



Pneumonia: a global cause without champions

Every 2 min three children will die from pneumonia, the leading infectious cause of child mortality globally, killing more children than diarrhoea and malaria combined.¹ In 2016, the disease killed an estimated 880 000 children.² Most were younger than 2 years old. Almost all pneumonia deaths could be prevented through vaccination or early diagnosis and treatment with antibiotics costing less than US\$0.50. Yet childhood pneumonia deaths are falling far more slowly than other major killers. On current trends, there will be 735 000 pneumonia deaths in 2030³—the target date for achieving Sustainable Development Goal (SDG) 3 target 3.2 of “ending preventable child deaths”.

Despite this sombre backdrop, pneumonia barely registers on the radar of global health priorities. This year the World Health Assembly endorsed a WHO Programme of Work for 2019–2023 aimed at advancing universal health coverage (UHC).⁴ It highlights action on specific diseases, such as malaria, tuberculosis, yellow fever, Zika virus disease, and polio. Pneumonia does not appear. No major aid donor has taken up the reins of leadership on pneumonia. Nor is this a disease that galvanises high-profile international campaigns asserting the rights of children at risk. Although there have been some encouraging developments, such as the creation of Every Breath Counts, a public-private coalition committed to ending pneumonia deaths by 2030, high-level political leadership is conspicuous by its absence.⁵ All of which invites an obvious question. Why has childhood pneumonia achieved such limited traction on the

health agendas of governments and the international community? We believe three inter-related and mutually reinforcing factors are at play.

First, the limited progress achieved in combating pneumonia reflects the wider failure of health systems to place equity and the needs of the most marginalised at the centre of strategies for delivering on the 2030 SDGs. Severe pneumonia is the ultimate disease of poverty.⁶ The children at greatest risk are drawn overwhelmingly from the most disadvantaged sections of society. They are more likely to be malnourished, and the least likely to be immunised, accurately diagnosed, and treated. Evidence from south Asia also points to marked gender disparities in treatment rates, with boys accounting for a far greater share of hospital admissions for pneumonia than predicted by disease incidence.^{7,8} This reflects wider social and cultural practices that lead to delays in parents seeking medical help for girls.

Second, middle-class and more affluent constituencies with the strongest political voice in shaping health priorities are insulated from pneumonia risks. Unlike cholera, measles, or HIV/AIDS, severe pneumonia is not easily transmitted across social boundaries. The fact that pneumonia mostly affects impoverished rural areas and urban slums, where communities have limited potential for political mobilisation, diminishes the stake of middle-class constituencies in public action. While prioritising pneumonia makes sense in terms of national health benefits, cost-effectiveness, and equity, these are not the primary drivers of political choice. Interest groups with specific diseases and concentrated urban populations with a political voice are more successful in asserting their claims than highly dispersed, rural, and poor groups confronted by poorly understood disease. International constituencies also have a key role in defining health priorities. Pneumonia is not only socially contained within countries, it is also a disease that poses no global epidemic risks through transmission across borders into rich countries. This matters because the aid priorities of high-income countries are highly sensitive to perceptions of the health security interests of donors.⁹ In short, pneumonia is a disease that can be contained in poor communities of poor countries—and this is a prescription for public policy inertia.

Third, action and global campaigning on pneumonia have been constrained by complexity. The disease can



result from any type of microbial infection. It has multiple causes and a corresponding variety of treatments. While most pneumonia cases are readily treatable, accurate diagnosis is difficult in low-resource settings. No silver bullets, such as insecticide-treated bednets for malaria, are available. Treatment of more severe cases requires efficient referral systems and facilities with oxygen treatment and complex antibiotics. Effective pneumococcal conjugate vaccines (PCVs) can prevent most bacterial pneumonia but not viral pneumonia. Successful action requires the development of integrated health systems with properly trained, supported, and resourced health workers. Interventions to reduce background risks—notably, malnutrition and air pollution—are also important.

The complexity of pneumonia cautions against another set of vertical, disease-specific interventions. The world does not need a global fund for pneumonia. Effective action can only be built on the foundations of strong health systems. That is why accelerated progress towards UHC is a necessary condition for eliminating preventable pneumonia deaths by 2030. However, UHC is not a sufficient condition. All too often, rhetorical adherence to UHC goes hand-in-hand with the skewing of finance, trained health workers, and wider resources towards higher-level health facilities, beyond the reach of the poor, and to affluent constituencies.

We favour the development of comprehensive pneumonia action plans (PAPs).³ Integrated into national strategies for health-system development, these plans set ambitious targets for cutting deaths backed by clear strategies for achieving the targets. The plans would start out by identifying the children and areas at greatest risk—data that are often missing. PAPs would include an audit of provision, including access to trained health workers and the provision of essential medicines, diagnostic equipment, and referral systems. PAPs also need comprehensive implementation strategies and reporting systems to track progress.

Many of the elements needed to drive breakthroughs in pneumonia are well known. With training and support, community health workers can diagnose and treat pneumonia. Ensuring that child-friendly amoxicillin dispersible tablets and simple diagnostic and treatment technologies like pulse oximeters are available could save many lives. Similarly, oxygen concentrators could help ensure that paediatric care units have a sufficient and reliable supply of oxygen at lower cost than

provided through compressed gas cylinders.¹⁰ Yet these technologies are frequently unavailable in low-resource settings.¹¹ Similarly, while Gavi, the Vaccine Alliance has greatly extended access to PCVs, the benefits have been concentrated in low-income countries, leaving millions of children in lower-middle-income countries uncovered.³

Action is also needed at the international level. There is a wider sense that the child survival agenda is losing momentum. An international summit on pneumonia with a remit to galvanise and support national policies could change this picture not only by turning the spotlight on a largely invisible killer but also by building the coalitions and public-private partnerships needed to drive a breakthrough. What is clear is that the continued neglect of pneumonia by national governments and the international community will ensure the SDG pledge to end preventable child deaths becomes a broken promise.

*Kevin Watkins, Devi Sridhar

Save the Children UK, London EC1M 4AR, UK (KW); and Global Health Governance Programme, Usher Institute for Population Health Sciences and Informatics, University of Edinburgh, Edinburgh EH8 9LD, UK (DS)
k.watkins@savethechildren.org.uk

KW is CEO of Save the Children UK. DS served on the Board of Save the Children (2014–16) and is a co-investigator on the NIHR Global Health Research Unit on Respiratory Health at the University of Edinburgh, funding number GHR16/136/109. We declare no other competing interests.

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