

Out of the shadows: shining a light on children with tuberculosis

FOR FAR TOO LONG, CHILDREN with tuberculosis (TB) have remained in the shadows. While there have been tremendous strides made in improving other areas of child health and survival,¹ we have yet to see the parallel advances in pediatric TB. Instead, many children with TB die before they can be diagnosed and treated.

Tuberculosis is often a neglected disease, and for children with TB, it has truly been a silent killer.

Children with TB were not prioritized because it was understood that they were less infectious than adults. This led to very limited resources being dedicated to developing appropriate tools to find, prevent, and treat TB in children.

As the plight of children with TB has become better understood, many individuals and organizations have endeavored to increase the visibility of this issue and, ultimately, improve care. Beginning in 2006, the World Health Organization (WHO) issued guidance for national tuberculosis programs on the management of TB in children, which was updated in 2014. In 2013, members of the Childhood TB subgroup (of the Stop TB Partnership) led efforts with many other partners to develop a Childhood TB Roadmap to advocate for and guide a global response to pediatric TB. The WHO has also supported revision of several national guidelines and training materials to support implementation of new efforts, and has conducted research to quantify the staggering burden of pediatric TB.

The current estimates indicate that 1 million children currently suffer from TB worldwide, more than 136 000 die each year,² and as many as 53 million have latent tuberculous infection.³ However, many believe these numbers underestimate the true extent of the problem. While we know that TB is the leading cause of death among people living with the human immunodeficiency virus (HIV), data are lacking and current estimates don't account for the deaths of children with HIV. Furthermore, pediatric TB is often masked by other diseases—such as pneumonia or malnutrition⁴—which contribute to the underestimation.

As we increasingly shine a light on pediatric TB, we are seeing slowly, but surely, a growing recognition of the contribution it makes to overall child morbidity and mortality. Indeed, new global health priorities and strategies have begun to include TB as a means to further improve child health. The End TB Strategy, the WHO's new 20-year strategy that aims to end the global TB epidemic, specifically focuses on vulnerable groups, including children, and emphasizes the need to deliver universal health coverage (UHC). Based on

these advancements, I hope that TB will also be included in pediatric programs, such as those focused on pneumococcal disease or HIV/AIDS (acquired immune-deficiency syndrome), which have already made important strides in improving child health.

In order to contribute to the overall improvements in child health, we must change the way pediatric TB is identified and treated. Critically, improved pediatric point-of-care diagnostics are necessary to identify those children infected with TB. In addition, we need to develop a short, effective, and child friendly treatment for any form of TB, including MDR-TB (multidrug-resistant TB) or TB associated with HIV infection. And, we need an effective vaccine so that children will be protected from contracting TB at all.

Recent progress in the field shows that improvements in treatment are close to becoming a reality. In 2010, when the WHO changed the dosing guidelines for pediatric TB treatment, no new treatments came to market. However, after sustained advocacy and new investment, it is expected that child-friendly formulations that don't need to be cut or crushed to achieve an appropriate dose will be available in the next several months, offering the opportunity to simplify and improve treatment for children everywhere.

While this reflects important progress, it is only one step. From 2012 to 2013, donors more than doubled the amount they spent on pediatric TB research and development, from US\$10.3 million to US\$25.3 million,⁵ which resulted in the progress we see today. But this is still only a fraction of what needs to be spent on pediatric TB research and development over a 5-year period⁶ to dramatically scale up investments to make the new pediatric TB formulations widely available. We must also develop and provide access to better treatments, diagnostic tools, and prevention methods for children.

Children with TB can be found wherever there are adults with TB. Children with TB can be found among children who suffer from other illnesses. And children with TB can be found among those living in poverty. Unfortunately, all too often, no one is looking. As we turn our focus toward the Sustainable Development Goals and UHC becomes a central target, we must include vigorous expansion of the global response to pediatric TB. It is time for all those who care about the health of children to include a focus on TB prevention, diagnosis, and treatment. This would help identify children with TB and extend treatment to them—taking our children out of the shadows. To do so is both a historic opportunity and

humanitarian imperative, for the health of our world, our families and, most importantly, our children.

DR ERIC GOOSBY
*United Nations Secretary-General's Special Envoy on
Tuberculosis
San Francisco, CA USA
e-mail: eric.goosby@ucsf.edu, david.mckey@ucsf.edu*

Conflicts of interest: none declared.

References

- 1 World Health Organization. Global update on HIV treatment 2013: results, impact and opportunities: WHO report in

partnership with UNICEF and UNAIDS. GENEVA, Switzerland: WHO, 2013.

- 2 World Health Organization. Global tuberculosis report 2015. WHO/HTM/TB/8015.22. Geneva, Switzerland: WHO, 2015.
- 3 Dodd P, Gardiner E, Coghlan R, Seddon J. Burden of childhood tuberculosis in 22 high-burden countries: a mathematical modelling study. *Lancet Global Health* 2014; 2: e453–e459.
- 4 Graham S, Sismanidis C, Menzies H, Marais B, Detjen A, Black R. Importance of tuberculosis control to address child survival. *Lancet* 2014; 383: 1605–1607.
- 5 Treatment Action Group. 2014 Report on Tuberculosis Research Funding Trends 2005–2013. New York, NY, USA: TAG, 2014.
- 6 World Health Organization. Roadmap for childhood tuberculosis: towards zero deaths. WHO/HTM/TB/2013.12. Geneva, Switzerland: WHO, 2013.