

Survival after general anaesthetic dramatically improved worldwide over past 50 years

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Survival after a general anaesthetic and within 48 hours of surgery has greatly improved worldwide over the past 50 years, according to the second Article in *The Lancet* surgery-themed issue.

The paper uses data from 87 studies spanning more than six decades to analyse trends in death due to anaesthesia and soon after surgery involving more than 21.4 million [anaesthetics](#) given in countries around the world.

The estimates suggest that despite the fact that more operations are carried out on patients who are considered high-risk or who need more complicated surgeries now than in the past, the likelihood of dying after a [general anaesthetic](#) has dropped by roughly 90%—from an estimated 357 per million before the 1970s to 34 per million in the 1990s. During the same period, the risk of dying from any cause within 48 hours of surgery (perioperative mortality) has decreased by about 88%—from an estimated 10 603 per million before the 1970s to 1 176 per million in the 1990s.

"Although this declining pattern was evident in both developing and [developed nations](#), the greatest and most progressive decline has been in [developed countries](#). Overall rates of perioperative and anaesthetic-related mortality have consistently been much higher in developing countries and remain two to three time higher than in developed

nations"*, explains Daniel Bainbridge from the University of Western Ontario in Canada who led the research.

He concludes by calling for evidence-based interventions to be put into practice to reduce the disparities between high-income and low-income countries, adding that, "Although anaesthetic mortality remains low compared with [traffic fatalities](#) or suicide, it still remains high compared with death caused by air travel, which is a commonly used yardstick to benchmark the risk of [anaesthesia](#)."

Writing in a Comment, Michael Avidan from Washington University School of Medicine and Sachin Kheterpal from the University of Michigan Medical School in the USA state, "Bainbridge and colleagues have played a crucial part in confirming [disparities](#) in perioperative health care between developed and developing countries and in showing that drastic improvements in outcomes are feasible. Their findings should inspire us to apply perioperative practices with demonstrable effectiveness to under-resourced settings. Most importantly, we must target gains in short-term, intermediate, and long-term postoperative outcomes across the globe."

More information: [www.thelancet.com/journals/lan... \(12\)60990-8/abstract](http://www.thelancet.com/journals/lan... (12)60990-8/abstract)

Provided by Lancet

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