

# Foreword

## Stewardship for Science and Vaccines



Tina L. Cheng, MD, MPH  
*Consulting Editor*

Despite the success of vaccines in the modern world, including the rapid development of the COVID-19 vaccine, my state is now experiencing a large measles outbreak and a decline in immunization rates. At the turn of the century, the Centers for Disease Control and Prevention published “Ten Great Public Health Achievements” of the twentieth century in the United States.<sup>1</sup> Vaccination topped the list, a national and global success story. Other achievements included improvements in motor-vehicle safety, control of infectious diseases, safer workplaces, decline in deaths from coronary heart disease and stroke, safer and healthier foods, healthier mothers and babies, family planning, fluoridation of drinking water, and recognition of tobacco use as a health hazard.

More recently, the American Academy of Pediatrics led a campaign celebrating the Seven Great Achievements in Pediatric Research in the last 40 years.<sup>2</sup> Immunizations again led the list, along with reducing sudden infant death through the Back to Sleep campaign, curing a common childhood cancer, saving premature infants with surfactant, preventing HIV transmission from mother to infant, increasing life expectancy for children with chronic illnesses (eg, sickle cell disease, cystic fibrosis), and saving lives with car seats and seat belts. With the expectation of new vaccines for disease old and new, immunizations also featured prominently in pre-pandemic forecasts for the next great achievements in pediatric research.<sup>3</sup>

However, the World Health Organization listed vaccine hesitancy as one of the “Ten Threats to Global Health in 2019.”<sup>4</sup> This pre-pandemic cautionary note presaged a surge in vaccine hesitancy, despite the tremendous success of the COVID-19 vaccine.

Pediatric clinicians witness the success of vaccines firsthand. I remember seeing patients with *Hemophilus influenzae* type b infection during my training. Most trainees today will not see such a patient. By building trust with children, adolescents, families,

and communities, we play a critical role in overcoming unwarranted vaccine hesitancy. Guest editors and authors in this issue lead us forward in our science-based responsibility to protect children.

Tina L. Cheng, MD, MPH  
University of Cincinnati  
Cincinnati Children's Research Foundation  
Cincinnati Children's Hospital Medical Center  
3333 Burnet Avenue MLC 3016  
Cincinnati, OH 45229-3026, USA

*E-mail address:*  
[Tina.cheng@cchmc.org](mailto:Tina.cheng@cchmc.org)

## REFERENCES

1. Ten Great Public Health Achievements, United States, 1900-1999. *MMWR Morb Mort Wkly Rep* 1999;48(12):241-3. Available at: <https://www.cdc.gov/mmwr/preview/mmwrhtml/00056796.htm>. Accessed December 17, 2022.
2. Cheng TL, Monteiro N, DiMeglio L, et al. Seven great achievements in pediatric research in the past 40 y. *Pediatr Res* 2016;80:330-7.
3. Cheng TL, Bogue CW, Dover GJ. The next 7 great achievements in pediatric research. *Pediatrics* 2017;139(5):e20163803.
4. World Health Organization. Ten Threats to Global Health in 2019. Available at: <https://www.who.int/news-room/spotlight/ten-threats-to-global-health-in-2019>. Accessed December 17, 2022.