

Technical Advisory Group IMCI (TAG-IMCI)

Report of the Second Meeting



Texas Children's Hospital • Houston, TX, USA,
September 10 and 11, 2002



**Pan American
Health
Organization**



Regional Office of the
World Health Organization



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This document contains a summary of the second meeting of the Technical Advisory Group on IMCI (TAG-IMCI), as well as the conclusions and recommendations prepared by the group in light of the current challenges faced by the IMCI strategy and progress achieved through its application in the Region of the Americas. The second meeting of TAG-IMCI was held in the Texas Children's Hospital, Houston, TX, USA, on September 10 and 11, 2002. The meeting was coordinated by Dr. Edgar Mohs, of Costa Rica, himself a member of the TAG-IMCI.

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Foreword

The Technical Advisory Group on IMCI, TAG-IMCI, was constituted in 2001 by Dr. George Alleyne, then Director of the Pan American Health Organization (PAHO), to periodically review progress in IMCI implementation and to propose alternatives to PAHO about appropriate actions to strengthen the expansion of the IMCI strategy in the countries of America, and, thus, contribute to sustain improvement in health conditions of children in the continent. Integrated by experts of recognized trajectory in the area of pediatrics, public health, and epidemiology, the TAG-IMCI group met for the first time in September 2001 and, after an extensive review of children's health situation in the countries of America and progress achieved through the implementation of the IMCI strategy, TAG-IMCI offered a number of recommendations.

During its second meeting, that took place in September 2002, TAG-IMCI reviewed progress with regard to recommendations formulated the previous year and, taking into account new challenges to introduce IMCI as the basic standard of child health care in the countries, TAG-IMCI prepared a new set of recommendations designed to strengthen strategic actions to further improve child health in the countries of America.

Since its conception in the mid- 1990s IMCI aroused interest among those concerned with child health care, particularly because it integrates in a single approach a set of actions directed not only to the diagnosis and treatment of diseases but also to their prevention, and to health promotion. Due to its versatility and capacity to adapt to different epidemiological and operational conditions, the IMCI strategy became the basic standard for quality care in infancy and childhood. IMCI has ever since made a significant contribution to equity in access for disease prevention, treatment, and health promotion.

By Including three implementation components of equal importance, IMCI has also helped to balance the efforts towards improvement of the knowledge and skills of health workers (first component), with those oriented to provide appropriate conditions for health workers adequate performance, i.e. better organization and operation of health services (second component), with those efforts designed to improve community knowledge and community practices for improved children's care (third component).

Therefore, IMCI implementation has been carried out in the countries of America through a dynamic process of adaptation to the epidemiological and operational conditions in each place, and has been simultaneously geared to services and health structure support, as well as towards families and communities.

Given the multiplicity of actions and actors involved in this progress, the IMCI regional level stressed the importance of continuously reviewing and analyzing the activities that, from the perspective of population dynamics, would optimize the impact of potential actions for improved outcomes of IMCI application particularly within the most vulnerable groups.

The constitution of TAG-IMCI in 2001 represented a significant advance in that context as it has made possible to congregate a group of experts and scientists whose international credentials, recognition and experience in the field of pediatrics, epidemiology, and public health have helped to better orient current efforts and to make them more efficient and results-oriented.

The planning of regional tasks and activities within the framework of these recommendations, and TAG-IMCI continuous monitoring and periodic evaluation, will, no doubt, help accelerate universal access to IMCI benefits for the infant population in the American Region and, more broadly, will enhance opportunities for a healthier growth and development of children in the years to come.



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Remarks by Mark A. Wallace, President, Chief Executive Officer, Texas Children's Hospital

Texas Children's Hospital, the largest pediatric hospital in the United States, is privileged to host this year's historic Workshop on community-based Integrated Management of Childhood Illness (IMCI) projects. We are truly honored that you chose Houston, Texas, and in particular, Texas Children's Hospital, to be such a vital part of this year's Workshop. Also, congratulations to the Pan American health Organization on its 100th anniversary. It is a great pleasure for me to meet the representatives from over 12 countries of Central America, South America, and Spain involved in this project and representatives from institutions participating in the implementation of IMCI activities in the community.

The initiative, *Healthy Children: Goal 2002* aims to prevent 100,000 deaths in children under the age of 5 in the Americas through IMCI. I applaud your initiative in implementing this strategy, proposed by the Pan American health Organization (PAHO), which is also a key concert at Texas Children's Hospital. The quality of treatment and continued support of international children is integral to the mission of Texas Children's Hospital. Latin America is the Hospital's main international focus, with 70% of all international patients at Texas Children's Hospital being from Latin America.

In fact, many of the healthcare problems that Third World countries are currently facing, are issues that are also found in many areas in the United States. A concern not restricted to any one particular country, is the number of uninsured children. There are over 40 million uninsured children in the United States alone, with over 1.4 million of those children in the Houston area. As a result, the vaccination rate in the United States for children under five years old is actually lower than in Latin America, something we hope to improve upon in the coming years. It is our hope at Texas Children's Hospital to glean from this committee's meetings the knowledge to alleviate some of these problems, and make this world a better place for all children.

I hope that the next two days are both enjoyable and effective for everyone, as you discuss the current and future initiatives to reduce child mortality in Latin America. It is my aspiration that we can continue to strengthen this new partnership between Texas Children's Hospital and PAHO in the future. I look forward to seeing all of you back here in Houston again next year.

Sincerely,

Mark A. Wallace.
President,
Chief Executive Officer
Texas Children's Hospital



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Remarks by Dr. Ralph D. Feigin, M. D., President, Baylor College of Medicine

The importance of a project such as the IMCI initiative is tremendous. There are isolated areas in the United States particularly in the metropolitan areas that fit almost exactly with the characteristics of a developing country. Therefore, the integrated management of childhood illness initiative can decrease morbidity and mortality across the continent including the United States. The implementation of the strategy as well as the objective impact of reducing the absolute mortality by more than 100,000 lives in the next five years is an unequivocal tribute to the successes that IMCI has already shown.

Now, one of the most important points that I'd like to make during the course of this brief presentation is that even today in this era of molecular medicine and where we may have the ability to apply molecular advances to helping to prolong, for example, life expectancy and improved health, we still are dealing with problems that are no different than we've dealt with in the 1900s or 1800s, and so if you look at this reality, which talks about the burden of disease and injury attributable to selected risk factors in the world in 1990, you can reach the same conclusion in the year 2002. In fact, this came out of an article that was in the Journal of the American Medical Association just a few months ago, you'll find that in terms of deaths or disability adjusted life years, malnutrition is still the leading problem in the world, and we don't need to do anything in terms of molecular medicine to fix that. Here we're talking about having an abundant food supply and getting that food in appropriate quality and quantity to every child on the face of the earth. This has nothing to do with the miracles of modern day medicine. In second place, you'll find poor water supply, sanitation and personal and domestic hygiene. This is an issue that has to do with improvement in the public health infrastructure of many countries around the world, and so once again, I think that to improve the prospect for pediatric health care when we're talking about this on a worldwide basis, we are not talking about some of the more advanced technological things that one reads about in the journals day-to-day and one sees in many of the major medical centers and then right behind that, you'll find things that have to do with habit or environmental stimuli and now we're talking about things like unsafe sex, tobacco use, alcohol use. These are all things that with appropriate education one might think that you could curtail, but these lead to tremendous problems in terms of life long disability and early death and that includes, of course, many pediatric deaths. And then finally, we get down into areas like hypertension and then just beyond that once again we have things like illicit drug abuse and air pollution, international problems that need to be resolved by people in part outside the medical arena. And so I guess one of the most important points that I can make is that all of the advances that we have today in modern medicine hail in comparison on a worldwide basis to these issues which need to be dealt with if we're going to improve both health and welfare of children in the future just as we've had to pay attention to these in the past.

Ralph D. Feigin, M.D.
President, Baylor College of Medicine

Remarks by Dr. Stephen Corber, Manager, Disease Prevention and Control Area, Pan American Health Organization

Children's health continues to be a priority for the Pan American Health Organization and such efforts are focused not only toward disease prevention and control, but also to the promotion of conditions for the healthy growth and development of boys and girls in the Region. These efforts are oriented towards reducing the gaps that still persist both among and within countries and the marked differences in morbidity and mortality from preventable diseases in different population groups.

Since 1996 the Integrated Management of Childhood Illness (IMCI) strategy, has been strengthened as a key tool to achieve more equitable conditions in child health, and it is mainly for this reason that PAHO promotes its effective implementation in all the countries of America.

IMCI guarantees a basic group of prevention and treatment activities and also integrates health promotion actions to improve healthcare family practices. IMCI application can reduce drastically mortality and morbidity; and since it is aimed to the most vulnerable population groups, IMCI application can help to greatly reduce prevalent regional inequities in the health of children in the region.

Some of these effects are already being observed in the countries of America, and this demonstrates that the effort and commitment by PAHO and the countries to adapt and implement IMCI is advancing through the correct path. However, this evidence also leads us to ask what else can be achieved in terms of better health conditions through the expansion of IMCI application to make it available to all children under 5 in the Region. Also, where should we direct our efforts and available resources, always limited, in order to achieve our objectives of improving child health and reducing inequities with the greatest efficiency.

The constitution in 2001 of the Technical Advisory Group on IMCI (TAG-IMCI) is helping us to address this and other important issues, and also guiding our steps. At its first meeting TAG-IMCI provided precise and concrete recommendations based on available results to direct our efforts towards expanding IMCI benefits to all children in the Region.

At this second meeting, TAG-IMCI can review our successes and failures in this task, explore the obstacles we face and recommend the appropriate lines of action to successfully overcome them. As in the previous meeting, we are certain that TAG-IMCI will contribute to improve the development and execution of our task, and will recommend action lines that will take us closer to our objectives.

Dr. Stephen Corber
Manager
Disease Prevention and Control Area
Pan American Health Organization

Letter from Lee P. Brown, Mayor, City of Houston

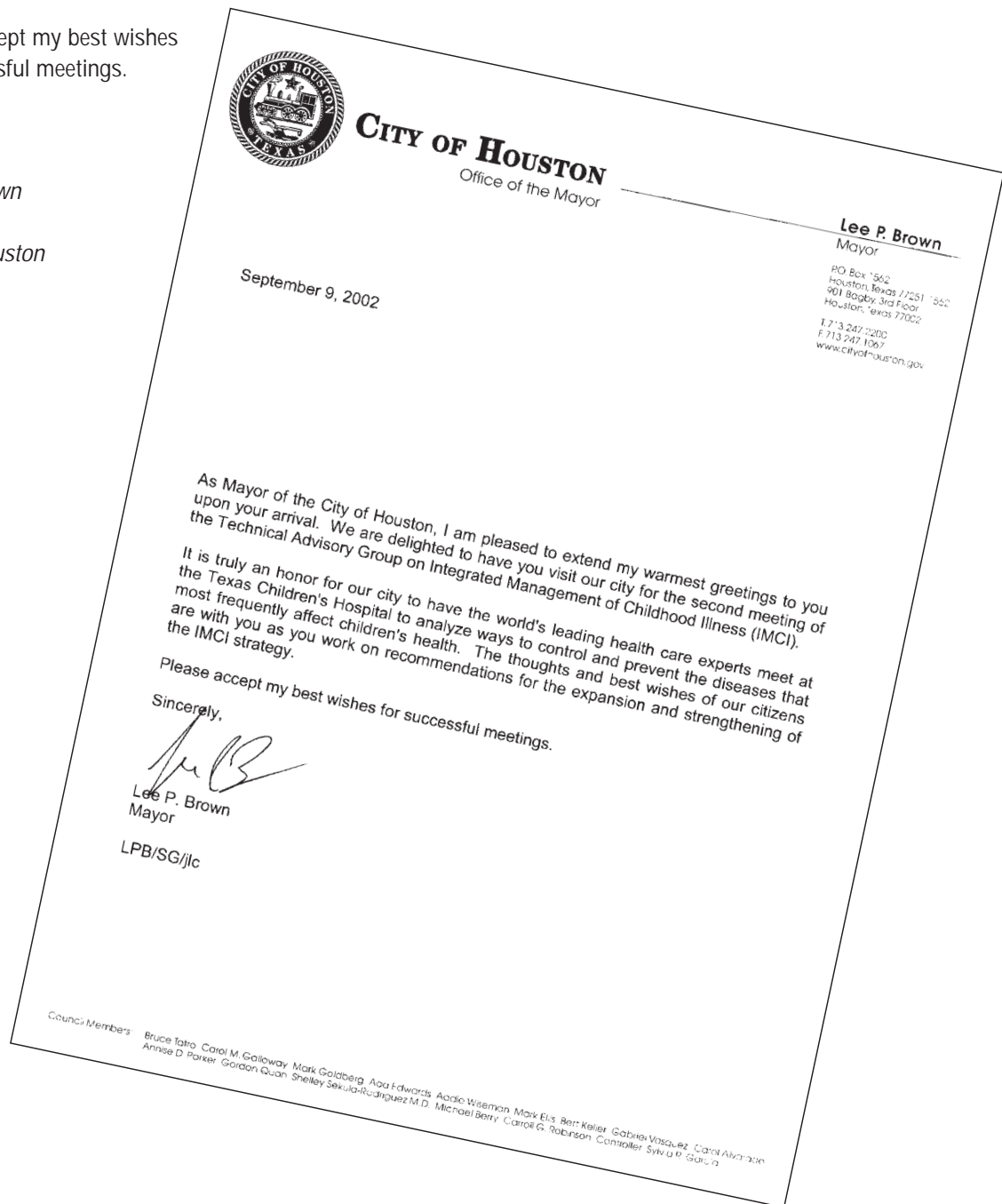
As Mayor of the City of Houston, I am pleased to extend my warmest greetings to you upon your arrival. We are delighted to have you visit our city for the second meeting of the Technical Advisory Group on Integrated Management of Childhood Illness (IMCI).

It is truly an honor for our city to have the world's leading health care experts meet at the Texas Children's Hospital to analyze ways to control and prevent the diseases that most frequently affect children's health. The thoughts and best wishes of our citizens are with you as you work on recommendations for the expansion and strengthening of the IMCI strategy.

Please accept my best wishes for successful meetings.

Sincerely,

Lee P. Brown
Mayor
City of Houston



2. Introduction

The Integrated Management of Childhood Illness (IMCI) is regarded as the main available intervention to improve health conditions in children in developing countries. In addition to being a useful instrument for the early detection and effective treatment of the principal illnesses that affect health of children under 5 years old, it helps to improve the knowledge and practices of families for disease prevention and health promotion. Therefore, its application in health services and communities can produce an important impact in terms of reducing the number of children deaths, the number and severity of diseases that affect this age group, and improving nutritional and development status of children under 5.

IMCI potential on mortality prevention in children led to conclude that its application in the developing countries of America could reduce in 100,000 the number of deaths of children under 5 by the end of 2002, taking into account estimates on number of deaths in this age group in 1998. However, since the benefits of the IMCI strategy extend beyond mortality prevention, this expected reduction was framed in the context of a more ambitious initiative, oriented towards improving health conditions in children in the countries of America, paving access to the IMCI strategy for the entire population of children under 5 through actions in health services, families and communities.

The Healthy Children: Goal 2002 initiative, was launched by PAHO/WHO for the purpose of strengthening IMCI implementation in all regional countries and accelerating its expansion to all children under 5, especially to those in the most vulnerable population groups. Through the enforcement of the IMCI strategy, in health services, families and communities, it is hoped that 100,000 deaths of children under 5 between 1998 and 2002 can be prevented, and more adequate conditions of life for children in the continent can be advanced.

Ever since the initiative was launched, the countries of America have strengthened activities to properly apply the strategy, and are expanding the areas covered to reach in an expeditious manner the most vulnerable population groups. They have also started actions to collect information for adequate follow-up and monitoring of activities and results in particular.

To analyze IMCI implementation, expansion, and monitoring, it is fundamental to count on the participation of those who, due to their experience and trajectory in international and national public health, can help to pin point weaknesses and strengths, and contribute to the design and development of tools, instruments, and initiatives to achieve expected results. The participation of such a group is vital for the analyses of prospects and put forward new courses and lines of action to strengthen the IMCI strategy as the entry port for continuous improvement of health conditions in our population.

PAHO/WHO is persuaded that a Technical Advisory Group for the IMCI strategy (TAG-IMCI) will provide a significant contribution to this continuous task of monitoring and evaluation, and to suggest effective actions for IMCI strengthening and expansion in health services and in the community.

3. Meeting Objectives

- Analyze and review the progress of the IMCI strategy in the Region of the Americas in its three components related to health workers, the health system, and the community.
- Evaluate the activities carried out so far to: develop new contents of the IMCI strategy, expand its utilization at the community level, and increase population coverage with access to the IMCI strategy, particularly through the incorporation of the strategy in undergraduate and graduate teaching.
- Formulate recommendations and proposals to strengthen the IMCI strategy in Governing Bodies of PAHO and in Ministries of Health, and for a vast mobilization of resources from international organizations, bilateral agencies, nongovernmental organizations, and the private sector.

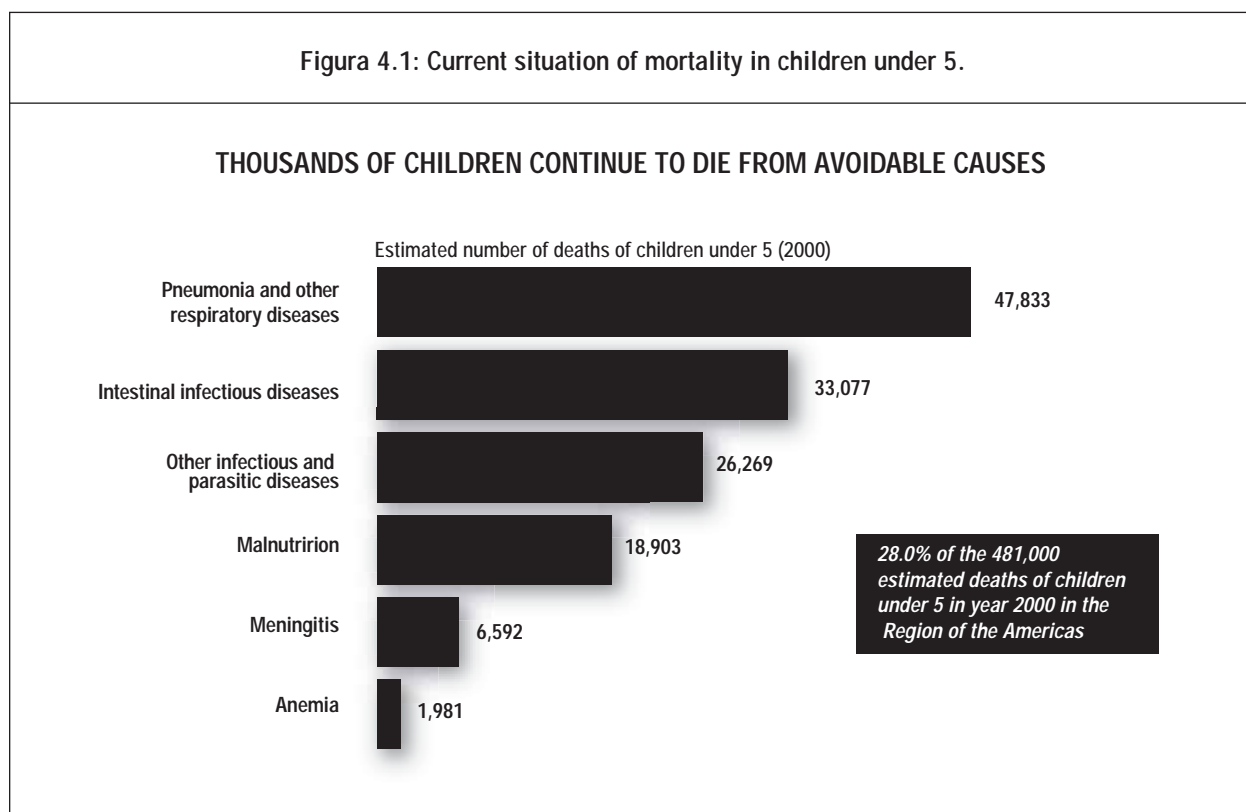
4. Current Status of the IMCI Strategy in the Region of the Americas: Progress, Results, Challenges, and Prospects

Dr. Yehuda Benguigui, Unit Chief, FCH/CA, PAHO/WHO

Introduction

Thousands of children still continue to die from avoidable causes, notably infectious diseases, respiratory diseases and malnutrition. In the American hemisphere it is estimated that there are approximately 481,000 deaths of children under 5 and that 28% of such deaths, that is more than 130,000, are due to avoidable causes. The majority of these deaths (Figure 4.1) is due to pneumonia and other respiratory diseases and to intestinal infectious diseases. All together they cause over 80,000 deaths during the first five years of life, which represents 17% of the annual deaths in this age group.

Figura 4.1: Current situation of mortality in children under 5.

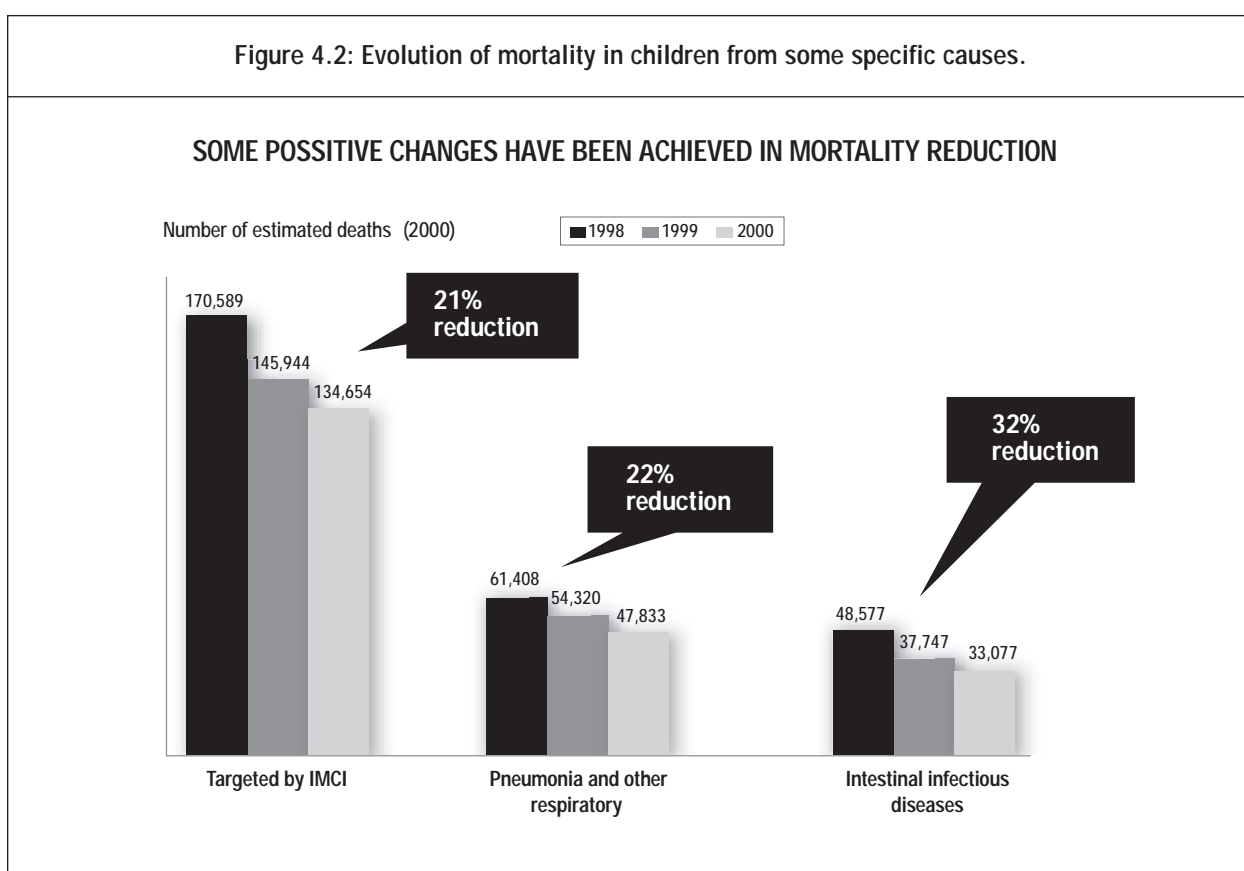


The distribution of these deaths is not uniform in the entire American hemisphere. Five countries, that concentrate 30.3% of the population under 5, show only 1.6% of the deaths from infectious diseases, respiratory diseases, and malnutrition. Other four countries with three times less concentration of the population under five (10.6% of the total) deaths for these causes reach 40.3%. As a consequence of those differences, the relative risk of dying from these causes in the second group is 80.2 higher than in the first group. This high difference is another example of the existing inequities in child health in the American hemisphere,

and shows that while in some regional countries infectious diseases, respiratory diseases, and malnutrition no longer represent a problem of large magnitude, in others it continues to cause a sizable number of annual deaths.

Some progress has been made in mortality reduction from these causes (Figure 4.2). Between 1998 and 2000 it is estimated that mortality was reduced by 22% in the American hemisphere, a reduction that was even larger in the case of intestinal infectious diseases, that caused 32% less deaths in 2000 than in 1998.

Figure 4.2: Evolution of mortality in children from some specific causes.



The contrast shown by countries with regard to the magnitude of negative impacts these diseases impinge on child health, along with the steady decline that it is observed in mortality from these causes, demonstrate the effectiveness of prevention and control measures. As a result, infectious diseases, respiratory diseases and malnutrition are no longer the leading causes of mortality in children. Based on this, it

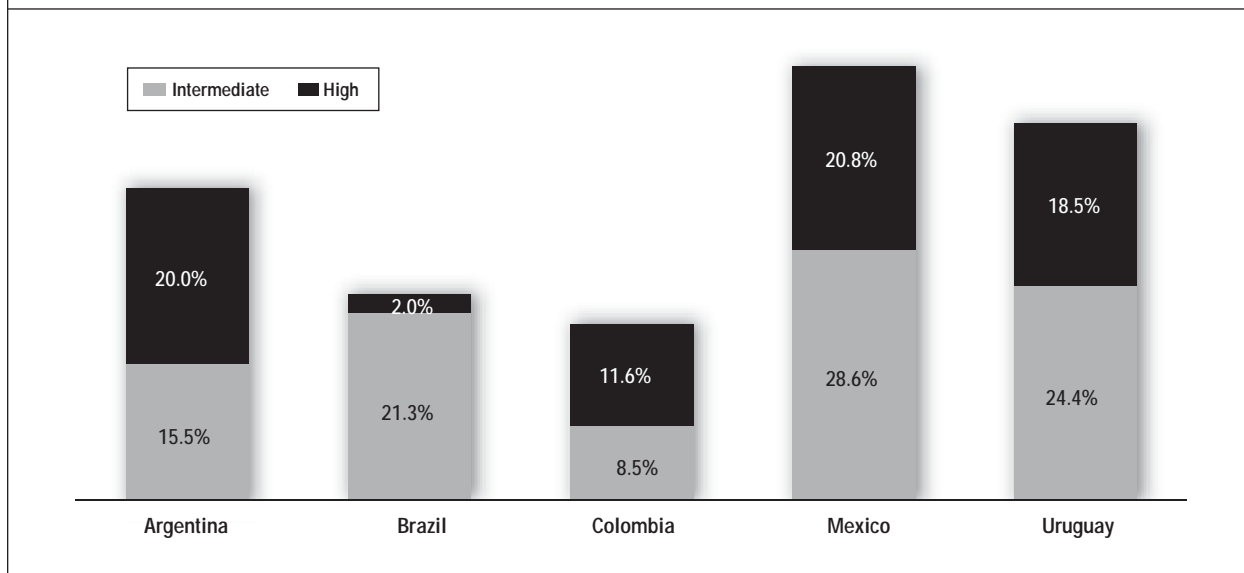
is very important to analyze which factors are associated with the thousands of deaths that such diseases continue to generate in many countries of America every year.

Four aspects are key to the analysis, especially because they intertwine with the design of prevention and control actions:

- Failure to apply preventive and/or health promotion measures to reduce the risks of getting these diseases or reduce their severity. Examples include vaccines, that are not always administered at the proper time, or the lack or short duration of breast-feeding. These are simple accessible measures that prevent child diseases and reduce their severity.
- Late detection of diseases that aggravate episodes and lead to additional risks, complications and/or death.
- Missed opportunities for treatment when early warning signs remain undetected by parents, and, particularly by health workers. Lack of integrated evaluation of the child health condition by health workers, and the overlooking of signs of other diseases by restrictively focusing on the main reason for consultation.
- Improper treatment of some diseases, due to inappropriate indications by health workers or inadequate administration by parents or caregivers in the household. In this regard, special emphasis should be made on the excessive and inappropriate use of antibiotics. This is contributing to the emergency of strains of resistant bacteria, a problem that is acquiring an ever-growing scale and frequency in the countries of America (Figure 4.3).

Some available field studies show the frequency and magnitude of these problems. In Bolivia, an evaluation study based on a sample of children brought to consultation for health control suggests that 81% of them have some sign of infectious or respiratory disease. In Argentina, a study carried out on outpatient consultations showed that nearly

Figure 4.3: Intermediate and high resistance of the *Streptococcus pneumoniae* to penicillin in some countries of Latin America. Results of the SIREVA (Regional System for Vaccines) Study, PAHO/WHO, 1994-1999.



half of the children had some signs of disease other than the reason for consultation. These would have gone undetected if health personnel had focused restrictively on the resolution of the problem indicated by parents as the reason for child examination.

Potential missed opportunities are some of the negative outcomes of applying a traditional approach to attention, no matter if this is applied to the control of the healthy child or

to the fast resolution of the main reason for consultation, carried out without evaluating other potential problems that may get worst if untreated.

The implementation of the IMCI strategy not only prevents the worst case scenario: it also demonstrates the pervasiveness and magnitude of the problem. The strategy also provides relevant tools to health workers to cope with such challenges.

Progress

These studies help explain why the IMCI strategy has prompted interest among relevant actors in the countries health sectors which has led to the improvement of health conditions in children, as well as IMCI expansion throughout the region. Between 1996 and 2002, IMCI became an official strategy in seventeen countries. In others it is such an important tool that sets the standards for the reviewing and adaptation of childcare interventions (Figure 4.4).

Taking into account the differences in child mortality rates, PAHO helped the countries that adopted IMCI to identify geographic areas with the greatest number of deaths from easily preventable diseases. A significant effort has been invested for the expeditious implementation of the strategy in such challenging areas to enhance its positive impact and to reduce the inequity gap within countries' geographic areas.

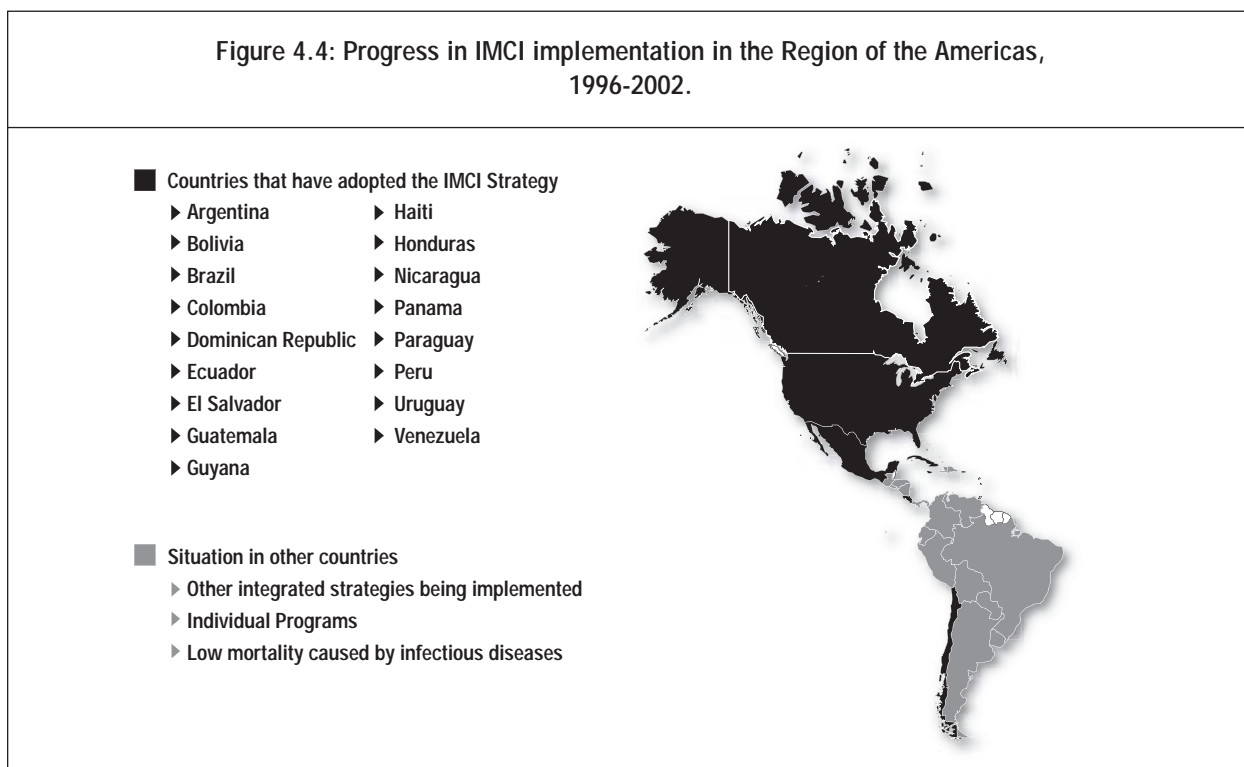
This mapping process reproduced at the national level the approach used in 1996, that was designed to prioritize countries with infant mortality rates of 40 or more per 1,000 live

births. Subsequently, more detailed country analyses were conducted on mortality variables, morbidity factors, and resource distribution. The process led to the identification of high priority areas and then to their ranking on the basis of available resources to make investment of efforts more efficient as well as to strengthen the effectiveness in the application of the strategy.

PAHO Regional level carried out concerted actions with academic institutions responsible for the education and training of health workers to ensure their commitment to the incorporation of IMCI in the teaching curricula. A survey on pediatrics teaching in Latin American medical schools was carried out in coordination with the Latin American Association of Pediatrics (ALAPE). Also, the IMCI module for adapted hospital care and the IMCI manual for medical students were prepared. The outcomes of the survey led to the structuring of a regional plan for actual incorporation of IMCI in the teaching curricula.

This initiative is key for the sustainability of IMCI implementation. It will indeed facilitate IMCI knowledge for students and members of the medical profession and will

Figure 4.4: Progress in IMCI implementation in the Region of the Americas, 1996-2002.



open up new opportunities to expand the strategy in health centers, particularly those whose operations are dependent on medical schools support. It will also help with IMCI implementation during the compulsory year of rural or community service. The latter is a student graduation requirement in a large proportion of Latin American medical schools.

In consonance with the requirements of IMCI adaptation to the different epidemiological realities in the countries, new components were designed to strengthen its capability to solve problems at the first care level. This in turn, addressed country demands for IMCI application not only in mortality reduction but also for quality care improvements at that level.

Therefore, a perinatal and neonatal component was designed to link IMCI with the early detection of pregnancy, to foster appropriate attention at birth, and, subsequently, for the newborn, and to provide appropriate child care in his/her first weeks of life. This new component has been adapted in some countries or is in the process of adaptation in others. It is being tested to evaluate its contribution to care coverage of pregnancy, childbirth, and first few weeks of children's life.

The design of additional IMCI components also included the preparation of a component on evaluation, classification, and treatment of child development, and yet another on detection, treatment, and control of asthma and the broncho-obstructive syndrome, a highly frequent child problem in many Latin American countries.

As a part of IMCI expansion activities to the most vulnerable population groups—most of which live in rural areas—the IMCI training program for community health workers (CHA) was reviewed. Also, an adaptation guide and relevant materials started to be applied in indigenous populations, so as to strengthen their access to IMCI benefits. This set of materials complemented others that are being designed within the framework of IMCI community projects that target population groups in most remote areas.

Challenges

Achieving universal access to the IMCI strategy, with an emphasis on the more vulnerable population groups, and to foster its broader utilization by health workers, community, and families is key to achieve more equity in children's health situation. However, we still face several challenges, such as:

- Ensuring that all health workers apply the IMCI strategy
- Introducing IMCI in the compulsory year of rural or community service.
- Introducing IMCI in the teaching of undergraduate and graduate Schools of Medicine, Nursing, and other relevant institutions responsible for health workers training.
- Expanding the IMCI strategy by strengthening its community component
- Improving the quality of information for outcomes monitoring and assessment.

Ensuring that *all the health workers apply the IMCI strategy* requires giving them the knowledge and relevant practical skills. It also requires the continuous provision of relevant tools and supplies as well as support through follow-up after training and periodic supervision. Several problems must be overcome to carry out these activities in an effective manner. Low training rates mean that the number of staff trained still represents a small proportion of the volume of personnel that must be trained to achieve universal access to the strategy by the population. In addition, health services have a high staff turnover, especially at the first level of care. This means that year after year a large amount of trained personnel exits outpatient care services, and also that new untrained personnel is integrated to the task, all of which calls for the need to maintain training to sustain patient coverage.

An additional problem is the follow-up after training and subsequent periodic supervision. Such activities require a degree of organization and an availability of resources that are not always within the reach of all countries or all geographic areas within a country.

In addition, the implementation of the IMCI strategy has advanced unevenly among different health care

providers. In most countries the public sector shows progress, but its activities do not necessarily reach those sections of the population that depend on private providers, social security or non-governmental organizations. Although IMCI has been expanded in the latter, progress is still uneven. Also, coordination is required among these providers to orchestrate their activities and achieve the widest coverage with rational resource utilization.

Finally, and within the framework of health sector reform processes, an issue that is growing in importance is the inclusion of the IMCI strategy in the so-called “paquetes básicos de atención” or basic health care packages to make it a component of basic care in all health services. This in turn, will help incorporate IMCI in the programs of professional training, accreditation and monitoring, which are components of integrated packages provided by quality assurance programs.

The *introduction of IMCI in the compulsory year service* is a process that has started in some countries and is paving the way to rapid increase in population access to the strategy, particularly the most vulnerable groups. In several medical schools in the Region of the Americas the one-year compulsory service is a prerequisite for graduation and is usually carried out in ambulatory health services by students who completed the medical curriculum. These health services are often located in rural areas or in the surroundings of large cities. IMCI training provides the practical tools that such students require to deal with children diseases particularly at the first level of care.

IMCI student training before the compulsory one-year rural or community service is part of ongoing initiatives by all academic institutions and is being facilitated by faculty members responsible for complementary training programs. To have this activity incorporated systematically it would be necessary to establish relevant directives with the consensus of such entities as the Ministry of Health, the Ministry of Education, the medical education and student residency programs, as well as accreditation programs.

As a complement to these efforts, *the incorporation IMCI in pre-graduate and graduate medical programs* is a most efficient way to ensure its sustainability. At the

moment, the Ministries of Health face the challenge of training the staff in IMCI. If the personnel is trained earlier there would be no need to invest as is being invested now on IMCI on-the-job training programs. Thus, the tasks and activities of Ministries of Health could be more efficiently oriented towards support, supervision, monitoring and evaluation, and current training time and efforts may thus be minimized.

Some of the challenges faced by IMCI dissemination in medical schools include, the complexities of curriculum reform and the time required to carry them out; the efficient coordination between medical schools teaching and health services demands; the need to train the trainers themselves in the strategy; and overall coordination of the process with the participation of academic institutions, professional associations, scientific societies, as well as governmental and nongovernmental organizations that deal with health workers training.

Although overcoming these challenges will enhance access to IMCI, it is most important to keep in mind a variety of promotion tasks and activities by parents and other caregivers designed to prevent diseases, to detect warning signs early enough to take the child for consultation at the appropriate time, to properly apply treatment, and also to foster healthy life styles, i.e. those that contribute to optimize child growth and development.

Within this framework, expanding IMCI *community component* is of foremost importance for a broader dissemination and application of key family practices for healthy child growth and development, to reduce the incidence of diseases, to improve household care, and to promote healthier family life styles, with positive impact on children's health conditions in the family and the larger community.

Strengthening the IMCI Community Component throughout the regional countries requires a broad social mobilization, as well as the design of appropriate generic materials for local adaptation, the expansion of information and education within the relevant population, and getting the resources needed to sustain all of these efforts, particularly for the most vulnerable population groups.

Finally and not less important, another challenge faced by the proper implementation of the strategy, is the **better-**

ment of information and data collection to monitor and assess outcomes, badly needed to provide feedback to countries' planning process and to efficiently organize relevant efforts and resources.

Although most countries have advanced in the integration of activities pertaining to the collection of statistics and information on health, there are still problems to overcome in the process of strengthening data coverage and timing for programming and implementation needs. In addition, some of the instruments proposed for monitoring and evaluation of IMCI implementation are complex and thus difficult to apply at the national and local level. Also, resources for such tasks as follow-up after training, or the application of evaluation protocols for health and community services are often insufficient. There also challenges with regard to IMCI outcome and impact assessment, specifically on infant mortality. Some are related to the size and characteristics of the sample required to determine significant differences in mortality evolution, and others to the feasibility of methodological designs relevant to countries' operational realities that would permit to establish a clear association between intervention and outcome.

Prospects

The current world tendency is to strengthen the idea of child health as a priority for sustainable development in all countries, linking it to the health of the overall population, and making childhood an important component of the life cycle. In this context, the World Health Organization is preparing a general strategy for child and adolescent health, designed to strengthen, integrate and expand activities for health improvement of population segments that are particularly vulnerable. Child health was also a component of WHO and UNICEF global consultation that took place in March 2002, in Stockholm, Sweden. Also, child and adolescent health was the focus of the United Nations Special Session on Childhood and Adolescence celebrated at the U.N. New York headquarters in May 2002.

Due to IMCI integrated character, and because it includes in addition to detection and treatment of diseases, prevention and promotion, the strategy continues to be an

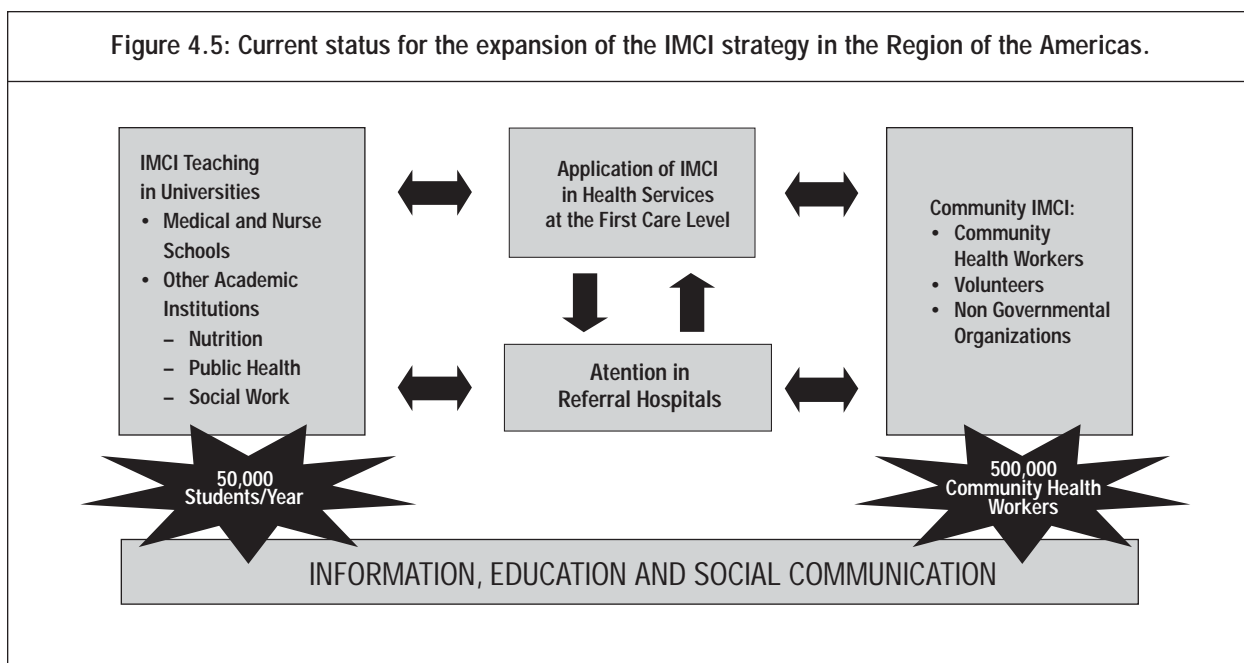
important tool in child health. In the countries of America, this has required and continues to require striking an appropriate balance between mortality and morbidity reduction activities. Despite the progress, problems are still acute in many countries and in remote areas, all of which is complicated by the multiplicity of demands from different population groups in the countries, all of which are related quality care improvements and the promotion of healthy conditions and life styles.

Given the regional epidemiological diversity, both approaches should be applied at the same time with the region and within the countries, keeping in mind the large gap that separates areas and population groups with regard to health hazards, that reveal inequities in child health conditions, and, more broadly, in health conditions of the population as a whole.

In this context, the prospects for IMCI expansion in the countries of America are dependent on a continuous interaction of activities oriented towards strengthening, expanding, and sustaining IMCI application throughout the health care network, as well as through activities designed to transfer decision-making capacity to parents and families to improve child health care in and out their homes, for an integrated and improved care at the different levels of the health structure (Figure 4.5).

Within this framework, the activities to be carried out during the coming years include:

- The incorporation of IMCI in basic health care plans
- The introduction of IMCI in the professional education of health workers
- The strengthening of information, education, and mass communication
- The preparation, review, and adaptation of instruments and materials for the application of IMCI in high-risk groups
- Development, test, and implementation of new components of the strategy to expand its ability to solve health problems and diseases that affect childhood
- The improvement of data and information for monitoring, outcome assessment, and impact of the strategy
- The mobilization of resources to carry out regional and country activities.



The *incorporation of IMCI contents into the basic care plans* is a priority to guarantee universal access to measures of prevention, treatment, and health promotion that are contained in the strategy. IMCI should be the minimum basic standard care for any boy or girl that requires service from health personnel and institutions. Within the framework of the health sector reform processes and the corresponding assessment of health legislation that many countries are currently undergoing, it is essential, from a normative and regulatory view point, to ensure IMCI access to all children.

The *introduction of IMCI in the teaching of health workers* is an activity that, along with the previous one, will facilitate access to the benefits of the strategy to all boys and girls in the Region of the Americas. At the same time it will relieve Ministries of Health from a lot of training activities, because these will be carried out by academic institutions at pre-graduate and graduate levels. This will also improve efficiency in the distribution of resources for health care at the national level.

The *strengthening of information, education, and mass communication*, especially with regard to the key practices for healthy growth and development in childhood and adolescence will also facilitate IMCI expansion. This

will help to prevent many childhood diseases and deaths associated with lack of relevant knowledge or adequate family practices on health care and attention of children in households.

The *preparation, review, and adaptation of instruments and materials for the application of IMCI in high-risk groups* is also a high-priority. This will demonstrate that IMCI is accessible to and acceptable by the neediest groups. This includes the availability of practical instruments and training materials for community-based personnel, for volunteers, and for the families themselves, in order to incorporate knowledge and practices that once adapted become culturally appropriate and ready to provide the relevant benefits, i.e. to improve the health of children and the population.

The *development, testing, and implementation of new IMCI components* is an activity of the greatest importance not only to be able to deal with the more critical country needs but also to strengthen the strategy's problem-solving potential, especially at the first care level. Such tasks currently include the adaptation of IMCI perinatal/neonatal component, the design, testing, and adaptation of the child abuse, accident prevention and control component; the evaluation and promotion of the child development

component; the prevention and control of oral health problems, as well as the detection, control, and prevention of diabetes and weight excess in children.

The *improvement of information for appropriate monitoring, outcome assessment and knowledge about relevant problems* are also essential to adjust implementation and expansion efforts, and to learn about the progress and outcomes of IMCI activities, including cost factors that demonstrate IMCI efficiency in the context of child care.

To carry out all of these tasks, the *mobilization of resources* is essential. Resources are required to support critical activities to allow, for instance, to have the tools

and materials that countries can subsequently adapt and incorporate to their health practices, to further demonstrate IMCI effectiveness and positive impact on improvements of child health conditions.

PAHO Governing Bodies, particularly the Pan American Sanitary Conference, have taken into account these challenges and are analyzing some specific recommendations to address them in order to strengthen IMCI implementation process initiated for the Region in 1996. This will pave the way to increased IMCI coverage and application, and the enlargement in the number of potential beneficiaries of the strategy and to further improve growth and development of thousands of boys and girls in the countries of the Americas.

5. Status of New IMCI Components in Light of the First TAG-IMCI Meeting Recommendations

Dr. Neyde Gloria Garrido, FCH/CA, PAHO/WHO

Beyond the application of an effective package of measures designed to reduce mortality from specific causes, PAHO's basic premise to promote the IMCI strategy in the American hemisphere may be stated as follows: *the timely identification and the proper management of health needs, risks, and problems of children under 5 is key not only to increase their chances of survival but also to improve the quality of life in childhood, thereby helping to enrich countries human capital.*

From such a premise are derived some concepts whose operational translation, totally consistent with the three components of the strategy, is the following:

- Any and all contacts of a child with a health service must be an opportunity to detect and adequately handle his/her needs, risks, and problems, and such assessment should not be limited to the motive stated by the person who brought the child for consultation to the service;
- All primary care units, as well as those that belong to the first level of care, must be supplied with the materials and necessary drugs to manage most frequently detected problems;
- All mothers, parents, and caretakers have to be informed and should be motivated to adopt practices that ensure health to their children.

Taking these premises as a point of departure, PAHO's Regional Technical Unit has been implementing two simultaneous tasks: that of promoting IMCI implementation with its initial contents and that of developing new lines of action to address demands imposed by the epidemiological profiles of the countries in the region.

The job of expanding the technical-operational contents of the strategy is carried out along the lines of IMCI three components as well as main spaces available for their dissemination. In other words, each one of the newly incorporated topics should include different materials referred to the objectives of each of the three components. These are:

Clinical Component: improvement of health workers skills;

Management Component: improvements in the organization of service supplies; and

Community Component: improvements in family and community practices.

Furthermore, the material prepared should be customized for different audiences such as:

- Professors and students of medical, nursing, nutrition, and public health schools and of health-related technical schools;

- Upper management in ministries of health;
- Managers of child health programs;
- Workers in health posts, health centers, and hospitals;
- Community health workers;
- Health workers in indigenous communities;
- Leaders and community organization participants, such as mothers' clubs or neighborhood associations;
- Leaders of churches in all denominations;
- Relevant mass media personalities; and
- NGO leaders and participants.

The selection of topics or contents added to the strategy is based mainly on criterion such as the relevance of the epidemiological problem to be addressed. The Regional Unit is attentive to changes in child health status in the countries and with the joint participation of technical and academic groups in the countries, analyzes and subsequently prioritizes what will be included in the strategy. The analysis incorporates those problems that most frequently affect children in specific countries, as well as recurrent problems in a large number of countries.

There are some other factors that help expedite preparation of the relevant materials, in addition to prioritization. One is local institutions and partners interests. Another, and closely related to this, the mobilization of technical and scientific personnel in areas or topics whose incorporation is being planned, as well as IMCI prioritization in the programmatic agenda of collaborating institutions. Similarly, the availability of financial resources to carry out the design, preparation, production in preliminary format, field test, validation, and delivery of the materials, is critical for the effective incorporation of new contents.

Figure 5.1 shows the complete list of contents already included in the IMCI strategy. These may be regarded as outcome of processes similar to the one described above.

It is appropriate to emphasize that each topic that appears included in the clinical component needs to get subsequently linked to the components of management and community. For example, the inclusion of abuse and violence in procedural charts, which are part of the new clinical components, must be followed by the review and updating of the planning and supervision of the management component and the training materials of community health workers, an other related materials. In other words,

the incorporation of new contents into the strategy represents a formidable cooperative effort of reviewing and enriching available materials, all of which is carried out for the Region of the Americas under the coordination of the IMCI Regional Technical Unit.

Conclusions

As countries performance demonstrates, the IMCI Regional Unit decision to expand, enrich, and develop the components of the IMCI strategy has led to major improvements in the organization and quality of child health care services but also faces some challenges and difficulties. Key among them is the lack of PAHO's financial resources for the preparation of relevant materials; lack of resources in the ministries of health once adaptations are completed and personnel has been trained for the new tasks; and the clashes of priorities and/or childhood attention and care packages within ministries.

As a result, topics that will require a thorough analysis in the future are the following:

- Do the new contents represent the best choices?
- What others contents should be added?
- Which of them should be prioritized given the lack of resources?
- What recommendations can TAG-IMCI make in order to overcome the identified difficulties?

Figure 5.1: Current components and in development to be incorporated within the IMCI strategy, September 2002.	
Clinical Component	
	<ul style="list-style-type: none"> ➤ Diarrhea ➤ ARI ➤ Malaria ➤ Food and nutrition ➤ Vaccination ➤ Infections of ear and throat ➤ Disorders of the perinatal period ➤ Development psychic and motor ➤ Asthma and broncho-obstructive syndrome ➤ Violence and abuse ➤ Diabetes ➤ Epilepsy ➤ Oral health ➤ Accidents in the infancy
Management Component	
	<ul style="list-style-type: none"> ➤ Supervision of clinical practices and of management ➤ Diagnosis of the quality of care ➤ Evaluation of the implementation of the strategy ➤ Drug management ➤ Organization and local planning
Community Component	
	<ul style="list-style-type: none"> ➤ Key practices for the child health ➤ Promotion of healthy practices—Community Health Workers ➤ Promotion of healthy practices—Other community actors ➤ Promotion of healthy practices—Social Workers ➤ Methodology of community mobilization ➤ Methodology of behavioral change

6. Progress in the Peri-Neonatal Component

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

Due to difficulties in the determination and targeting of priorities and the lack or poor distribution of health sector resources, the prevailing approaches to perinatal morbidity and mortality in some Latin American countries are still inefficient. Up to now the average rate of perinatal mortality of 34.4 per every 1,000 live births has been maintained. This is a high figure when compared with 9 to 12 per 1,000 in others developing countries, for example Chile and Cuba. This means that in 2001 there were 390,029 perinatal deaths in Latin America, although the actual figure larger given the high underreporting of such deaths in most countries.

Latin America also shows high health inequities in some segments of the population, especially indigenous mothers and children, and communities in extreme poverty where infant mortality rates, and thus perinatal and neonatal morbidity and mortality rates, are much higher.

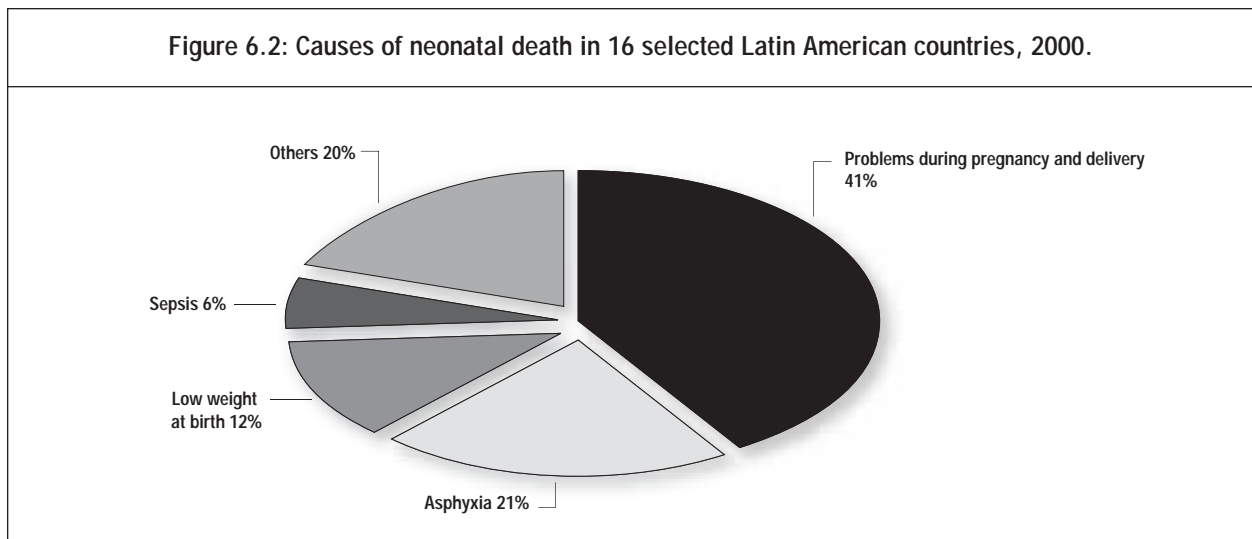
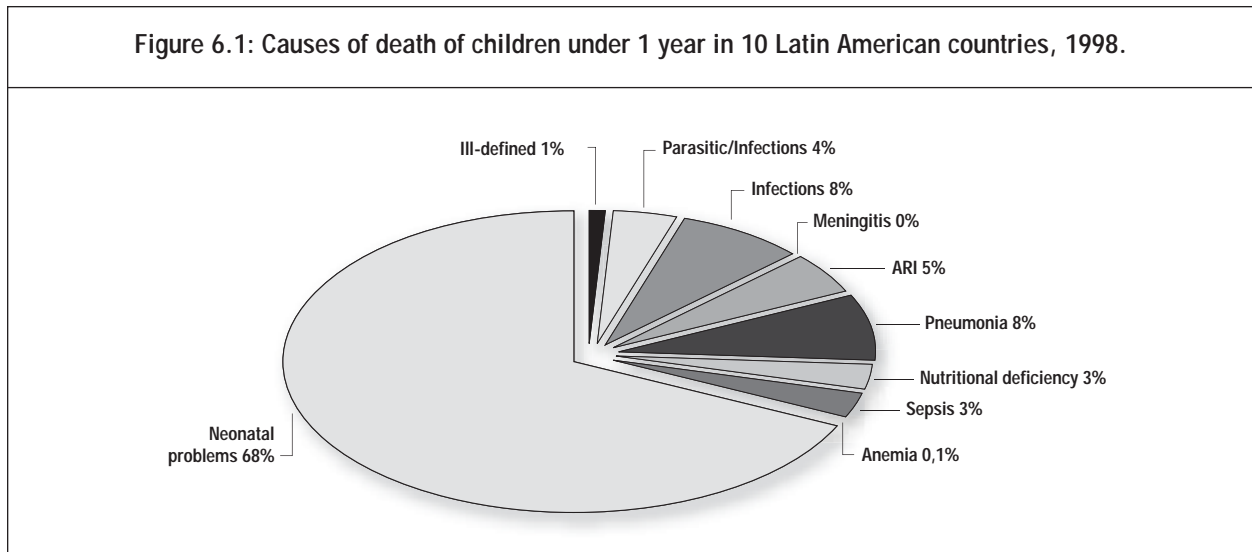
Prenatal check-up ranges between 60% and 75% in such countries as Mexico, Jamaica, Venezuela, Peru, and Ecuador; and it is less than 60% in Guatemala, Bolivia, and El Salvador. Furthermore, in Paraguay, Peru, Honduras, Bolivia, Guatemala, and Haiti less than 60% of deliveries is attended by trained staff. This shows the limited access quality care of the services of certain population groups.

According to statistics published by the Pan American Health Organization, 60% of deaths in children under 1 in twelve selected countries in the Americas are due to disorders during the neonatal period and 41% of neonatal deaths in 16 countries are mainly due to alterations during pregnancy and childbirth (Figure 6.1).

High neonatal mortality figures are shown at birth time and the first seven days of life, and are associated with frequent but preventable and treatable pathologies, such as asphyxiation intrapartum, hypothermia and hypoglycemia (Figure 6.2).

Along the lines of this reasoning, perinatal and neonatal care problems in most Latin American countries are created by such difficulties as:

- Late recognition and identification of problems.
- Lack or insufficient promotion measures by health workers designed to foster relevant good practices or protective factors and to discourage inadequate or risky behaviors
- Maintaining and updating knowledge and implementing evidence-based medical results
- Setting priorities and targeting of effective interventions by health service suppliers.
- Lack of monitoring and evaluation of the efficiency and quality of attention.
- Lack of up-to-date, reliable, and accessible analysis of the health situation.



The IMCI strategy and its neonatal component, should be adequately and continuously linked to the strategy of maternal care during the pregnancy, childbirth, and puerperium and also with children care from 2 months to 5 years of age. The neonatal components should be articulated in an integrated and continuous manner with algorithms that detect and prevent maternal risk factors that can lead to childbirth complications and negative physical and neurological impacts. It should also facilitate expeditious and timely decision-making so as to effectively contribute to a decline in perinatal and neonatal mortality and morbidity.

For these reasons, the IMCI strategy links perinatal interventions to help recognize risk factors during pregnancy, childbirth and puerperium, as well as a the time of birth and up to two months of age. This helps ensure access to integrated quality care, not only in health services but in households and communities.

IMCI levels of application are: a) in health services, to improve the quality of care and to better respond to population needs; b) in the community area, to improve access, early diagnosis, treatment, and reference, placing more emphasis on promotion and prevention; and c) at the family level to better address the needs of the mother and the child.

The implementation of IMCI and its neonatal component in each country should follow a path of three phases. The first phase is related to the initiation of activities, such as relevant decisions to be taken by the Ministry of Health. In the second phase each country will adapt the generic IMCI neonatal proposal to its own epidemiological and cultural characteristics. The third phase, aims at expanding coverage on the basis of the acquired experience.

The preparation of the perinatal and neonatal component was initiated at a meeting that took place in September 2000 in Rio de Janeiro, with the participation of 26 area specialists. The meeting helped to prepare the first version of the IMCI neonatal component which has gone through several modifications and validations.

To date, more than 700 health professionals in the Region of the Americas have participated in the different stages of development of the IMCI neonatal component and a generic material is currently available and validated and, therefore, ready for country adaptation.

Adaptation workshops have already taken place in Guatemala, Bolivia, the Dominican Republic, Paraguay, Peru, and Ecuador and in some of them the official materials published by the Ministry of Health are already available, such as in Bolivia, that has already published procedural charts for perinatal attention and care in the context of the IMCI strategy and is initiating the implementation process (Figure 6.3).

Figure 6.3: Procedural charts of the neonatal/perinatal component of the IMCI strategy, Bolivia, 2002.

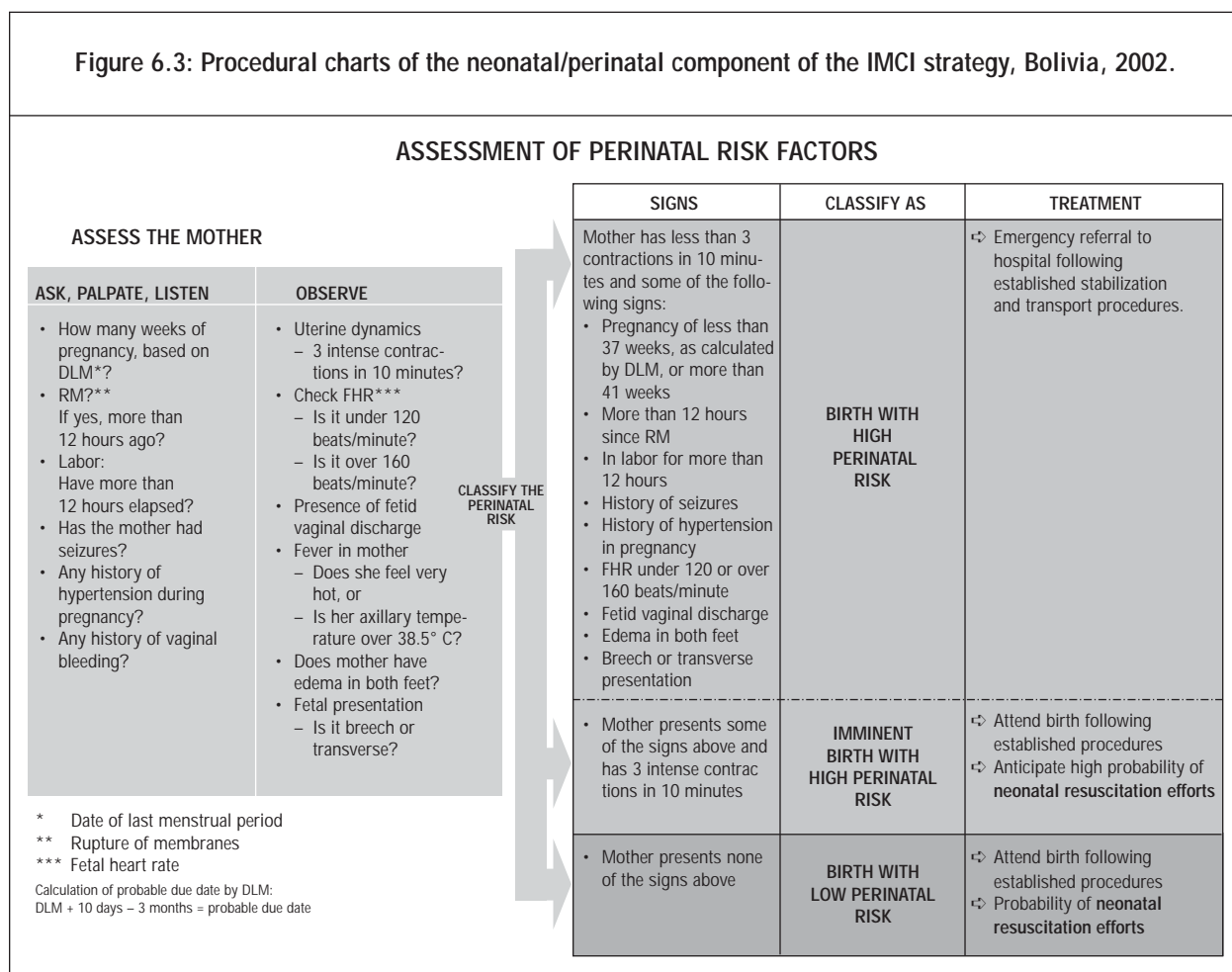


Figure 6.3. (cont.)

ASSESSMENT OF CONDITION AT BIRTH

WASH HANDS with soap and water before touching newborn. Always keep newborn in a warm environment to keep it from getting cold (hypothermia).

ASK, NOTE	OBSERVE, PALPATE, LISTEN
<ul style="list-style-type: none"> History of neonatal resuscitation RM? <ul style="list-style-type: none"> If yes, more than 12 hours before birth? Maternal fever present? Fetid vaginal discharge (mother)? Meconium in amniotic fluid? 	<ul style="list-style-type: none"> Respiratory distress Color Birthweight Determine gestational age Check for <ul style="list-style-type: none"> malformations trauma

CLASSIFY CONDITION AT BIRTH

- * RM: rupture of membranes
- ** Assess respiration with Silverman-Andersen scale

SIGNS	CLASSIFY AS	TREATMENT
Newborn presents one of the following signs: <ul style="list-style-type: none"> History of neonatal resuscitation RM more than 12 hours before birth Mother with fetid vaginal discharge Respiratory distress General cyanosis Intense pallor Weight < 2,000 g Gestational age < 36 weeks Major congenital anomalies 	SERIOUS CONDITION AT BIRTH	<ul style="list-style-type: none"> Nothing by mouth, if newborn exhibits respiratory distress Administer OXYGEN THERAPY if newborn exhibits respiratory distress Prevent hypoglycemia Administer first dose of appropriate antibiotics in the case of: <ul style="list-style-type: none"> (early) rupture of membranes fetid vaginal discharge gestational age < 36 weeks Emergency referral to hospital following established stabilization and transport procedures
ANY OF THE ABOVE, AND <ul style="list-style-type: none"> Weight between 2,000 and 3,000 g 	POSSIBLE ASPIRATION OF MECONIUM	<ul style="list-style-type: none"> Administer OXYGEN THERAPY Administer first dose of appropriate antibiotics Emergency referral to hospital following established stabilization and transport procedures
Any of the following: <ul style="list-style-type: none"> Weight between 2,000 and 3,000 g Gestational age between 36 and 38 weeks Fever in mother Trauma at birth 	CONDITION: REQUIRES OBSERVATION	<ul style="list-style-type: none"> Place in skin-to-skin contact with mother and dress wrap Recommend breastfeeding to mother Observe newborn for the first 24 hours of life Check for respiratory distress using the Respiratory distress assessment chart Reassess every 24 hours for 3 days Advise mother when to return immediately
<ul style="list-style-type: none"> Presents none of the previous signs 	CONDITION: GOOD AT BIRTH	<ul style="list-style-type: none"> Recommend breastfeeding to mother Advise mother to keep the newborn warmly dressed Counsel the mother on how to care for the newborn at home Advise mother when to return immediately Advise mother that she should return with the baby for a check-up when it is five days old.

Figure 6.3. (cont.)

ASSESS		CLASSIFY CONDITION AT BIRTH	SIGNS	CLASSIFY AS	TREATMENT
PREGUNTAR <ul style="list-style-type: none"> • Did the newborn have seizures (attacks)? • Can it breastfeed or take a bottle? • Does it vomit everything it ingests? <p>Rapid breathing: 60 or more per minute</p> <p>Slow breathing: 30 or less per minute</p>	OBSERVE, LISTEN, PALPATE <ul style="list-style-type: none"> • Respiratory distress <ul style="list-style-type: none"> – Count number of breaths in a minute – Repeat if count is high or low – Check for severe subcostal retraction – Nose flaring – Wheezing • Swollen fontanel • Umbilicus reddened or with suppuration? <ul style="list-style-type: none"> – Does the redness extend to the skin? • Take axillary temperature or feel the skin • Check coloring: cyanosis, pallor • Check for skin pustules: <ul style="list-style-type: none"> – Are there many? Are they extensive? • ∑ State of consciousness: <ul style="list-style-type: none"> – ¿letárgico, inconsciente, hipoactivo? • Eye discharge with swollen eyelids 		<ul style="list-style-type: none"> • Any of the following: <ul style="list-style-type: none"> • Seizures (attacks) • Cannot breastfeed • Vomits everything ingested • Rapid breathing: 60 or more • Slow breathing: 30 or less • Severe subcostal retraction • Nose flaring • Wheezing • Swollen fontanel • Reddened umbilicus with redness extending to the skin • Fever: axillary temperature above 38° C or very hot to the touch • Hypothermia: temperature 35°C or very cold to the touch • General cyanosis or intense pallor • Skin pustules: many or extensive? • Lethargic, unconscious, hypoactive • Eye discharge WITH swollen eyelids 	<p>SERIOUS BACTERIAL INFECTION</p>	<ul style="list-style-type: none"> ⇔ Keep baby warm ⇔ Administer first dose of antibiotic intramuscularly ⇔ Keep blood sugar from dropping ⇔ Administer oxygen therapy if respiratory distress or general cyanosis is present ⇔ Give mother instructions to keep baby warmly dressed when taking it to the hospital ⇔ Emergency referral to hospital following established stabilization and transport procedures
			<ul style="list-style-type: none"> • Any of the following: <ul style="list-style-type: none"> • Umbilicus reddened or with suppuration • A few skin pustules • Eye discharge WITHOUT swollen eyelids 	<p>LOCALIZED BACTERIAL INFECTION</p>	<ul style="list-style-type: none"> ⇔ For reddened umbilicus and skin pustules, administer appropriate oral antibiotic ⇔ For eye discharge, administer ophthalmic ointment ⇔ Advise mother to continue breastfeeding ⇔ Show mother how to treat localized infections at home ⇔ Advise her when to return immediately
			<ul style="list-style-type: none"> • Exhibits none of the previous signs 	<p>NO BACTERIAL INFECTION</p>	<ul style="list-style-type: none"> ⇔ Advise the mother to continue breastfeeding ⇔ Counsel her on how to care for the baby at home ⇔ Indicate when she should return immediately ⇔ Recommend that she bring the baby in for a check-up when it is 15 days old

Early experiences in these countries show that the IMCI neonatal component is viable, and can be integrated with activities for older boys and girls included within the strategy. In addition, fast adaptation in several countries explains the high receptivity and support for the strategy by international agencies.

The introduction of the neonatal component of the IMCI strategy is an opportunity for the countries to: a) update their standards and national policies with regard to mother-newborn comprehensive management and to further reduce infant mortality; b) train health workers involved in the process; and c) further expand the strategy not only in health services, but in families and communities.

7. Quality of Hospital Care for Diseases Targeted by IMCI: Summary of the Multicountry Study Results

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

Sustained progress in IMCI implementation in the countries of America has facilitated the evaluation of outcomes, particularly with regard to the quality of care delivered to boys and girls in first level services. Several studies have found some of the following outcomes in IMCI implementation: comprehensive approach to attention, including evaluation of problems that did not constitute the main reason for consultation, a more rational use of diagnostic tests, mainly radiology and laboratory, and a more appropriate use of drugs for treatment, especially antibiotics. Other studies show how the systematic application of IMCI improves the knowledge of parents about treatment, warning signs for early consultation and, in general, on the most adequate care to be provided to children both during sickness episodes and when they are healthy.

All these studies have dealt with improvements in the quality of ambulatory care through the application of the IMCI strategy, taking into account that all those children who are classified as having a serious disease are referred to a hospital for complementary evaluation and treatment.

In view of the fact that these type of cases, timely detected through the application of IMCI in the first level of care, are the ones that contribute to greater mortality, the analysis of the quality of care provided in referral hospitals turns on to be of the greatest importance. Observing it in this way, this aspect is complementary to IMCI first care efforts and positive impacts, as it will ensure that referred cases also receive appropriate care at the hospital level.

However, little is known about the quality of hospital care for diseases that affect children. In the same way that studies at the first level of care show the existence of various criteria for evaluation and treatment of the diseases that afflict childhood, maybe at the referral level something similar happens. This may provide opportunities to advance in the analysis and preparation of an IMCI standardized minimum quality criteria for the evaluation, treatment, and monitoring of child diseases in referral hospitals.

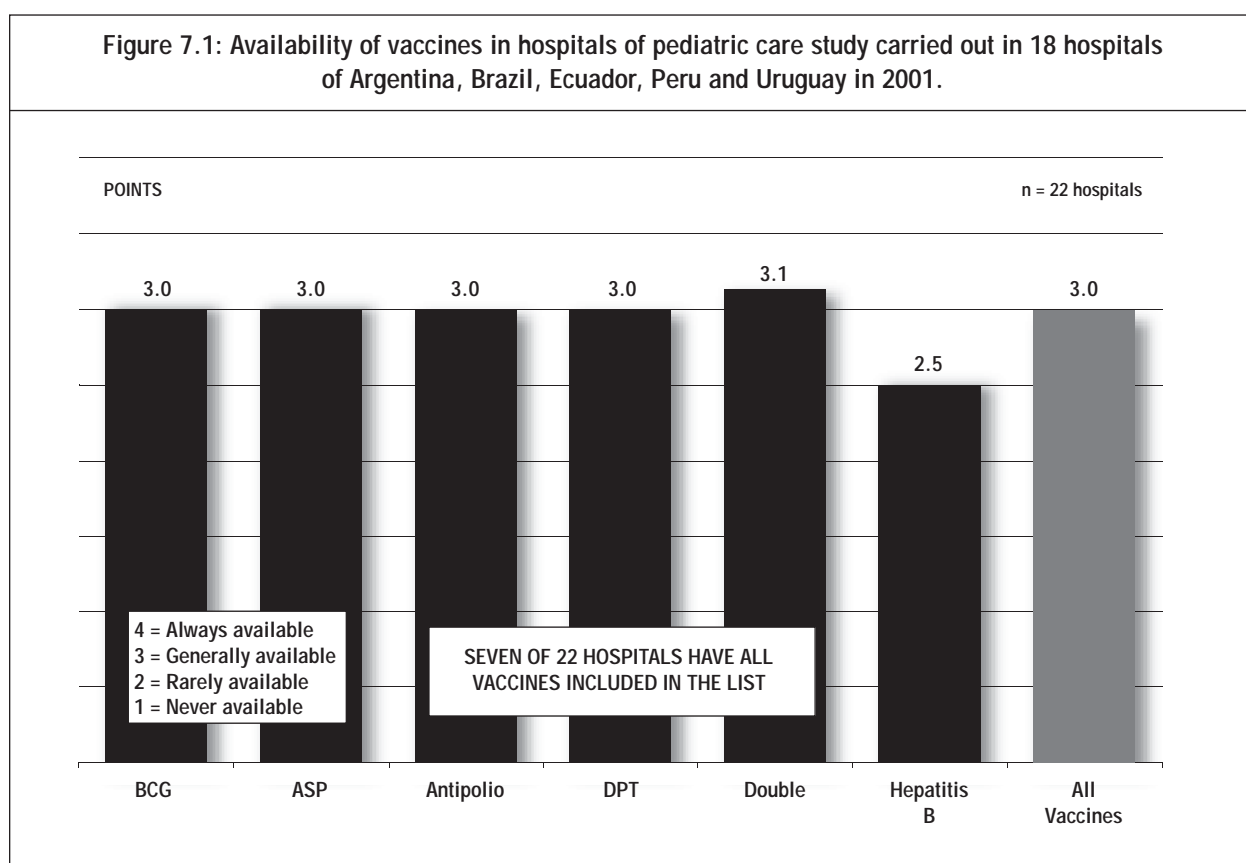
In recent years the World Health Organization conducted a study of the quality of hospital care for the critically ill children in developing countries, and a similar methodology was applied in a study developed in several countries in the Region of the Americas. The latter can be seen as a first step in the process of getting relevant information with regard to hospital care for critically ill children in order to identify avenues to complement available instruments and implementation activities to ensure that the most serious cases receive a most appropriate care.

The preliminary results of this study, based on information and analysis from hospitals in five countries (Argentina, Brazil, Ecuador, Peru and Uruguay) show that several health care aspects should be improved considerably and that, while at the first care level, due to IMCI application the integrated approach to attention has been strengthened, at the hospital level it is not always at the core of the health care that is being provided.

By way of example, the study showed that in twenty-two hospitals for which the supply of vaccines was evaluated, the latter were not always available (Figure 7.1). Only seven of the twenty-two hospitals had at the time of the visit all the relevant vaccines. In addition, only five of eighteen hospitals actually checked vaccination status when children were released from the hospital. In these cases the evaluators considered that vaccination activities should go through considerable improvement to ensure that all children released from the hospital leaves with the complete series of vaccination for their age.

According to the study, ten aspects require considerable improvement in most hospitals (Figure 7.2). These include: the lack of a systematic audit of children deaths to identify the main causes and to design and implement relevant preventive actions; the lack of or inappropriate criteria for triage to ensure expeditious care of children showing symptoms of greater severity; and the lack of evaluation of children's nutritional status.

With regard to the case management of three of the diseases and health problems targeted by the IMCI strategy, the analysts found that in three of the eighteen hospitals the



evaluation of serious pneumonia and of dehydration should go through considerable improvement (Figure 7.3). In the case of pneumonia, less than half of the hospitals (7 of 18) actually ensured an appropriate evaluation of this problem. The evaluation study also showed that a third of the visited hospitals should improve significantly the evaluation of children's nutritional status, and that in five of the eighteen

the provision of food for the severely malnourished should go through considerable improvement.

This summary provides an overview of some of the findings of the multi-country study that is currently conducted in the Region of the Americas with the aim of appraising the quality of care in first referral hospitals.

Figure 7.2: Ten aspects with the larger percentage of very negative appraisal (should be improved considerably). Study carried out in 18 hospitals of Argentina, Brazil, Ecuador, Peru and Uruguay in 2001.

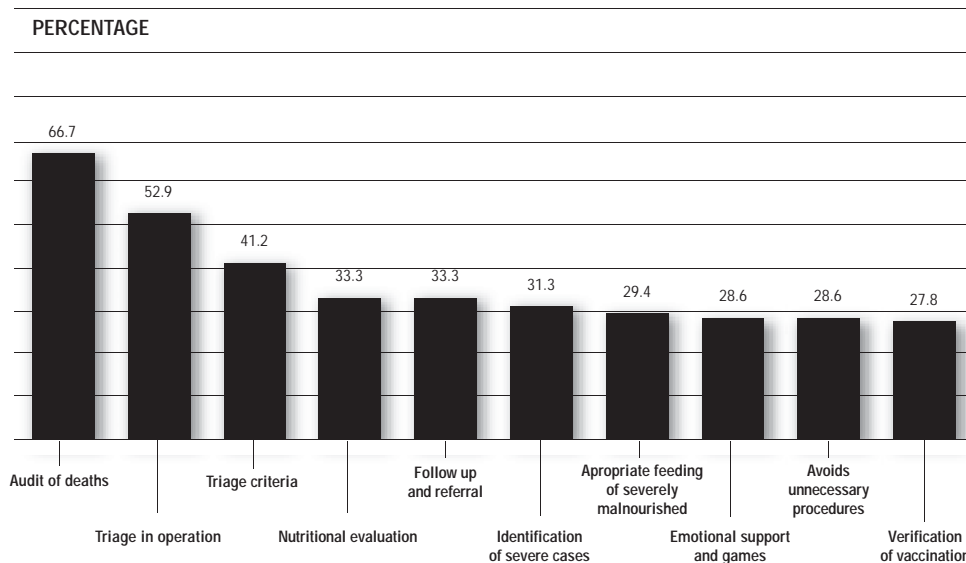
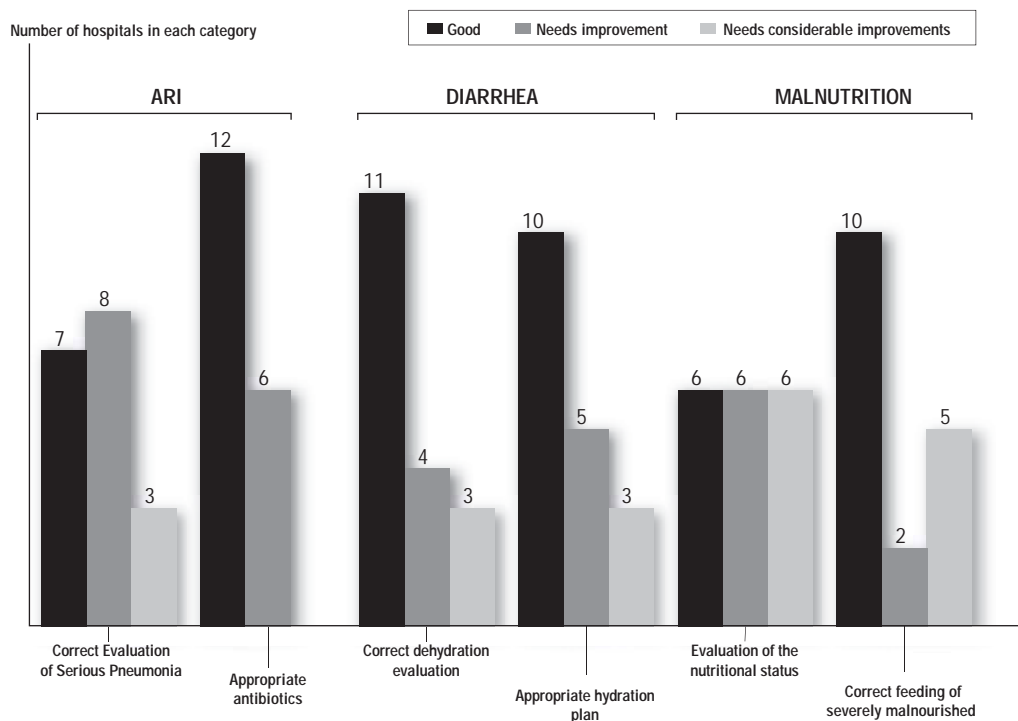


Figure 7.3: Evaluation of the quality of some aspects of hospital care of diseases object of the IMCI strategy in childhood. Study conducted in 18 hospitals of Argentina, Brazil, Ecuador, Peru, and Uruguay in 2001.



This will facilitate the identification of problems that must be prioritized to ensure that the most serious and early detected cases that are referred from the first care level actually receive appropriate quality care.

Improving the quality of hospital care will help to strengthen the current achievements of the IMCI strategy, especially the ones related to the reduction in the number of deaths from preventable diseases in childhood, many of which happen at the hospital level in Latin America and the Caribbean.

To help with this task, we have already available the manual on hospital case management for critically ill and severely malnourished children. This is based on an early publication by OMS¹, that has been adapted for the Region of the Americas², with the participation of experts from all of the countries in the Region. The application of this material, in addition to what is already available for IMCI implementation at the first level, will support the expansion of IMCI care coverage in hospitals, by improving the quality of care provided and by helping to ensure IMCI benefits for all children.

1 WHO Management of the child with a serious infection or severe malnutrition. Guidelines for care at the first-referral level in developing countries. WHO/FCH/CAH/00.1, World Health Organization, 2000.

2 Organización Panamericana de la Salud. Enfermedades prevalentes graves de la infancia. Guía básica para el nivel de referencia hospitalaria. Serie HCT/AIEPI 23.E. Organización Panamericana de la Salud, Washington, D. C., U. S. A., 2001.

8. Progress in the Community Component of the IMCI Strategy: Outcomes and Prospects

Mr. Christopher Drasbek, FCH/CA, PAHO/WHO

The IMCI strategy (Integrated Management of Childhood Illness) includes a set of basic measures for disease prevention and health promotion that can be provided to all children under 5. IMCI also includes educational contents to strengthen parental skills for home care of illnesses that affect child health and to expeditiously identify warning signs for immediate consultation with health personnel or health services.

From a community standpoint, the continued occurrence of a high number of deaths from preventable diseases, many of which take place in households, is related to a combination of factors, such as, lack of access to either institutional or community health workers, failure to identify early warning signs to seek care, and to the use of unnecessary or inadequate home remedies that delay the process of searching for health care.

Succeeding in making such knowledge and practices available to all families and communities is the purpose of the community component of IMCI. Along these lines, PAHO/WHO, and UNICEF established a set of key practices for the healthy development of children that, if effectively applied in the home and the community, can contribute to the expeditious reduction of mortality and morbidity in childhood and help ensure an adequate health care quality for children.

To disseminate these practices some training tools have already been prepared –i.e. “IMCI Course for Community Health Workers” and “Talking with Mothers on IMCI”-- planning tools –i.e. “local organization for IMCI”-- and diagnostic instruments –i.e. “Profile of Community Health Workers and NGOs Working at the Local Level”. In addition, we have generic information models and education materials – for instance, the “Mothers Card” -- and still others that are being prepared for mass communication – i.e. videos and radial messages on disease prevention and health promotion.

In order to accelerate and strengthen the community component of IMCI, PAHO/WHO, and the American Red Cross (ARC) initiated in 2001 a joint project that includes regional and national activities to be carried out in ten countries in the Region of the Americas (Figure 8.1): Bolivia, Colombia, Ecuador, El Salvador, Guatemala, Honduras, Nicaragua, Peru, the Dominican Republic, and Venezuela. The project is designed to sustain community IMCI activities through miscellaneous strategies, such as participatory development in projects for high-risk areas. These projects are designed to support the effective application of key practices for child health improvement.

Institutions that work for children at the community level, such as health services, schools, churches, municipalities, volunteers groups, mothers' clubs and NGOs participate in the implementation of these interventions (Figure 8.2).

These institutions jointly identify family and community practices that do not protect child health or favor healthy growth and development. At the same time, activities and tasks are conceptualized and relevant existing projects are comple-

Figure 8.1: Regional IMCI Community Project 2001-2006



Figure 8.2: Collaboration with Local Actors, NGOs and Other Organizations IMCI Regional Community Project

Local Actors	NGOs, others...
<ul style="list-style-type: none"> • Red Cross • Ministry of Health • Mayor • Community Associations • Surveillance Committee • Community Health Promoters • Schools • Water Cooperatives • Mothers' Clubs • Young People Clubs • Farmer Unions • Churches • Police Chief 	<ul style="list-style-type: none"> • PAHO • UNICEF • USAID • CORE GROUP • World Vision • World Bank • CARE • Catholic Relief Services • IDIPS (Ecuador) • CCTU (Peru) • UOPICJ (Bolivia) • ORI (Ecuador) • Misión Josefina (Ecuador) • Mercy Corps • Others

mented via the strengthening of components oriented towards disease prevention and health promotion. In this manner, duplication of efforts is avoided and the capabilities of the community to address and solve its problems is strengthened.

One of the project activities in 2002 was to develop modules of community orientation for local actors. The modules act as guides for information, orientation, training and advocacy for several local actors that participate in the Project. The modules are:

- Mayors and Municipal Authorities
- Facilitators for Training
- Volunteers of the Red Cross
- Professors and Educators
- Professionals in Health Services
- Community Leaders

Several instruments have already been prepared within the framework of this project, such as a course in home care prevention, a module on basic sanitation, educational material for parents, follow-up and monitoring indicators

and instruments, and diagnostic guidelines and criteria designed to focus interventions more efficiently.

Although the project was initially designed for ten countries, during its first year of implementation it has aroused interest for the mobilization of additional resources, which will lead to the expansion of activities and the incorporation of other countries or additional geographic areas within them. Due to their participatory and community orientation approach, these projects will help strengthen local tasks with available resources which, in turn, will enhance prospects for sustainability. In addition, dialogue among institutions working at the community level is being strengthened, thereby improving coordination with Ministries of Health.

In 2001 and 2002, the project had a great deal of success in building local capacity and to train health workers and local actors. Among others, the following activities were carried out:

- Workshop on Planning for Local Coordinators - May 2001, Peru

- Regional Workshop to Prepare Community Orientation Modules for Local Actors - October 2001, Peru
- Subregional Planning Meeting sponsored by PAHO and the International Federation of the Red Cross - April 2002, Guatemala
- Regional Test of the 16 Key Practices Baseline - April 2002, Ecuador - September 2002, Peru
- Regional Workshop on Community IMCI Monitoring and Evaluation - May 2002, Honduras

To date the project has financed nine community projects on the 16 practices which have been approved for Bolivia, Ecuador and Peru. Seven countries are in the final preparation phase for their community projects. The total number of Project beneficiaries in the ten countries adds up to 806,903 people, 156,524 families, and 1,070 communities. These numbers will go up in the future when project coverage is expanded to other sites. Up to now, the project has been successful in involving 93 actors of other local organizations and institutions.

In the area of training, in 2001-2002, more than 1,500 people were trained with funds of the Project, in the American Red Cross and local Red Cross, Representative Offices of PAHO in every country, NGOs, universities, Missions of USAID, and UNICEF. The training covered mainly the following areas:

- Local planning
- Diagnosis on the community situation
- Community IMCI
- Clinical IMCI
- Monitoring and evaluation

A new Project of the United Nations Foundation (UNF) whose title is "Empowering Local Communities to Improve Children's Health in Ten Latin American Countries", will soon be launched. The project will be carried out through an agreement that will provide funds in amounts equivalent to those already provided by the project with the American Red Cross, and activities will be implemented in three countries: Bolivia, Ecuador, and Peru. The objectives of the latter are:

- To enhance success of the Regional IMCI Community Project.

- Develop a community cost instrument.
- Expand monitoring and evaluation activities in order to measure behavioral changes.
- Expansion and strengthening of national policies.

Many other countries are prioritizing IMCI community activities. For example, Brazil incorporated IMCI in its Program on Family Health with more than 120,000 community health workers in Family Health Teams; in Colombia IMCI training is being carried out for the indigenous population in priority areas of the Amazon River. Peru, Argentina, and other countries are working with the training of institutional health community agents with NGOs (Project HOPE, in Saint Martin, Peru), and in Uruguay a national project entitled The Train of Health, is training community agents and nursing students.

Future IMCI community activities in the Region include:

- Expanding coverage of the community component to strengthen local capacity and sustainability.
- Strengthening monitoring and evaluation to determine behavioral changes.
- Fostering private sector participation
- Including IMCI activities in programs of health sector reform.
- Expanding IMCI activities toward other program areas
- Incorporating IMCI in NGOs and other organizations.
- Including IMCI key practices in health promotion activities.
- Ensuring IMCI work with the indigenous population.
- Improving mass communication.
- Coordination of actions with other programs (i.e. AIDS and prevention of disease transmission from mother to son; healthy municipio initiatives, and the Expanded Program on Immunization.
- Strengthening IMCI community component at the national and local levels.
- Promoting IMCI community to make it a key component of health national policy.
- Documenting evidence of successes and sharing information and models with other regions and organizations.

9. Social Communication in IMCI

Dr. Rafael Obregón, FCH/CA, PAHO/WHO

Introduction

The processes of communication and dissemination of information have gained special importance in the progress of the IMCI strategy, and therefore it is appropriate to provide an outline of the conceptual and methodological background of health communication; of key aspects to be addressed in the implementation of communication strategies and actions that are being implemented within the IMCI framework, and describe the most immediate challenges.

Background on Communication and Public Health

Several authors define health communication as a process aiming at fostering knowledge, understanding, and skills that make it possible for people to positively transform the conditions that affect their health. Meanwhile, for others, it is the use of techniques and technologies that positively influence individuals, groups, and organizations to foster the conditions that lead to human and environmental health. Both approaches highlight the systematic and comprehensive character of the processes of health communication.

Communication for behavioral change, an approach that has been predominant in the field of health in recent years, aims at generating processes that lead to the adoption of healthy behavior by people. While in the past the emphasis was communication for behavioral change at the level of the individual, it has been observed in recent years that it is important to work not only within the individual area but also within the collective realm through larger processes of community participation.

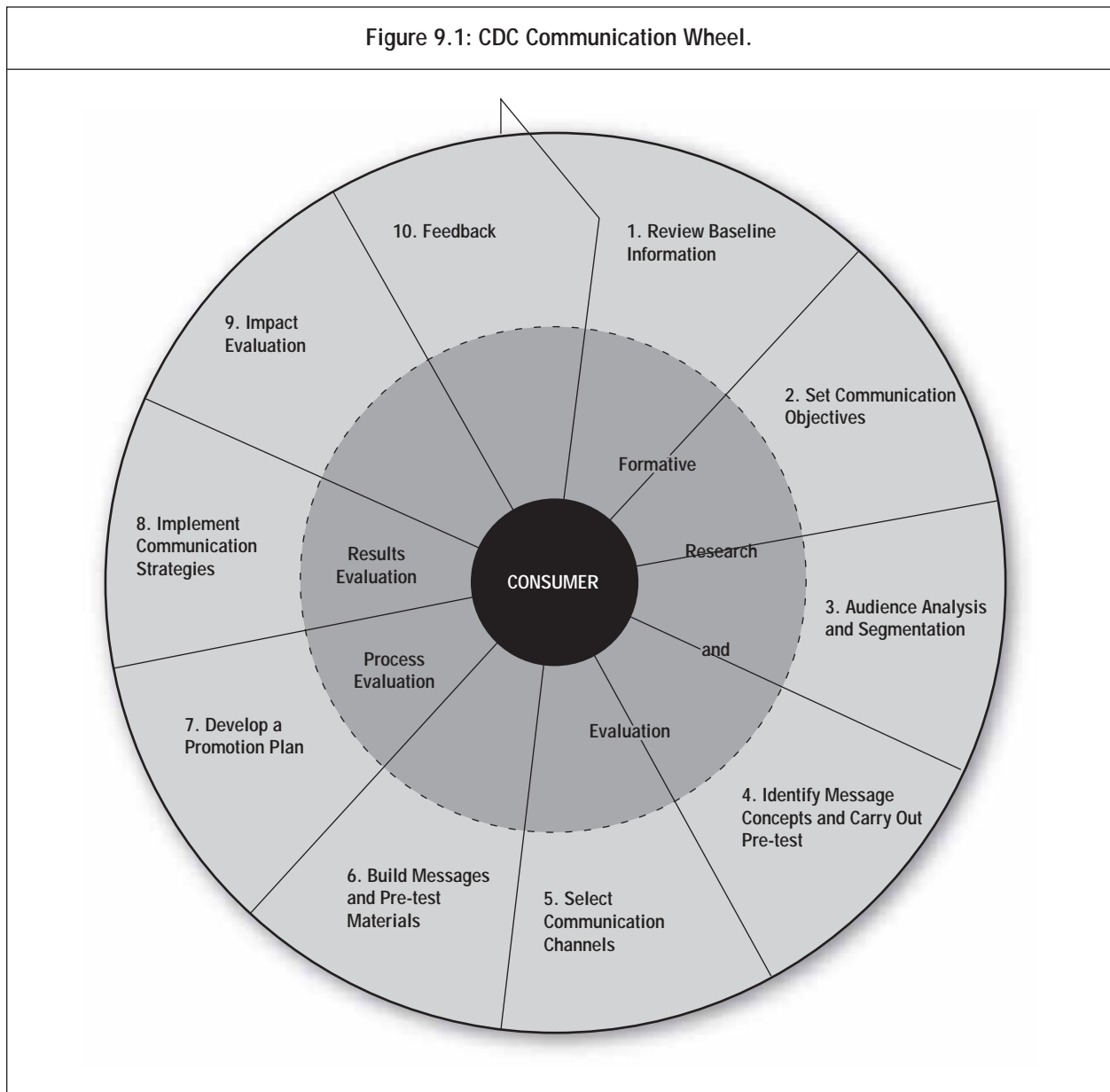
Progress in health communication has led to developing strategies for public health professionals. This set of tools attempt to deal with the needs of different sectors and includes: Social Marketing; risk communication, working alliances with the media (media advocacy, or advocacy through communications media); Eduentertaining; Information, Education, and Communication (IEC); utilization of information technologies; public journalism; Popular/community communication; Communication between pairs; Group communication; and work with social networks, among others. Although there are no readily available formulas or prescriptions to deal with health problems, this tool box offers to those responsible for health communication the opportunity to choose from multiple options to prepare and carry out a strategy or campaign.

The successful application of these strategies demands the management of certain basic principles of health communication. First of all, health communication is based on three essential pillars: interpersonal and group communication;

mass communication; and mobilization and community participation. The presence of these three components is key for the promotion of healthy practices and the appropriation of such practices by individuals and communities. Furthermore, health communication should be: 1) a process; 2) systematic; 3) with a great investigative support; 4) should incorporate the elements of a rigorous evaluation; 5) have a long-term vision; 6) be sustainable through the participation and their appropriation by the

community; and 7) sensitive to the special features of the social and cultural environments. Various organizations that work in the field of health communication have advanced the implementation of methodological schemes that show variations but unavoidably incorporate such basic aspects as: baseline; diagnosis; strategy and content design; pretest and validation of strategies and contents; implementation of strategies; process and impact evaluation; and process feedback (Figure 9.1).

Figure 9.1: CDC Communication Wheel.



There are several successful experiences in the area of health communication at the international level that respond to the so-called strategic communication era. The oral rehydration, and the vaccination campaigns, particularly to deal with polio, are some of the experiences in which communication has played a central role. By way of illustration, we outline the experience of Soul City, in South Africa, a project that addresses different health subject areas such as, HIV/AIDS; maternal health; respiratory infections; breast-feeding; and disability, all from a multimedia perspective that incorporates elements of TV, radio, press, media advocacy, adult training, education of young people, advertising, evaluation, and counseling.

Soul City is an interesting example of an integrated set of communication strategies and activities within the principles of strategic communication. Every year a series of strategies of mass, group, and interpersonal communication is implemented, supported by the "central vehicle" Soul City, a dramatized television program of 13 high-quality episodes broadcasted during three months at primetime (triple A) that promotes educational messages on health topics. Soul City recognizes that the possibility of behavioral change grows when members of the audience get in touch with each other and engage in a dialogue on addressed issues. The formative and the final evaluations

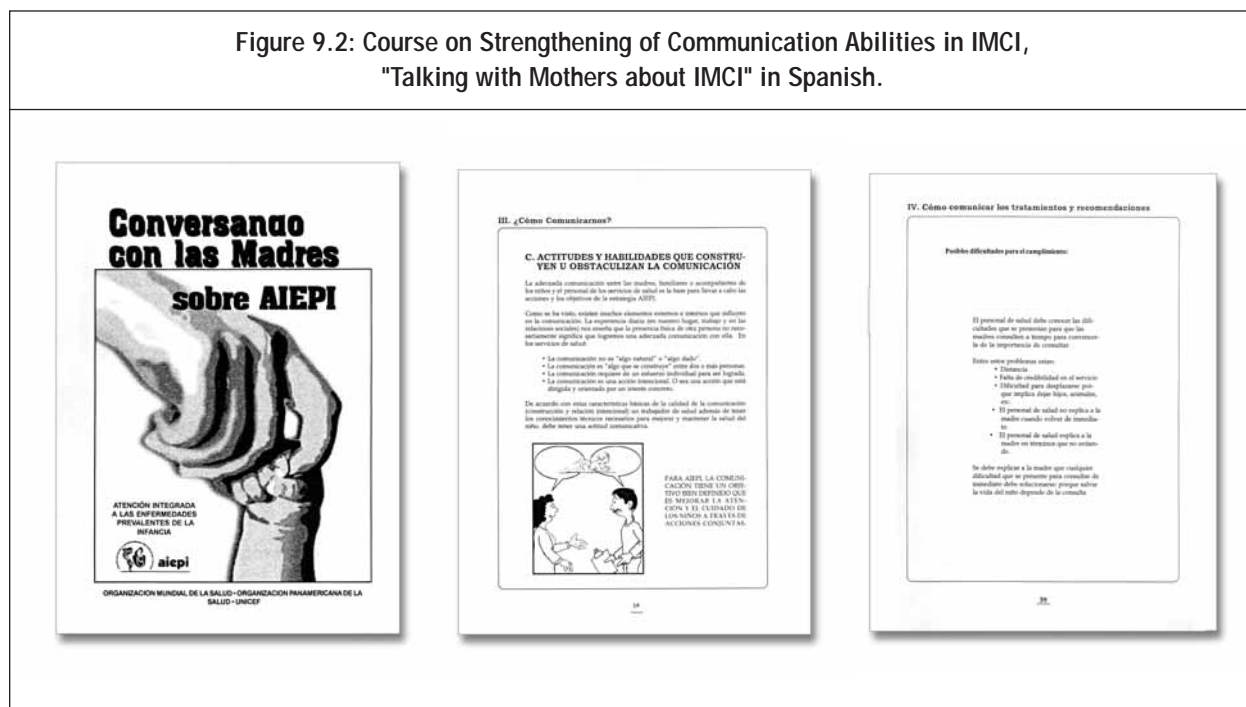
are essential for the proper design and evaluation of communication interventions. The formative evaluation tries to identify health targets that are part of the national public agenda, learn about the needs and perceptions of the audience with regard to the topic to be addressed, and ensure that mass media interventions can find the necessary backing and support at the local level and in the services. The final evaluation tries to identify changes in attitudes and behavior, and determine the contribution of the communication strategy to the achievement of the general objectives of the program or project, through pre and post intervention indicators for each type of media used.

Social Communication Activities in IMCI

The role of mass communication within the framework of the IMCI strategy can be structured around two large priority areas. First, improvement in the quality of communication processes among professionals, health service personnel, health service users, and the broader community (Figure 9.2).

Secondly, to facilitate a process of individual and collective appropriation of key messages and practices (Figure 9.3),

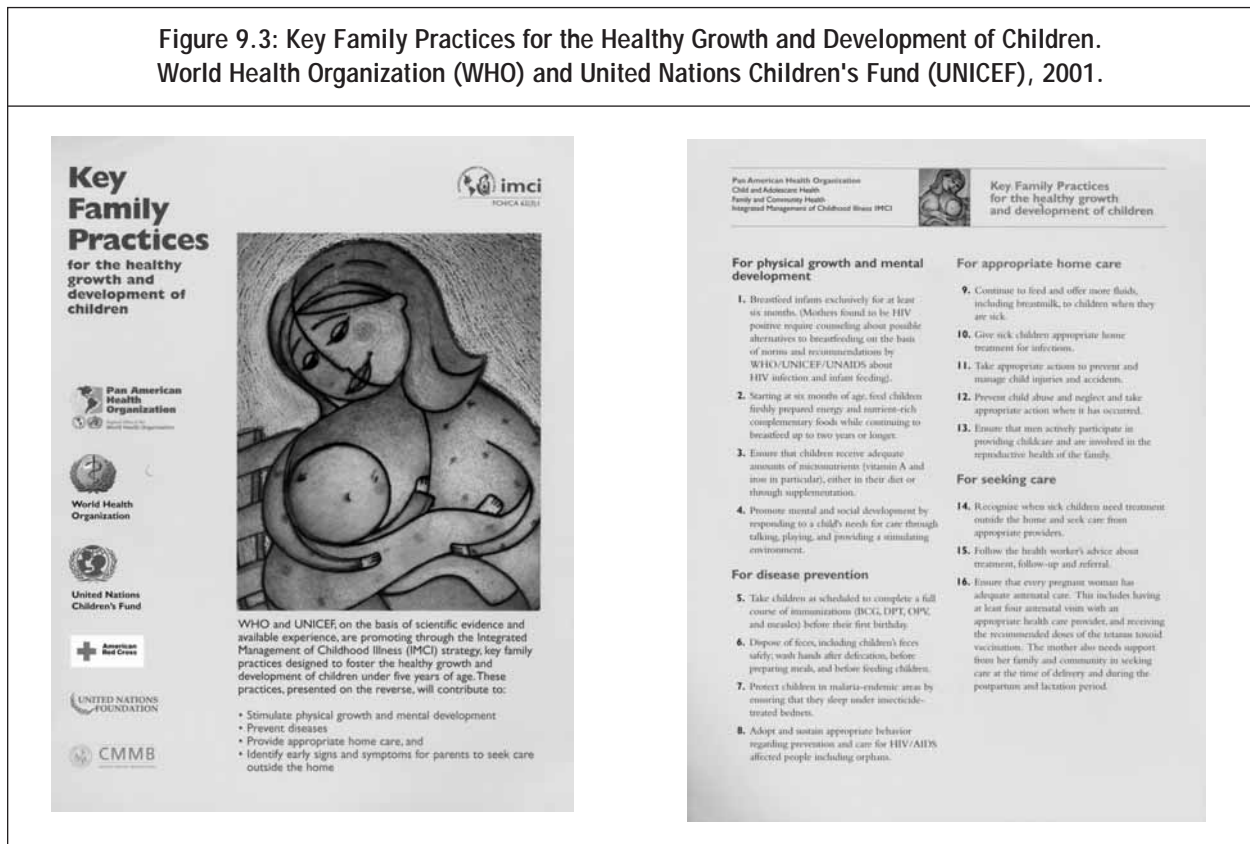
Figure 9.2: Course on Strengthening of Communication Abilities in IMCI, "Talking with Mothers about IMCI" in Spanish.



that eventually lead to the adoption of healthy behavior and thus contribute to reduce the incidence of disease in children and to effectively act in response to situations in which

some disease occurs. Furthermore, there are other initiatives that strengthen activities at the interpersonal, community, and mass levels.

Figure 9.3: Key Family Practices for the Healthy Growth and Development of Children. World Health Organization (WHO) and United Nations Children's Fund (UNICEF), 2001.



Throughout 2002 several activities were implemented to deal with some strategic priorities. Such activities were carried out within the framework of several projects and alliances between PAHO and a number of international cooperation institutions, such as the American Red Cross (ARC), United Nations Foundation (UNF) and the Catholic Medical Mission (CMMB), in addition to other initiatives with USAID (US Agency for International Development), CIDA (Canadian International Development Agency) and EHP (Environmental Health Project).

cal and community levels, and to integrate processes of interpersonal, group, people, and community wide communication. In this regard, we expect the tool to get strengthened with country experiences under PAHO support, and the assistance of other international, national and local institutions that have been implementing IMCI. This will be a methodological tool to help countries in their own process implementation and will help to systematize communication experiences in different communities, that often remain undocumented in projects technical reports.

As a part of this response, we are working in the preparation of a conceptual and methodological tool to guide the design, implementation and evaluation of mass communication strategies in the context of IMCI, both at the clini-

cal and community levels, and to integrate processes of interpersonal, group, people, and community wide communication. In this regard, we expect the tool to get strengthened with country experiences under PAHO support, and the assistance of other international, national and local institutions that have been implementing IMCI. This will be a methodological tool to help countries in their own process implementation and will help to systematize communication experiences in different communities, that often remain undocumented in projects technical reports.

program produced the manual “Helping to Grow: Reference Information on Integrated Development of Girls and Children Under 6”. This is a book designed for journalists and attempts to have an impact in the quantity and quality of journalistic coverage on topics related to the health of children under 6, and to also contribute to their prioritization in the public agenda. Furthermore, in collaboration with DPI (Department of Public Information, PAHO) our program is working on short radio messages to promote the key family practices through the stations network that disseminate materials produced by DPI in the region. With DPI, we have also started the production of an institutional video that disseminates information on IMCI community activities, particularly projects with UNF and ARC.

Also, in collaboration with PAHO Human Resources Development Program, IMCI is participating in a process spearheaded by the Latin American Federation of Schools of Mass Communication (FELAFACS), PAHO, and USAID, designed to foster the incorporation of health topics in the curriculum of social communication schools, and enhance schools’ interest in the area of public health. In addition, there are efforts aiming at fostering research on health communication. The expected result of these task is to open spaces for more strategic and systematic processes of health communication in the region.

There is also undergoing work with EHP (Environmental Health Project). This pertains to the implementation of a process of communication for behavioral change on hand washing and excreta disposal based mainly on interpersonal communication strategies. This project is carried out in collaboration with the Plan Padrinos Internacional, in two communities in Peru and Nicaragua. The outcomes of the project will be very useful in the implementation of future undertakings on behavioral communication and change.

With the Dutch government support, PAHO IMCI produces and disseminates the News on IMCI bulletin that is distributed to nearly 40 thousand health personnel in Latin America and the Caribbean (Figure 9.4). The bulletin has become a dissemination channel for the key family practices recommended by WHO within the framework of IMCI community activities. Each issue includes a special offprint about each key practice.

PAHO IMCI is updating and redesigning its Web page. The new release will include almost all the materials and documents produced since the strategy started to be implemented in the region. The design will allow a much more user-friendly and simpler navigation. The redesigned page will also facilitate communication between health professionals in the countries and personnel in PAHO Headquarters.

Some Challenges

The work in mass communication within the framework of IMCI also carries with it several challenges. First of all, the conceptual and methodological tool should integrate the progress in communication processes with knowledge in health communication and the experience and knowledge garnered by local organizations. This tool should be based on learned lessons from both PAHO and national and local NGOs. It also should open avenues for a communication for child health, built in coordination with other agencies, NGOs and Ministries of Health in beneficiary countries. This process should also incorporate the strengthening of communication activities and advocacy at all levels (political, institutional, and actors outside the health sector, etc.).

The promotion of key family practices is a challenge, particularly for the IMCI community component. While WHO has recommended the promotion of 16 key family practices, these should be prioritized. Also, other practices should be included on the basis of socioeconomic, socio-cultural and health characteristics of countries and local communities. IMCI should generate processes of research and communication that contribute to the appropriation of these practices by the community. Community IMCI work is based on the identification and strengthening of networks of local actors and social institutions, which constitute an ideal space for the development of participatory communication strategies. In this context, work with journalists should become a key strategy for the dissemination of IMCI key practices.

Another challenge relates to the need of documenting and systematizing the contribution of social communication activities to the achievement of IMCI objectives. This initiative should encompass the different experiences that

Figure 9.4: News on IMCI in Spanish



are generated through the implementation of projects at the local level, either financed by ministries of health or by international institutions that work in children's health. Only this approach will help identify strengths and weaknesses in the design, implementation and evaluation of strategies of social communication within the framework of IMCI. Therefore, we think one of our challenges is to design and implement a project in social communication for child health with the support of a relevant funding agency in order to strengthen IMCI work and ensure its sustainability.

Finally, it is most important for IMCI to keep enough flexibility to get accommodated and adjusted the new challenges imposed by social and economic changes at the international level, which have an impact on prioritization of health issues and current trends in the responses provided to social problems. IMCI is an effective strategy and as such its different components, including the area of mass communication, should be strengthened through systematic and rigorous work. This is the path we are going through and therefore, we are confident that we will be able to generate new and increasingly effective interventions to improve the health of boys and girls in the Americas.

10. Progress in IMCI Monitoring in the Countries of Latin America

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

The monitoring of IMCI implementation and expansion in the countries of America is key to learn about the progress achieved in opening access to the benefits of the strategy for all children, and the objectives of reducing child morbidity and mortality and improving quality care. Monitoring at the regional level focused on the systematic collection and evaluation of infant mortality figures, along the lines of the Healthy Children: Goal 2002 initiative. In tandem with the countries, the basic operational information was systematized to learn the degree of implementation of the strategy and, in this manner, evaluate coverage in terms of health workers capable of applying the strategy and of health services that are delivering IMCI type of attention. In this context work was carried out to standardize the basic information on monitoring and to design some formats for their collection and consolidation.

With regard to mortality, the IMCI Regional Program managed to define, in coordination with PAHO Special Program of Health Situation Analysis (SHA), the denominations included in the Tenth Revision of the International Classification of Diseases, which would be included within the set of causes targeted by IMCI, in order to systematize the list of basic diseases to be monitored (Table 10.1).

Table 10.1: List of diseases included in the monitoring of IMCI impact on mortality and morbidity.

Disease	Codes of the International Classification of Diseases	
	9th Review	10th Review
All the causes	001-E999	A00-Y89
Ill-defined	780-799	R00-R99
Infectious and parasitic diseases	001-139	A00-B99
Intestinal infectious diseases	001-009	A00-A09
Septicemia	038	A40-A41
Meningococcal infection	036	A39
Meningitis	320-323	G00-G04
Diseases of the respiratory system	460-519	J00-J99
Acute infections of the upper airways.		
Other acuteinfections of the lower airways	460-466	J00-J06, J20-J22
Influenza (flu) and pneumonia	480-487	J10-J18
Malnutrition and other nutritional deficiencies	260-269	E40-E64
Anemias	280-281, 285	D50-D53
External causes of morbidity and mortality	E800-E999	V01-Y89

Based on this list, a basic data collection format was designed and country data was gathered by the regional level. This format was regionally distributed to standardize data collection, and in order to have equivalent and comparable mortality surveillance at the regional and national levels, be in a better position to learn about the magnitude and trends of the problem, and determine priorities.

For this last activity support is being provided for the preparation of a national situational diagnoses. Priority strategy areas are being identified on the basis of risk criteria, to find out what proportion of the mortality rate is due to diseases covered by IMCI, and the concentration damage calculated by number of deaths (Figure 10.1).

By identifying risk areas in each country, priorities for those showing larger risks can be determined, thereby contributing to equity. Activities can also be oriented toward areas that concentrate the largest death numbers, given that the implementation of the strategy has a high potential for reducing the number of deaths for these causes.

To complement the monitoring process, an initial set of indicators was proposed to systematize information on IMCI implementation. This set of indicators takes into account country progress with regard to such basic activities as health workers training and coverage measured by the number of health services offering access to IMCI. The use of this scheme of operation for information collec-

Figure 10.1: Mortality by diseases that are object of the IMCI strategy in children under 1 year. Identification of priority areas according to criteria for magnitude and concentration of deaths. El Salvador, 1999.

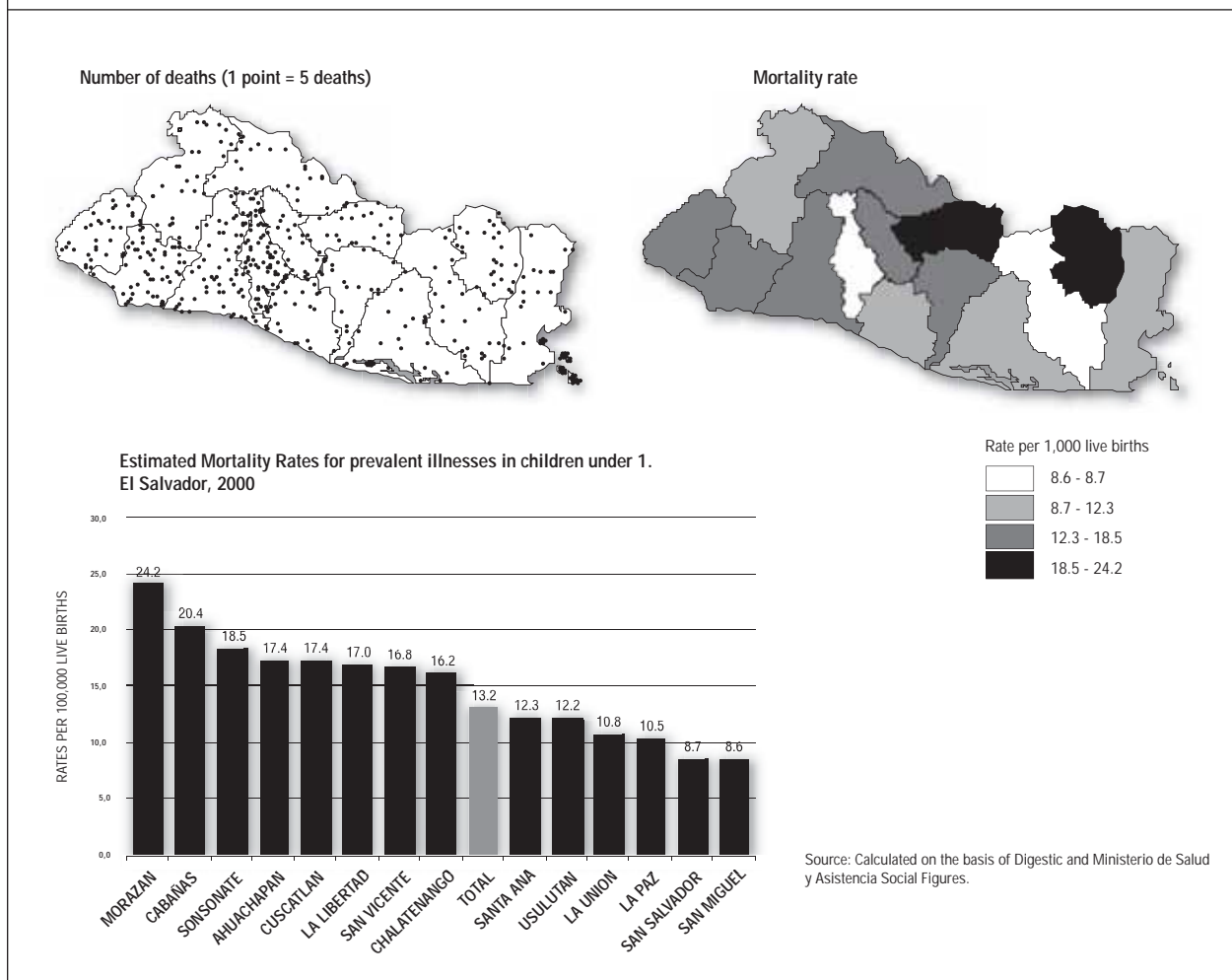
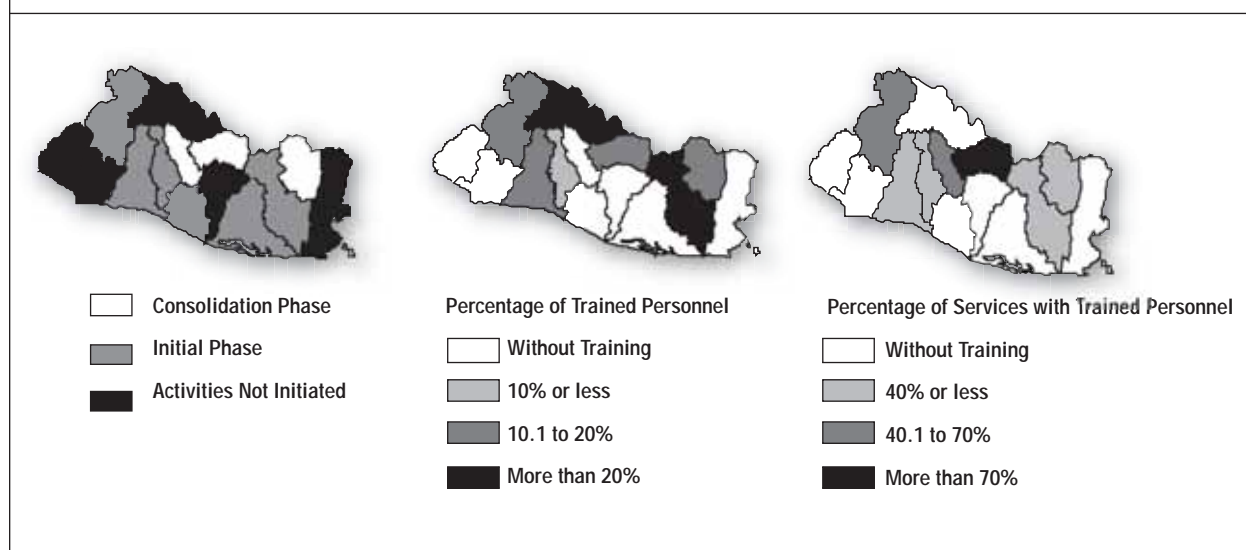


Figure 10.2: Progress in the implementation of the IMCI strategy. El Salvador, 1997-1999.



tion facilitates learning about progress in IMCI implementation and how it correlates with damage extent as revealed by mortality indicators. Country mapping includes the identification of areas that show more progress in IMCI implementation (Figure 10.2) and helps to adjust IMCI efforts towards those with larger risks, i.e. the ones showing more deaths for diseases and problems targeted by IMCI.

The information gathered in coordination with the countries improves observation of regional mortality changes for causes targeted by the IMCI strategy, and the distribution of these changes throughout the Region. In Peru, for example, the downward mortality trend starts in 1998, a year when the strategy reached considerable coverage. Furthermore, when compared with total mortality, the decline in mortality rates for causes targeted by IMCI is greater, a fact that is especially noticeable since 1998 (Figure 10.3).

The graph shows a decline in the proportion of children under five than die due to causes targeted by IMCI. While in 1998 the proportion is 43% in 2000 the weight has been reduced to 31%.

Although the causes of this greatest decline cannot be attributed directly to the implementation of IMCI, as there are multiple factors that determine child mortality, the

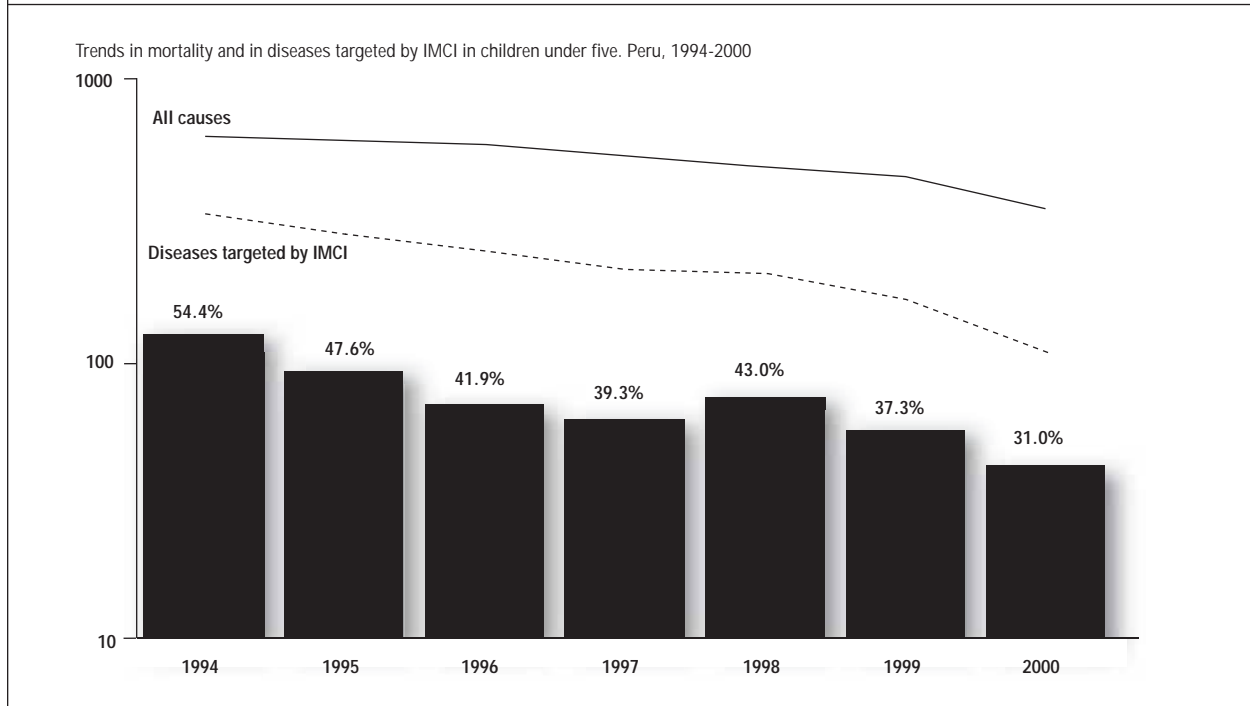
monitoring of the situation makes it possible to gather data to find out not only if a positive impact is being achieved—i.e. if the problem is being reduced—but if it is feasible to increase the decline speed in mortality rates taking into account comparative trends registered in other countries.

The analysis of relevant information within the countries, in turn, facilitates comparisons among their administrative subdivisions—States, departments, provinces or districts—and allows us to correlate observed trends with IMCI implementation progress and coverage in order to adjust the intensity and extension of implementation in areas where a stable or a limited decline in mortality trends is observed.

At the same time, identifying country areas where a greater impact on mortality is observed, can help to identify successful experiences that can be adapted and emulated in areas where problems persist and continue to cause either temporary or permanent harm on child health.

Therefore, monitoring mechanisms currently implemented will continue to emphasize the relevance of gathering data on total mortality and for causes targeted by IMCI not only on a timely basis but also appropriately disaggregated. We will keep supporting the countries in the design

Figure 10.3: total mortality trend and for causes object of the IMCI strategy in children under5. Peru, 1994-2000.



and building of databases that provide relevant information not only of mortality trends but also of IMCI implementation coverage, in order to identify health priorities and develop appropriate plans for their attention.

On the basis of previous information, case studies in each country may be carried out to determine differences in the evolution of the problem in areas where IMCI coverage is broad vis-à-vis those where it is still limited. Although,

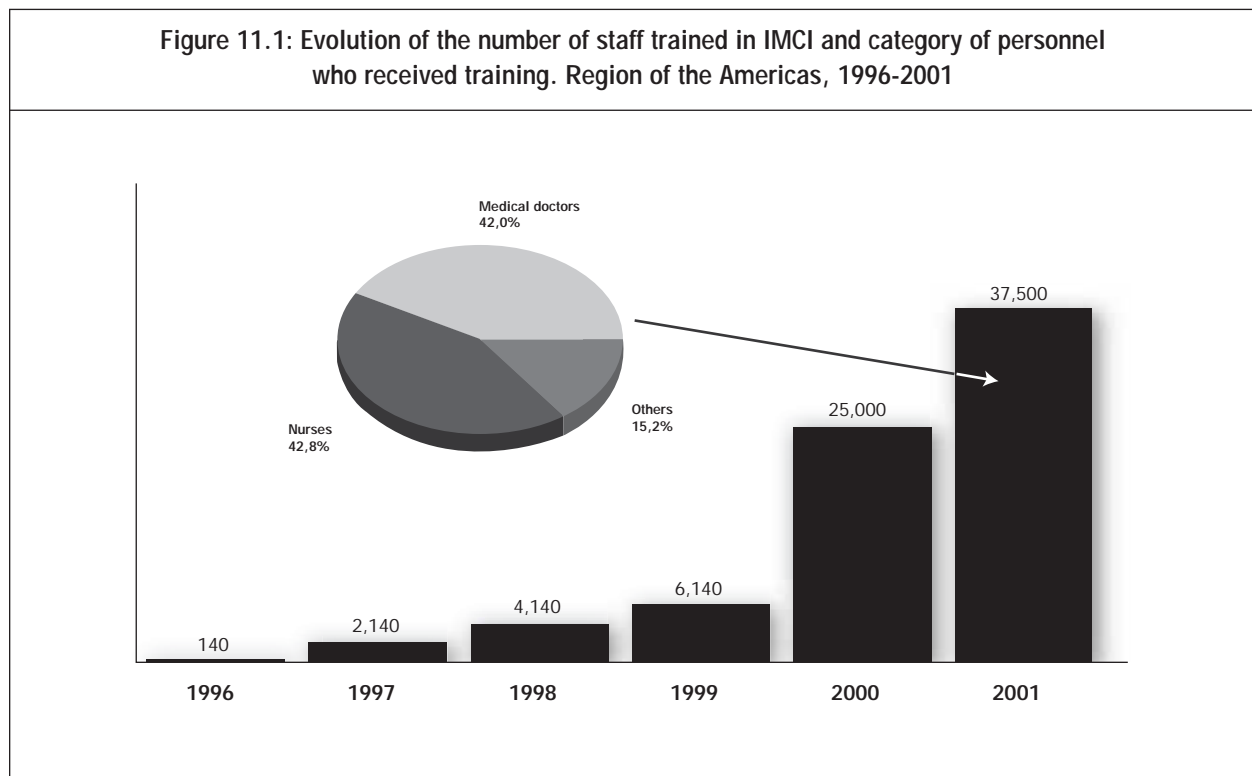
because of methodological issues, such studies may not be able to establish a causal relationship between IMCI application and mortality reduction for causes that are targeted by the strategy, it will illuminate our understanding of the evolution of the problem and, consequently, foster an improved utilization of the data for the adjustment of actions at national, provincial, and/or departmental levels.

11. Progress in IMCI Incorporation into Undergraduate and Graduate Health Education

Dr. Yehuda Benguigui, Unit Chief, FCH/CA, PAHO/WHO

Achieving universal access to the IMCI strategy for children under 5, requires the dissemination and application of its contents by relevant health care personnel which explains why a most significant regional effort is spent on training.

Since 1996 when the strategy was launched, some 40,000 people have received training in IMCI, a large proportion of which is medical and nursing staff. The number of health personnel that has gone through IMCI training has increased significantly in recent years: as the number of countries that initiated and kept expanding IMCI increased the volume of training events increased as well (Figure 11.1).



Training has in turn contributed to enhance the number of health services that provide IMCI benefits thereby triggering its ever-growing dissemination. Health workers are now more interested in learning about the strategy and having the opportunity to incorporate and apply it in pediatric care practice.

This important progress, however, is not yet enough to rapidly cover all health workers at the first level of care, and is still insufficient to cover the additional number of people that graduate every year from medical and nursing schools and other health training institutions.

This is partly explained by the fact that training teams have also responsibilities in the programming, execution and evaluation of activities. The length of the training, which in its generic version is eleven days, is also an important factor. Participating personnel must be away from its habitual work for two weeks, which imposes limitations to their participation in training activities. This also has an impact on training costs, as these include not only the costs of participants but in many occasions their temporary replacement particularly in health services that only count with one health professional, to avoid negative effects on the population that is being served.

To address these problems two basic lines of action are being proposed: the design of alternative training methods and the incorporation of IMCI in medical and nursing schools and other health training institutions.

Currently, most countries are using a modality that differs from the eleven-days course, including programs that are delivered in seven and in five days, as well as modular courses that split up the contents in several sessions of two or more days each. Other modalities that are being explored or in the process of being designed, are distance learning courses and, more recently, telemedicine as a training tool.

The incorporation of the IMCI strategy in academic institutions, on the other hand, is advancing in several countries, and includes different modalities, such as the introduction of complete IMCI courses towards the completion of studies, to prepare students for their compulsory year of rural or community service prior to their graduation; the inclusion of IMCI as a content throughout

the college years, and the teaching of IMCI in graduate programs, including residence training, internships, graduate thesis, and master's degrees.

All these activities that are being carried out in regard to teaching in careers that belong to the health area are directed mainly to the training of physicians and nursing personnel (both professional and auxiliary), but can be extended to nutritionists, social workers, specialists in public health and the pharmaceutical area.

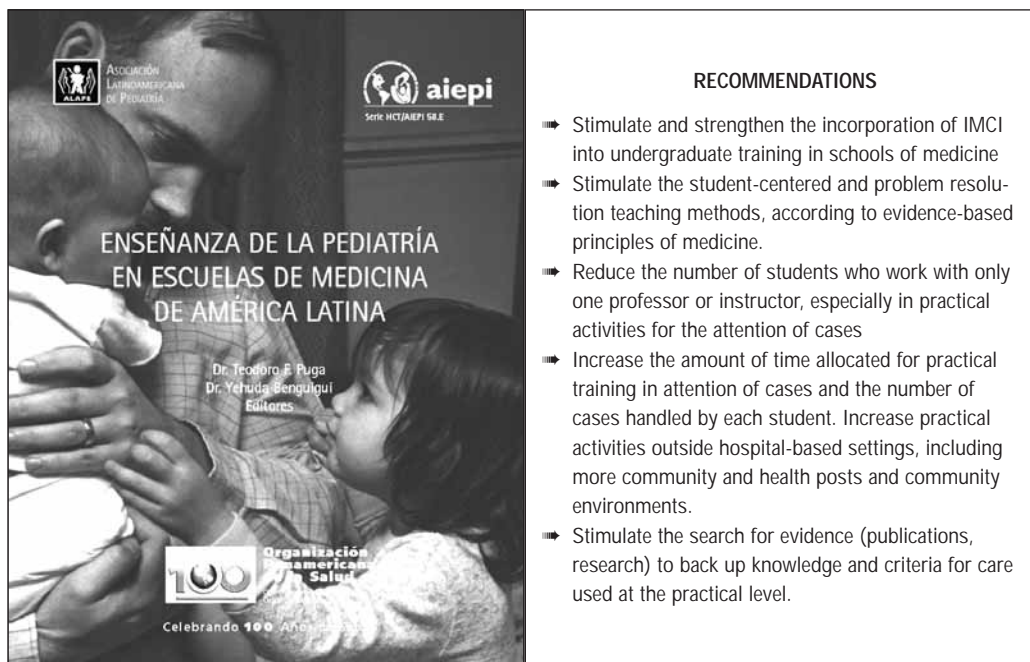
The group responsible for IMCI at PAHO/WHO participates actively in support of the countries so that this process of incorporating the strategy to academic teaching advances rapidly and adequately. Since its launching, some of the steps taken for the implementation of IMCI in the countries of America, including the participation of academic institutions in IMCI promotion for its incorporation into the teaching arena. More recently, inter-institutional activities have been carried out to take the relevant first steps for the achievement of this objective.

One of these steps was the implementation of a survey on the teaching of pediatrics which was carried out by PAHO/WHO in conjunction with the Latin American Association of Pediatrics (ALAPE), in which 253 pediatric chairs participated. This survey provides an overview of current characteristics of pediatrics teaching in most countries and identifies potential proposals for IMCI incorporation into current pediatric programs.

The implementation of this survey, on the other hand, opened the way to the development of strong ties and work in coordination with ALAPE, thereby setting the groundwork for inter-institutional cooperation in the process of IMCI inclusion in undergraduate and graduate courses delivered in Latin American medical schools.

A similar survey was completed with the nursing schools and will be published in 2003. This survey was conducted in coordination with the Latin American Association of Schools and Schools of Nursing (ALADEFE) and included 140 nursing schools in 16 countries. Analogously to what is achieved with ALAPE, the design, and execution of this survey strengthened inter-institutional ties, and contributed to the dissemination of the IMCI strategy, paving the way for faster advances in the process of IMCI effective

Figure 11.2: Conclusions and recommendations of the survey on pediatrics teaching at medical schools of Latin America. Latin American Association of Pediatrics (ALAPE) and Pan American Health Organization/World Health Organization (PAHO/WHO), 2002.



incorporation in the preparation of nursing personnel in Latin America and the Caribbean.

Given the outcomes of these works, both in terms of the information obtained and the enriched process of coordination, the implementation of two additional surveys is being planned in 2003, one for public health schools and another for colleges and schools of nutrition. With regard to the first type, the IMCI incorporation in public health courses is regarded as essential, in order to provide relevant knowledge to people that will play a key role in child-health decision-making. The inclusion of schools and colleges of nutrition, in turn, can help to strengthen the importance of the comprehensive approach that IMCI provides for the evaluation of child health, as well as to enrich and to contribute to a larger and more effective application of the nutritional contents of the strategy for an improved feeding in childhood.

The regional efforts to promote the incorporation of IMCI in the teaching of undergraduate and graduate schools

have been oriented to the generation of support materials that can be used in the programs. Among them some deserve to be mentioned here, such as the manual on the IMCI strategy, which explains in a single book the basic and clinical contents of the strategy, as well as the practical instruments for their application in children care. Also, the book about care of diseases and severe malnutrition in first referral hospitals, that is oriented to the standardization of evaluation procedures, treatment, and monitoring in small hospitals. The standardization tries to make these processes compatible with the criteria IMCI applies at the first level of care and, in addition, facilitate its adaptation to the availability of human resources for diagnosis and therapy in hospitals of developing countries in the American Region.

The Regional Unit responsible for IMCI has also produced a book containing sixty generic protocols for the execution of epidemiological and operational studies in health services, both at the first care level and referral hospitals.

These protocols are already being adapted and applied in numerous countries, and have facilitated access to information on IMCI application outcomes in terms of improvement in quality care provided to children in health services and in households. Other protocols also facilitate improvements and enhancements on the knowledge about diseases and health problems that most frequently affect children, and related factors.

Given the progress, the next steps should be geared towards the effective incorporation of IMCI into the teaching of the health professions. To this end several experiences are available in most developing countries in the region, both in medical and nursing schools.

Some initiatives, such as the teaching of IMCI before the compulsory year of rural or community service, are important for sustaining health services coverage with trained staff as well as to increase the number of such services. Every year hundreds of health services are being served by medical students who, after completing their university studies, provide compulsory services for around a year in first level care health services in rural hospitals. These services generally cover the most vulnerable population, among whom the basic diseases object of IMCI have a high prevalence, and which exhibit high morbidity and mortality figures.

Succeeding in having all students who participate in this social or rural compulsory year trained with the knowledge and necessary practical abilities for applying IMCI will make it possible for populations covered by these services to have access to the strategy so that all boys and girls can benefit from its application.

In addition, it is necessary to accelerate the process of inclusion of IMCI in colleges, because it will ensure that health graduates are properly trained for the application of the strategy in their daily work. This is even more important in those institutions that do not have compulsory year of rural or community service, and in which the students should acquire the knowledge and practices in activities that are typical of the annual courses they have to follow.

The incorporation of IMCI, on the other hand, should be carried out in an integrated manner so as to ensure coherence between the teaching on basic subjects at the begin-

ning of the school career and those in the cycle of specialization. In addition, IMCI should become the key care tool in health services in which students carry out their practices, in order to strengthen IMCI theoretical contents with practical observations derived from its application in out-patient pediatric care.

Finally, IMCI should be also incorporated within the courses at the graduate level, both in programs of clinical training, in public health, epidemiology and research.

The challenges we face to achieve all of the above are numerous, particularly if we take into account that they require the involvement of multiple actors, and processes that in some cases take a considerable amount of time. However, some practical activities may accelerate the relevant processes or facilitate the simultaneous transfer of basic knowledge to students to help them improve their performance in children care.

*** The incorporation of the IMCI strategy in health schools can be carried out with the support of materials already available for health workers training.**

Sea en la forma de un curso especial o como parte de Either as a single course or as a component of pediatric topics, IMCI training programs may be adopted for the dissemination of knowledge and for practical activities in health schools for improved health care of children under five. Several medical schools are already implementing such activities as modular theoretical programs, individual readings outside the classroom, and practical IMCI application in health services. In most such cases, IMCI is also a component of final course evaluation, thereby providing to IMCI contents an official character in such formal programs of study.

The incorporation of the IMCI course as an institutional activity has made it possible for hundreds of students to improve their skills in the provision of an adequate health care quality of children under 5. It has also helped to strengthen the dissemination of the strategy and to enhance people access to its benefits.

* **The inclusion of IMCI as a component of a basic service package for all of the population.**

In recent years we have witnessed the multiplication of number of countries and health care providers institutions that define basic packages (paquetes básicos) of health benefits which they commit to provide to all the population. Following the example of compulsory vaccination, these packages determine minimum requirements that all health services and workers should fulfill, and establish explicit commitments with the users.

Incorporating IMCI in these packages is key to accelerate the process of providing access to its benefits for the whole population. This may be a catalytic factor to stimulate staff training and IMCI implementation in health services, as well as for the introduction of follow-up and monitoring mechanisms to evaluate the type of services actually delivered to the population, and to determine if these correspond to the ones that are supposed to be provided.

* **The use of key family practices for growth and development as basic contents for information, education, and social communication in health.**

The set of practices that WHO and UNICEF defined as key for the healthy growth and development of boys and girls can make a difference between an adequate or inadequate health condition and between the survival or death of children under 5 in developing countries. Thousands of episodes of serious illnesses and hundreds of deaths happen annually due to the lack of application of simple measures of disease prevention and health promotion, most of which should be initiated in households. Transferring this knowledge and practical abilities to parents and families of boys and girls is essential to ensure that they receive the benefits of the application of such measures.

Health workers have a key role in the transference of these knowledge and practices and, in such task, all the students in health careers can have a most active participation, and, thereby, be transformed in effective change agents.

Academic institutions should adopt this set of key practices for the healthy growth and development of children as part of all the cycle of education of students for IMCI application and dissemination.

* **The incorporation of IMCI training prior to the social compulsory service year.**

Both in institutions that have and in those that do not have this modality, the introduction of an IMCI course at the end of their careers and before graduation may be a critical opportunity for success in the effective application of IMCI to children care by students who completed their studies. Given the time that lapses between participation in basic courses and graduation, that activity can lead to the strengthening and systematization of pediatric knowledge that students should master to ensure effective and appropriate outpatient care.

This activity is of outmost importance if we take into account that most students who finish studies initiate their practice in ambulatory services, and even in emergency care services, in which the application of IMCI can lead to the fast recognition and treatment of signs of serious disease and health problems that most frequently affect children under five.

Although in many countries numerous institutions have already adopted IMCI as content and methodology in the health curricula, thousands of students still complete studies without the knowledge or practical experience that will ensure that boys and girls who visit health services attended by the new professionals will receive the benefits of the strategy. It is, therefore, essential to accelerate the process of incorporation of IMCI into the teaching content of health schools and in all university and non university services where young doctors initiate their practice.

Only by applying this approach, we will be able to, on the one hand, sustain the implementation effort that the countries are carrying out and, in addition, ensure that the contents and practices included in IMCI will be progressively available for the whole population.

12. Conclusions and Recommendations

Technical Advisory Group IMCI (TAG-IMCI) Second Regional Meeting. September 10 and 11, 2002 Houston, Texas

The second TAG-IMCI meeting has facilitated the analysis of IMCI progress in improving living conditions of boys and girls, as well as enhancing the chances of child survival through:

1. Promotion and prevention activities.
2. Care for diseases and health problems that affect children and families.
3. Reduction of health problems than can be prevented.
4. Creation of new opportunities for the training of health professionals, community leaders, and families themselves.

Conclusions

TAG-IMCI acknowledges that children's health conditions improvement in the American hemisphere requires the strengthening of actions aiming at reducing mortality simultaneously with those designed to achieve a sustained reduction of the incidence and severity of diseases that affect children, in order to improve health and development for boys and girls in households and communities.

With regard to mortality and morbidity, the group acknowledges that infectious diseases in general, and pneumonia and diarrhea in particular, are the two major causes of serious morbidity and mortality among children under 5, and highlights the importance of ongoing activities designed to identify areas where such problems constitute a significant threat to child health. At the same time the group recognizes the growing importance of other diseases and health problems as causes of mortality and morbidity in children under 5, such as those pertaining to the perinatal and neonatal period, accidents, abuse and violence, and obstructive respiratory diseases. The group, therefore, deems essential to accelerate effective implementation of activities oriented towards the prevention and effective treatment of these problems.

TAG-IMCI believes that IMCI systematizes in an orderly and sequential manner the basic group of actions that should be carried out for the early detection and effective treatment of diseases and health problems that affect childhood, for their prevention, and for the promotion of healthy growth and development. Therefore, the groups thinks it is essential to make the strategy a standard of minimum quality care for boys and girls all over the continent, regardless of the complexity level in which attention is provided, and no matter if the service is offered by the public sector, private providers, or the social security system.

The group also highlights the potential that the IMCI strategy has as portal of entry for family health actions, and in order to extend care beyond the five years TAG-IMCI highlights the relevance of progressively complementing the strategy to improve quality care for mothers and families, and to improve health care quality for children older than five.

Within this framework IMCI is considered by TAG-IMCI as a strategy that fundamentally contributes to achieving the objectives of reducing mortality and morbidity in childhood and ensuring healthy growth and development in children, and is also key to keep and sustain development in all countries of the Americas.

Recommendations

1. TAG-IMCI believes that the cooperation strategies of greater impact and sustainability of the IMCI strategy are those pertaining to health workers training at the country level, technical cooperation, publications, and mass communication, because they create the capacity for IMCI expansion in the countries. Since, reportedly, current and future funds allocated to this type of cooperation activities may be reduced, TAG-IMCI declares its concern given that such a situation may lead to delays in the achievement of such goals. Therefore, TAG-IMCI advises the search and mobilization of resources and their specific allocation to these areas.
2. Continue with the design, adoption, and implementation of regional and national policies that incorporate IMCI contents as the health quality standard to which all boys and girls should have access, and that should be provided by institutional health workers and services and all sectors that offer health care at the community level.
3. Strengthen the effective incorporation of the IMCI strategy into the quality assurance programs, and into the standards of accreditation programs in health services and human resources training and education.
4. Provide support to countries in their efforts to include the IMCI strategy in the basic contents and accreditation standards of health schools and health professionals training. Also, support the incorporation of IMCI to the evaluation for certification and re-certification of pediatricians and other medical specialties that cooperate in children care, to have the strategy recognized and adopted as a universal and basic tool in the provision of child care.
5. Prioritize the collection and consolidation of available evidence on results and impact of IMCI implementation, both in terms of mortality and morbidity reduction and improvement of health care quality in health services, households and the community. Promote epidemiological and operational research and investigations on health services, to evaluate the quality, effectiveness and efficiency of IMCI community interventions, and encourage multicenter designs between communities and countries as well as the publication and dissemination of results.
6. Support countries effort to complete the identification of areas with higher mortality rates due to causes currently targeted by the IMCI strategy to design medium-term plans to ensure rapid implementation of the strategy in such areas, including the relevant monitoring and evaluation as an essential component of the exercise.
7. Bring to completion the design of IMCI neonatal/perinatal component within the framework of relevant available control strategies and in close an active coordination with centers and institutions of research and education in this area. Also, the adaptation and effective implementation of the component, including strengthening high coverage levels as well as prenatal and neonatal control, so as to foster prevention and reduction of risks for a healthy pregnancy and birth.
8. Conclude the design of the components of asthma and broncho-obstructive syndrome control; of prevention and control of development problems and of prevention and treatment of oral health problems, among others, and initiate their implementation in the countries along the lines of their epidemiological situation and relevant operational conditions. Maintain ongoing coordination with other Units, Programs, and Divisions in order to support the countries in the planning, implementation, and evaluation of these components. Initiate the analysis of IMCI expansion for children older than five to ensure continuity in child health care and to strengthen the application of an integrated approach. This will improve through child consultation the activities of detection, treatment and disease prevention and of family health promotion.
9. Expand analyses of hospital care quality for child health diseases and problems, including first referral hospitals, and continue adapting the relevant instruments to incorporate auto evaluation and user satisfaction evaluation as an analytical component. Advance in the adaptation and implementation of the IMCI strategy in hospitals, with particular emphasis on those of first referral, and in the university hospi-

tals, for the purpose of ensuring an adequate care quality for diseases and health problems covered by the strategy, and to make it compatible with care provided at first level care.

10. Support the incorporation of IMCI strategy in the curricula of medical schools, hospitals with training programs in pediatrics, and schools of public health in the United States, including training of students and residents of pediatrics and family medicine that carry
11. Make relevant arrangements to include IMCI in pediatric textbooks, infectious diseases, family medicine, and public health, as well as in treaties and recommendations by relevant medical associations.

out rotations in international pediatrics in developing countries. Also, initiate the coordination with these institutions to adapt IMCI strategy for its application in marginal areas and population groups.

13. Annexes

Meeting Agenda

Introduction

The Integrated Management of Childhood Illness (IMCI) is currently regarded as the main available intervention to improve children's health conditions in developing countries. It is a useful instrument for the early detection and effective treatment of main illnesses affecting the health of children under 5 and also contributes to improving family knowledge and practices of disease prevention and health promotion. Therefore, its application in health services and communities may have an important impact in the reduction of deaths in childhood, and of the number and severity of diseases that affect this age group, as well as in their nutritional and development status.

IMCI potential impact on mortality prevention led to estimate that 100,000 deaths of children under 5 could be avoided by the end of 2002 through its application in the developing countries of America with regard to the estimated number of deaths for this age group in 1998. Since IMCI benefits extend beyond mortality, this expected reduction was framed in the context of a more ambitious initiative, oriented towards improving children's health conditions by providing access to IMCI to the entire population of children under 5, in health services, families and community.

The *Healthy Children: Goal 2002* Initiative, was launched by PAHO/WHO for the purpose of strengthening IMCI implementation and to accelerate its expansion for an expeditious access of children under 5 to the strategy, particularly those in the most vulnerable population groups. Through IMCI implementation in health services, families and communities, we hope to prevent 100,000 deaths of children under 5 between 1998 and 2002, and also offer better life conditions to them in the whole American continent.

Since the initiative was launched, the countries of America have strengthened their activities for the effective application of the strategy, and are expanding the areas of IMCI coverage in order to reach in an expeditious manner the most vulnerable groups. In tandem with such efforts, activities were carried out for the following-up and monitoring of processes and especially results, to verify progress in mortality reduction.

In the analysis of IMCI implementation, expansion, and monitoring, the participation of people with relevant experience and trajectory in international and national public health has been most critical to identify weaknesses and strengths. They have also contributed to the discussion about and the design of tools, instruments, and initiatives to achieve expected results. The participation of this group of prominent professionals is key for the analysis of prospects and proposal of new courses and lines of action, to strengthen IMCI strategy as a portal of entry for the continuous improvement of health condition of all people.

Towards these set of goals PAHO/WHO proposed a Technical Advisory Group for the IMCI strategy (TAG-IMCI) to provide its advice and contributions to ongoing monitoring and evaluation tasks with the goal of proposing actions and activities to support IMCI strengthening and expansion in health services and the community.

Objectives of the Meeting

- Analyze and review IMCI progress in its three components of health workers, health system, and the community in the Region of the Americas.
- Evaluate the activities that are being carried out to develop new IMCI contents, to expand their application at the community level, and enhance IMCI population coverage and access, especially through the incorporation of IMCI in undergraduate and graduate teaching.
- Formulate recommendations and proposals to strengthen IMCI strategy in PAHO Governing Bodies, Ministries of Health in the countries, and through an expanded mobilization of resources by international organizations, bilateral cooperation agencies, nongovernmental organizations and the private sector.

First Day: Tuesday, September 10 2002

- 8:30 – 8:45** **Registration.**
- 8:45 – 9:00** **Inauguration:**
- Welcome Remarks: Mr M. Wallace, President, Chief Executive Officer, Texas Children's Hospital;
 - Remarks by Dr. Stephen Corber, Director, Division of Disease Prevention and Control, HCT, PAHO/WHO;
 - Dr. Fernando Stein, Associate Professor of Pediatrics, Department of Pediatrics, Baylor College of Medicine, Texas Children's Hospital.
 - Dr. Yehuda Benguigui, Unit Chief, FCH/CA, PAHO/WHO
- 9:00 – 9:30** **Introduction of the Participants**
- 9:30 – 9:45** **Description of meeting mechanics. Designation of the meeting coordinator and rapporteur, and approval of the agenda.** Dr. Juan Carlos Bossio, Consultant, FCH/CA, PAHO/WHO
- 9:45 – 10:30** **Presentation:** *"Current situation of the IMCI strategy in the countries of America: progress, results, challenges, and prospects"*. Dr. Yehuda Benguigui, Unit Chief, FCH/CA, PAHO/WHO.
- 10:30 – 11:00** **Recess.**
- 11:00 – 12:30** **Teamwork:** Analysis of the Presentation of the IMCI Strategy at the Directing Council: PAHO Governing Bodies and Ministries of Health Recommendations to Strengthen the Strategy.
- 12:30 – 14:00** **Lunch.**
- 14:00 – 14:15** **Presentation:** *"State of Development of New IMCI Components, in Accordance with Recommendations of the first IMCI-TAG Meeting."* Dr. Yehuda Benguigui.
- 14:15 – 14:30** **Presentation:** *"Importance of IMCI Neonatal Component"*, Dr. Mike Speer, Perinatal Section of the American Pediatric Association.
- 14:30 – 15:00** **Presentation:** *"Progress in the Peri-neonatal component"*, Dr. Rolando Cerezo and Dr. Gerardo Cabrera Meza, Consultants, FCH/CA, PAHO/WHO.
- 15:00 – 15:45** **Teamwork:** Recommendations for the implementation and expansion of IMCI Peri-neonatal Component.
- 15:15 – 15:45** **Recess**
- 15:45 – 16:00** **Presentation:** *"Progress in other IMCI components"* Dr. Neyde Garrido, FCH/CA, PAHO/WHO
- 16:00 – 17:00** **Teamwork:** Recommendations and Priorities in the Process of Development and Implementation of new IMCI components.
- 17:00 – 17:10** **Presentation:** *"Hospital Quality Care of Diseases targeted by IMCI: Results of the Multicountry Study"*. Dr. Juan Carlos Bossio, Consultant FCH/CA, PAHO/WHO.
- 17:10 – 18:00** **Teamwork:** "Recommendations for Lines of Action to Strengthen and Improving Care Quality of Diseases Targeted by IMCI in First Referral Hospitals."

Dinner offered by the Texas Children's Hospital

Second Day: Wednesday, September 11 2002

- 9:00 – 9:15** Dr. Fernando Stein introduces Dr. Ralph D. Feigin, M.D., Physician-in-Chief, Texas Children's Hospital; President and CEO, Baylor College of Medicine, who will address the members of TAG-IMCI.
- 9:15 – 9:30** **Presentation:** *"Progress in the IMCI Strategy Community Component: Results and Prospects."* Mr. Christopher Drasbek, Technical Advisor, FCH/CA, PAHO/WHO.
- 9:30 – 10:30** **Teamwork:** Recommendations for Strengthening and Expanding IMCI Community Component.
- 10:30 – 11:00** **Recess.**
- 11:00 – 11:15** **Presentation:** *"IMCI Social Communication."* Dr. Rafael Obregón, FCH/CA, PAHO/WHO.
- 11:15 – 12:15** **Teamwork:** Recommendations for Strengthening and Expanding IMCI Social Communication.
- 12:15 – 12:30** **Presentation:** *"Progress in the monitoring of the IMCI strategy in the countries of America"*. Dr. Juan Carlos Bossio.
- 12:30 – 14:00** **Luncheon.**
- 14:00 – 14:30** **Presentation:** *"Progress in the Incorporation of IMCI in Undergraduate and Graduate Health Training"*. Dr. Yehuda Benguigui.
- 14:30 – 15:30** **Teamwork:** Recommendations of the group concerning the latter topic.
- 15:30 – 16:00** **Recess.**
- 16:00 – 17:00** **Teamwork:** Recommendations for Resource Mobilization in Support of IMCI Expansion and Strengthening (International Agencies, Bilateral Cooperation Agencies, Nongovernmental Organizations, Private Sector). Possible Participation of TAG-IMCI members in Support of Resource Mobilization.
- 17:00 – 18:00** **Teamwork:** Preparation of the Meeting Recommendations.
- 18:00 – 18:30** **Reading, Discussion, and Approval of the Final Document.**
- 18:30** **Closure:** Dr. Fernando Stein, Baylor College of Medicine, TCH; Dr. Yehuda Benguigui, Regional Advisor AIEPI, FCH/CA, PAHO/WHO.

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Past President

American Academy of Pediatrics

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* Did not attend

** In Memoriam

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Pan American Health Organization



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