

Global measles mortality has fallen 74 percent between 2000 - 2010, short of the 90 percent target

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In 2008 all WHO member states endorsed a target of 90% reduction in measles mortality by 2010 over 2000 levels. But new research from WHO, Penn State University, and the US Centers for Disease Control and Prevention (CDC), published Online First by *The Lancet*, shows that measles mortality has fallen 74% across the decade. The study is by Dr Peter Strebel, Department of Immunization, Vaccines and Biologicals, WHO, Switzerland, and colleagues, and is published to coincide with WHO's World Immunization Week.

In 2007, investigators reported that the global goal to reduce measles deaths by 50% by 2005, compared with 1999, had been achieved. WHO member states then decided on an even more ambitious target of a 90% reduction between 2000 and 2010. Endemic transmission of measles virus was interrupted in the Americas in 2002, and four of the remaining five WHO regions (all except southeast Asia) have set target dates for measles elimination by 2020 or earlier.

To assess progress towards the 2010 global measles [mortality reduction](#) goal, the authors of this new study developed a new model that, unlike previous models, uses [surveillance data](#) objectively to estimate both incidence and the [age distribution](#) of cases, accounts for herd immunity, and uses robust statistical methods to estimate uncertainty.

Estimated global measles mortality decreased 74% from 535 300 deaths

in 2000 to 139 300 in 2010. Measles mortality was reduced by more than three-quarters in all WHO regions except the WHO southeast Asia Region. India accounted for 47% of estimated measles mortality in 2010, and the WHO African region accounted for 36%. Southeast Asia excluding India accounted for 8% of measles deaths in 2010, the Eastern Mediterranean Region 7%, the Western Pacific Region 2%, and the Americas and Europe less than 1% each.

The authors suggest India's relatively low [measles vaccine](#) coverage (74%) is the reason why measles remains a major cause of death in the country. It lags behind even Africa, on 76%. Southeast Asia excluding India had 79% coverage in 2010, with the Eastern Mediterranean on 85%, the Americas 93%, Europe 95% and Western Pacific 97%. The global coverage for measles vaccination overall was 85%. Over 1 billion doses of measles vaccine were delivered through supplementary mass vaccination campaigns in the last decade, and were the main driver behind the huge fall in mortality.

The authors conclude: "Despite rapid progress in measles control from 2000 to 2007, delayed implementation of accelerated disease control in India and continued outbreaks in Africa stalled momentum towards the 2010 global measles mortality reduction goal. Intensified control measures and renewed political and financial commitment are needed to achieve mortality reduction targets and lay the foundation for future global eradication of measles."

In a linked Comment, Dr Walter A. Orenstein, School of Medicine and Emory Vaccine Center, Emory University, Atlanta, GA, USA and Dr Alan R. Hinman, Center for Vaccine Equity, Task Force for Global Health, Decatur, GA, USA, say: "Measles eradication is biologically feasible and while no formal eradication goal has yet been set, progress on the mortality reduction goal will lead to consideration for an eradication goal."

They conclude: "This paper highlights critical gaps in available data to guide prevention programs; surveillance and vital record registrations are inadequate in much of the world. What is most needed is not more sophisticated ways to estimate mortality, but to measure mortality directly. As [measles](#) is considered for eradication, it will be critical to improve surveillance to the point that deaths and cases will actually be measured, not estimated."

More information: Online: [www.thelancet.com/journals/lan ...](http://www.thelancet.com/journals/lan...)
 [\(12\)60522-4/abstract](http://www.thelancet.com/journals/lan...)

Provided by Lancet

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