

# Incidence of childhood diabetes up globally

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Childhood diabetes is an increasing global health challenge, according to a study published online July 3 in *JAMA Pediatrics*.

Kexin Zhang, from Affiliated Hospital of Weifang Medical University in China, and colleagues examined trends in the burden of childhood diabetes as measured by incidence, [mortality](#), and disability-adjusted life-years (DALYs) at the global, national, regional and Sociodemographic Index (SDI) subgroup levels (1990 to 2019). Analysis included 1.4 million children from birth to age 14 from 204 countries.

The researchers found that cases of childhood diabetes increased by 39.37 percent from 1990 to 2019. Over the time period, the global incidence rate increased from 9.31 to 11.61 per 100,000 population, while the diabetes-associated death rate decreased from 0.38 to 0.28 per 100,000 population. The highest childhood diabetes-associated mortality rate in 2019 was seen in the lowest SDI region. North Africa and the Middle East saw the largest increase in incidence (estimated annual percentage change, 2.06). Environmental/occupational risk, nonoptimal temperature, high temperature, and low temperature were key global risk factors for childhood diabetes-associated mortality.

"Despite the global decline in deaths and DALYs, the number of deaths and DALYs remains high among children with diabetes, especially in low SDI regions," the authors write. "Diabetes is a major health issue among [children](#), and accurate estimation of its burden is essential for developing targeted prevention and treatment approaches."

**More information:** Kexin Zhang et al, Global, Regional, and National Epidemiology of Diabetes in Children From 1990 to 2019, *JAMA Pediatrics* (2023). [DOI: 10.1001/jamapediatrics.2023.2029](https://doi.org/10.1001/jamapediatrics.2023.2029)

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