One is too many

Ending Child Deaths from Pneumonia and Diarrhoea

Key Findings
2016
Pneumonia and diarrhoea are responsible for the unnecessary loss of 1.4 million young lives each year and are a threat to sustainable development for the world’s poorest nations.

But we have the knowledge and the tools to do better. Child deaths due to diarrhoea and pneumonia are largely preventable – even one death is too many.

The fact that children continue to die from these diseases is a reflection of deep inequalities. UNICEF’s global report, *One is too many: Ending Child Deaths from Pneumonia and Diarrhoea*, makes the case for renewed efforts to tackle an age-old problem.

The report provides an overview of the coverage of high impact protective, preventive and treatment interventions, illustrating the startling divide between those being reached and those children being left behind. The report also looks forward to project the potential lives saved by scaling up effective interventions in the context of the 2030 development agenda, and provides recommendations to guide policy action at the national level.

Read the full report at: uni.cf/oneistoomany

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Pneumonia and diarrhoea deaths disproportionately concentrated among the poor

<table>
<thead>
<tr>
<th>Income Group</th>
<th>Percentage of children under 5</th>
<th>Percentage of diarrhoea deaths</th>
<th>Percentage of pneumonia deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>High-income</td>
<td>10%</td>
<td>&lt;1%</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>Upper-middle-income</td>
<td>28%</td>
<td>9%</td>
<td>10%</td>
</tr>
<tr>
<td>Lower-middle-income</td>
<td>47%</td>
<td>60%</td>
<td>59%</td>
</tr>
<tr>
<td>Low-income</td>
<td>15%</td>
<td>32%</td>
<td>31%</td>
</tr>
</tbody>
</table>

1 in 4 deaths among children under 5 is caused by either pneumonia or diarrhoea.

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NO CHILD NEEDS TO DIE FROM PNEUMONIA AND DIARRHOEA

Pneumonia and diarrhoea deaths are dropping – but not quickly enough

Deaths from these two diseases declined by nearly half between 2000 and 2015, from 2.9 million deaths to the current 1.4 million. But this rate is still low compared with declines in other common childhood illnesses during this time.

FACT:

Around half of childhood pneumonia deaths are associated with air pollution. The effects of indoor air pollution kill more children globally than outdoor air pollution. At the same time, around 2 billion children 0-17 live in areas where outdoor air pollution exceeds international guideline limits.

Source: Clean the air for children, UNICEF, 2016

We can end most diarrhoea and pneumonia deaths with a set of tried and tested interventions


PROTECT children by establishing good health practices from birth

Exclusive breastfeeding for 6 months
Adequate complementary feeding
Vitamin A supplementation

PREVENT children becoming ill from pneumonia and diarrhoea

Handwashing with soap
Safe drinking water and sanitation
Vaccines: pertussis, measles, Hib, PCV and rotavirus
Reduce household air pollution
Co-trimoxazole prophylaxis for HIV-infected and exposed children

REDUCE pneumonia and diarrhoea morbidity and mortality

Improved care seeking and referral
Case management at the health facility and community level

TREAT children who are ill from pneumonia and diarrhoea

Supplies: low-osmolarity ORS, zinc, antibiotics and oxygen
Continued feeding (including breastfeeding)

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Deaths of children under age 5 in millions

<table>
<thead>
<tr>
<th>Disease</th>
<th>2000</th>
<th>2015</th>
<th>Percentage decline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pneumonia</td>
<td>1.7</td>
<td>0.9</td>
<td>47%</td>
</tr>
<tr>
<td>Diarrhoea</td>
<td>1.2</td>
<td>0.5</td>
<td>57%</td>
</tr>
<tr>
<td>Malaria</td>
<td>0.7</td>
<td>0.3</td>
<td>58%</td>
</tr>
<tr>
<td>Sepsis</td>
<td>0.5</td>
<td>0.4</td>
<td>25%</td>
</tr>
<tr>
<td>Pertussis, tetanus, meningitis</td>
<td>0.5</td>
<td>0.2</td>
<td>59%</td>
</tr>
<tr>
<td>Measles</td>
<td>0.5</td>
<td>0.1</td>
<td>85%</td>
</tr>
<tr>
<td>AIDS</td>
<td>0.2</td>
<td>0.1</td>
<td>61%</td>
</tr>
</tbody>
</table>

Source: WHO and Maternal and Child Epidemiology Estimation Group (MCEE) estimates 2015

Reductions in child mortality for common childhood illnesses, 2000-2015

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FOCUS ON PNEUMONIA

Child pneumonia deaths are concentrated in the poorest regions

Globally, children in the richest households are most likely to be taken for care for their pneumonia symptoms

Percentage of deaths among children under age 5 attributable to pneumonia, 2015
Source: WHO and Maternal and Child Epidemiology Estimation Group (MCEE) provisional estimates 2015

Percentage of children with symptoms of pneumonia taken for care to a health provider, by wealth quintile and region, 2015
Source: UNICEF Global databases 2016 based on DHS and MICS. *Excludes India, **Excludes China, *Excludes India and China. Estimates for year 2015 include data for the 2010-2015 period. Global estimates include 49 countries covering 56% of the under-five population in 2015 (excluding China and India for which data was not available).
Diarrhoea claims the lives of the world’s most vulnerable children

Diarrhoea treatment with ORS is becoming more equal between urban and rural households – but coverage levels are still unacceptably low across almost all regions

Percentage of deaths among children under age 5 attributable to diarrhoea, 2015
Source: WHO and Maternal and Child Epidemiology Estimation Group (MCEE) provisional estimates 2015

Percentage of children under 5 with diarrhoea receiving oral rehydration salt solution, by residence. 2000 and 2015
Source: UNICEF global databases 2016 based on MICS, DHS and other nationally representative sources. Note: Global estimates are based on a subset of 70 countries, covering 50% of population under five 2015 in urban areas and 79% in rural areas. Regional estimates represent data from countries covering at least 50% of regional under five population.
WE KNOW WHAT WORKS: PROTECT, PREVENT AND TREAT

Yet, too few children are benefiting from the key protective, preventative and treatment interventions that save lives.

Countries with improved sanitation facilities have fewer childhood diarrhoea-related deaths.

Relationship between population with improved sanitation facilities and under-5 deaths due to diarrhoea

About the graph:
- The size of each bubble represents the number of deaths caused by diarrhoea annually among children under 5 in the given country or area in 2015. The horizontal axis shows the percentage of population using improved facilities. The vertical axis shows the percentage of under-five deaths caused by diarrhoea in the given country.
**THERE IS GREAT POTENTIAL TO SAVE LIVES WITH HIGH COVERAGE OF THE MOST EFFECTIVE INTERVENTIONS**

Over 12 million children’s lives could be saved by 2030 by scaling up protect, prevent and treat interventions to 90 percent.

![Graph showing estimated lives saved from 2015 to 2030](image)

**Estimated lives saved (2015 to 2030) from scaling up protect, prevent and treat interventions**

Source: Johns Hopkins University, Lives saved estimates using the Lives Saved Tool (LiST), October 2016

We need greater targeted financial investments to make this happen; yet pneumonia and diarrhoea continue to receive only a fraction of global health investments.

![Graph showing trends in disbursements targeting diarrhoea and pneumonia relative to child health disbursements](image)

**Trends in disbursements targeting diarrhoea and pneumonia relative to child health disbursements**

Source: Estimates based on the Countdown to 2015 dataset on ODA+ for reproductive, maternal, newborn, and child health.
Healthy children are the foundation of robust economies and thriving communities and nations; they are the lifeblood of sustainable development. But without greater investments from governments and partners, two of the most preventable and easily treatable childhood illnesses will thwart the achievement of the SDGs, particularly Goal 3 on ending preventable child deaths and reducing mortality.

Targeted funding to scale up effective in-country programme implementation will be critical in driving progress towards the 2030 SDG agenda.

Implement protect, prevent and treat interventions and allocate targeted national and donor financing.

Invest in front line health services, including community management, to reach vulnerable populations and ensure rapid assessment and treatment.

Improve household survey data collection, health management information systems and vital registration to better estimate the burden of diarrhoea and pneumonia and monitor treatment.

Guarantee access to essential commodities -- such as ORS and zinc for diarrhoea; and medical oxygen and Amoxicillin dispersible tablets for pneumonia.

Leverage tools and innovations to increase coverage in hard to reach places.

Faster progress to end pneumonia and diarrhoea deaths is critical to achieving the Sustainable Development Goals.

We need coordinated efforts to:

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This brochure was prepared by UNICEF’s Data & Analytics Section, Division of Data, Research, and Policy in collaboration with Health Section, Programme Division.

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For the full report including references, indicators and definitions, please visit: uni.cf/oneistoomany