## The Integrated Management of Childhood Illness (IMCI)



The contribution to the Attainment of the Millennium Development Goals





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# The Contribution of Integrated Management of Childhood Illness (IMCI) to the Attainment of the Millennium Development Goals

he commitment that the countries have made to meet the Millennium Development Goal (MDG) of reducing mortality in children under 5 by two-thirds from 1990 to 2015 poses a challenge that requires the participation and effort of everyone, particularly international, national, and local public health institutions and organizations.

The Pan American Health Organization has taken up the challenge and is also committed to meeting other MDG's in health as one of its priority lines of work in the coming years. It has worked with the countries to establish core criteria to ensure the equitable distribution of benefits to the people of the Americas.

Growing inequalities in health conditions continue to emphasize the work that needs to be done to ensure that the most vulnerable groups benefit from the progress that current knowledge and technologies have brought to the rest of the population.

The successes and progress achieved by some countries in the Region have shown that the strategies available for preventing child mortality and illness, particularly infectious diseases, are effective. Integration of prevention, but also in early detection and treatment and the promotion of healthy lifestyles.

PAHO and the countries have assigned a key role to the principles of equity, Pan-Americanism, and the integration of actions as

a framework for improving the health of all people in the Region of the Americas, drawing on the wealth of national and local experiences that can be adapted and multiplied for the good of all. In the late 1990s, PAHO applied these principles to adapt, implement, and expand the IMCI strategy and to make this strategy a regional health policy for child survival and healthy growth and development.



Dr. MIRTA ROSES -PERIAGO Director

Pan American Health Organization Regional Office of the World Health Organization Based on the results obtained and on the challenge that we face in accelerating the reduction of mortality in children under 5, PAHO and the countries view IMCI as a critical strategy for meeting the MDG of reducing mortality in children under 5 by two-thirds.

There are plans to expand the strategy to include other interventions, such as perineonatal interventions, and to concentrate the efforts to reach priority countries and the most vulnerable population groups.

Drawing on the successful experiences of countries in adapting and reproducing these interven-

tions in the Americas, we can ensure the well-being and healthy growth and development of children within a framework of equity that reaches all children the people in the Americas.

"In the final decades of the 20th century, infant mortality in the Region of the Americas declined. In the 1990s, in particular, most of the subregions met the decade's goal of reducing infant mortality by one-third over 1990 values."

IMCI

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## THE CONTRIBUTION OF INTEGRATED MANAGEMENT OF CHILDHOOD ILLNESS (IMCI) TO THE ATTAINMENT OF THE MILLENNIUM DEVELOPMENT GOALS

Infant mortality has fallen in the Americas over the past two decades, primarily due to the decline in deaths from infectious diseases. Although these illnesses still account for 28% of the deaths in children under 5, they are already less significant than perinatal and neonatal causes associated with gestation, birth, and first four weeks of life, which are responsible for 38% of the deaths in children under 5. The decline in mortality observed in this group has not been uniform among the countries; the gaps between countries and population groups have widened, reflecting the lack of equity in access to the available prevention and control measures.

In this context of the epidemiological transition, efforts to promote child survival to attain the Millennium Development Goals (MDGs) should simultaneously address the prevention and treatment of infectious diseases and perinatal and neonatal disorders, which together produce 76% of the mortality in children under 5 in the Hemisphere. Furthermore, to ensure that these efforts foster equity, priority must be given to the countries and population groups that are most difficult to reach to reduce the existing gaps. Finally, to guarantee that greater child survival is complemented with improvements in the health status of children, efforts must also include the promotion of healthy settings, reinforcing this approach in the family and community.

The Integrated Management of Childhood Illness strategy (IMCI), which in the last decade gave priority to reducing mortality from infectious diseases, is considered an appropriate strategy for promoting child survival within the context of the current epidemiological transition. Expanding and strengthening IMCI by incorporating additional components such as neonatal care and widening its implementation to target the most-difficult-to-reach groups will contribute to sustained country and regional progress toward the attainment of the Millennium Development Goals (MDGs) within the context of equity.

The 132nd Session of the Executive Committee examined the present document and decided to submit it to the Directing Council for consideration, discussion, and decision regarding policies.

#### INTRODUCTION

n the final decades of the 20th century, infant mortality in the Region of the Americas declined. In the 1990s in particular, most of the subregions met the decade's goal of reducing infant mortality by one-third over 1990 values. The drop in mortality in children under 5 contributed to a 5.5-year gain in life expectancy, on average, between 1990 and 2000, double the figure for the previous decade. The greatest contribution (60%) to this gain was the reduction in mortality from infectious diseases in children under 5 and, to a lesser extent (25%), the decrease in mortality from disorders originating in the perinatal period (associated with gestation, birth, and the first weeks of life).

As a result, the relative weight of infectious diseases in mortality in children under 5, which fell from 34% in 1998 to 28% in 2000, the importance of perinatal and neonatal disorders increased during this period, accounting for 38% of the mortality in this age group in 2000. This accentuated the transitional epidemiological profile in most of the Hemisphere's developing countries, characterized by the coexistence of infectious and noninfectious diseases as the cause of morbidity and mortality in children under 5.

The drop in mortality in children under 5 contributed to a 5.5-year gain in life expectancy, on average, between 1990 and 2000, double the figure for the previous decade.

This situation, however, conceals the wide gaps between countries, areas, and population groups, where infectious diseases are still responsible for upwards of 50% of the mortality in children under 5.

Within this context, a further decline in mortality in children under 5, such as the figure proposed in the MDGs for the year 2015, will demand mixed approaches involving the simultaneous prevention and treatment of infectious diseases and perinatal and neonatal disorders to tackle the two main groups of causes of death in children under 5, responsible for over two-thirds of the mortality in this group.

In addition, given the enormous gaps in infant mortality among the countries, these actions must be strategically targeted to the geographical areas and population groups that are hardest to reach to obtain significant reductions in mortality and thus contribute to equity.

This approach will permit the intensification of activities to promote child survival, one of the most critical items pending on the international agenda in recent decades, emphasizing the priority of preventing avoidable deaths through simple, acceptable interventions with low costs to the community, based on the principles of primary health care.



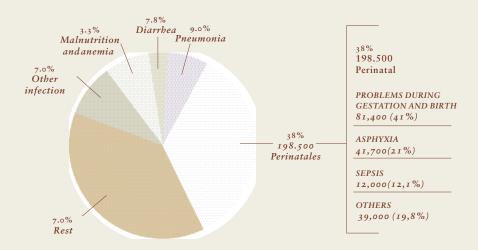
t the beginning of the millennium, a little over half a million children under 5 years of age died annually in the Region of the Americas, with regional mortality in this age group at 33.4 per 1,000 births. Twenty-eight percent of these deaths were due to infectious and respiratory diseases, chiefly diarrhea and pneumonia; and nearly 40% of the mortality in children under 5 was caused by perinatal and neonatal disorders (Figure 1), associated primarily with problems during pregnancy, childbirth, and the first week of life.

The distribution of deaths in the Hemisphere has not been uniform, and the risk of death during first five years of life in 2000 ranged from 6.6 per 1,000 live births in Canada to 108.2 in Haiti, for a relative risk of 16.3. The differences among countries are also observed within countries, with wide gaps between different areas and population groups, particularly ethnic minorities such as indigenous populations.

This situation, nevertheless, represented significant progress over previous decades—progress attributable to the implementation of specific, and then integrated, control measures to reduce mortality from diarrhea and acute respiratory infections, which, together with malnutrition, were the principal causes of death in children under 5 at the beginning of the 1980s.

Mortality from diarrhea was reduced by 41% in the first half of that decade, more than twice as much as in the previous 5-year period, coinciding with the introduction of the standard case management strategy for diarrhea (Figure 2). Analogously, mortality from acute

FIGURE1: Causes of more than half a million annual in children under 5 in the Region of the Americas, late 20th century

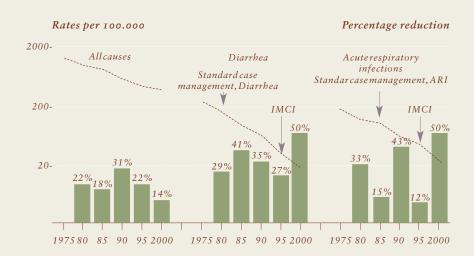


respiratory infections (ARI) dropped 43% in the second half of the 1980s, almost three times more than it had in the previous 5-year period, coinciding again with the introduction of the standard case management strategy for ARI.

The Integrated Management of Childhood Illness (IMCI) strategy, adopted and promoted in 1999 by Resolution CD41.R5 of the PAHO Directing Council, has clearly contributed to a further decline in mortality from the two types of causes; in the five-year period following its introduction, mortality from diarrhea and ARI both decreased by 50%. This decline was envisioned in the expected results of the Healthy Children: Goal 2002 Initiative, aimed at reducing the number of deaths in children under 5 by 100,000 during the period 1999-2002, mainly through implementation of the IMCI strategy. The mid-term evaluation showed that 43% of the goal (a reduction of more than 43,000 deaths in children under 5) was met during the first two years of the initiative, while IMCI coverage was increasing in the countries. More than 80% of this reduction (more than 36,000 deaths) was due to the drop in mortality from the causes targeted by the strategy.

These results were one more example of IMCI's enormous potential for reducing mortality and improving child survival, coupled with

### FIGURE2: Mortalidad Trends in Children under 5 in 18 Countries of the Hemisphere, 1975-2000. Rates per 100,000 and five-year percentage reduction



NOTE: Lines represent rates per 100,000 and bars represent percentage reduction each-five-year period.

SOURCE: Program on Communicable Diseases (HCT). IMCI Regional Unit; with data from the Special Program for Health Analysis (SHA). Pan American Health Organization (PAHO)/World Health Organization (WHO). 2002

the strategy's already proven benefits, such as greater quality and efficiency at the first level of care and improvements in family knowledge and practices in the care provided to children to prevent deaths due mainly to inadequate care in the home and delayed care-seeking for infectious diseases such as diarrhea and pneumonia.

Critical to this progress was the considerable regional and national support for implementing the strategy—including Resolution CSP26.RTO of the recent Pan American Sanitary Conference in 2002, which underscored the importance of supporting the effective implementation of the strategy in the countries of the Region to improve the health status of children. This was essential for heightening the regional role in its implementation in the countries and helped to accelerate the expansion of the strategy and improve the population's access to it through primary health care. The implementation of IMCI, moreover, reinforced an approach geared to treating illness to prevent avoidable deaths (child survival) while promoting healthy growth and development by improving the quality of care provided to children in the health services, the family, the home, and the community.

During the implementation of IMCI, a vast region- and countrywide mobilization promoted its adaptation to the situation in each place and unleashed an effort to rapidly train health workers in its application, especially in first-level services. A more recent achievement has been the

"The implementation of IMCI, moreover, reinforced an approach geared to treating illness to prevent avoidable deaths."

active involvement of medical schools, nursing schools, and other academic institutions, which are rapidly introducing IMCI into their university curricula, as recommended by Resolutions CE124.R4 and CSP26.R10 of 1999 and 2002, respectively.

These efforts were complemented with a buttressing of the strategy's community component, through the promotion of the key family practices for healthy child growth and development recommended by WHO/UNICEF; this component is particularly targeted to most vulne-

rable population groups, such as indigenous populations, displaced populations, and marginal poverty pockets in major cities, where access to health services and health workers is virtually nil.

There are many obstacles to implementing and expanding the strategy, however. These have already been discussed by the Governing Bodies of PAHO and are addressed in the recommendations contained in the aforementioned resolutions. Given IMCI's potential to help meet the challenge of the MDGs, it is considered essential to complement these resolutions with other actions to address some of the key problems that may undermine the success of regional, national, and local activities to meet these goals.

The MDGs for children underscore the priority of child survival, one of the most important pending issues of the last century. Given the epidemiological transition in the Region and the differences among the countries, attaining these goals will require an approach that

simultaneously addresses the prevention and control of infectious diseases and perinatal and neonatal disorders, since these account for upwards of two out of three deaths in children under 5.

The MDGs, moreover, must be attained with equity to reduce the persistent gaps between and within the countries of the Region. This will require a strategic approach to cover the population groups and areas that are hardest to reach, where the highest mortality indexes are found.

Finally, achieving greater child survival also requires interventions to guarantee adequate nutrition, care, and stimulation for children in the family and community. This will also help to reduce the incidence and severity of illness, improve growth, and promote development, enabling children to reach their full potential.

Within this framework, it is considered essential to take specific action that, on the one hand, will give people access to key instruments and strategies for increasing and accelerating the reduction in child mortality and morbidity, contributing in turn to the promotion of healthy nutrition, growth, and development; and on the other, to establish mechanisms that will facilitate rapid identification of the most vulnerable and hard-to-reach populations, targeting efforts to ensuring their access to these instruments and strategies.

Owing to its integrated approach and the environment in which it is implemented, which includes primary health care services, the family, and the community, IMCI is one of the key strategies for meeting the MDGs with greater equity, focusing on child survival and healthy growth and development.

This has been demonstrated by the experiences in certain countries, which expanded the contents of the strategy in response to the transitional epidemiological profile. In particular, the adoption of a neonatal









component by nine Latin American and Caribbean countries expanded the strategy to cover care during the first week of life, the period in which most deaths associated with the perinatal and neonatal period occur. This period is not currently covered in the generic version of the strategy, which targets children aged 1 week to 5 years. Other actions,

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such as the introduction of components aimed at the prevention and detection of mistreatment, sexual abuse, and other forms of violence against children, the management of obstructive pulmonary diseases, and the early detection of developmental delays, have also helped address the problem of prevalent childhood illness in situations of epidemiological transition.

In light of these experiences and the progress that some countries are making, the introduction of new components in the IMCI strategy, pursuant to the resolutions of the Governing Bodies of PAHO mentioned above, will respond to the countries' demands that the strategy be

adapted to the Region's transitional epidemiological profile. This will strengthen joint efforts with the countries to take advantage of existing experiences and design additional components that respond to diseases and health problems whose prevalence is growing, such as HIV/AIDS in children. It will also help to boost the strategy's acknowledged potential for preventing deaths in children, with the benefits that the prevention and treatment of other prevalent illnesses and health problems can afford for improve the living conditions of this group.

that 43% of the goal (a reduction of more than 43,000 deaths in children under 5) was met during the first two years of the initiative.

#### PROPOSED ACTIONS

o attain the MDGs for child health in the Americas within the framework of equity to reach the most vulnerable groups, the following actions are proposed:

a) Expanding the IMCI strategy, adding new components (especially a perinatal and neonatal component) and intensifying its implementation to help meet the MDGs, emphasizing the importance of linking the strategy with other interventions that contribute to child health and development. To expand IMCI, the initial generic contents of the strategy will be complemented with a neonatal component (geared especially to the first week of life) and additional components for the prevention and care of other prevalent childhood illnesses and health problems. Its contents will also be enhanced and its links with all interventions that promote healthy growth and development strengthened. This will result in an effective strategy for child survival (since it will cover the causes of more than two-thirds of the deaths in children under 5 in the Region), and for improving the quality of the care and treatment provided to children in the health services, the family, and the community.

Adapting the strategy to the situation in each country will help strengthen the precepts of primary health care, improving the skills of health workers and the quality of services at the first level of care. IMCI will continue to emphasize an integrated approach to care through interventions to prevent death and disease and promote health, reducing the number of missed opportunities during the health service's contact with children under 5 and their families. It will also help to improve the capacity of families to provide adequate care and treatment for their children.

b) Setting strategic priorities to attain the MDGs of reducing infant mortality with equity. Identifying the countries that suffer the most in terms of preventable infant mortality will permit their targeting to reduce current gaps and increase equity. Within the countries, identifying the hardest-to-reach population groups, which usually have little or no access to care and where the highest mortality is usually found, can orient activities to ensure that these groups gain access to the IMCI strategy and can make use of it. This will require a broad mobilization to optimize the use of all available resources on behalf of the most vulnerable populations.

Estimates of the potential impact of the strategy indicate that an overall reduction in mortality in children under 5 could be

obtained, along with a decrease in the risk among countries from the 2000 figure of 17.7 to under 10 in 2008 and under 7 in 2015.

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c) Mobilizing wills and resources to achieve the sustainability of child health interventions. This is the only way to guarantee equitable access to the knowledge and available technologies that can ensure healthy child growth and development. This implies raising awareness so that all the countries make the decisions and take the necessary government action to place attainment of the MDGs in child health within a

frame-work of equity in practical terms. This includes promoting sectoral commitments to include IMCI in the training of health personnel to reduce and progressively eliminate the training burden on the ministries of health, and intersectoral coordination, resource mobilization, and complementary efforts among the public sector,

- social security, private health care services, NGOS, and international and bilateral organizations, ensuring that the projects that they finance are linked nationally and locally.
- d) Integrating the IMCI strategy into the environments in which children and their families live, play, learn, and spend their time will help prevent deaths and contribute to child survival and healthy child growth and development. To this end, implementation of the strategy and effective access to it should be part of a healthy settings strategy that includes the home, the municipio or locality, and all institutions where children live, spend time, play, and learn.
- e) Empowering the population by strengthening and promoting the key practices for healthy growth and development will prevent illness, discourage unhealthy behaviors, and encourage behaviors that promote health and development. The 26th Pan American Sanitary Conference, held in 2002, stressed the importance of mass communication and community health education. These practices will heighten the community's capacity to provide better health conditions for girls and boys and ensure that they grow into healthy, productive adults capable of ensuring sustainable local development. Promoting intersectoral partnerships and local participation by the people and all their representative organizations will lead to the creation of networks that facilitate the development of an integrated healthy environment for children under 5 and their families.

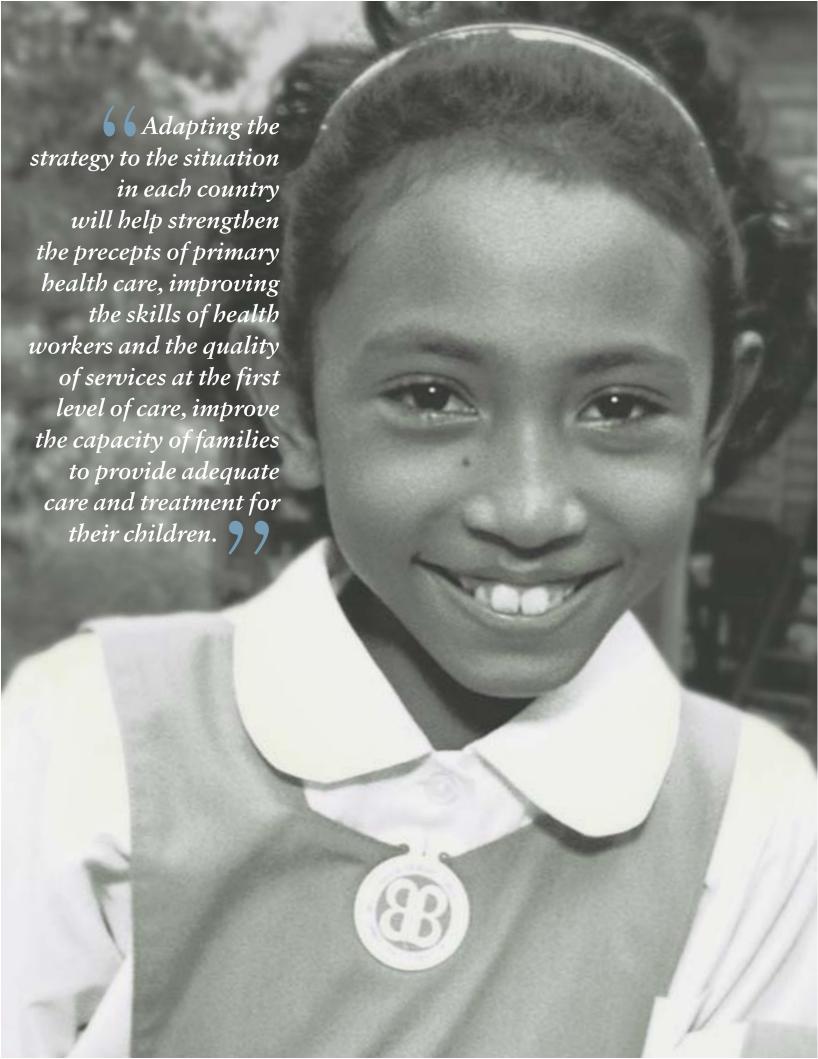
These actions are compatible and linked with the new international approaches to promote child health, including the child and adolescent health strategy that who is currently developing; the recommendations and basic documents of the United Nations Special Session on Children, held in 2002; the life cycle approach, which



is the foundation for the current strategies on integrated care in adolescence, adulthood, and pregnancy; and the who Global Strategy of Infant and Young Child Feeding. These actions are also based on the PAHO resolutions on the IMCI strategy and take into account the recommendations of the Technical Advisory Group on IMCI (TAGA-IMCI). This independent group of experts, convened by the Director of PAHO, recognized the importance of expanding the IMCI strategy to accelerate the decline in mortality and morbidity in children and facilitate their healthy growth and development.







## FINANCIAL IMPLICATIONS

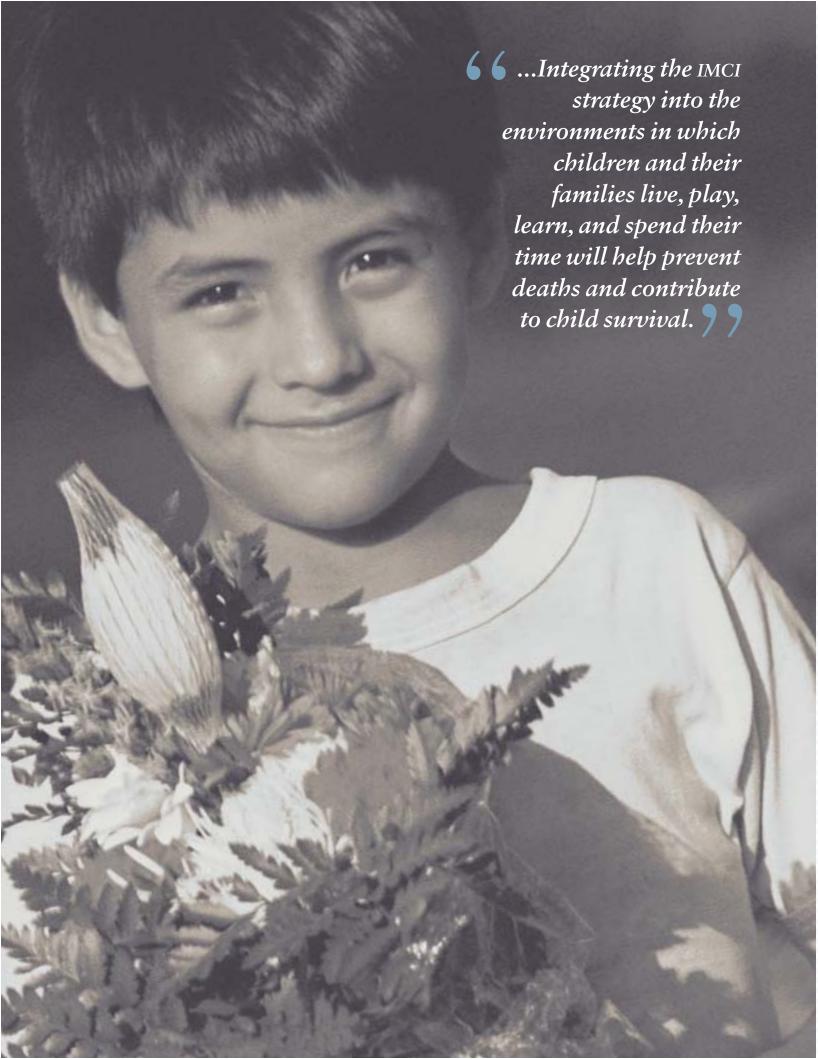
he creation of the new Child and Adolescent Health Unit (CA) within the Family and Community Health Area (FCH) reinforce the integrated approach to child health care and the life cycle approach, offering a continuum of action to promote child and adolescent health. For specific actions to improve child health, the Unit has regular and extrabudgetary funds in the amount of Us\$ 1,350,000 for the current biennium and plans for an increase in the biennium 2004-

2005, the period in which the proposed activities will be developed, adapted, and their execution and expansion initiated in the countries. These plans

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have been affected, however, by the cutbacks in funding for 2002-2003, a year in which the programmed extrabudgetary funds from the Global Program of who were not received.

Attaining the MDGs within a frame-work of equity to reach the most vulnerable populations will require an intensification of efforts to sustain current resources, the restoration of the extrabudgetary funding from the Global Program of WHO, and the mobilization of additional resources for the specific plans and execution of the local activities adopted as proposed in this document.





#### KEY AREAS FOR DELIBERATION

The following areas are proposed for discussion and deliberation.

- a) Concerning the adoption of the IMCI strategy and the addition of new components, specific actions should be considered to ensure that the IMCI strategy becomes a policy instrument for child health care. This means their insertion in regulatory frameworks as part of the standards of care, in quality assurance programs, and in health care delivery systems. PAHO can furnish regional technical support in this area and promote the horizontal sharing of experiences among countries.
- b) Concerning the setting of strategic priorities for action, mechanisms to obtain more up-to-date information should be promoted and strengthened, with better quality and coverage to identify the population groups that are hardest to reach, which are a priority in every country. PAHO can play a key role in coordinating the available resources and capacities, both regionally and nationally, getting all participating institutions involved in the generation,

analysis, and evaluation of information to ensure a participatory process that encourages the appropriation of the results and their utilization as a national and local planning tool.

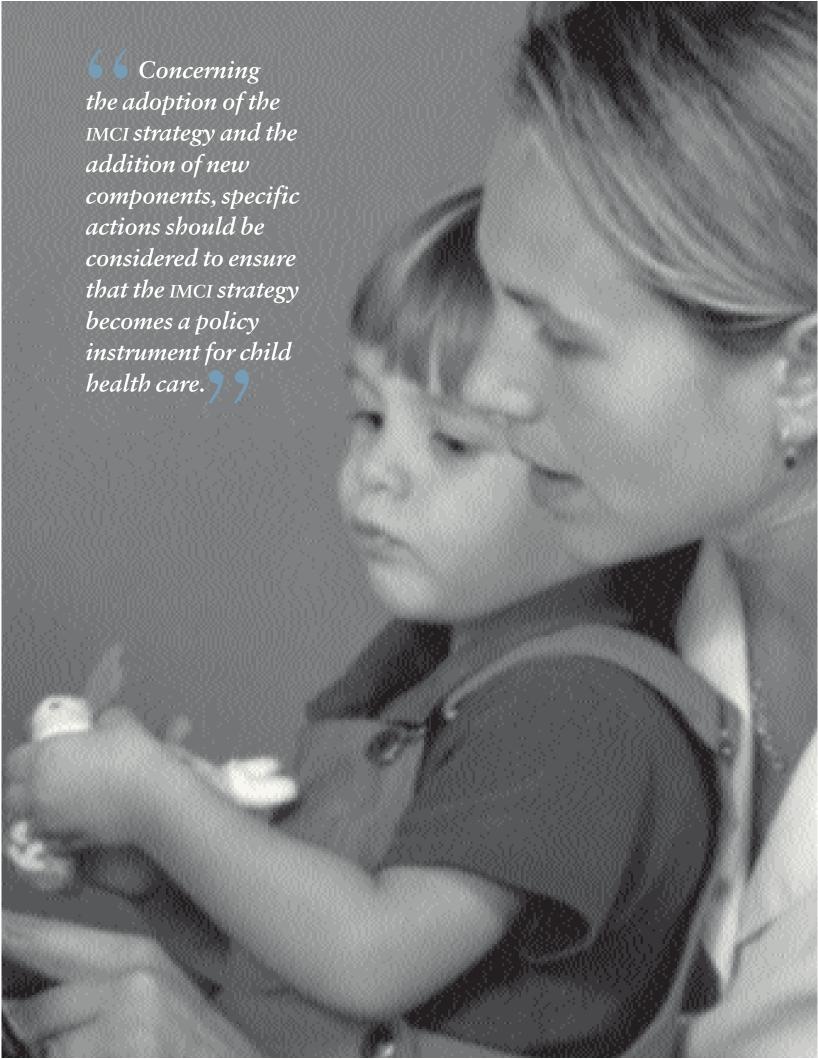
"...reinforced the integrated approach to child health care and the life cycle approach, offering a continuum of action to promote child and adolescent health.."

(c) Concerning the mobilization of wills and resources for the sustainability of child health interventions, activities should be redoubled to ensure that the IMCI strategy is sustainably incorporated in its three areas of application: staffing, health

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services, and family and community. To this end, PAHO and the ministries of health should work together to get government, nongovernmental, and community sectors involved in an ongoing plan to ensure that health workers are taught the IMCI strategy during their undergraduate and graduate training, and that the strategy's contents are applied in all settings where children live, play, spend their time, andlearn.

(d) To empower the population, promoting the key practices for healthy child growth and development, greater activity should be undertaken to disseminate and transfer the contents of the basic practices for healthy growth and development promoted in IMCI to ensure their adoption at the local and community level.





#### ACTION BY THE DIRECTING COUNCIL

- n light of the information presented, the Directing Council is requested to:
- a) discuss the importance and need for the rapid inclusion of new components in the IMCI strategy, particularly neonatal care and other components that respond to the countries' transitional epidemiological profile, and to recommend that the Secretariat launch and effectively implement the expanded strategy in the countries to guarantee sustained progress toward the attainment of the MDGs for children;
- b) study the proposed approach to stratify the MDGs in infant mortality within a framework of equity, identify the population groups that are hardest to reach, and issue recommendations on how PAHO and the countries can carry out this task;
- c) propose that the Secretariat adopt IMCI as one of the key interventions for attaining the MDGs for children, improving the health status of children, and promoting sustainable development in the Americas, and recommend that the countries effectively incorporate the strategy into their regulatory and health policy frameworks for children;
- d) suggest regional and national mechanisms to the Secretariat for monitoring and surveillance of the progress made in the attainment of the MDGs for children, with special emphasis on obtaining greater equity and ensuring access to the interventions by the most vulnerable groups.