



## 266 - COMPARATIVE ANALYSIS OF SUICIDE MORTALITY IN BRAZIL AND PORTUGAL: GLOBAL BURDEN OF DISEASE (GBD) STUDY 2000-2021

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### Resumen

**Background/Objectives:** Suicide deaths are a preventable cause of mortality, and the WHO recognizes suicide as a public health priority. Although Portugal has culturally influenced Brazil, socioeconomic differences may affect its suicide burden. This study aimed to compare suicide death rates in Brazil and Portugal over a 21-year period (2000-2021), based on the Global Burden of Disease (GBD) 2021 results.

**Methods:** We analyzed GBD 2021 estimates of suicide mortality for Brazil and Portugal, by sex and age groups, in 2000 and 2021. Data on deaths came from Brazil's Mortality Information System (SIM) and Portugal's eCertificate Deaths System, adjusted for under-reporting and garbage-code redistribution. Numbers, crude rates, and age-standardized rates (ASMR) were compared by age and sex. We also compared the average age at death by suicide in both countries.

**Results:** In 2021, there were 17,136 suicide deaths in Brazil (95% UI: 16,562-17,693) and 1,233 (95% UI: 1,154-1,313) in Portugal. Compared to 2000, Brazil's total suicides rose by 74.9%, while Portugal's fell by 13.2%. The ASMR in Portugal declined by 31.2%, from 10.5 (95% UI: 10.1-10.9) per 100,000 in 2000 to 7.2 (6.8-7.6) in 2021. In contrast, Brazil's ASMR increased by 19.6%, from 5.9 (5.7-6.1) to 7.0 (6.2-7.3). Crude rates revealed a similar pattern: in Portugal, 13.5 (12.9-13.9) in 2000 vs. 11.6 (10.8-12.4) in 2021 (-13.8%), and in Brazil, 5.61 (5.4-5.7) vs. 7.78 (7.5-8.0) (+38.7%). In Brazil, rates were relatively similar from age 20 onward, whereas in Portugal, the highest rates were found among older adults (#1 70 years). Mean age at suicide was 42.5 (40.8-44.0) in Brazil versus 60.5 (56.0-64.7) in Portugal. In both countries, suicide was higher in men at all ages.

**Conclusions/Recommendations:** Despite socioeconomic differences, Brazil's and Portugal's ASMRs were similar in 2021. However, Brazil has shown rising rates over time, whereas Portugal's have declined. Notable differences in age distribution and similarities in the sex ratio were observed. National suicide prevention plans should focus on men in both countries, emphasizing middle-aged adults in Brazil and older adults in Portugal.