

National Narratives on COVID-19

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Current as of 30 November 2020

The ICAT National Narratives workstream has gathered actuaries from around the globe to collect data and to provide actuarial perspective on events surrounding COVID-19 in the countries they know. One direction we have taken is to gather this collection of case studies in which local actuaries describe the 'national narrative' of their own country. We hope that this actuarial viewpoint will add insight to the actuarial analysis and public understanding of COVID-19.

The first official case of COVID-19 was reported on 1 Dec 2019 in Wuhan, China. Since then almost every country has seen COVID-19 cases, and the most affected countries in terms of cases are the United States, India, Brazil, Russia and France. Ironically, amongst populous countries, China, which was the epicentre of the pandemic, has been successful in curbing the number of cases. Smaller countries like Malawi, New Zealand, Singapore and United Arab Emirates appear thus far to have been successful in controlling the spread of the disease.

Many countries implemented lockdowns requiring citizens to stay at home, though the length and extent of the lockdown was varied. In some countries, this led to dissent, whereas in other countries citizens were compliant. The efficacy of using lockdowns to control the spread of disease is mixed, though it appears that smaller countries see greater success than larger countries. This could be due to the difficulty of enforcing compliance in more heterogeneous populations.

Case fatality ratio, which measures the number of deaths to the number of confirmed COVID-19 cases, reflects the ability of each country's healthcare system to cope with the number of infected cases. In some countries, such as Brazil, the healthcare system was close to collapse due to the shortage of healthcare professionals and hospital wards. Many countries including Brazil, China and Singapore, created temporary hospitals to cope with the increased demand with varying levels of success. Countries that saw a later surge in COVID-19 cases coped better.

This introductory note aims to provide insights to the national response of various countries as documented by fellow actuaries in these countries, with the purpose of providing other actuaries a national context in looking at the emerging mortality and morbidity experience. We recognise that there is an ongoing global effort to gather data and present it in a meaningful and consistent way, and we are excited to find other good sources. One effort that is particularly on point is the Oxford

COVID-19 Government Response Tracker that can be found at <https://covidtracker.bsg.ox.ac.uk/>. That group has devised a stringency index to measure government responses, and they include crowd-sourced information on each country.

The countries profiled in this collection of national narratives are:

- [Brazil](#) – High cumulative cases
- [Ghana](#) – Low case fatality ratio
- [India](#) – High cumulative cases, but still low in comparison to population
- [Malawi](#) – Low cumulative cases
- [New Zealand](#) – Low cumulative cases
- [Poland](#) – Significant cumulative cases
- [Singapore](#) – Low case fatality ratio
- [United Arab Emirates](#) – Low case fatality ratio

As each country has a different population density, political system and healthcare resources, we hope that you would find their responses a fascinating read. As the situation is rapidly evolving, the information is accurate only up to the time of writing. We hope to update these narratives and perhaps add more in about six months, so we would welcome volunteers from other countries to do that.

Top 10 Countries by Cumulative Cases (as of 30 November 2020)

| Country | Cumulative_cases | Case Fatality Ratio |
|--------------------------|------------------|---------------------|
| United States of America | 13,082,877 | 2.02% |
| India | 9,431,691 | 1.45% |
| Brazil | 6,290,272 | 2.74% |
| Russia | 2,295,654 | 1.74% |
| France | 2,179,481 | 2.38% |
| Spain | 1,656,778 | 2.77% |
| United Kingdom | 1,617,331 | 3.60% |
| Italy | 1,585,178 | 3.46% |
| Argentina | 1,413,375 | 2.71% |
| Colombia | 1,299,613 | 2.80% |

Top 10 Countries with Highest Case Fatality Ratio

For countries with at least 50,000 cases.

| Country | Cumulative_cases | Case Fatality Ratio |
|----------------|------------------|---------------------|
| Mexico | 1,100,683 | 9.58% |
| Ecuador | 192,117 | 6.99% |
| Bolivia | 144,592 | 6.19% |
| Egypt | 115,541 | 5.74% |
| China | 93,465 | 5.08% |
| Iran | 948,749 | 5.05% |
| Peru | 960,368 | 3.74% |
| United Kingdom | 1,617,331 | 3.60% |
| Italy | 1,585,178 | 3.46% |
| Guatemala | 121,971 | 3.42% |

Top 10 Countries with Lowest Case Fatality Ratio

For countries with at least 50,000 cases.

| Country | Cumulative_cases | Case Fatality Ratio |
|----------------------|------------------|---------------------|
| Singapore | 58,213 | 0.05% |
| Qatar | 138,648 | 0.17% |
| United Arab Emirates | 167,753 | 0.34% |
| Bahrain | 86,787 | 0.39% |
| Malaysia | 64,485 | 0.55% |
| Kuwait | 142,426 | 0.62% |
| Ghana | 51,569 | 0.63% |
| Nepal | 231,978 | 0.64% |
| Slovakia | 105,733 | 0.77% |
| Lebanon | 126,903 | 0.79 % |

Source: <https://COVID19.who.int/table> as at 30 November 2020