COVID-19 Premature Mortality Productivity Losses. Real World Information Analysis

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Objective. The aim of this analysis is to compare information regarding COVID-19 premature mortality productivity costs/ losses in Brazil .

Methods. The states (S1 versus S2) in northern Brazil randomly chosen had criteria of similarity, tropical climate in most of the study period and population number. The study was carried out from March 2020 through November 2021 (20 months). The reference of salaries to calculate possible losses due to deaths was obtained through accredited institutions, paylab, that study this specific information. Scenario A (Sc. A) = salary R$ 8.613,17 / month , scenario B (Sc. B) R$ 1.281,51 / month. Worker's age range from 15 to 64 years. The regional gross domestic product (GDP) was not used due to biases .

Results. S1, 4,059 million inhabitants, 419,077 cases of confirmed COVID-19 , 8,948 deaths . In the following scenario, salary R$ 8,613.17 / month, (S1, Sc. A) the accumulated losses totaled R$ 1,541,412,903.20 (USD 280,256,891.49 at the rate 1 USD = 5,50 BRL), and (S1, Sc. B) totaled R$ 229,339,029.60 (USD 41,698,005.38). S2, 3,561 million inhabitants, 382,265 cases of confirmed COVID-19, 7,518 deaths . Considering the following scenario, salary R$ 8,613.17 / month, (S2, Sc. A) the accumulated losses totaled R$ 1,295,076,241.20 (USD 235,468,407.49 at the rate 1 USD = 5,50 BRL), and (S2, Sc. B) R$ 192,687,843.60 (USD 35,034,153.38) .

Conclusion. We estimate premature mortality productivity costs associated with COVID-19 across two states in northern Brazil are high and the conclusion is that the productivity losses based on regional GDP are difficult to detail. Further studies are needed to mitigate this situation .