

*The value of vaccination:
Examining the long-term economic consequences of vaccines*

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In this project, we undertake a holistic valuation of vaccines in an attempt to gain a long-term, community-wide interpretation of the benefits of childhood vaccination. Previous analyses of the benefits of vaccines typically evaluated only the short-term cost savings of vaccination. The underlying hypothesis is that by avoiding the potential long-term health effects of a disease, a vaccinated child becomes a more productive adult member of the work force. Thus, an individual's potential contributions to the economy, and to society as a whole, are improved with vaccination. To test this notion, we use panel data to examine two child vaccination programs in Matlab, Bangladesh for the effect of childhood vaccination status on educational attainment and asset accumulation in adulthood. The non-experimental implementation of these interventions requires the use of econometric tools such as instrumental variables and propensity-score matching to deal with selection bias and create a representative control group. We find that even partial childhood vaccination yields significant increases in future educational attainment and asset accumulation.