

# **Budgetary impact analysis of preexposure prophylaxis (prep) strategy for the prevention of hiv in Colombia, 2019-2021**

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## **Abstract**

We aimed to estimate the budgetary impact of a PrEP strategy for the prevention and control of HIV in men who have sex with men (MSM) and transgender women (TGW) in Colombia. We adapted a budgetary impact model developed by Fundação Oswaldo Fiocruz, Brazil. Modelling was performed from the third-payer perspective over a 3-year period. Epidemiological and cost inputs were extracted from literature reviews and Colombian data. Two scenarios were simulated: 1. No PrEP scenario; and, 2. New scenario: MSM and TGW would have access to a PrEP program, which potentially reduce the HIV cases. Costs include the sum of PrEP program costs for MSM and TGW, and the treatment costs of cases that will occur in the 3-years of implementation. The new scenario was modelled at different risk and PrEP program coverage levels. Budget impact analysis (BIA) was calculated as the difference between the two scenarios. Cost were reported in Colombian pesos (COP). At a PrEP coverage of 80% and an incidence of 4.5 per 100 person-year would be avoid 4,057, 4,315 and 4,383 HIV cases in MSM for years 1, 2 and 3, respectively. The BIA was COP\$47 billion for year 1; COP\$20 billion for the second, and for the third year the PrEP program would save COP\$11 billion. In TGW, at a PrEP coverage of 80% and an incidence of 7.3 per 100 person-year would be avoid 757, 805 and 817 HIV cases for the three years. The BIA was COP\$3.3 billion, COP\$-2.1 billion and COP\$-8.1 billion, respectively. PrEP strategy should focus on small fractions of the population at high risk, such as those addressed in our study. Our results suggest that PrEP program would avoid cases and save costs for the Colombian health system.

## **Keywords**

VIH, Colombia, Prevention, Control.