

Exploring the Economic Impact of Vaccine Investment

Choosing the Path to a Healthier Economy

Vaccines can help people live healthier, more productive lives – and they can lead to economic growth. New research shows¹ that a country's improved vaccination rate can boost their economic growth. Follow the paths below as we see how an early investment in vaccines could lead to substantial gains, and how deprioritizing vaccines could disadvantage a country's economy and health.



Improving the vaccination rate of a typical country by a mere 1% can lead to measurable improvements in economic growth.

For example, if a typical low-income country were to invest \$20 in vaccination per child, the estimated economic gains would translate into an additional \$2.3 billion to that country's Gross Domestic Product (GDP) over the subsequent 15 years. This research shows that the benefit of vaccination extends beyond that child and family to benefit the entire economy as the country grows.

A vaccination campaign requires a trained workforce to administer the vaccines.

Improving vaccination rates can often mean job growth for healthcare workers and other professions that support health-care delivery, resulting in more people contributing to a country's economy.



As healthcare workers go into more communities to administer vaccines, previously unknown issues with healthcare infrastructure will come to light. **Investing jobs and capital to fix these problems can help grow the economy.**



Vaccinated babies are more likely to stay healthy. This enables kids to go to school, parents to stay at work, and children to grow into healthy adults. Economies prosper when there is a healthy, productive workforce.



Investing in vaccination now can create a future generation of healthier adults to enter the workforce and contribute to growing the economy through their earnings and expertise. This growing economy then re-invests in vaccines, advancing the cycle of growth and prosperity. At 5 years, GDP growth rate is 0.05% faster for every 1% increase in the Diphtheria, Tetanus, and Pertussis (DTP) rate. After 15 years, GDP growth rate is 0.08% faster for every 1% increase in the DTP rate.

Research Conclusion

New evidence supports that vaccines can have a positive impact on a country's economic prosperity.

The research also suggests that declines in vaccination rates would hinder a country's long run GDP growth rate. As middle income countries begin to graduate from worldwide programs like Gavi, The Vaccine Alliance, it's critical that finance and health ministers alike recognize the importance of investment in immunization to help drive a healthier population and stronger local economy.

Research Considerations

Researchers studied factors that determine economic growth over time by controlling for the "starting conditions" in each country and looking at differences in education, capital investment, and other factors. All such studies face limitations in interpretation driven by incomplete data, limited time frame, missing variables, etc. Although the framework is designed to mitigate and check for causality issues, one cannot be certain that any particular variable causes any particular result. Further, the researchers used DTP (diphtheria, tetanus, pertussis) as a proxy for broader-based vaccination efforts based on the strong correlations between vaccine coverage levels, but these results should not be interpreted to suggest that any particular vaccine is solely responsible for the results.

¹Masia, N.A., et al. Vaccination and GDP Growth Rates: Exploring the Links in a Conditional Convergence Framework. *World Development* (2017).

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