# Mortality Rate By Tuberculosis in Colombia, 2012-2021: Regional Inequalities

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#### **OBJECTIVE**

To analyze the temporal trend of tuberculosis mortality rates (TB-MR) in Colombia between 2012 and 2021.

## **METHODS**

This was an ecological time series study of TB-MR in Colombia between 2012 and 2021. Data were extracted from the vital records and population estimates from DANE (Departamento Administrativo Nacional de Estadistica, in Spanish). ICD-10 codes for tuberculosis mortality were A15 to A19 (four characters). Crude mortality rates for TB (MR-TB) per 100,000 people were estimated by sex and year. Trends of MR-TB were analyzed by Joinpoint regression, which recognizes inflection points for temporal analysis.

#### **RESULTS**

The average TB-MR (2012 to 2021) was 2.09 deaths per 100,000 people (95%CI 2.01 - 2.16) in both sex; in women and men were 1.21 (95%CI 1.15 - 1.26) and 3.00 (95%CI 2.88 - 3.12) respectively. The average annual percentage change for both sexes was of 0.9% (95%CI [-0.4, 2.2]) in women was 0.7%(95%CI [-1.2, 2.6]) in men 0.9% (95%CI [-0.7, 2.6]). There were no significant changes during the period. 17 out of 33 states of Colombia were above of national TB-MR. However, 7 of these 17 states had a decrease in the average TB-MR in the second five-year period with respect to the first five-year period. Six states with 19.4% of population (Amazonas, Atlántico, Risaralda, Meta, Caquetá, and Valle del Cauca) were TB-MR above 3,00 per 100,000 people. Compared to Bogota, which had an average TB-MR of 1.37 (95%CI 1.26 -1.54), the regions, according to DANE, (Caribe, Central, Oriental, Orinoquía, Amazonia e Insular, and Pacífica) had MR-TB between 1.6 and 1.9 times higher.

### **CONCLUSIONS**

During the analyzed period, no change in the trend for mortality was found in Colombia. However, a great inequality in the TB-MR between the 33 states of Colombia was observed.







Average of TB-MR, all ages, both sexes by departments in Colombia 2012 - 2021



