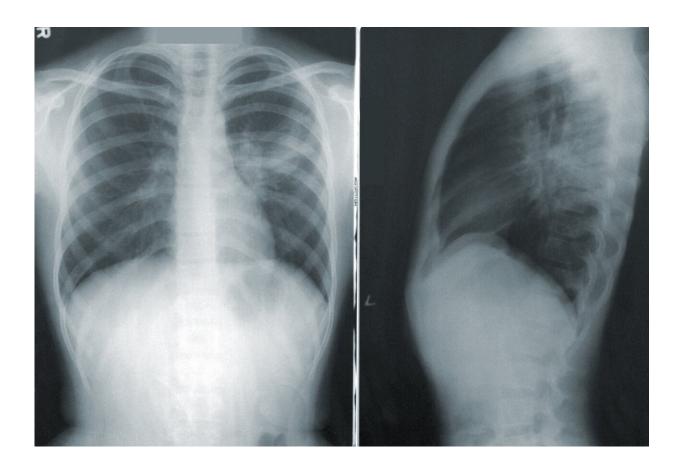


## Global efforts to reduce infectious diseases must extend beyond early childhood

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Global efforts to reduce infectious disease rates must have a greater focus on older children and adolescents after a shift in disease burden onto this demographic, according to a new study.



The research, led by Murdoch Children's Research Institute and the Institute for Health Metrics and Evaluation, has found that infectious disease control has largely focused on children aged under five, with scarce attention on <u>young people</u> between five and 24 years old.

Published in *The Lancet*, the study found three million children and adolescents die from infectious diseases every year, equivalent to one death every 10 seconds. It looked at data across 204 countries between 1990 and 2019 from birth to 24 years of age.

Diarrhea, pneumonia and malaria account for two-thirds of infectious diseases and death among children and adolescents. HIV and tuberculosis were the leading causes among older adolescents.

The shift in infectious disease burden from young children to older children and adolescents, was largely driven by the considerable infection control efforts targeting children under five years in low-income countries and slower progress made across the older age groups. In 1990, 85 percent of the infectious disease burden was among children younger than five years, however by 2019 this decreased to 75 percent.

More than half of the deaths among children and adolescents in low to middle-income countries were caused by infectious diseases, compared with 6 percent in high-income countries. India, Nigeria and Pakistan carried the greatest disease burden.

In Australia, the infectious diseases that cause the greatest burden from birth to 24 years are upper respiratory tract infections, such as sinusitis and tonsilitis, and infectious skin conditions like shingles and cellulitis. The leading causes of disease burden in high-income countries are associated with conditions that led to disability, highlighting a need to look beyond just death rates to focus more on the impact of a disease on a person's life.



Murdoch Children's Dr. Jessica Kerr said the policy focus must be widened to include older children and adolescents and more action taken to prevent tuberculosis and HIV.

"Most deaths from infectious diseases are in children younger than five years, so while reducing this has been a historical achievement, it should not be our only focus," she said.

"The significant reduction has driven a shift in disease burden from young children to older children and adolescents, reinforced by the almost exclusive focus on younger children by infectious disease control programs. There is currently an unmet health need among older children and adolescents and we need the global community to push for policy change and funding to address this."

Murdoch Children's Professor Peter Azzopardi said the research would have important implications for global policy, financing, <u>resource</u> <u>allocation</u> and <u>health systems</u>, especially in light of recent health crises.

"The COVID-19 pandemic and recent epidemics of Zika virus, Ebola and severe acute respiratory syndrome underscore the urgent need to take stock of infectious disease control," he said. Some of these emergent diseases have affected adolescents more than younger children, challenging the almost exclusive focus on younger children within existing infectious disease control.

"The findings highlight the need for health systems, particularly in <u>low-income countries</u>, to continue to build capacity and scale up trusted interventions like immunization programs. But there must also be investment in broader approaches that address social barriers such as adolescent males with HIV having better access to health care."

Murdoch Children's Professor Susan Sawyer said that the COVID-19



pandemic rightly focussed global attention on infectious diseases.

"This study reminds us of the importance of addressing the emerging, as well as the established, <u>infectious diseases</u>, especially in those aged 5-24 years who have too often been neglected by policy and programming," she said.

**More information:** The unfinished agenda of communicable diseases among children and adolescents before the COVID-19 pandemic, 1990–2019: a systematic analysis of the Global Burden of Disease Study 2019, *The Lancet* (2023). DOI: 10.1016/S0140-6736(23)00860-7

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