

< I. Authors, Collaborators, and Associated Institutions >

Authors

Amira Consuêlo de Melo Figueiras

Professor of Pediatrics, UFPA; Coordinator, Programa Caminhar (for the care of children with developmental disorders), Hospital Betin Souza Ferro, UFPA, Belém, Pará, Brazil

Isabel Cristina Neves de Souza

Professor of Pediatrics, UFPA; Geneticist, Programa Caminhar, Hospital Betin Souza Ferro, UFPA, and Programa URE-MIA (early stimulation), Belém, Pará, Brazil

Viviana Graciela Rios

Pediatrician, Pediatric Neurologist, Hospital de Niños Orlando Alassia, Santa Fe, Argentina

Yehuda Benguigui

Unit Chief, Child and Adolescent Health Unit, Family and Community Health Area, Pan American Health Organization, World Health Organization, PAHO/WHO, Washington, DC

Collaborators

Helia Molina Milman

Professor of Public Health, Department of Public Health, Escuela de Medicina, Pontificia Universidad Católica, Santiago, Chile

Horacio Lejarraga

Chief, Growth and Development Service, Hospital de Pediatría Garrahan, PAHO/WHO Collaborative Center, Buenos Aires, Argentina

Flavio Osvaldo Landra

Medical Coordinator, Health Programs Department, Instituto Nacional de Enfermedades Respiratorias Emilio Coni, Ministerio de Salud y Ambiente, Santa Fe, Argentina

Juan Carlos Bossio

Chief, Health Programs Department, Instituto Nacional de Enfermedades Respiratorias Emilio Coni, Ministerio de Salud y Ambiente, Santa Fe, Argentina

Lea Maria Martins Sales

M.S., Professor of Psychology, UFPA, Belém, Pará, Brazil

Mariela Labath

Pediatrician, Hospital de Niños Orlando Alassia, Santa Fe, Argentina

Maria da Conceição Furtado Sobrinho

Adolescent Pediatrician, Vice Director, Maternal, Child, and Adolescent Specialized Reference Unit, Belém, Pará, Brazil

Matilde Ferreira Carvalho

Occupational Therapist, Ceará State Secretariat of Health, Fortaleza, Ceará, Brazil

Regina Hilda Ferreira Brito

Physical Therapist, Programa Caminhar, Hospital Betin Souza Ferro, UFPA, and Programa URE-MIA (early stimulation), Maternal, Child, and Adolescent Specialized Reference Unit, Belém, Pará, Brazil

Alice Hassano

M.S., Professor, Department of Pediatrics, Faculdade de Medicina da UFRJ, Rio de Janeiro, RJ, Brazil

Regina Lúcia Ribeiro Moreno

Occupational Therapist, Hospital Albert Sabin, Fortaleza, Ceará, Brazil

Sergio Javier Arias

Chief, Epidemiology Division, Department Health Programs, Instituto Nacional de Enfermedades Respiratorias Emilio Coni, Ministerio de Salud y Ambiente, Santa Fe, Argentina

Saulo de Melo Figueiras

M.B.A., Escola Superior de Propaganda e Marketing de São Paulo, São Paulo, SP, Brazil

Luci Pfiffer Miranda

Pediatrician and Coordinator, Working Group on Care of Special Needs Children, Sociedade Brasileira de Pediatria, Brazil

Veronica Said de Castro

M.D. Pediatrician, Ceará School of Public Health. Fortaleza, Ceará, Brazil

Raimunda Helena Pitanga Feio

Pediatric Neurologist, Programa Caminhar (for the care of children with developmental disorders), Hospital Betin Ferro de Souza, UFPA, Belém, Pará, Brazil

Associated Institutions

- Pan American Health Organization (PAHO/WHO)
- Secretaria Estadual de Saúde [Pará State Health Secretariat] (SESPA)
- Secretaria Municipal de Saúde [Belém Municipal Health Secretariat] (SESMA)

- Departamento de Atenção à Criança com Necessidades Especiais [Department for the Care of Special Needs Children], Sociedade Paraense de Pediatria [Pediatric Society of Pará] (SPP)
- Programa de Estimulação Precoce [Early Stimulation Program], Unidade de Referência Materno-Infantil, Adolescente [Maternal, Child and Adolescent Specialized Reference Unit], SESPA
- Departamento de Assistência Materno-Infantil [Department of Maternal and Child Care] / Departamento de Psicologia [Department of Psychology], Hospital Bettina Ferro de Souza, Universidade Federal do Pará (UFPA)
- Departamento de Pediatria [Department of Pediatrics], Universidade Federal de São Paulo (UNIFESP)
- Instituto Dr. Emilio Coni (INER), Santa Fe, Argentina
- Hospital de Niños Dr. Orlando Alassia, Santa Fe, Argentina
- Escola de Saúde Pública do Estado do Ceará [Ceará State School of Public Health] (ESP-CE)

The authors wish to honor the memory of

Dr. Márcia Regina Marcondes Pedromônico,

who died during the preparation of this manual.

Dr. Pedromônico held a doctorate in psychology and was professor at both the undergraduate and graduate levels in the Department of Pediatrics, São Paulo School of Medicine, University of São Paulo. It was she who first espoused the idea of using the IMCI strategy as a tool for monitoring child development. Her technical knowledge was enlisted in preparing the table of development milestones. She was always available to discuss ideas for improving this material.

If child survival is one of the most important unfinished challenges bequeathed to us by the twentieth century, then guaranteeing healthy growth and development for all children, a goal that is already being addressed in the twenty-first century, is key to meeting this challenge.



< II. PREFACE >

If child survival is one of the most important unfinished challenges bequeathed to us by the twentieth century, then guaranteeing healthy growth and development for all children, a goal that is already being addressed in the twenty-first century, is key to meeting this challenge.

The progress that has been made, especially in recent decades, in the prevention of diseases and the effective treatment of many of them, has had a major impact on the overall living conditions of people throughout the world, including the Region of the Americas. Life expectancy has increased in the last twenty years, and an important part of this increase has been due to the countries' efforts to reduce infant mortality. The number of deaths in children under 5 years of age was drastically reduced between the early 1980s and the end of the 1990s, and the goal to reduce the 1990 figure by one-third was attained in 2000.

This important achievement, however, has not always been accompanied by improvements in the living conditions of the children and their families. On the contrary, the 1990s saw a deterioration in economic and social conditions for vast sectors of the population in the Americas, and the living conditions of children were far below the necessary minimum to ensure them a satisfactory state of health. It is therefore essential to implement interventions that will contribute to the prevention, early detection, and effective treatment of diseases, as well as the promotion of health.

Since the mid-1990s, the strategy of Integrated Management of Childhood Illness (IMCI) has proven to be an effective means of providing a basic set of scientifically sound interventions that effectively address and treat the main illnesses and health problems that occur in the first years of life. IMCI has also helped to promote the adoption of health promotion measures by sharing knowledge and health care practices with parents so that they can care of their children properly.

Implementation of the IMCI strategy has had

important benefits for the quality of care given to children not only in the health services but also at home and in the community. One of these benefits has been to give added importance to the integrated approach to child health, which has greatly changed the practices followed in caring for the specific diseases that tend to affect this age group.

The addition of corroborating data and practices for assessing the development status of children has further strengthened this overall approach to child health. Among other advantages, these new contributions have made it possible to take optimal advantage of everyone who comes in contact with the child, both health professionals and family members, to identify occasional problems, provide the most appropriate recommendations for treatment, and promote the use of simple practices that will help to promote early child development. Thus, the incorporation of child development monitoring as part of IMCI not only corresponds to the ethical commitment to improve child survival but also affords greater opportunities for surviving children to reach their maximum potential and to grow and develop as adolescents, young adults, and healthy and socially productive adults.

Extension of the IMCI strategy to the entire population, especially the most vulnerable groups, has posed and continues to pose a major challenge for the countries of the Americas. We believe that this challenge should include the effective incorporation of child development into the IMCI strategy.

The present manual is intended to provide health professionals—from those involved in academic training to personnel who work directly in child health care—with the tools, integrated into IMCI and placed within the population's reach, to make effective interventions for the improvement of child development.

These conditions will undoubtedly hasten achievement of the Millennium Development Goals for 2015 to which all the countries are committed. By ensuring that all children and their families have

the opportunity for healthy growth and development throughout childhood, they not only improve child survival but also make a difference in the lives of those who survive.

Monitoring Child Development was initially developed to train primary health care professionals serving in the Municipal Health Secretariat of Belém, Pará, in aspects of child development. During 2000-2004, training was given to a total of 240 physicians and nurses in the Basic Health Units and the Program on Family Health which made it possible to monitor children with developmental disorders and refer 1,200 of them who are now undergoing specialized treatment. Two new multi-disciplinary services have been created in the city

to help meet this demand and thereby improve the quality of life for these children.

This experience, supported by the Spanish and Portuguese versions of Monitoring Child Development, has been shared with professionals in a number of other countries who have benefited from the work done in Pará and incorporated similar elements into their own child health care services.

Dr. Yehuda Benguigui
Unit Chief
Child and Adolescent Health Unit
Family and Community Health Area
PAHO/WHO

< III. INTRODUCTION >



Providing children with opportunities to develop fully may well be the most important contribution that can be made to the human species. Satisfactory child development, especially in the first years of life, helps to maximize children's likelihood of getting an education and becoming fully active citizens who are able to cope with the vicissitudes of life and thus reduce the social and economic disparities of society.

This manual was developed as part of the instructional materials for the **Course in Monitoring Child Development in the IMCI Context**. It is intended for professionals in the basic health network rather than specialists in child development. It contains basic information about development during the two first years of life that every primary care health professional should know in order to counsel parents adequately on monitoring their child's normal

development, and, in the event of delays or difficulties, knowing how to deal with the situation. It is not meant to provide diagnoses, but rather to serve as a general easy-to-apply tool for assessment. Its purpose is to encourage primary care professionals to assess development in children under 2 years old with an understanding of why this is so important. Early diagnosis will most certainly give developmentally delayed children a better chance, since it opens up the possibility to seek proper care and improve their quality of life.

Monitoring the development of children in the two first years of life is of the utmost importance, since this is the stage of extrauterine life when nerve tissue grows the fastest and matures, and is therefore the most vulnerable. Because of children's great plasticity during at this time, it is also the period

during which they respond best to therapy and to the stimulation they receive from the environment. For these reasons, it is fundamental that health professionals, families, and communities take advantage of this time to monitor the development of their children.

"DEVELOPMENT MONITORING includes all activities related to the promotion of normal development and the detection of developmental problems in the course of primary child health care. It is a flexible, ongoing process based on information received from health professionals, parents, teachers, and others." (Huthsson & Nicholl, 1988).

"PRIMARY HEALTH CARE is essential health care based on practical, scientifically sound and socially acceptable methods and technology made universally accessible to individuals and families in the community through their full participation and at a cost that the community and country can afford to maintain at every stage of their development in the spirit of self-reliance and self-determination" (Declaration of Alma-Ata, 1978).

If child development monitoring is to be incorporated effectively into the primary health care context, health professionals must have basic knowledge about child development. They need to know how a normal child behaves, to understand the factors that can contribute to altered development, and to recognize behavior that may be indicative of a problem. In order for monitoring to be successful, the methods used must be simple, easy to apply, socially acceptable, and at the same time scientifically sound.

In an effort to simplify the monitoring of child development and incorporate it into primary health care operations, this manual follows the methodology adopted for Integrated Management of Childhood Illness. It is designed to systematize care and make it easier for the health professionals to advise parents on how to encourage normal development in their children and detect problems early. Children with any signs of concern should be referred and assessed by professionals with more experience in child development in order to decide whether or not there is real problem that needs to be studied further and what treatment is appropriate.

Amira Consuelo Figueiras
Isabel Cristina Neves de Souza
Viviana Graciela Rios
Yehuda Benguigui