## **Preface**

There is much to be proud of the achievements in global education over the past 15 years. Good planning, funding, and collaborative efforts have contributed to a tremendous increase in access to primary school for many millions of girls and boys in developing countries. Today, there are more schools, more students, and more and better trained teachers than ever before.

And yet, an estimated 264 million children and youth find themselves unable to go to school; many millions more are in school but are not learning at the levels they should. The reasons are complex, but if you are poor, a girl, or living in a rural location—or, as is often the case, a combination of these—your chances of success in school are far less likely than others. Where you come from affects not only your education achievements but also your health status and your life chances and opportunities.

For the poorest students, enrolling in school, attending regularly, and learning are often made more difficult by illness, hunger, and malnutrition. In low- and middle-income countries, an estimated 500 million days off school that are due to sickness affect student attendance, concentration, growth, and learning.

Consider Sier Leap, for example. She lives in Cambodia, is in grade 9, and is doing well now. But not so long ago, Sier was struggling in class, her eyes hurt, and she found it difficult to concentrate. Through a school health program delivered by the Ministry of Education, funded by the Global Partnership for Education, and implemented by the World Bank and specialist eye health organizations, Sier was among many thousands of school-age children who had simple vision testing carried out by trained teachers at her school. After a follow-up exam at a nearby health clinic, she received glasses to correct her vision and transform her life. Sier is happier and more confident now, performing well in school and hoping to become a lawyer.

Schools can be effective places to support children's health, and some countries are implementing school health programs. The 2017 report of the International Commission on Financing Global Education Opportunity highlighted some of the best-proven health practices for increasing enrollment, attendance, participation, and learning for primary school—age girls and boys. It highlighted school-based malaria prevention, feeding, water and sanitation, and deworming. For girls, in particular, investments in comprehensive sexuality education, reproductive health knowledge and related services, and sanitary facilities are effective in supporting enrollment and retention.

Optimizing Education Outcomes draws on the latest evidence and analysis available in volume 8, Child and Adolescent Health and Development of Disease Control Priorities, third edition (DCP3). It makes clear the synergies between education and health investments and outcomes. It also confirms that our efforts and resources must focus on both health and education to achieve further gains in human development and progress toward the Sustainable Development Goals. Long-term goals in health are unattainable without an educated population, and children cannot learn if they suffer from the effects of poor health and nutrition.

DCP3 volume 8 proposes a package of school health investments that can effectively address the most pressing health problems and health knowledge needs of school-age children in low- and lower-middle-income countries. It contains evidence that policy makers, practitioners, and planners can use to make the case for high-return, affordable school health interventions to improve not only school-age children's health and development, but also their participation and learning.

For school-age children between ages 5 and 14, selected vaccinations, vision screening, insecticide-treated

mosquito net promotion and use to prevent malaria, deworming in high-load areas, and school meals are among the report's recommendations. It calls also for older children, ages 10 to 19 approximately, to have access to healthy lifestyle and comprehensive sexuality education, adolescent-friendly health services within schools, and mental health education and counseling.

School-age children—approximately 400 million worldwide—typically have the highest burden of worm infection of any age group. They struggle with fatigue, sickness, anemia, and malnutrition, which in turn keep them out of school or sap their ability to concentrate and learn. However, for a cost of less than US\$0.50 a year, school-based deworming can reduce absenteeism by up to 25 percent, and the benefits of school health interventions can be dramatic and immediate.

Jyoti, age 12, took part in the Indian state of Bihar's school deworming day, along with 18 million other students, half of whom are estimated to be infected. "I felt like I couldn't live any longer," she said. "I had so much trouble, I had stomach pain, nausea. I used to feel like vomiting, it was terrible." She adds, "I took the pill at night, and immediately, in the morning I felt good. I suddenly felt lively and energetic."

To be successful, school health programs need to be designed and implemented and funded in collaboration with others. The Global Partnership for Education has supported teams from ministries of education and health—in almost one-third of the countries we

support—to do the necessary planning work to ensure that teachers and health workers, local communities, and students work together to implement effective schoolbased health programs. Many also include programs that alleviate hunger and provide healthy school environments in their national education sector plans.

Optimizing Learning Outcomes sets out the latest evidence to support ministries of education, health, and finance to review existing programs for children's health in school and invest in what works. Their goal is to increase student health, well-being, participation, and learning. This makes sound economic sense, increasing the effectiveness of investments that are beneficial for students now and that build stronger societies and more successful economies in the future.

Implementing these essential packages for schoolage children and adolescents will help secure a healthy, better-educated, successful, and more prosperous future for up to 870 million children and young people in the poorest countries. The clock is ticking toward 2030, the deadline the world has set to educate all the world's children. The time is right to work together, across sectors, in a collaborative effort to ensure all girls and boys are healthy and able to complete a free, equitable, and quality primary and secondary education.

**Julia Gillard** Board Chair, Global Partnership for Education and former Prime Minister of Australia