SPECIAL ARTICLE

The Sick Child Initiative

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Every year some 12 million children die before they reach their fifth birthday, many of them during the first year of life. Seven in every 10 of these child deaths are due to diarrhea, pneumonia, measles, malaria, or malnutrition - and often to a combination of these conditions (see Table 1). In addition to this substantial mortality, these conditions typically account for three out of four sick children seeking care at a health facility. Every day, millions of parents seek health care for their children, taking them to hospitals, health centers, pharmacists, community health care providers and traditional healers.

A single diagnosis for a sick child is often inappropriate. The signs and symptoms of several of the major childhood diseases overlap substantially and often more than one disease may be present. Focusing on the most apparent problem may lead to an associated, and potentially life-threatening, condition being overlooked. Treating the child may be complicated by the need to combine therapy for several conditions.

This situation argues for an approach that addresses not single disease but the sick child as a whole. This notion is not new to healthworkers treating sick children but over the past 15 years many have been trained through programs dealing with specific diseases, for example, diarrhea or acute respiratory infection. These programs were initiated because of the need to take action against the major killers of children. Much has been learned from these disease specific programs. The challenge is to combine these lessons into a single more efficient and affective approach to managing childhood illness. A number of programs in WHO# and UNICEF have responded to this challenge by developing an approach referred to as integrated management of the sick child. These efforts have been coordinated by the WHO Division of Diarrhoeal and Acute Respiratory Disease Control (CDR). Already many other agencies, institutions and individuals are contributing to this initiative.

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Among the factors that stimulated this work were the findings from research studies conducted in the late 1980s and early 1990s. Researchin the Gambia, Malawi, and Mozambique showed the considerable overlap in the clinical presentation of pneumonia and malaria.[1] It was recognized that a child with cough, fever, and fast breathing. These children must be treated for both malaria and pneumonia. A useful additional finding of the Malawi[2] and Gambia studies was that cotrimoxazole is an effective antimalarial as well as being an effective antibiotic for pneumonia.

Research in relation to diarrhea has convincingly shown the importance of continued feeding in case management. Also, the significant contribution to childhood mortality made by persistent diarrhea and dysentery is now well recognized. To reduce the mortality associated with diarrhea requires an approach to case management that goes beyond a focus on rehydration therapy and, in particular, gives more attention to nutritional management. A multicenter study on persistent diarrhea in Bangladesh, India, Mexico, Pakistan, Peru and Vietnam[3] has provided important findings that have been used to update the recommendations for management of persistent diarrhea included in the integrated approach.

In developing ARI case management guidelines for young infants in the 1980s it was apparent that in this age group it is difficult to distinguish pneumonia from other types of severe bacterial infection. Findings from a study on pneumonia, sepsis and meningitis in Ethiopia, Gambia, Papua New Guinea and the Philippines from 1989 to 1993[4] have been used to complete the recommendations for the management of sick young infants.

Also contributing to the need to develop an integrated approach to the sick child was a recognition that even with high measles immunization rates, cases would continue to occur and that without appropriate management a fatal outcome was not uncommon. The high mortality due to measles requires effective care for diarrhea, pneumonia and other complications.

All these clinical factors and a call from countries for assistance from WHO with a more comprehensive approach to the clinical care of children, have led to the initiation of work to develop an integrated approach to case management.

Studies of health worker performance suggest that improvements can be made that are likely to reduce mortality significantly.[5] The initiative for integrated management of sick child is focusing first on improving health worker performance through training and support. At the same time work has started on approaches to changing family behavior in relation to sick children including when and where families seek care outside the home.

It is expected that integrated management of the sick child will lead to more accurate identification of illnesses and speed up referral of severely ill children. It also emphasizes the importance of preventive interventions, such as immunization, vitamin A supplementation if necessary, and improved infant feeding, including exclusive breast-

feeding. The approach should improve efficiency in training, and in the supervision and management of outpatient health facilities. Wastage should be reduced because children are treated with the most cost-effective intervention for their condition.

According to the World Bank's World Development Report in 1993,[6] management of the sick child is the intervention likely to have the greatest impact in reducing the global burden of disease. This approach alone is calculated to be able to prevent 14% of that burden in low income countries. According to the same report, management of the sick child ranks among the potentially most cost-effective health interventions in both low-income and middle-income countries.

Finally, there are benefits in terms of equity. For all children in the developed world and most well-off children in the developing world it is unthinkable that they should die from a common disease for want of access to a trained health worker and a few inexpansive drugs. Yet this is happening many times daily among the less privileged children of the world. Given that this is one aspect of global inequity which can be addressed immediately, with proven, affordable interventions, surely it deserves being treated as a matter of urgency.

Table 1. Distribution of 12.2 million deaths among children less than 5 years old in all developing countries (1993)*

RI/pneumonia	24.6%
ARI/measles	5.2%
Measles	2.4%
Diarrhoea/measles	1.9%
Diarrhoea	22.5%
Diarrhoea/HIV	0.3%
ARI/HIV	0.2%
ARI/pertusis	2.1%
ARI/malaria	1.6%
Malaria	5.6%
Malaria/anemia	0.6%
Others	33.1%

* Source: WHO, 1993

WHO: Division of Diarrhoeal and Acute Respiratory Disease Control (CDR), Division of Communicable Diseases (CDS), Division of Control of Tropical Diseases (CTD), Action Programme on Essential Drugs (DAP), Global Programme for Vaccines and Immunization (GPV), Maternal and Child Health and Family Planning (MCH), Nutrition (NUT), Oral Health (ORH), Programme for the Preventionof Blindness (PBL), Special Programme for Research and Training in Tropical Diseases (TDR).

* The views expressed in this paper are those of the author and do not necessarily reflect the views of the World Health Organization

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