

## Research Compact

### Tags

Sepsis, Global

### Title

**Global, regional, and national sepsis incidence and mortality, 1990-2017: analysis for the Global Burden of Disease Study**

### Authors

Rudd KE\*, Johnson SC, Agesa KH, [...], Angus DC, Murray CJL, Naghavi M

\*Corresponding author: Department of Critical Care Medicine, University of Pittsburgh, Pittsburgh, PA, USA

### Source

2020, Lancet, [https://doi.org/10.1016/S0140-6736\(19\)32989-7](https://doi.org/10.1016/S0140-6736(19)32989-7)

### Aim of the study

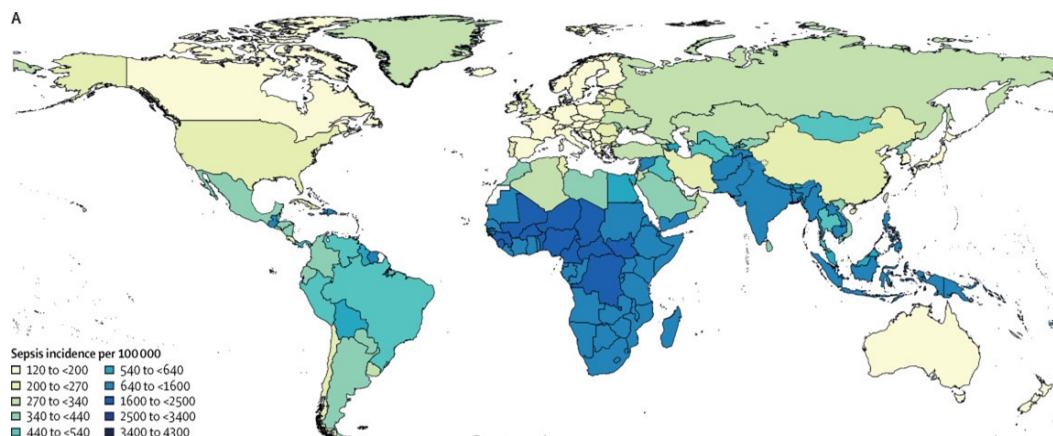
Sepsis is a life-threatening condition and is considered a major cause of health loss. However, data on the global burden of sepsis are limited. This study aims to estimate the global, regional and national incidence of sepsis and the resulting mortality.

### Methods

All data were extracted from Global Burden of Diseases (GBD) until 2017. A cause-of-death analysis of 109 million individual deaths was carried out to position sepsis among the 282 death causes in GBD. The sepsis-related death percentage was modelled using linear regression. In total 8.7 million hospital records were used to calculate in hospital sepsis-associated case fatality.

### Results

48.9 million incident cases of sepsis were documented in 2017 worldwide, which resulted in 11 million sepsis-related deaths representing approximately 19.7% of all global deaths. However, the sepsis incidence decreased by 37%, while the sepsis mortality decreased by 52.8% from 1999 to 2017. The highest sepsis incidence and sepsis-related burden was detected in sub-Saharan Africa, Oceania, south, east and southeast Asia.



Age-standardized sepsis incidence per 100,000 population in 2017

### Conclusion

**Sepsis is responsible for every fifth death worldwide and is therefore still one of the major threats to health. These results are frightening, especially since sepsis can be prevented through appropriate measures.**