years old envisioned in the MDGs, mortality rates in the region as a whole and in the countries must be less than 40 per 1,000 live births. Achieving this will require addressing the prevention and control of disorders originating in the perinatal period. Because these disorders account for 60% of deaths in children under 1 in these countries, only a reduction in the number of such deaths can improve child survival.

These countries will face these challenges in the years ahead, and yet their coverage levels of high-impact interventions—such as breastfeeding, oral rehydration therapy, and antibiotics for the treatment of pneumonia and sepsis—is still low. Consequently, countries need to step up their efforts to increase coverage with these interventions, followed up with progressive increases in the number of families that also have access to appropriate prenatal/perinatal care and treatment.

The IMCI strategy has been effective at improving the application of its comprehensive set of interventions, and thus diminishing missed opportunities—in direct contrast to what happens when such interventions are applied individually. The strategy has also demonstrated its usefulness in terms of incorporating educational contents into all contact between health workers and families, thus helping to improve family know-how and child health care and treatment practices.

During its adaptation and implementation, IMCI has demonstrated its versatility at adapting to different child morbidity and mortality profiles, and its ability to be combined with other interventions and programs to improve family and community health. This fact has made it possible to progressively incorporate complementary components into the strategy, especially the perinatal/neonatal component, inasmuch as it addresses the leading causes of mortality due to these disorders during the first life month.

Accordingly, strengthening IMCI implementation, expanding it to reach the most vulnerable population groups, and complementing its set of integrated interventions by strengthening its perinatal/neonatal component, present a

---

---

favorable outlook for achieving the proposed goals under the MDGs. In addition, by reinforcing the components of IMCI pursuant to the mortality profile in each country, we can help achieve greater equity in child health conditions

and diminish the burden of infectious diseases and respiratory illnesses in those areas where they still constitute major threats to child survival.

## 8. Key Aspects of the IMCI strategy. Integration of Interventions for the Survival and Healthy Growth and Development of Children, Adolescents and Young People at the Family and Community Level

---

---

Dr. Yehuda Benguigui, Unit Chief, Child and Adolescent Health Unit (CA),  
Community and Family Health Area (FCH), PAHO/WHO.

### IMCI AS A STRATEGY FOR DELIVERING INTERVENTIONS

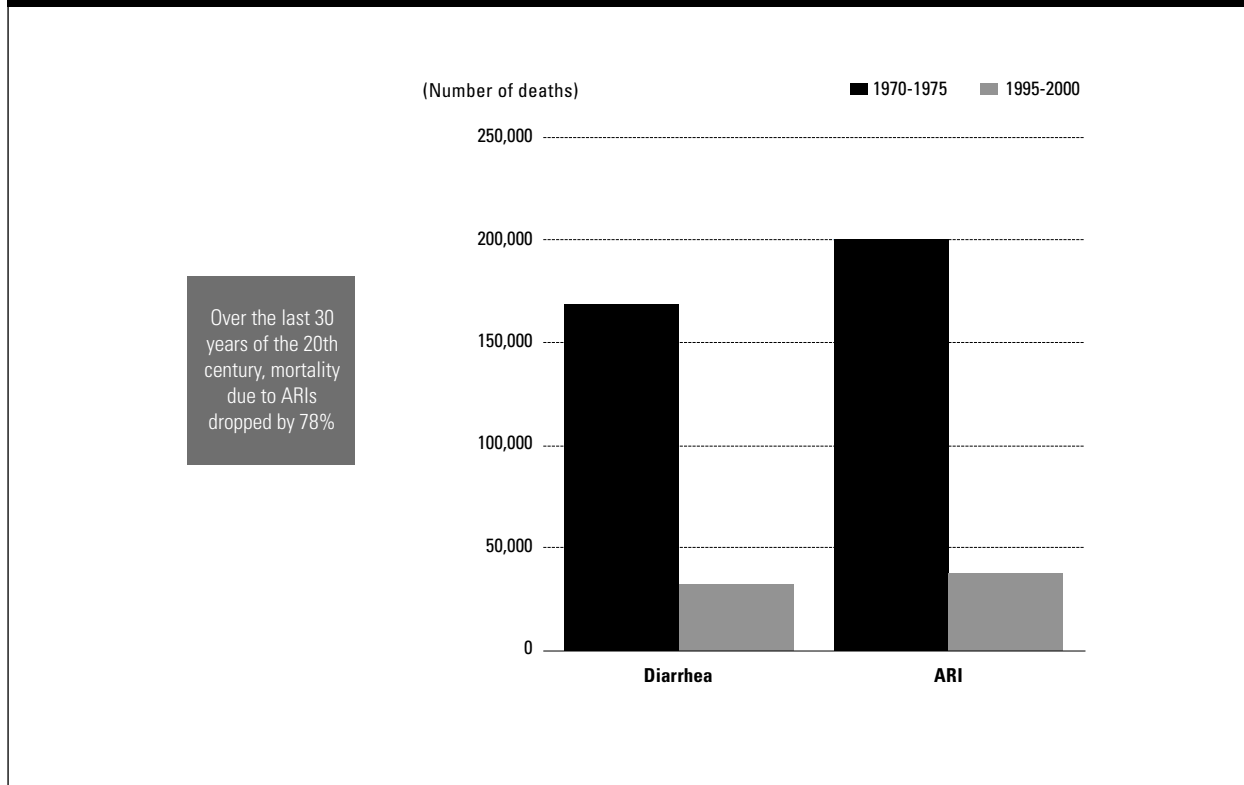
The revival of child survival as a pending matter underscores the difficulties in reaching the entire population with effective, low-cost interventions that, while available, do not benefit all those who need them. During recent decades, technological advancements have made a set of effective interventions available to the population for preventing and treating the most common diseases effecting child health. Vaccines, oral rehydration therapy (ORT), and standardized guidelines for the evaluation and treatment of infectious diseases and respiratory illnesses have contributed to the decline of serious morbidity and mortality due to these causes during the first years of life. Accompanied by improved living conditions of the population, these interventions also helped to improve growth and development during childhood.

This progress was observed both in the developed countries and in many developing countries that managed to extend coverage of key interventions for child survival and healthy growth and development, putting them within reach of most of the population. These achievements resulted in a constant and marked downward trend in infant mortality rates and

mortality in children under 5, as well as in the reduced incidence and severity of episodes of illness during the first years of life. The use and application of these low-cost interventions has contributed not only to reducing infant mortality, but also to accelerating its downward trend, especially during the last decades of the 20th century.

During that period, an important decline was observed in mortality in children under five due to diarrhea or acute respiratory infections (ARIs). While these two causes were responsible for some 400,000 annual deaths at the beginning of the 1970s, by the end of the 1990s they were responsible for less than 100,000 annual deaths (figure 9.1). This accounted for a nearly 80% decline, which notably diminished the burden of these diseases as causes of childhood deaths. Upon being recognized, together with malnutrition, as the leading threats to the child survival and healthy growth and development during the first years of life, diarrhea, and pneumonia were downgraded to the third leading cause of death in most countries of the Americas.

**FIGURE 8.1: Decline in mortality due to diarrhea and acute respiratory infections in children under 5 in the Region of the Americas between 1970-1975 and 1995-2000**



Source: PAHO/WHO. Estimates of the Child and Adolescent Health Unit (FCH/CA).

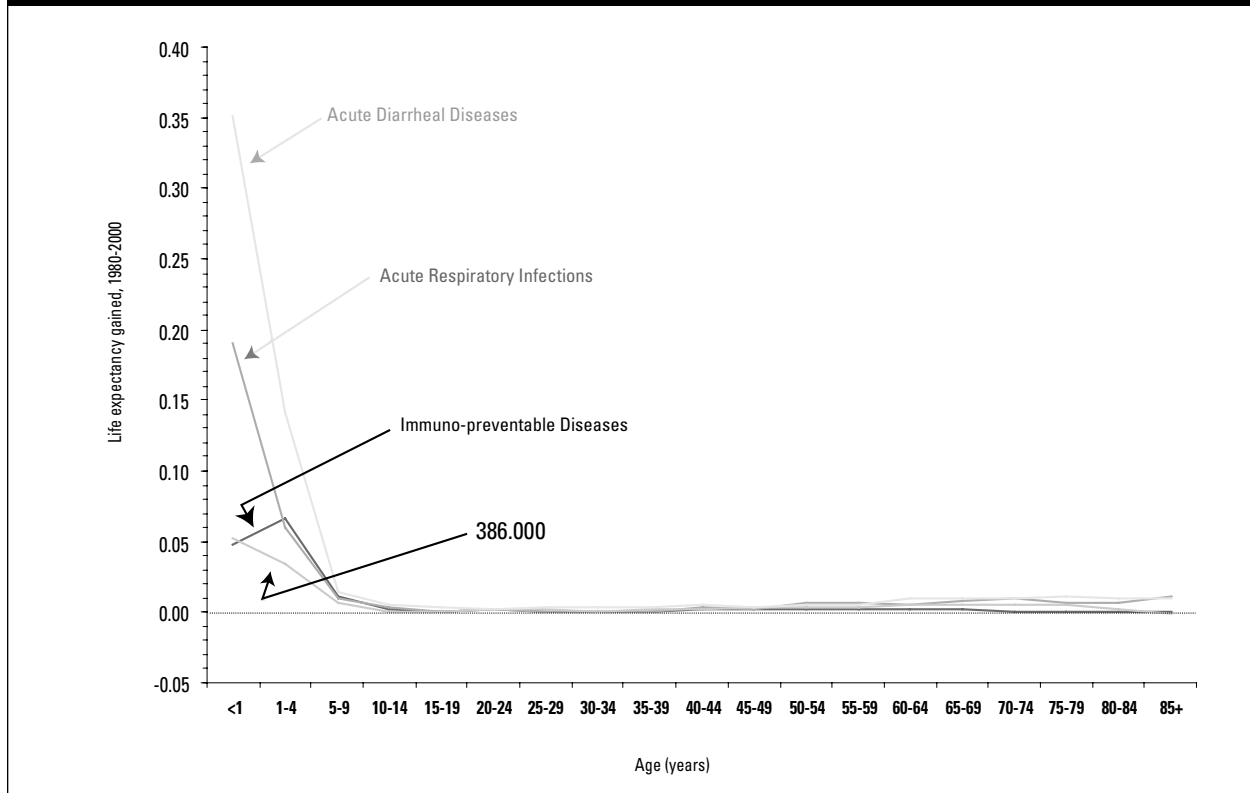
The important decline in mortality from these causes helped to increase the life expectancy of the population of the Region. The greatest gain in life expectancy during the last twenty years was due precisely to the reduction in mortality from acute diarrheal diseases and respiratory infections in children under 5. This contribution to life expectancy was even greater than that of vaccine-preventable diseases and nutritional deficiencies (figure 8.2).

PAHO has estimated that on the order of two years of life expectancy were gained in the Americas “just by reduc-

ing the risk of dying from communicable diseases (60%) and perinatal disorders (25%) in populations of children under 5.”<sup>5</sup> This decline coincided with the launching and implementation of oral rehydration therapy (ORT) in the mid-1970s, and standardized case management of ARIs (MEC/ARI) in the mid-1980s, both interventions were subsequently included in the Integrated Management of Childhood Illness (IMCI) strategy in the mid-1990s. The strategy was implemented and expanded in most of the developing countries of the Americas.

5 Pan American Health Organization. Primary Health Care in the Americas: Lessons Learned Over 25 Years and Future Challenges. Document CE 132/13, presented at the 132nd Session of the Executive Committee. Washington, D.C., 23-27 June 2003.

**FIGURE 8.2: Impact of controlling priority diseases of primary health care with respect to life expectancy at birth; Region of the Americas, 1980-2000**



Source: Document CE132/13: Primary Health Care. PAHO/WHO, Washington DC, USA, 2003.

The contribution to life expectancy owing to the decline in mortality from vaccine-preventable diseases and nutritional deficiencies, on the other hand, was smaller. With regard to the former, this is associated with the low number of deaths from vaccine-preventable diseases that had already occurred in the Americas in the mid-1970s due to advances made by national vaccination programs of all the countries. For example, the Expanded Program of Immunization (EPI) of PAHO/WHO recorded some 7,000 new cases of diphtheria in children under 1 year in 1978, which had dropped to less than 500 by the mid-1990s. This decline occurred simultaneously with the massive increase in vaccination coverage, which jumped from around 20% to 90% during that same period.

These results underscore the impact that available interventions can have on reducing child morbidity and mortality. In addition, considering that this impact did not achieve the same results in each country, it is important to ensure that the benefits of these interventions are extended to those families that still lack access to or have not been able to make use of them.

A review of the available interventions for preventing morbidity and mortality from some of the diseases that still threaten child survival in the Americas shows that a limited set of these can have a considerable impact (table 8.1).



**TABLE 8.1: Available interventions for preventing postneonatal deaths and evidence of their impact on reducing neonatal mortality**

Intervention	Diarrhea	Pneumonia	Measles	Malaria
Breastfeeding				
Materials treated with insecticides				
Supplemental feeding				
Water, sanitation, and hygiene				
Hib vaccination				
Zinc				
Vitamin A				
Measles vaccination				
Oral rehydration therapy				
Antibiotics for pneumonia				
Antimalarials				
Antibiotics for dysentery				



Source: Jones G. et al. How many child deaths can we prevent this year? The Lancet. Vol. 362, July 5, 2003.

At least nine simple and low-cost interventions have a demonstrated impact on preventing death due to diarrheal diseases and pneumonia, both of which cause approximately two out of ten deaths in children under 5, and these figures are even higher in many developing countries of the Americas. Some of these interventions, particularly those aimed at improving breastfeeding and the child feeding, also help to reduce general morbidity and mortality during the first years of life, and are crucial for achieving better growth and development during childhood.

Given the change in the mortality profile during the first five years of life and that disorders originating in the perinatal period are now the leading cause of infant mortality in the Americas, it is also important to point out that there are specific interventions that can prevent many of damage sustained by children during pregnancy, delivery, and the first weeks of life. There is also evidence documenting the impact produced by implementing these interventions, in terms of reducing the occurrence and severity of diseases and problems of the perinatal period (table 8.2).

**TABLE 8.2: Available interventions for preventing neonatal deaths and evidence of their impact on reducing neonatal mortality**

Intervention	Asphyxia at birth	Premature birth	Neonatal tetanus	Neonatal sepsis
Breastfeeding				
Materials treated with insecticides				
Prenatal steroids				
Proper management of the newborn's temperature				
Tetanus toxoid				
Nevirapine and food replacement				
Antibiotics to prevent premature rupture of membranes				
Clean delivery				
Intermittent preventive treatment with antimalarials during pregnancy				
Antibiotics for sepsis				
Neonatal resuscitation				

**Sufficient evidence**
 **Insufficient evidence**

Source: Jones G. et al. How many child deaths can we prevent this year? The Lancet. Vol. 362, July 5, 2003.

Some interventions have been proven effective for preventing tetanus and neonatal sepsis, the latter of which is responsible for at least 11,000 annual infant deaths in the Americas. Mortality due to neonatal tetanus in the Americas, although reduced considerably in recent decades, continues to account for some 100 annual infant deaths. These deaths could have easily been prevented with simple, low-cost measures, such as immunization and good hygiene during the delivery and the birth.

Although there is only limited evidence at present of the impact of neonatal resuscitation on preventing deaths due to asphyxia at birth, its appropriate practice would help reduce the harm it currently poses to child health. Asphyxiation at birth causes more than 39,000 annual deaths among chil-

dren in the countries of the Americas, which is double the number of those attributable to malnutrition during the first five years of life, and a similar figure caused by diarrhea in the same period.

Interventions for preventing both postneonatal and neonatal deaths are already being practiced in the Americas. Many have demonstrated their benefits in terms of reducing the incidence and severity of the diseases they prevent, and of reducing the number of deaths from these causes. However, the persistence of the problem in the Americas, and the unequal distribution of such deaths between the different countries of the Region, underscores the need to adopt innovative strategies to facilitate access of all populations of the Region to these interventions.

---

---

These strategies should take into account the key role played by the family and the child's immediate environment (i.e., where children are born, grow up, and develop). Moreover, these strategies must also consider the potential of both institutional and community health workers in terms of improving the population's health knowledge and practices generally, and the care and treatment of children in particular.

To a large extent, children's physical health, as well as their individual, family, and social development, is determined by how well their family and immediate and "mediate" environments function. This also includes the health care and treatment of every member of the family, since children will be born, grow, and develop more healthily in a family environment that is free of disease and health hazards.

Health workers can and should perform an important role in promoting such healthy family and community environments, since doing so will not only benefit the health of children, but the entire population as well. Accordingly, it is crucial that, when carrying out interventions, health workers adopt a more integrated approach in addressing the treatment and prevention of people's health problems—one that considers the family and community context in which they live. This will facilitate more efficient decision-making with a view to preventing risks and promoting healthy living habits.

This integrated approach to care was used in developing the IMCI strategy, and is one of its main features and has given it the most potential impact for improving the health conditions of children and their families.

IMCI is a strategy based on the available scientific evidence of the interventions that form it—interventions that have demonstrated their impact on preventing child mortality and morbidity. The strategy focuses on addressing the most prevalent diseases and problems still threatening the survival, growth, and development of children in most of the developing countries. IMCI also offers an integrated approach to care, which not only includes interventions to detect and treat disease, but also measures designed to prevent risks and promote healthy living habits. Finally, IMCI

also incorporates specific recommendations designed to expand care beyond its focus on children through research into the potential health problems and diseases of parents, thus establishing a starting point for addressing family health care.

The proposal for the implementation of the IMCI strategy has not only focused on actions aimed at the health sector, as reflected in two of its three components: improving the performance of the health workers; and improving the operation and organization of the health services. In fact, its third component has a family and community focus, with a view to improving the health care knowledge and practices of both the family and the community in terms of their role in care and treatment during the first years of life.

In view of IMCI's set of integrated interventions targeting the primary health problems of child health, disease prevention, treatment, and health promotion, as well as its expanded focus which includes the health services, the family, and the community, it is the most appropriate strategy for the current challenge of working to ensure child survival and better growth and development during childhood.

## IMCI STRATEGY: NEW DEVELOPMENTS AND PROGRESS

Initially, the IMCI strategy included an integrated set of basic interventions that focused on main diseases threatening child survival at the global level through the end of the 20th century. In most developing countries, these were infectious and respiratory diseases responsible for 40% or more deaths of children under 5. Taking stock of the different situations both between and within countries, PAHO/WHO recommended that the contents of the IMCI strategy be adapted to the specific epidemiological profile and operational conditions in each country.

In the Region of the Americas, the burden of infectious and respiratory diseases in the mid-1990s was less than 40%, and operational conditions at the health services made it possible for them to include complementary interventions for

---

---

the prevention and treatment of other noninfectious health problems. Consequently, these situations were taken into account while adapting IMCI contents and subsequently during its implementation. As a result, it was recommended that the strategy develop and test complementary contents, thus making it possible for the strategy to strengthen its integrating function in health care for children under 5.

Pursuant to this recommendation, new components of the IMCI strategy were developed to address obstructive respiratory diseases; child abuse and sexual abuse; diseases of the endocrine system (i.e. diabetes); neurological disorders (i.e. epilepsy); and interventions for the early detection of developmental disorders and early psychosocial stimulation in childhood. In addition to these components, IMCI added yet another to address perinatal and neonatal care, inasmuch as disorders originating in this period are the leading cause of mortality in most countries of the Americas.

This process allowed the strategy to incorporate new interventions in the areas of prevention, treatment, and health promotion, which, in turn, strengthened the populations' access to these interventions and promoted their use. Accordingly, IMCI was enhanced by incorporating interventions such as actions aimed at preventing congenital rubella and the vertical transmission of human immunodeficiency virus (HIV), and administering vitamin A and other micronutrients to supplement infant feeding. Other treatment interventions were added, including actions to improve women's health conditions during and after pregnancy, to promote institutional childbirth, to improve delivery conditions, and to ensure treatment of infectious diseases (i.e. tuberculosis, malaria, dengue and chagas' disease).

Strengthening its role as strategy for integrating actions to promote child and family health as a part of routine care, IMCI also incorporated actions to stimulate early psychosocial development; to encourage families to adopt appropriate hygiene habits; to promote good family conduct and the resolution of conflict by consensus; and generally, to contribute to healthy environments that reduce children's exposure to environmental risks.

As a result, IMCI placed greater emphasis on the need to complement its implementation with other strategies addressing different stages of life, thus contributing to the integrated vision of health throughout the life cycle. Currently, this approach targets the development of other strategies that address, in an integrated manner, the health and care of children age 5 and older, adolescents, and young adults (Integrated Management of Adolescent Needs – IMAN), and pregnancy (Integrated Management of Pregnancy and Childbirth, IMPAC).

## ADOLESCENT HEALTH

IMAN is very important not only in terms of guaranteeing the continuity of prevention, promotion, growth, and development actions during infancy and childhood, but also because of its direct impact on child health, inasmuch as the number of adolescent pregnancies and births is ever increasing, and, consequently, there is a variable percentage of children currently being born, growing, and developing in families made up of adolescents.

IMAN is an evidence-based strategy that draws on the lessons learned during the preparation and implementation of other integrated strategies, such as IMCI. IMAN's design was based on the footprint of already existing interventions to treat and prevent disease and other problems of adolescence. IMAN integrated these strategies and added a strong component aimed at promoting healthy living habits. The IMAN strategy seeks to improve the quality of health care of adolescents and young adults, and to address the prevalent problems affecting this population, especially the most vulnerable groups.

Accordingly, IMAN focuses on the most relevant diseases, problems, and risks. These including accident prevention; the prevention and treatment of acquired immunodeficiency syndrome and infection with the human immunodeficiency virus (AIDS/HIV), the prevention and treatment of other sexually-transmitted diseases (STDs), respiratory diseases, tuberculosis, other noninfectious diseases, and the detection of and adequate care for psychological disorders, addictions, and violence.

Implementation of IMAN will help identify the key factors affecting the health of each adolescent and then evaluate and classify them by order of importance to adolescent health. IMAN is based on interventions with proven scientific effectiveness, thus contributing to an approach to care based on available evidence. In addition, the strategy includes a strong disease prevention/health promotion component, with a view to reducing adolescents' exposure to risks that threaten their healthy growth and development.

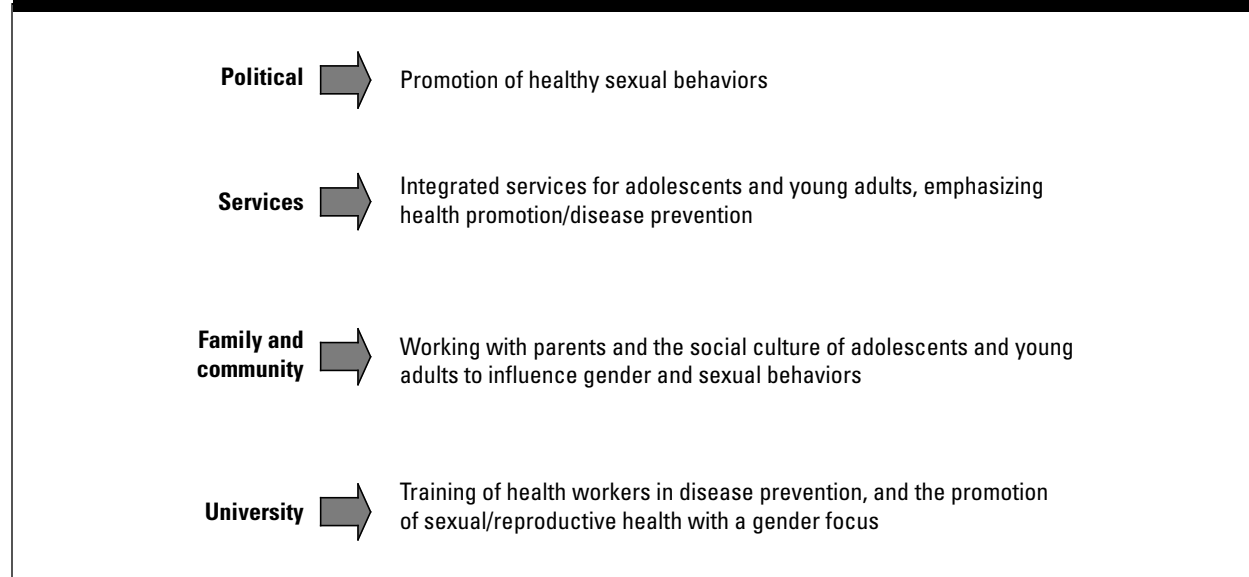
Implementation of this strategy will place priority on identifying the most vulnerable groups of the adolescent population, and will comprise actions at different levels, including decision-makers whose policies impact the health of adolescents, as well as the health services, the community, and the institutions that train human resources involved in providing care during adolescence. This will require the strengthening of intersectoral coordination and collaboration, inasmuch as the determinants of adolescent health status are associated with the social, economic, and cultural conditions of the family and the population in which they live and develop (figure 8.3).

Accordingly, it is crucial to follow a simultaneous approach that addresses the different intervention levels, in view of the influence of public policies, the family, and social considerations on the aspects of behavior that determine adolescent health risks. In this regard, for example, public policies are essential for preventing accidents, unintentional injuries, and violence, which are the leading cause of mortality among adolescents and youth in most countries. Likewise, public policies and social awareness regarding the importance of AIDS and HIV infection play a key role when developing prevention and treatment interventions.

Drawing on the lessons learned during the adaptation and subsequent implementation of IMCI, and observing the specific situations of adolescents in the different countries, areas, and population groups, progress is being made on different activities and lines of action (table 8.3).

Carrying out these steps will help ensure that the strategy takes the different situations into account, as will drawing on sufficient scientific evidence regarding the impact of existing interventions, with a view to determining which are

**FIGURE 8.3: Intervention and action levels of the Integrated Management of Adolescent Needs (IMAN) strategy, designed to strengthen the prevention and treatment of acquired immunodeficiency syndrome (AIDS) and infection with human immunodeficiency virus (HIV) in adolescents**



**TABLE 8.3: Next steps on the way to adapting and implementing the Integrated Management of Adolescent Needs (IMAN) strategy in the Region of the Americas**

1. Regional baseline on adolescent health: scope and trends of problems and risks.
2. Analysis of adolescents' contribution to the Millennium Development Goals (MDG): adolescent pregnancy, adolescent parents, incidence of HIV/AIDS.
3. Identification of priority countries and target groups.
4. Identification of vulnerable groups of the adolescent population.
5. Evaluation of existing programs and interventions.
6. Identification of gaps between services and needs.
7. Selection of the most appropriate interventions in terms of age and gender, and identification of implementation levels.
8. Validation by groups of experts and field tests in the five countries selected.
9. Mobilization of resources.
10. Launching of the regional plan, implementation, follow up, and evaluation.

most appropriate for each country, its specific areas, and population groups.

#### EXPANDING IMCI FOR CHILD SURVIVAL, HEALTHY GROWTH, AND DEVELOPMENT

Implementation of the IMCI strategy has helped to strengthen the benefits obtained over recent decades to reduce the risk of dying during the first years of life, and to diminish the burden and impact of the most common childhood diseases. Likewise, IMCI has strengthened the integrated approach to child health care, providing health workers and families with practical tools for the early detection of problems, the prevention of risks, and the promotion of healthy growth and development.

Because these benefits have yet to be available to many population groups and geographical areas of the Americas, expanding IMCI is a necessary priority, with a view to ensuring that the benefits already obtained in many countries reach the most vulnerable groups, and in so doing, help reduce the disparities in child health conditions.

However, it is also necessary to take advantage of the countries' momentum in implementing IMCI, with a view to accelerating the application of other key interventions to ensure that child survival is accompanied by healthy growth and development. With respect to the life cycle approach to health care, IMCI should promote health care for each member of the family. To this end, IMCI should accelerate the implementation of its perinatal and neonatal components, as well as link its implementation to actions for improving women's health, and strengthen interaction and coordination with health care strategies for children age 5 and older, adolescents, young adults, and adults.

The challenge posed by the Millennium Development Goals can only be achieved through integrated and coordinated efforts by all sectors. Given the scope of the problems associated with child survival in the developing countries and the persistence of a disparities in access to the benefits of available interventions, expanding IMCI is a priority action, both in terms of its geographical coverage, and its progressive and timely incorporation of additional components that contribute to the health and well-being of children and their families.



# 9. Conclusions and Recommendations

## Fourth Meeting of the Regional Technical Advisory Group on IMCI (TAG-IMCI) 16-17 November 2004, Toledo, Spain

---

---

### CONCLUSIONS

The Millennium Development Goals (MDGs) adopted by the countries in 2000, and the specific goal of reducing mortality in children under five years old to two-thirds of its 1990 level by 2015, reaffirm the need to continue moving ahead with significant efforts to promote child survival in all countries of the Region of the Americas.

In recent decades, the countries of the Region have made important progress in reducing child mortality. Likewise, the decrease mortality in children under five has helped increase the life expectancy of the population.

The reduction in mortality due to diarrheal and respiratory diseases has contributed most to the increase in life expectancy. This development helped build on progress already made in reducing mortality due to vaccine-preventable diseases, thanks to an adequate immunization system.

However, the progress achieved thus far is not enough and has not been evenly distributed among the countries of the Region of the Americas.

Approximately half a million children die annually in the Americas, and diarrheal and respiratory diseases are still responsible for at least 1 in 4 of these deaths. Disorders of the perinatal/neonatal period emerged as the leading cause of child mortality and currently account for more than 60% of deaths of infants less than 1 year of age, and approximately 40% of under-5 mortality.

The progress observed in recent decades has not been evenly distributed throughout the Americas. In fact, upon comparing mortality rates in children under five in the countries of the Region, it is found that gaps have actually increased. The pace of decline in mortality in general, and that attributable to infectious or respiratory diseases in particular, was different. In some countries these causes are still responsible for between 40% and 50% of deaths of children under 5.

In view of this situation, the commitment of the countries to achieving the MDG on mortality in children under five poses a great challenge. This challenge is greater still in countries where less progress has been made, and in which 2000 levels of mortality were above the goal set at the World Summit for Children—a one-third reduction in 1990 mortality levels.

Consequently, TAG-IMCI considers that the Integrated Management of Childhood Illness (IMCI), continues to be a key strategy to ensure continued progress in reducing under-5 mortality, and for improving the quality of care and treatment of children at the health services, in the home, and in the community.

Strengthening and expanding IMCI, especially efforts aimed at reaching the most vulnerable population groups, will contribute greatly to child survival and to improving equity, thus bridging the gaps between and within countries.

TAG-IMCI also considers that because of the change in the Region's epidemiological profile, characterized by the emergence of perinatal/neonatal problems as the leading cause of infant and child mortality, the IMCI strategy must implement a perinatal/neonatal component. Only in this way



---

---

can the countries reduce mortality in children under five to meet the MDG target by 2015, given that 40% of such deaths are due to problems associated with the perinatal/neonatal period.

Considering the progress achieved thus far in the implementation of the IMCI strategy at the health services, in the family, and in the community, and also taking into account the new components available for the prevention and treatment of other child health problems—especially those associated with the perinatal/neonatal period—, TAG-IMCI has formulated following recommendations:

1. The members of TAG-IMCI enthusiastically support Resolution CD 44/R12 on the family and health, since they believe the most important decisions regarding the quality of life and health of children are made within the family.

The members of TAG-IMCI believe that the community component of IMCI is a basic support instrument designed to strengthen the family's capacity to raise children.

2. TAG-IMCI has reviewed Document CD 44/12 (The Contribution of the Integrated Management of Childhood Illness (IMCI), to Attaining the Millennium Development Goals) approved by the Directing Council, and adheres fully to the proposals it contains for attaining the objectives and goals assumed by the countries of the Region of the Americas in the context of the Millennium Development Goals (MDGs), particularly with respect to the two-thirds reduction in the 1990 level of mortality in children under five by the year 2015.

With a view to moving forward on specific activities, TAG-IMCI considers it necessary to develop a 5-year work plan to disaggregate the final goals into a set of sub-goals, and which includes monitoring and evaluation indicators for each of these stages.

3. With a view to supporting the commitment of reducing mortality in children under five to two-thirds of its 1990 level by 2015, adopted by the governments of the

Region within the framework of the MDGs, TAG-IMCI recommends that every effort be made to encourage governments to incorporate these objectives and goals into public policy and to use them as guidelines for managing health.

4. Situation analysis is needed in each country of the Region of the Americas in order to determine the baseline objective with regard to reducing mortality in children under five years old, pursuant to the Millennium Development Goals.

TAG-IMCI considers that this analysis should include stratification within the countries, for which purpose it proposes that the Technical Unit, in coordination with all other pertinent units and areas, provides assistance with the methodology for this analysis. This will provide the countries with information on the situation and allow them to develop their actions with special emphasis on the most vulnerable groups.

5. The change in the mortality profile attributable to the reduction in deaths due to infectious diseases, respiratory illnesses, and malnutrition, has increased the relative importance of perinatal/neonatal disorders. Accordingly, attaining the goals to reduce child mortality pursuant to the MDGs will require the addition of actions aimed at the prevention and control of perinatal/neonatal disorders.

TAG-IMCI considers that IMCI's perinatal/neonatal component can be successfully adapted by the countries of the Region of the Americas, and all should immediately include it as part of basic primary health care actions within the IMCI framework.

6. In order for the countries to attain the goals and objectives they committed by 2015, the amount of available resources for developing, implementing, and expanding the strategy must be increased in the coming years, with a view to reaching the most vulnerable groups.

Aware of the cutback in available resources, and in order to guarantee the attainment of the goals assumed, TAG-IMCI considers it necessary to mobi-

- 
- 
- lize existing resources and to add others as necessary in order to ensure coverage of and quality services for the most vulnerable groups. To this end it recommends:
- 6.1. Preparation of a strategic plan to identify and mobilize resources from international organizations, bilateral and international cooperation agencies, nongovernmental organizations, private initiative, etc.
  - 6.2. Support the Ministries of Health of the countries in efforts to encourage governments to allocate key resources in their national budgets (including human resources, immunization, and essential drugs) for IMCI implementation and expansion to ensure that the most vulnerable populations have access to such resources.
7. In addition to the commitment of governments to expanding the IMCI strategy and incorporating its new components pursuant to the epidemiological profile and operational conditions in each country or area, the commitment of academic institutions, the health services network, the family, the community, and civil society organizations is also required.
  8. TAG-IMCI recommends continued support for research to evaluate the results and impact of implementing the IMCI strategy and its new components.
  9. TAG-IMCI has actively participated in programmed activities and has contributed to strengthening the IMCI strategy. Beginning now it recommends:
    - 9.1. More active involvement of members in advisory services concerning projects and technical issues related to the operational aspects of the strategy (i.e., training personnel, follow-up of the process), as well as in advocacy efforts, and in the mobilization of resources.
    - 9.2. Technical Unit needs to increase the flow of communications with TAG-IMCI members through more information, involvement in events, etc.
10. TAG-IMCI supports and stimulates the use of available training and communications technology in the amounts indicated, depending on the audience and value system to be applied.
  11. TAG-IMCI recognizes the progress made and results achieved toward incorporating the strategy into pediatric literature used in the Region of the Americas, and it recommends continuing these efforts to ensure the strategy is included in all scientific publications in the areas of pediatrics, infectious diseases, family medicine, and public health, pursuant to the recommendations of the second meeting.
  12. Continue efforts to incorporate the IMCI strategy into the curricula of medical schools, hospitals with pediatric training programs, and in schools of public health of the United States and Spain. These efforts should also include the training of pediatric students, as well as pediatric and family medicine residents assigned to international pediatric rotations in developing countries; and the coordination of activities with the pertinent academic associations.
- 
-



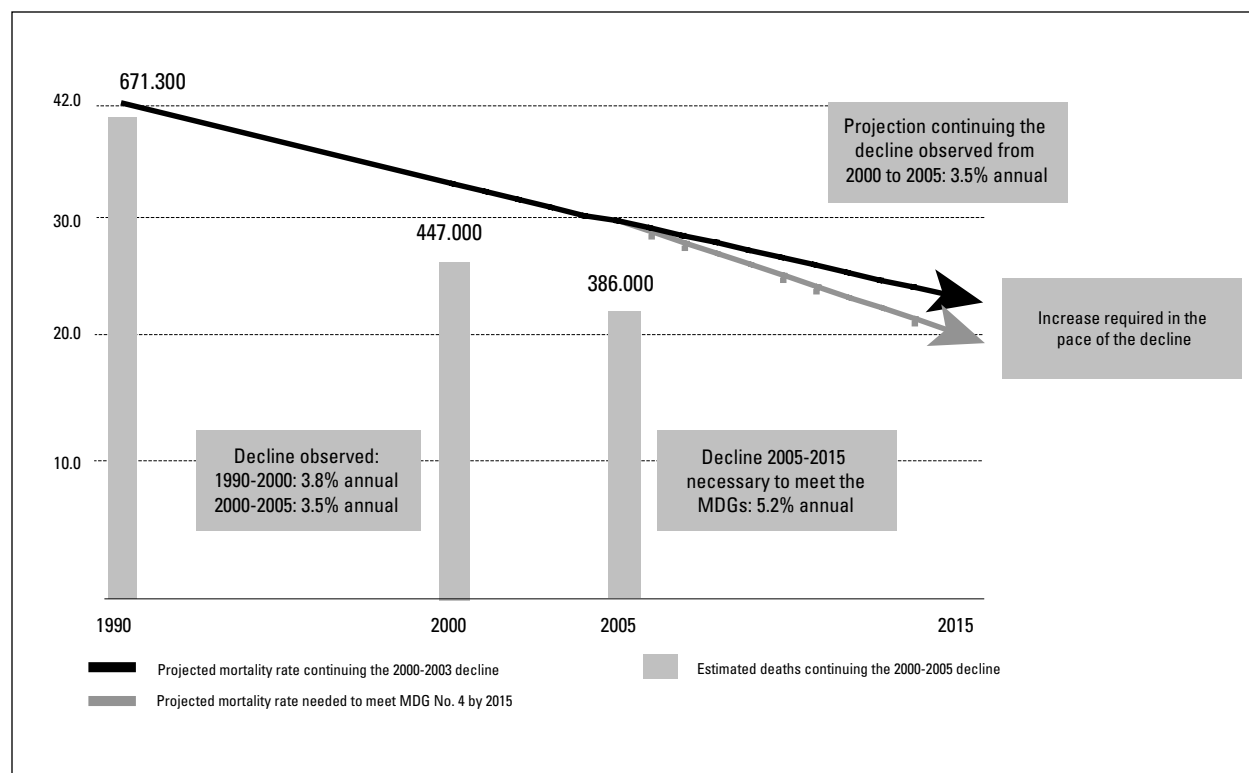
# 10. Annexes

## ANNEX I:

### Progress and Prospects of the Region of the Americas in terms of Attaining the Millennium Development Goals (MDGs)

The new estimates of the United Nations Population Division (*World Population Prospects: The 2004 Review*) make it possible to adjust the changes over time in population, birth, and death indicators for the countries of the hemisphere. According to these new estimates, the number of deaths of children under 5 decreased 33.4% in the group of countries in the Region of the Americas with more than 10,000 annu-

al births. This represented a 35% decrease (annual average of 3.8%) in the mortality in children under five rate per 1,000 live births. According to this estimate, the Region as a whole reached the goal proposed at the World Summit for Children of a one-third reduction in the mortality rate of this age group.



---

---

The projections for the first 5-year period of the 21st century show that the annual pace of decline in mortality in children under five was slightly below 3.5%. If that pace of decline were to continue, by 2015 the mortality in children under five rate would be approximately 16.7 per 1,000 live births, or 19% higher than the target set by the MDGs, in other words, only a third of the 1990 under-5 mortality rate for the countries of the Region.

This projection, based on revised estimates of the United Nations Population Division published in its 2004 revision, places the Region of the Americas in a better situation than previous projections, since the earlier projections indicated that the annual decline had only been 2.4%, rising to 2.6% beginning that year.

The new estimates, however, indicate that the annual pace of decline in mortality in children under five achieved by the countries was more than one full point higher (3.8%), and slightly lower—although always higher than previous estimates—beginning in 2000 (3.5%).

Consequently, mortality in this age group during 2000 was much lower than previously estimated, and, as a result, the effort required for the Region to achieve a two-thirds lower mortality rate by 2015 will be less than stated in previous projections. Accordingly, the Region will need to increase the annual 3.5% pace of decline observed in the early years of the 21st century to 5.2%.

# ANNEX II:

## International Charter of Toledo on the Rights of Children and Young People to Health Care, 2004



ASOCIACION IBEROAMERICANA DE MEDICINA Y SALUD ESCOLAR Y UNIVERSITARIA

His Excellency Kofi A. Annan  
Secretary General of United Nations  
823. United Nations Plaza, 9th. Floor  
NEW YORK. 10017 (UNITED STATES)

Toledo, 20 November 2004

Mr. Secretary-General:

We commemorate the 45th anniversary of the Declaration of the Rights of the Child, and the fifteenth anniversary of the Convention on the Rights of the Child, which firmly establish the right of all children and young people to receive a basic education guided by the values of quality health care for all, as this is the most suitable environment for building a peaceful, more inclusive world, with full participation and democratic coexistence, in which schoolchildren and young people can learn respect for other cultures, races, and beliefs.

Thus, the undersigned President of the Ibero-American Medical Association of School and University Health, together with His Excellency Roberto Sabrido Bermúdez, Director-General of the Castile-La Mancha Health Service (Toledo), have decided to join other organizations in support of the following:

INTERNATIONAL CHARTER OF TOLEDO ON THE RIGHTS OF CHILDREN AND  
YOUNG PEOPLE TO HEALTH, 2004

I avail myself of this opportunity to express to Your Excellency highest consideration, and pledge my continued support of your initiatives on behalf of children and young people.

Prof. Dr. Antonio Sáez.  
President

---

---

## CHARTER OF TOLEDO

### On “The rights of children and young people to health care, 2004”

During the course of International Primary Health Care Week, entitled “Comprehensive Care for Children and Young People: A Strategy for Action,” held in Toledo, with the participation of 32 organizations, institutions, and scientific associations, representing 15 countries; and on the occasion of 20 November, Universal Children’s Day, the Plenary Session of the Ibero-American Medical Association of School and University Health debated the following Resolutions proposed by Prof. Dr. Antonio Sáez, and requested that the General Assembly, in the Closing Session, approve the following “International Charter of Toledo on the Rights of Children and Young People to Health Care”:

To all schoolchildren and young people of Toledo;

To all boys and girls, and young people, wherever you may live;

You have right to grow up in an environment free of poverty.

You have the right to the protection of your health and to develop all of your human potential to the fullest, and governments should guarantee this right above any other issue.

You have the right and chance to study in a health-promoting school.

All boys and girls have the right to quality, equitable health, by adapting health care to their needs and respecting their cultural beliefs.

You have right to help build a clean and healthy world.

You have the right to reliable and pertinent information on all aspects related to your health and well-being, from all available sources, including your parents, health workers, teachers, the communications media, and education among your peers.

You have right to learn the means for resolving the conflicts of daily life, to exercise critical thinking, and to earn a productive living.

You have right to access specific comprehensive health services for young people that meet your needs; including the promotion of healthy lifestyles, and the prevention of communicable diseases, especially HIV/AIDS; and

You have the right to a happy, healthy, and safe childhood; to grow up in a loving and stimulating environment, safe from the threat of all danger, conflict, and worry.

**Toledo, 20 November 2004**  
**UNIVERSAL CHILDREN’S DAY**

---

---

## IN SUPPORT OF THE CHARTER:

The members of the 39 associations, institutions, and international organizations gathered here, working to defend the rights of children and young people to health, education, well-being, happiness, HEREBY PROCLAIM our support for the “International Charter of Toledo on the Rights of Children and Young People to Health Care, 2004.”

- Pan American Health Organization (PAHO)/World Health Organization (WHO)
- International Union for Health Promotion and Education (UIPES)
- Castile-La Mancha Health Research Foundation (FISCAM)
- University of Castile-La Mancha (UCLM)
- Universidad Complutense de Madrid (UCM)
- University of Seville
- European University of Madrid
- University of Oporto (Portugal)
- University of Lisbon (Portugal)
- University of Puerto Rico
- University of São Paulo (Brazil)
- University of the West Indies (Trinidad and Tobago)
- National University of Tucumán (Argentina)
- Ibero-American Medical Association of School and University Health (AIMSEU)
- American School Health Association
- European Union of General Practitioners (UEMO)
- Latin American Association of Pediatrics
- Regional Vice-presidency for Europe, Ibero-American Association of School Health
- Regional Vice-presidency for Latin America, Ibero-American Association of School Health
- Bolivian Pediatrics Society
- Spanish Medical Association of School and University Health (AEMSEU)
- Portuguese Association of School and University Health (AEPSEU)
- Asociación Madrileña y Castellano Manchega de Pediatría
- Spanish Association of Family and Community Medicine (SEMFYC)
- Spanish Association of General Medicine (SEMG)
- Spanish Society of Rural and Generalist Medicine (SEMERGEN)
- Castile-La Mancha Association of Community Nursing (ACAMEC)
- Castile-La Mancha Podiatrists’ Association
- New York College of Podiatric Medicine
- Texas Children’s Hospital
- Miami Children’s Hospital
- Centro Nacional para la Salud del Niño, Infancia y Adolescencia (Mexico)



- 
- 
- Institute of Nutrition of Central America and Panama (INCAP)
  - National Institute of Respiratory Diseases (INER) Argentina
  - Escola Saúde Pública de Ceará (Brazil)
  - Centro Cochrane Iberoamericano
  - Castile-La Mancha Health Research Foundation
  - Managing Directorate of Primary Care of Toledo
  - Managing Directorate of Primary Care of Ciudad Royal

---

---

## Annex III: Meeting Agenda

### FIRST DAY: TUESDAY, 16 NOVEMBER 2004

- 7:45–8:05 Shuttle service from Hotel Beatriz to the meeting site.
- 8:05–8:20 Registration of participants.
- 8:20–8:40 Inauguration by authorities of the Castile-La Mancha Health Service.
- 8:40–8:45 Welcoming remarks by Dr. Francisco Fernández Páez, Managing Director of Primary Care of Toledo, President of the Organizing Committee of the 2nd World Congress APS, Talavera de la Reina.
- 8:45–9:15 Technical session opens:
- ✦ Remarks by Dr. Antonio Sáez Crespo, Professor EU of Health Public, Universidad Complutense de Madrid; President of the Ibero-American Medical Association of School and University Health.
  - ✦ Remarks by Dr. Yehuda Benguigui, Unit Chief, Child and Adolescent Health (CA) Unit, Family and Community Health Area (FCH/CA), PAHO/WHO.
- 9:15–9:30 Presentation of the participants.  
Description of the mechanics of the meeting.  
Designation of the meeting coordinator and rapporteur.  
Approval of the agenda.
- 9:30–9:55 Presentation: *Challenges of expanding interventions for child survival, growth, and development*, Dr. Yehuda Benguigui, Unit Chief, Child and Adolescent Health Unit (CA), Family and Community Health Area (FCH), PAHO/WHO.
- 9:55–10:10 Conclusions and recommendations.
- 10:10–10:30 Recess.
- 10:30–10:50 Panel: Presentation of the previous TAG-IMCI recommendations and description of the progress on their implementation:
- ✦ Dr. Antonio Sáez Crespo
  - ✦ Dr. Yehuda Benguigui

---



---

10:50 – 11:40	Plenary discussion: Identifying obstacles to the effective implementation of recommendations and formulation of proposals to accelerate and strengthen the implementation of recommendations.
11:40–12:00	Conclusions and recommendations.
12:00–12:30	Presentation: <i>Advances in the perinatal/neonatal component of the imci strategy and its potential for integrating strategies and interventions to improve the health of the mother, child, and family</i> , Dr. Gerardo Cabrera Meza and Dr. Rolando Cerezo, Consultants FCH/CA, PAHO/WHO.
12:30–1:10	Plenary discussion: <i>Interventions and available priority strategies of the imci strategy and its perinatal/neonatal component to help strengthen child and adolescent health in the family context.</i>
13:10–1:30	Conclusions and recommendations.
1:30–3:00	Lunch.
3:00	Visit to health facilities of the Municipal Council of Toledo, organized by the director of Primary Care of Toledo.

## SECOND DAY: WEDNESDAY, 17 NOVEMBER 2004

9:00 – 9:10	Meeting audit.
9:10–9:30	Presentation: <i>Child health: primary challenges for the survival, health growth, and development before adolescence</i> , Dr. Juan Carlos Bossio, Consultant FCH/CA, PAHO/WHO.
9:30–9:45	Plenary discussion: <i>Steps for expanding IMCI and improving the health of children under age 10.</i>
9:45–10:10	Presentation: <i>The IMCI community component and its contribution to improving family health</i> , Christopher Drasbek, IMCI Regional Advisor, FCH/CA, PAHO/WHO.
10:10–10:20	Conclusions and recommendations.
10:20–10:40	Recess.
10:40–11:00	Presentation: <i>The role of social communication in strengthening knowledge and healthy practices in the family and community</i> , Dr. Rafael Obregón, Advisor on Social Communication and Health, IMCI, FCH/CA, PAHO/WHO.
11:00–11:15	Presentation: <i>TAG-IMCI participation in the celebration of World Health Day 2005 (Make every mother and child count)</i> , Dr. Rafael Obregón, Advisor on Social Communication and Health, IMCI, FCH/CA, PAHO/WHO.
11:15–11:45	Plenary discussion: <i>Proposals for the celebration of World Health Day 2005 (Make every mother and child count) and how to optimize the contribution of the community component and social communication to improve family health conditions.</i>

---



---

11:45–12:00	Conclusions and recommendations.
12:00–12:20	Presentation: <i>Key aspects of the IMCI strategy. Integration of interventions for the survival and healthy growth and development of children, adolescents and young people at the family and community level</i> , Dr. Yehuda Benguigui.
12:20–12:50	Plenary discussion: <i>The IMCI strategy and its contribution to family health</i> .
12:50–1:00	Conclusions and recommendations.
1:00–1:30	Reading of the final document and approval of the conclusions and recommendations.
1:30–1:45	Closing of the meeting: <ul style="list-style-type: none"> <li>✦ Dr. Francisco Fernández Páez, Managing Director Castile-La Mancha of Primary Care of Toledo Castile-La Mancha, President of the Organizing Committee of APS, Talavera de la Reina.</li> <li>✦ Dr. Antonio Sáez Crespo, President of the Ibero-American Medical Association of School and University Health.</li> <li>✦ Dr. Yehuda Benguigui, Unit Chief, Child and Adolescent Health, Family and Community Health FCH/CA, PAHO/WHO.</li> </ul>

---

---

## ANEXO IV: TAG-IMCI Members



**Dr. Stephen Berman (\*)**

Former President  
American Academy of Pediatrics  
Children's Hospital  
Denver, CO, United States

**Dr. Alberto Bissot**

President of the Latin American Association of Pediatrics  
(ALAPE)  
Director, Children's Hospital, Panama  
Panama

**Dr. David E. Bratt**

University of the West Indies  
Eric Williams Medical Sciences Complex  
Port of Spain, Trinidad & Tobago

**Dr. Anamaría Cavalcante e Silva**

Superintendent of the Ceará School of Public Health  
Meireles - Fortaleza, CE, Brazil

**Dr. Deise Granado-Villar MD, MPH, FAAP**

Director, Preventive Medicine Division  
Health Promotion and Community Health  
Miami Children's Hospital  
Miami, FL, United States

**Dr. Edgar Mohs (\*)**

Ambassador of Costa Rica to Switzerland

**Dr. Elsa Moreno**

Director of the Master's in Public Health  
Universidad Nacional de Tucumán  
Tucumán, Argentina

**Dr. Antonio Sáez Crespo**

President of the Ibero-American Asociación of School  
Medicine  
Madrid, Spain

**Dr. Fernando Stein**

Associate Professor of Pediatrics  
Baylor College of Medicine  
Medical Director  
Texas Children's International  
Houston, TX, United States

**Dr. Javier Torres Goitia**

Director, Master's Program  
National Reproductive Project Health  
La Paz, Bolivia

(\*) Unable to attend

---

---

MEMBERS OF THE CASTILE-LA MANCHA MINISTRY OF HEALTH (SESCAM)

**Francisco Fernández Páez**

Managing Director of Primary Care of Toledo  
President of the Spanish Association of School and  
University Health  
Toledo, Spain

**Dra. Blanca Parra Vázquez**

Director  
Castile-La Mancha Health Research Foundation, FISCAM  
Toledo, Spain

**Joaquín Chacón**

Managing Director  
Castile-La Mancha Health Service, SESCAM  
Toledo, Spain

CONSULTANTS, PAHO/WHO

**Dr. Yehuda Benguigui**

Unit Chief  
Child and Adolescent Health Unit (CA)  
Family and Community Health Area (FCH)  
Pan American Health Organization/World Health  
Organization  
Washington, D. C.

**Dr. Rolando Cerezo**

IMCI Neonatal Consultant  
Child and Adolescent Health Unit (CA)  
Family and Community Health Area (FCH)  
Pan American Health Organization/World Health  
Organization  
Washington, D. C.

**Christopher Drasbek**

IMCI Regional Advisor  
Child and Adolescent Health Unit (CA)  
Family and Community Health Area (FCH)  
Pan American Health Organization/World Health  
Organization  
Washington, D. C.

**Dr. Juan Carlos Bossio**

IMCI Consultant  
Child and Adolescent Health Unit (CA)  
Family and Community Health Area (FCH)  
Pan American Health Organization/World Health  
Organization  
Washington, D. C.

**Dr. Rafael Obregón**

IMCI Advisor on Social Communication and Health  
Child and Adolescent Health Unit (CA)  
Family and Community Health Area (FCH)  
Pan American Health Organization/World Health  
Organization  
Washington, D. C.

**Dr. Gerardo Cabrera-Meza**

Associate Professor of Pediatrics  
Medical Director  
Newborn Center  
Texas Children's Hospital  
Houston, TX



# **Pan American Health Organization**



*Regional Office of the*  
World Health Organization

525 23rd Street, N.W., Washington, D.C. 20037-2895

Tel: (202) 974-3798 • Fax: (202) 974-3724

[www.paho.org](http://www.paho.org)