

# Economic Costs Of Chikungunya Virus In Colombia

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## Abstract

**Objective:** The aim of the present study was to estimate the economic impact of chikungunya virus (CHIKV) infection in Colombia from a societal perspective. **Methods:** We conducted a retrospective, bottom-up cost-of-illness study in clinically confirmed cases during the first chikungunya (CHIK) outbreak in Colombia in 2014. Direct and indirect costs were estimated per patient. Economic costs were calculated by the addition of direct costs (direct medical costs and out-of-pocket health expenditures) and indirect cost as a result of loss of productivity. **Results:** A total of 126 patients (67 children and 59 adults) with CHIK were included. The median of the direct medical cost in children was US\$257.9 (interquartile range [IQR] 121.7–563.8), and US\$66.6 (IQR 26.5–317.3) for adults. The productivity loss median expenditures reached US\$81.3 (IQR 72.2–203.2) per adult patient. The median economic cost in adults as a result of CHIK was US\$152.9 (IQR 101.0–539.6), of which 53.2% was a result of indirect costs. Out-of-pocket expenditures comprised 3.3% of all economic costs. **Conclusions:** Our study can help health decision makers to properly assess the burden of disease caused by CHIK in Colombia, an endemic tropical country. We recommend to strength the health information systems and to continue investing in public health measures to prevent CHIK.

## Keywords

Chikungunya Virus; Colombia; Cost; Disease Outbreak; Economic Cost