

Resource December 3, 2016

Cost-effectiveness of an Intervention to Increase Immunization Coverage in Pakistan

[cost_effectiveness_pakistan.png](#) [1]



Immunization coverage in Pakistan remains low, at 54% nationwide and 39% in Sindh Province in 2012, despite recent efforts by provincial and national Ministries of Health. The Government of Sindh Province in Pakistan sought technical assistance from the USAID-funded Health Systems Strengthening Project to improve immunization uptake in four low-coverage districts of Jacobabad, Kashmore, Tharparkar, and Thatta. This evaluation estimated the effectiveness and efficiency of the intervention to increase immunization uptake and thereby improve population health. This retrospective analysis used program effectiveness data routinely collected by the implementing partner, John Snow International (JSI), and cost data collected retrospectively from accounting records.

Routine immunization program data included the number of children and pregnant women registered and the number immunized. Using data from epidemiological studies, we estimated the number of cases of vaccine-preventable disease expected to be avoided with immunization and determined the disability-adjusted life years (DALYs) attributable to cases of each vaccine-preventable disease. Cost-effectiveness was calculated using decision-tree analysis.

The analysis found that the total cost to USAID of the immunization promotion program implemented in these four districts was US\$1.56 million. About 440,000 children and 120,000 women were immunized through the program at an overall cost of \$2.80 per vaccination completed. The overall incremental cost-effectiveness ratio comparing it to business-as-usual, from the USAID perspective, was \$1.30 per DALY averted. From the Government of Sindh Department of Health perspective, the

program decreased costs while improving health because of the reduced expenditure overall by not treating the number of vaccine-preventable disease cases averted. The study concluded that the program is cost-saving while improving population health.



[Cost-effectiveness of an Intervention to Increase Immunization Coverage in Pakistan](#) [2]

[Research and Evaluation](#) [3]

Countries: [Pakistan](#) [4]

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[R&E Report](#) [5]

[Reports](#) [6]

[English](#) [7]



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[2]

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[4] <https://www.usaidassist.org/countries/pakistan>

[5] <https://www.usaidassist.org/tags/re-report>

[6] <https://www.usaidassist.org/resource-type/reports>

[7] <https://www.usaidassist.org/language/english>