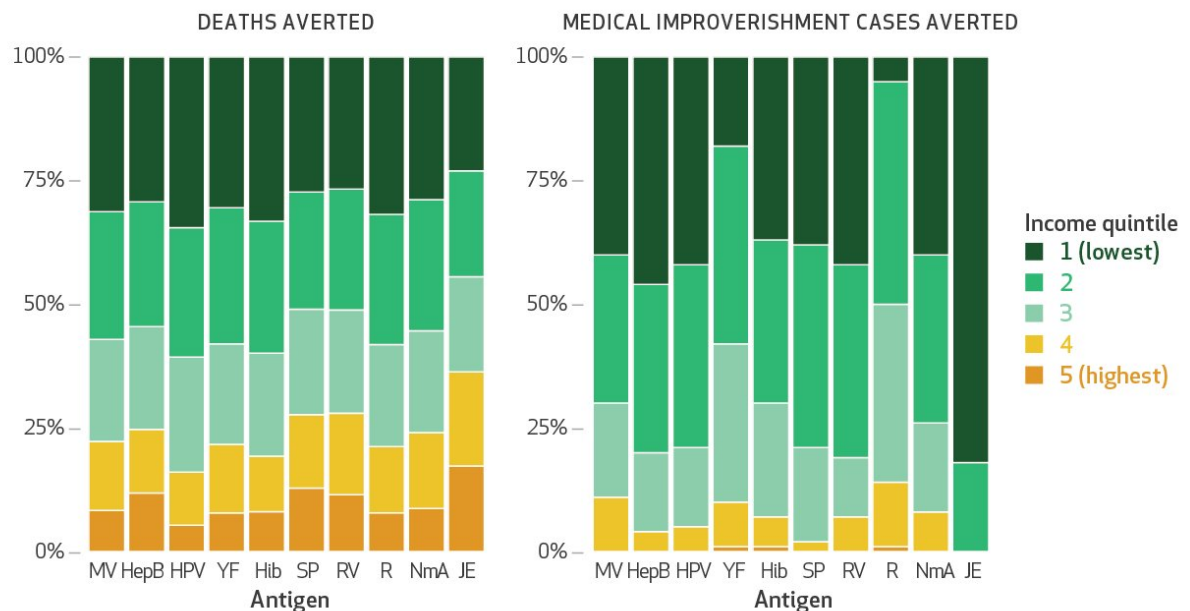


# For world's poorest, vaccines prevent deaths, medical impoverishment

February 5 2018

Distribution, by income quintile, of deaths averted and cases of medical impoverishment averted by vaccines to be administered in 41 low- and middle-income countries, 2016–30



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The distribution, by income quintile, of deaths averted and cases of medical impoverishment averted by vaccines to be administered in 41 low- and middle-income countries, 2016-30 Credit: *Health Affairs*

Vaccines have enormous impact not just on health, but on keeping

people out of poverty, according to a new study led by researchers from Harvard T.H. Chan School of Public Health. They estimated that increased investments in 10 vaccines administered in low- and middle-income countries over a 15-year period could avert up to 36 million deaths and 24 million cases of medical impoverishment.

The study will be published February 5, 2018 in the February issue of *Health Affairs*.

"This study explicitly points at how investing in vaccines in low- and [middle-income countries](#) can have a broad health and economic impact," said Stéphane Verguet, assistant professor of global health. "Policy makers should look at targeted vaccine programs as powerful mechanisms for improving health equity and reducing poverty."

The researchers developed a mathematical model to estimate the impact of distributing 10 vaccines—measles, hepatitis B, human papillomavirus, yellow fever, *Hemophilus influenzae* type b, *Streptococcus pneumoniae*, rotavirus, rubella, *Neisseria meningitidis* serogroup A, and Japanese encephalitis— in 41 low- and middle-income countries from 2016-2030.

They found that the poorest households would likely receive the most benefit from increased access to vaccines, as they are at higher risk, are limited in their use of [health](#) care, and consequently are more vulnerable to [vaccine](#)-preventable diseases.

- The largest share of deaths averted by vaccines was in the lowest income quintile.
- All vaccines led to an important reduction in the number of cases of medical impoverishment.

"Vaccines prevent not only diseases but also impoverishment. This is why it is so important that everyone, especially the poor, have timely

access to high quality vaccines," said first author Angela Chang, who was a doctoral candidate at Harvard Chan School when the research was completed and is currently a postdoctoral fellow at the Institute for Health Metrics and Evaluation, University of Washington.

**More information:** "The Equity Impact Vaccines May Have On Averting Deaths And Medical Impoverishment In Developing Countries," Angela Y. Chang, Carlos Riumallo-Herl, Nicole A. Perales, Samantha Clark, Andrew Clark, Dagna Constenla, Tini Garske, Michael L. Jackson, Kévin Jean, Mark Jit, Edward O. Jones, Xi Li, Chutima Suraratdecha, Olivia Bullock, Hope Johnson, Logan Brenzel, and Stéphane Verguet, *Health Affairs*, online February 5, 2018, [DOI: 10.1377/hlthaff.2017.0861](https://doi.org/10.1377/hlthaff.2017.0861)

Provided by Harvard T.H. Chan School of Public Health

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