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Fig. 1. The Global Health Security Index (GHSI) overall score vs. the countries’ mortality outcome due to COVID-19 (deaths/million). The countries with highest score in GHSI also had higher mortality rate due to COVID-19 (Argentina, Brazil, Canada, Chile, Colombia, Costa Rica, Ecuador, El Salvador, Mexico, Peru, United States).

\*a = December 31, 2020, b = June 30, 2021, c = December 31, 2021, d = July 15, 2022

Table 1. The linear regression and negative binomial regression models for COVID-19-related outcome and other explanatory variables including the GHSI

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Dates, until | December 31, 2020 | | June 30, 2021 | | December 31, 2021 | | July 15, 2022 | |
|  | IRR (95% CI) | P value | IRR (95% CI) | P value | IRR (95% CI) | P value | IRR (95% CI) | P value |
| GHSI | 1.04 (1.01 – 1.08) | 0.031 \* | 1.03 (1.01 – 1.06) | 0.043 \* | 1.01 (0.99 – 1.04) | 0.251 | 1.01 (0.99 – 1.04) | 0.238 |
| Total cases/million | 1.01 (1.01 – 1.02) | 0.005 \*\* | 1.01 (1.01 – 1.02) | 0.009 \*\* | 1.01 (1.01 – 1.02) | 0.034 \* | 1.01 (1.01 – 1.02) | 0.039 \* |
| The percentage of the population  aged 65 and above | 0.91 (0.72 – 1.15) | 0.351 | 0.90 (0.75 – 1.08) | 0.192 | 0.85 (0.74 – 0.99) | 0.024 \* | 0.85 (0.73 – 1.01) | 0.028 \* |
| WGIs | 1.32 (0.45 – 3.25) | 0.434 | 1.72 (0.78 – 3.46) | 0.067 | 2.45 (1.25 – 4.48) | 0.001 \*\* | 2.57 (1.31 – 4.73) | 0.001 \*\*\* |
| GDP | 0.99 (0.99 – 1.00) | 0.198 | 0.99 (0.99 – 1.00) | 0.356 | 0.99 (0.99 – 1.00) | 0.675 | 0.99 (0.99 – 1.00) | 0.887 |
| Population density | 0.99 (0.98 – 0.99) | 0.026 \* | 0.99 (0.99 – 1.00) | 0.127 | 0.99 (0.99 – 1.00) | 0.262 | 0.99 (0.99 – 1.00) | 0.182 |
| AIC | 435.57 | | 496.11 | | 529.35 | | 540.33 | |