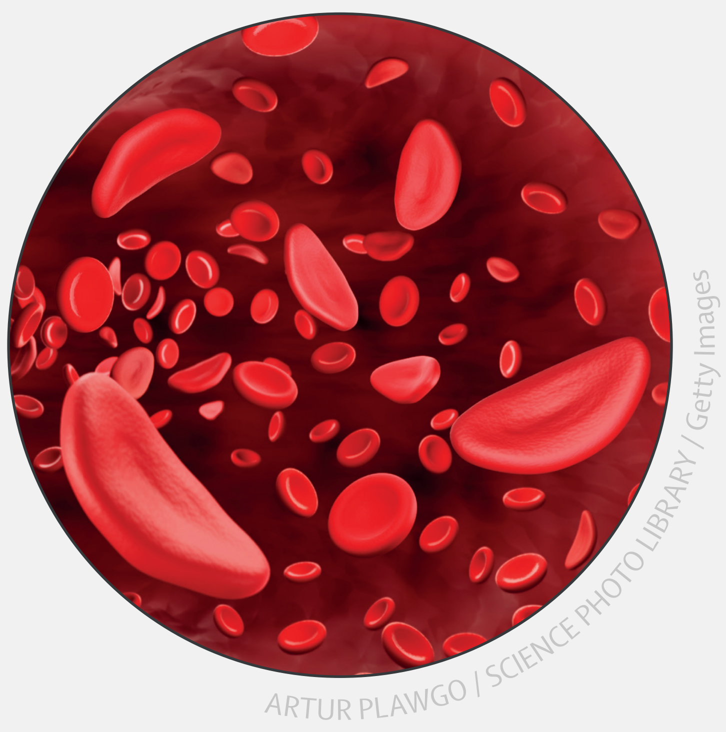
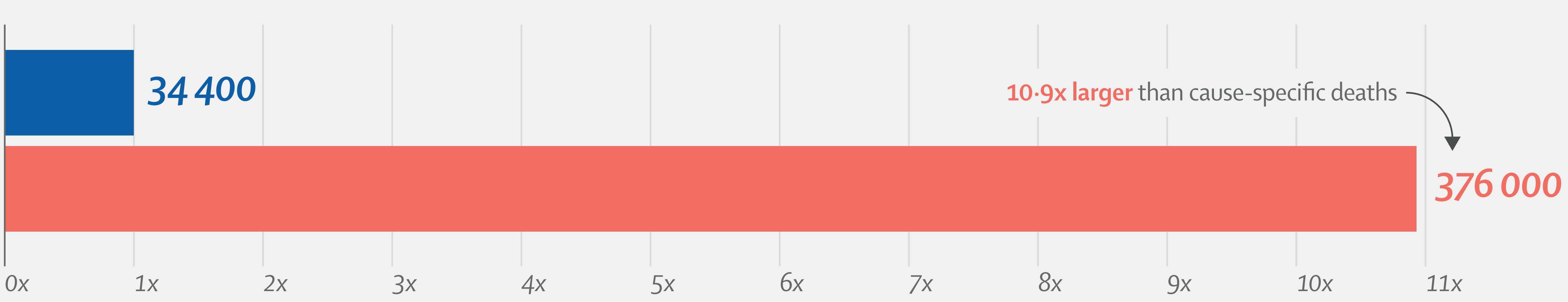
Sickle cell disease—global mortality burden is nearly 11 times higher than recorded

A *Lancet* study—the first to estimate the full global mortality burden of Sickle Cell Disease (SCD)—has revealed a strikingly high contribution of SCD to all-cause mortality that is not apparent when each death is assigned to only a single cause.

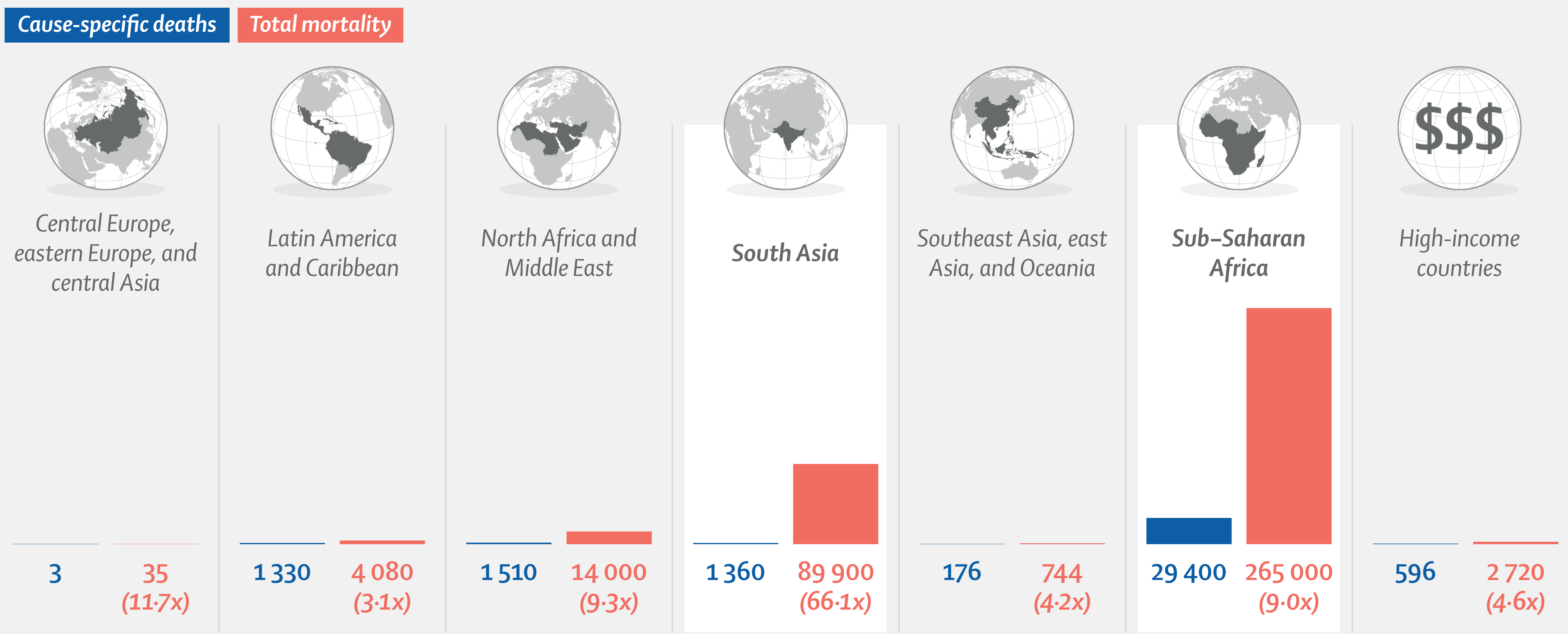

ARTUR PLAWGO / SCIENCE PHOTO LIBRARY / Getty Images

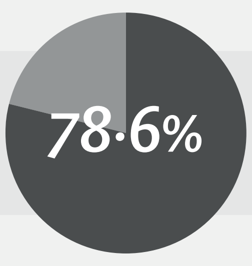
Global SCD-related deaths in 2021



The mismatch is especially pronounced in south Asia and sub-Saharan Africa.

SCD-related deaths in 2021, by GBD super-region

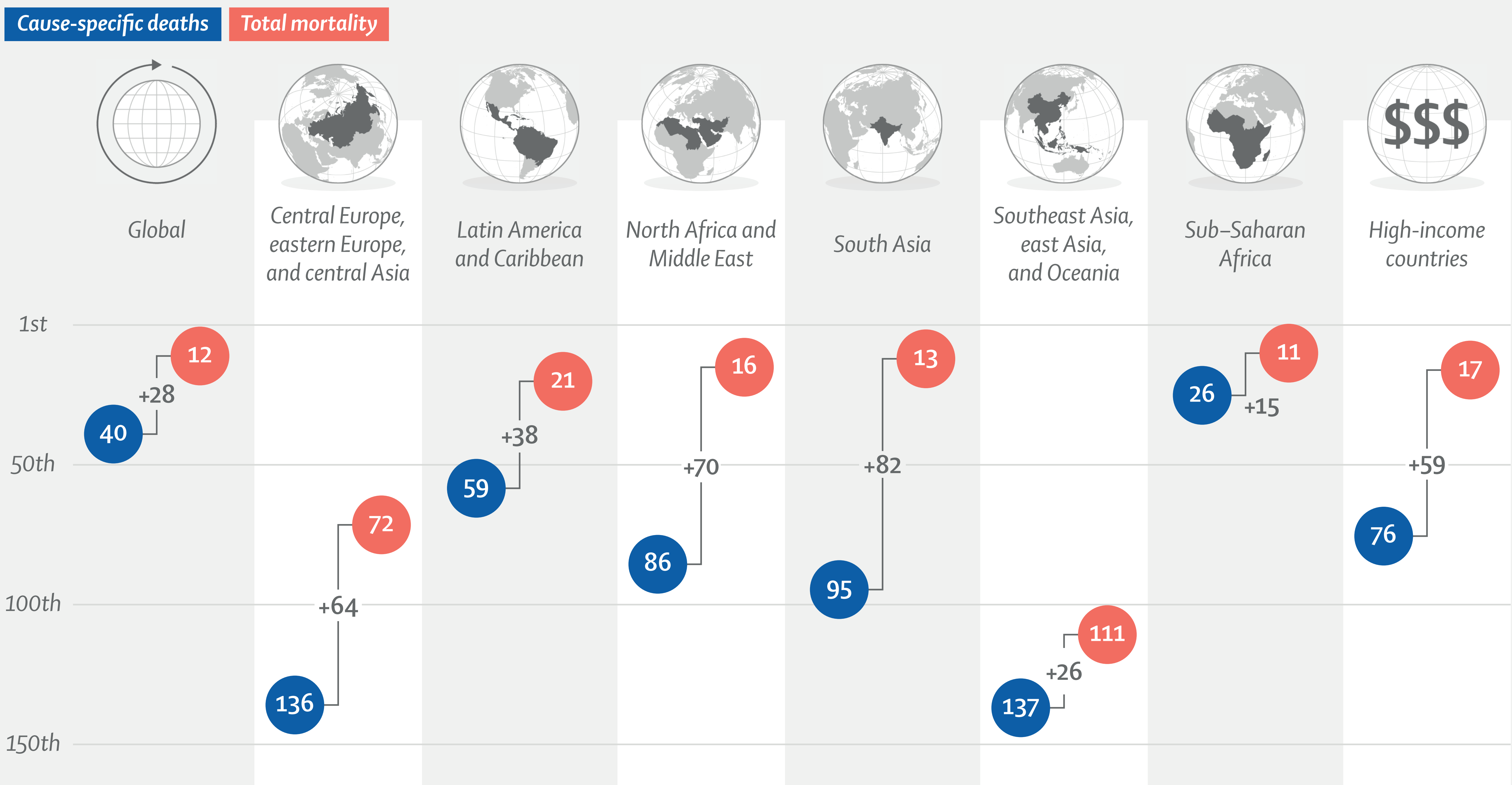




Over half a million babies were born with SCD in 2021 — **more than three quarters of whom were born in sub-Saharan Africa.**

Total SCD mortality ranks 12th in all leading causes of death in children younger than 5 years globally, 28-places higher than cause-specific SCD mortality, demonstrating the enormous and under-appreciated burden of the disease.

Rank amongst all leading causes of death of children younger than 5 years in 2021, by GBD super-region



The vast differences identified by the study also:

Illuminates the enormous vulnerability of people with SCD both in childhood and beyond.

Suggests potential shortcomings of a one death to one cause heuristic.

Highlights substantial data gaps in both SCD disease frequency and its consequences.

The study's authors recommend:

Health systems should integrate routine SCD surveillance, with universal screening as early in life as possible, prevention of complications, and improved access to treatment.

Particular attention should be made toward the broad and targeted implementation of these supportive measures **in sub-Saharan Africa and south Asia.**

Further research should assess SCD as both a cause and a risk factor for other diseases and injuries and develop and disseminate new therapeutics to reduce SCD burden.

Read the full study at thelancet.com

GBD 2021 Sickle Cell Disease Collaborators. Global, regional, and national prevalence and mortality burden of sickle cell disease, 2000–2021: a systematic analysis from the Global Burden of Disease Study 2021. *Lancet Haematology* 2023. Published online June 15. https://doi.org/10.1016/S2352-3026(23)00118-7