

Treatment and prevention of pneumonia

Report by the Secretariat

Pneumonia burden

1. Millennium Development Goal 4 (Reduce child mortality) can only be achieved through intensified efforts to reduce the major causes of child deaths:¹ pneumonia, diarrhoea, malaria, malnutrition, and neonatal problems. Of these conditions, pneumonia remains the leading killer of children under five years of age worldwide, accounting for 1.8 million of the estimated 9 million deaths in 2007 of children under five years of age.

2. Mortality due to childhood pneumonia is strongly linked to malnutrition, poverty and inadequate access to health care. Consequently, more than 98% of deaths due to pneumonia in children occur in developing countries, mostly in marginalized communities.

Effective prevention and control strategies for pneumonia

3. Over the past 20 years, evidence on the effectiveness of interventions to prevent and control pneumonia has been accumulating. The following interventions have been shown to be successful in reducing pneumonia mortality:

- vaccination, including use of vaccines against infection by *Streptococcus pneumoniae* and *Haemophilus influenzae* type b
- case management of pneumonia in the community, health centres and hospitals
- exclusive breastfeeding for the first six months of life
- improvement of nutrition and prevention of low birth weight
- control of indoor air pollution and provision of a healthy environment
- prevention and management of HIV infection.

¹ Children under the age of five years.

Challenges of implementation

4. Most deaths of children under the age of five years due to pneumonia would be avoided if the effective interventions were implemented on a broad scale and reached the most vulnerable populations. Currently only 54% of children with pneumonia are reportedly taken to a qualified health-care provider in developing countries. Despite the essential role of antibiotics in reducing the number of child deaths from pneumonia, only 19% of children under five years of age with clinical signs of pneumonia receive antibiotics. To date, few countries have included a pneumococcal conjugate vaccine in their national immunization programmes. Exclusive breastfeeding up to six months is only practised by 22% of mothers. Low coverage prevails for other interventions also, and where coverage is poor, it is usually the children at greatest risk of pneumonia who are not covered.

Opportunities and cost

5. Unprecedented opportunities to improve prevention and treatment of pneumonia currently exist. These have arisen because of the renewed momentum of primary health care and efforts to strengthen health systems capacity; the availability of tools such as the Integrated Management of Childhood Illness approach for case management at all levels; and the introduction of vaccines against *Haemophilus influenzae* type b and *Streptococcus pneumoniae*.

6. The global investment required between 2010 and 2015 to deliver these interventions to all children in the 68 countries with a high burden of under-five mortality is estimated at US\$ 38 billion. The availability of resources through the GAVI Alliance and other donors can catalyse further investment in the more comprehensive range of investments required to combat pneumonia.

Potential impact

7. WHO and UNICEF estimate that, if implemented and taken to scale, these interventions could result in a 67% reduction in the number of deaths due to pneumonia by 2015, with a cumulative total of 5.3 million deaths of children being averted between 2010 and the end of 2015, thereby significantly contributing to achievement of Millennium Development Goal 4.

ACTION BY THE EXECUTIVE BOARD

8. The Executive Board is invited to take note of this report and provide further guidance.

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