



APPROACHES TO COUNTER PNEUMONIA AND DIARRHOEA



Topic 3

Leading causes of child mortality

- Pneumonia and diarrhoea are the leading causes of death among children
- They are responsible for the death of nearly 2 million children each year and 29% of all deaths among children under 5 years of age.
- 72% of child deaths from pneumonia and diarrhoea occur in just 15 countries, even though they are home to only 55% of the world's under-five population..

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- As pneumonia and diarrhoea are the leading causes of child mortality globally, it makes sense to focus on ‘what works’ in preventing and treating these diseases.
 - There are a variety of prevention and intervention strategies that are common to both diseases. These include: adequate nutrition, micronutrient supplementation (zinc and vitamin A), handwashing, promoting exclusive breastfeeding, measles vaccination, prevention and treatment of co-morbidities like HIV, improved care-seeking behaviour and improved case management at community and tertiary health care centres.



□ The Resources in Topic 3 will help us explore the evidence to understand which approaches are effective in countering pneumonia and diarrhoea among children, the challenges that may inhibit efforts and potential ways in which these can be overcome.

Resource 1:

- *The 2015 Johns Hopkins Pneumonia and Diarrhoea Progress Report* prepared by the International Vaccine Access Center at Johns Hopkins Bloomberg School of Public Health can be read in full [here](#)

Key points include the following:

In 2015, the mortality rate in children under the age of five years is less than half (43 deaths per 1,000 live births) of what it was in 1990 (91 deaths per 1,000 live births). Reflecting on the rate of progress over the past few years, it has become increasingly evident that without significant gains in countries with large birth cohorts, such as India, Nigeria, China, and Indonesia, reduction in global pneumonia and diarrhea mortality in children will continue to stall, as has been the case in recent years.

Resource 1 continued:

▫ *The 2015 Johns Hopkins Pneumonia and Diarrhoea Progress Report*

Key points include the following:

The Global Action Plan for the Prevention and Control of Pneumonia and Diarrhea (GAPPD) includes these targets:

- *90% coverage for each of the following vaccines: pertussis, measles, Haemophilus influenzae type b (Hib), pneumococcal conjugate, and rotavirus vaccines;*
- *90% treatment coverage for children with suspected pneumonia, including care by an appropriate health care provider and antibiotics;*
- *90% treatment coverage for children with diarrhea, including treatment with oral rehydration salts (ORS) and zinc supplements;*
- *50% rate of exclusive breastfeeding for the child's first six months of life*

Resource 1 continued:

- *The 2015 Johns Hopkins Pneumonia and Diarrhoea Progress Report*

Key points include the following:

In 2015, the 15 countries that contributed most to the global burden of child pneumonia and diarrhea deaths were largely the same as those in 2014

The Global Action Plan for the Prevention and Control of Pneumonia and Diarrhea (GAPPD): Overall GAPPD scores in 2015 varied widely from a low of 20% (Somalia) to a high of 72% (Tanzania), with all 15 focus countries falling below the 86% target for the overall GAPPD score. Large countries, such as India, Nigeria, Indonesia, and China had little to no improvement in their GAPPD scores since last year. These large countries with low coverage of lifesaving interventions that protect against, prevent, and treat pneumonia and diarrhea represent critical opportunities to bend the curve on child mortality.

Resource 2:

- The paper '*Bottlenecks, barriers, and solutions: results from multi-country consultations focused on reduction of childhood pneumonia and diarrhoea deaths*' can be read in full [here](#)

Key points are as follows:

Bottlenecks impairing access to commodities included antiquated supply management systems, insufficient funding for drugs, inadequate knowledge about interventions by clients and providers, health worker shortages, poor support for training or retention of health workers, and a failure to convert national policies into action plans.

Key programmatic barriers included an absence of effective programme coordination between and within partner organisations, scarce financial resources, inadequate training and support for health workers, sporadic availability of key commodities, and suboptimal programme management.

However, these problems are solvable. Advocacy could help to mobilise needed resources, raise awareness, and prioritise childhood pneumonia and diarrhoea deaths in the coming decade.

Resource 3:

The paper, '*Effect of community based interventions on childhood diarrhoea and pneumonia: uptake of treatment modalities and impact on mortality*' can be read in full [here](#)

Summary of the paper:

- *Method: A systematic review of the randomized controlled trials, quasi-experimental and observational studies to estimate the effect of community based interventions including community case management on the coverage of various commodities and on mortality due to diarrhea and pneumonia*
- *Results: Community based interventions led to significant rise in care seeking behaviors with 13% and 9% increase in care seeking for pneumonia and diarrhea respectively. These interventions were associated with 160% increase in the use of ORS and 80% increase in the use of zinc for diarrhea. There was a 75% decline in the unnecessary use of antibiotics for diarrhea and a 40% decrease in treatment failure rates for pneumonia. Community case management for diarrhea and pneumonia is associated with a 32% reduction in pneumonia specific mortality, while the evidence on diarrhea related mortality is weak.*

Resource 3 continued:

The paper, *'Effect of community based interventions on childhood diarrhoea and pneumonia: uptake of treatment modalities and impact on mortality*

Conclusion

Community based interventions have the potential to scale up care seeking and the use of essential commodities and significantly decrease morbidity and mortality burden due to diarrhea and pneumonia in children under the age of five years.

Recommended Reading

▫ UNICEF. Pneumonia and Diarrhoea: Tackling the deadliest diseases for the world's poorest children. New York: UNICEF; 2012.

▫ This is a comprehensive and interesting document, whose findings are still current, with a number of suggestions for reducing the burden of child mortality from pneumonia and diarrhoea

▫ You can access this here as a set of slides:

[https://www.slideshare.net/OutreachUNICEF/pneumonia-and-diarrhoea-tackling-t
he-deadliest-diseases-for-the-worlds-poorest-children](https://www.slideshare.net/OutreachUNICEF/pneumonia-and-diarrhoea-tackling-the-deadliest-diseases-for-the-worlds-poorest-children)