Global Action Plan for Prevention and Control of Pneumonia (GAPP)

World Health Organization

unicef

Technical Consensus statement

Updated February 2008

The following consensus statement was formulated, and should be used widely for advocacy purposes and to help promote the global action plan.

- Pneumonia kills more children than any other illness in the world. Pneumonia is a significant problem in communities with a high rate of under-five mortality, and places a huge burden on families and the health system. Pneumonia control is therefore a priority and is essential in achieving MDG4.
- In the context of child survival strategies, countries should address pneumonia control. The key strategies for treating, preventing and protecting from pneumonia are:
  - case management at all levels
  - vaccination
  - prevention and management of HIV infection
  - improvement of nutrition and reduction of /low birth weight
  - control of indoor air pollution
- These interventions, if implemented, have the potential to reduce pneumonia mortality and morbidity by more than half.
  - Effective case management at the community and health facility levels is an essential part of pneumonia control. Countries with significant rates of under-five mortality should adopt plans to expand adequate case management of pneumonia at hospital, health facility and community levels to achieve 90% coverage within a predetermined time frame.
  - All countries should take steps to achieve Global Immunization Vision and strategy (GIVs) targets for measles and pertussis containing vaccines; countries that have not yet done so should add Hib and conjugate pneumococcal vaccines to their national immunization programmes, especially if they have high child mortality.
  - Promotion of exclusive breastfeeding and zinc supplementation are an important element of pneumonia prevention. Strategies to reduce rates of low birth weight and malnutrition will prevent pneumonia and should be encouraged.
  - Indoor air pollution increases the risk of pneumonia. New technologies can reduce indoor air pollution, and additional research is needed to demonstrate the health benefits of these interventions. Strategies to reduce indoor air pollution may prevent pneumonia and should be encouraged.
  - Strategies to prevent mother-to-child transmission of HIV and to improve the management of HIV infection and *P. jiroveci* pneumonia prophylaxis in children should be promoted in countries where HIV is prevalent.
- Other preventive strategies, such as encouraging hand washing, should be promoted.
- Pneumonia is a common and serious consequence of pandemic influenza. Preparedness for pandemic influenza should include prevention and control of pneumonia and adds urgency to community case management.

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GLOBAL ACTION PLAN FOR PREVENTION AND CONTROL OF PNEUMONIA (GAPP)

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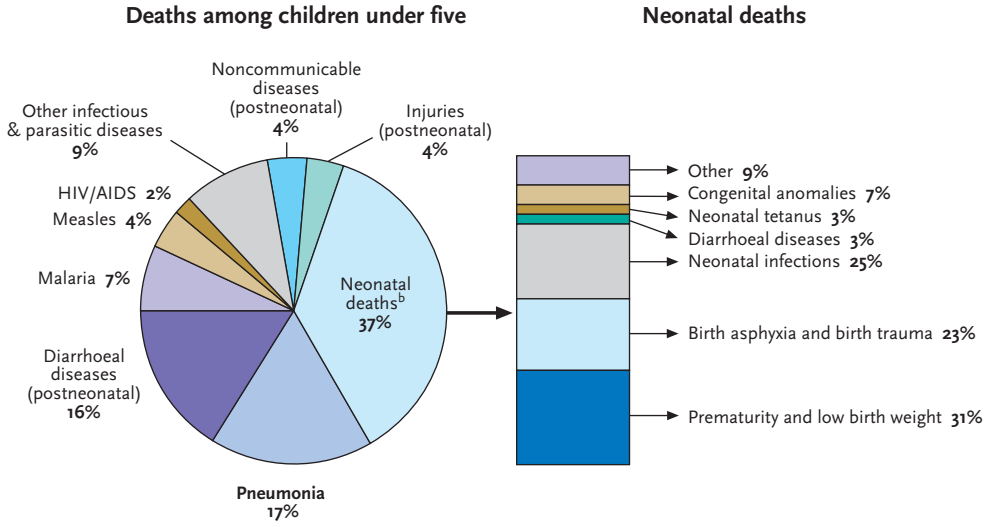
Pneumonia – the number 1 killer of young children

Pneumonia kills more children under five years of age than any other illness in every region of the world. Of the estimated 9 million child deaths in 2007,[1] around 20% or 1.8 million,[2,3] were due to pneumonia (see **Figure 1**). In spite of its huge toll on human life, relatively few global resources are dedicated to tackling this problem.

Mortality due to childhood pneumonia is strongly linked to malnutrition, poverty and inadequate access to health care. Consequently, more than 98% of pneumonia deaths[4] in children occur in 68 countries where progress in reducing under-five mortality is most critical (the "Countdown to 2015" countries).[5] The burden that pneumonia places on families and the health system in low-resource countries in turn exacerbates inequalities; overwhelmingly, children who are poor, hungry and living in remote areas are most likely to be visited by this "forgotten killer".[6]

FIG 1. CAUSES OF DEATH IN NEONATES AND CHILDREN UNDER FIVE IN THE WORLD (2004)[a]

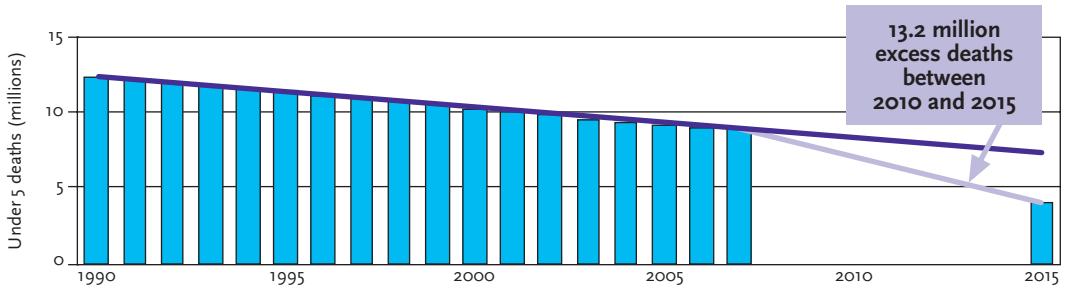


35% of under-five deaths are due to the presence of undernutrition[c]

[a] WHO. *The Global Burden of Disease: 2004 update*. Geneva, WHO, 2008.
[b] 3% of the neonatal deaths are estimated to be due to pneumonia.
[c] Black R et al. Maternal and child undernutrition: global and regional exposures and health consequences. *Lancet*, 2008, 371:243–260.

[1] WHO. *World Health Statistics*. Geneva, WHO, 2009.
[2] WHO. *The Global Burden of Disease: 2004 update*. Geneva, WHO, 2008.
[3] This figure includes pneumonia deaths that occur in the neonatal period, but not those that are associated with measles, pertussis and HIV.
[4] The percentage of total pneumonia deaths occurring in the 68 countries was estimated based on (year 2000) data on mortality among children under five years of age due to pneumonia (%) from WHO *World Health Statistics* 2008 and births per year from UN population division 2008 projections.
[5] UNICEF. *Countdown to 2015. Tracking progress in maternal, neonatal and child survival: the 2008 report*. New York, UNICEF, 2008.
[6] UNICEF and WHO. *Pneumonia: the forgotten killer of children*. New York, UNICEF, 2006.

FIG 2. COST OF FAILURE TO REACH MDG4

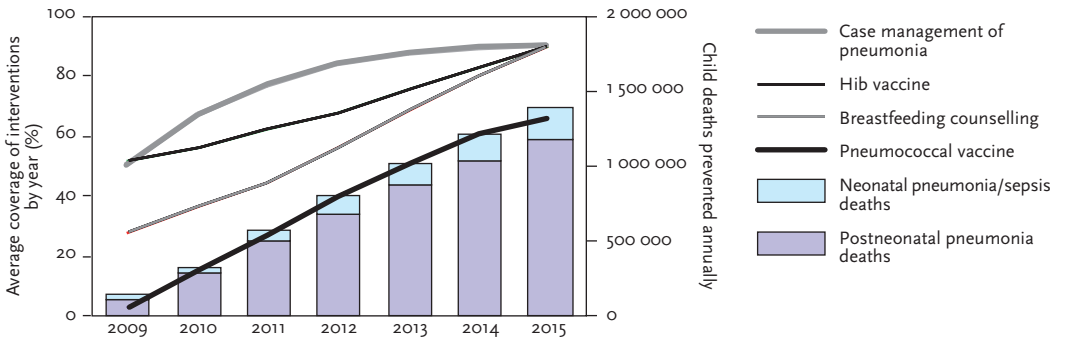


Source: WHO

This situation must not continue. At the Millennium Summit in 2000, the United Nations Member States committed to achieving Millennium Development Goal 4 (MDG4) – to reduce the under-five mortality rate by two thirds by 2015, compared to 1990. Since then, substantial progress has been made in reducing child mortality, but if the current trend continues, an estimated 13.2 million excess deaths will occur between 2010 and 2015 (see **Figure 2**). MDG4 can only be achieved by an intensified effort to reduce pneumonia deaths. If a global plan is not put in place, around 1.8 million children will continue to die from pneumonia every year. With accelerated implementation of key interventions, each year the number of pneumonia deaths will drop substantially, and by 2015, 67% of child pneumonia deaths will be averted. This reduction translates into 5.3 million lives saved from 2010 to 2015 (see **Figure 3**). In addition, up to 860 000 deaths due to diarrhoea will also have been averted during this period, as a result of the promotion of exclusive breastfeeding intervention common to both diseases.

The Global Action Plan for Prevention and Control of Pneumonia (GAPP) has been developed in order to increase awareness of pneumonia as a major cause of child death, call for scaling up the use of interventions of proven benefit, and provide guidance on how this can be done. The GAPP calls to action a broad coalition of global and national policy-makers, donor agencies and civil society.

FIG 3. CHILD PNEUMONIA DEATHS THAT COULD BE PREVENTED PER YEAR IN 68 "COUNTDOWN" COUNTRIES[a,b]



Source: WHO

[a] The impact of scaling up essential interventions for pneumonia was calculated using the Lives Saved Tool (LiST) – a tool that has been developed by the Futures Institute in collaboration with the Child Health Epidemiology Reference Group (CHERG). Deaths averted is estimated as the difference between a scenario where coverage is scaled up to on average 90% in the 68 countries, compared to a scenario where coverage remains at constant levels.

[b] UNICEF. *Countdown to 2015. Tracking progress in maternal, neonatal and child survival: the 2008 report*. New York, UNICEF, 2008.

GAPP's vision

The Vision of the GAPP is that every child is protected against pneumonia through a healthy environment, and has access to preventive and treatment measures. Specific goals are to:

- Reduce mortality from pneumonia in children less than 5 years of age by 65% by 2015 compared to 2000 levels;
- Reduce the incidence of severe pneumonia by 25% in children less than 5 years of age by 2015 compared to 2000 levels.

The following targets need to be reached by the end of 2015:

- 90% coverage of each relevant vaccine (with 80% coverage in every district);[1]
- 90% access to appropriate pneumonia case management;[2]
- 90% coverage of exclusive breastfeeding during the first six months of life;[3]

Progress towards these targets will be measured with data collected through national health information systems, Demographic and Health Surveys, and Multiple Indicator Surveys, as appropriate.[4]

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[1] Pneumococcal vaccine uptake will be gradual and in some countries it will only be introduced in 2014, thus 90% coverage by 2015 will not apply to it.
[2] Children with difficult or fast breathing treated with appropriate antibiotics by a trained health provider.
[3] There is no globally set target for exclusive breastfeeding, but 90% is widely accepted.
[4] The indicators to be used will initially be the same as those for the 'Countdown to 2015', while a process takes place of developing more pneumonia-specific indicators.

Protecting, preventing and treating pneumonia

Within GAPP's Vision, the various interventions for controlling pneumonia in children under five are categorized as follows (see **Figure 4**):

- ***Protect*** children by providing an environment where they are at low risk of pneumonia;
- ***Prevent*** children becoming ill with pneumonia;
- ***Treat*** children who become ill with pneumonia.

A complete approach to pneumonia control includes all the interventions shown in the Framework. They should be implemented as an essential part of an integrated package of effective, feasible and affordable interventions for child survival that are recommended globally, especially for the most vulnerable populations. However, in developing pneumonia control plans, most countries will need to prioritize from among these interventions. In settings with high mortality from pneumonia, emphasis should be given to interventions that will reduce mortality within the MDG time frame, while recognizing that every child has a right to protection, prevention and effective treatment (see **Table 1**).

FIG 4. FRAMEWORK FOR PNEUMONIA CONTROL