



INTRODUCTION

Acute respiratory infections (ARI) represent one of the main health problems in children under 5 years of age in developing countries. In the Region of the Americas, ARI are among the five major causes of death in this age group and the major cause of sickness and health service consultations.

Every year, pneumonia causes the death of over 100,000 infants under 1 year of age, which is an average of 300 deaths every day. Ninety-nine percent of these deaths occur in developing countries. Another 40,000 deaths from pneumonia occur each year in children under 5, which represents another 100 deaths from this disease each year in the Western Hemisphere.

Although the spread of ARI is worldwide, its impact is quite different in industrialized countries than in developing ones. Whereas 1 to 3% of the deaths in children under 5 years of age in industrialized countries is due to pneumonia, the disease causes 10 to 25% of these deaths in the developing countries. Access to health services is a key element in explaining this disparity: ARI are one of the main reasons for health consultations and hospitalizations in developing countries. Between 30 and 60% of medical consultations and 20 to 40% of hospital admissions of children under 5 years of age are due to pneumonia.

ARI are also the main basis for drug prescriptions to children. In most cases, these drugs are unnecessary, potentially dangerous, and stimulate bacterial resistance. Excessive and unnecessary use of medications significantly increases health care costs without benefiting the patient's health.

To address such an important problem, this book is organized into five main sections, leading off with a description of the magnitude of the problem. A regional overview is offered to show the current state of knowledge concerning the epidemiology of ARI. The magnitude and control of ARI are considered in relation to the goals of the World Conference for Children, along with the issue of the risk factors for acute lower respiratory infections.

The second section offers some etiological considerations on viruses, the most common cause of ARI, and on the bacteria that present the major risk of death from ARI. These chapters cover the most common and effective diagnostic methods, providing microbiological descriptions of the most common agents of ARI in what constitutes a valuable guide to understanding the behavior of ARI, their diagnosis, and treatment. Vaccinations against the most common causal agents of ARI, particularly progress made in pediatric vaccines, are considered, and an overview of the regional production of ARI vaccines, with emphasis on health actions at the local and national level, is also provided.

The section on treatment and other clinical areas begins with the common cold, reporting on important measures for prevention and support and providing a substantive analysis of the indiscriminate and unnecessary use of medications. Sore throats, earaches, and related pains are described in the chapter on upper respiratory infections, which can lead to many complications and significant sequelae, such as rheumatic fever and permanent ear damage, if early diagnosis and proper treatment are not provided.

In relation to acute and chronic or recurrent pneumonia, as well as special conditions such as bronchiolitis and asthma, coughing and respiratory problems are the most serious symptoms and put the greatest number of children at risk of dying. Because malnutrition is one of the determinant risk factors for ARI, the issue of pneumonia in immunosuppressed and undernourished children is presented in a separate chapter.

The next section analyzes ARI prevention and control. It offers a perspective on the principal group affected by ARI and recommends a combination of a commonly used clinical focus for pediatricians and measures for standard case management promoted in PAHO/WHO protocols, particularly at the primary level of care where professionals trained in subspecialties, such as neonatology or pediatric pneumology, are not always found.

This section contributes to community and individual knowledge of ARI control with a summary of a promising ethnographic study that concerns community understandings and practices, and was undertaken with focus groups in Bolivia.

The final section is on the development of control actions at the local level, including the appropriate planning, evaluation, and use of the indicators and parameters needed for the evaluation. This process makes it possible to gather the information needed to improve ARI case management to meet the goals proposed for coverage and reduce the rates of morbidity and mortality.

In each of these chapters the authors, in coordination with the Regional Program on ARI Control of PAHO, have benefited from collaboration with some of the most experienced specialists in the Region. Attempts have been made—in such areas as pediatrics, pneumology, epidemiology, public health, and anthropology—to reach every health worker who would like to be

updated. The main goal has been to encourage research on each particular situation at the individual and community levels and in public and private hospitals. In these environments it is always useful to exchange success stories from countries that share similar conditions as well as the experiences of authors in the Region.

Most developing countries have begun to implement ARI control strategies at health services and in the communities. The achievements obtained until now in each country have varied. Despite some preliminary results, too little has been reported to assess the impact of the strategies in place. This situation is the result of a number of factors in the process of implementation, ranging from organizational problems in the health sector to major social, political, and economic changes.

There is a well-founded belief that the goals set at the World Conference for Children in relation to acute respiratory infections in children under 5 will not be attained, unless a special, focused attempt is made to speed up the initial implementation in a number of countries. Ideally, this will involve the strengthening of domestic structures at the national level. By the same token, greater efforts are required to strengthen the coordinating mechanisms needed to sustain the strategies in place and to meet the goals that have been set.

