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Rotavirus diarrhea is a significant cause of morbidity and mortality in Egyptian children aged 0-5 years. Within a birth cohort of 1,799,000 children born in Egypt each year, 3000 die before they reach the age of five, while close to 1,709,000 will have become ill with rotavirus by the age of five. The Egyptian Ministry of Health and Population (MoHP) is the main payer of health care and responsible for administering the Expanded Program on Immunization within the country. A cost-benefit analysis, from the perspective of the MoHP, based on available local data from published and unpublished sources was conducted to evaluate the economic impact of introducing a rotavirus vaccine to the current national immunization schedule. In our base-case model, we estimated that a vaccination program would prevent 1,074,799 episodes of diarrhea, 413,133 outpatient visits, 44,770 hospitalizations and save 2,707 lives, resulting in direct medical costs savings to the MoHP of \$13,541,577.21 (78,405,732.05 LE). It was estimated that the introduction of the vaccine would cost the MoHP \$32,475,826.75 (188,035,036.87 LE) in health expenditures. This equates to a benefit-cost ratio of 0.0726:1 and an incremental cost of \$30.22 (174.95 LE) per infection prevented. (Received September 19, 2005)