

Update report on Virological and mortality distribution and implication of COVID-19 pandemic across the globe from 28th January to 3rd February 2022

Joseph Oyepata Simeon*¹ Joseph Opeyemi Tosin ²

¹ Department of Pharmacology and Toxicology, Faculty of Pharmaceutical Sciences, Federal University, Oye–Ekiti, Ekiti State, Nigeria.

² Department of Pharmacy, University College Hospital, Ibadan, Oyo State, Nigeria.

*. **Corresponding author:** Joseph Oyepata Simeon, Department of Pharmacology and Toxicology, Faculty of Pharmaceutical Sciences, Federal University, Oye–Ekiti, Ekiti State, Nigeria. Email: oyepata.joseph@fuoye.edu.ng.

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Abstract

Background and Objective: Scientists and world leaders are still trying to understand COVID-19 and its potential global consequences. While there have been some successes, there are still many that remain unknown. This study provides an update report on the virological and immunological distribution and implications of the COVID-19 pandemic around the world from January 28th to February 3rd, 2022.

Material and Method: The United Nations geoscheme was used to obtain data from 196 countries and regions around the world. The results were compiled and compared to the values obtained for the United States.

Results: When available data was compared to that of the United States, the American continent had a higher mortality comparison factor than infection cases, whereas the European continents had a higher infectious comparison value than mortality value. With the exception of South Africa and Botswana, the African continents appear unconcerned about the value of mortality and infectivity.

Conclusion: The new wave and virus variant have caused a resurgence in its global impact. There is a need to understand how Africa has survived all variants of the virus despite having few medical resources.

Keywords: COVID-19, Continent, Europe, Africa, Nigeria, America, USA

Introduction

The COVID-19 epidemic has left scientists perplexed. Some believe the virus originated in animals, while others believe it originated in the Wuhan lab. At some point, one or more humans became infected as a result of an animal or laboratory leakage, and those infected humans may have passed on the original or mutated viral version to other humans (1). It can also be transmitted through contact with virus-infected hands or surfaces, as well as

touching the body opening with contaminated hands (2,3). Coronaviruses (CoV) are a type of virus that causes illnesses ranging in severity from mild to severe. nCoV is a novel variant that has never been identified in humans (4). The virus was dubbed the "COVID-19 virus" later on. The novel virus was discovered in December 2019 in Wuhan, China; an immediate lockdown in Wuhan and other surrounding cities failed to contain the outbreak, allowing it to spread to other parts of the world (5,6).

The World Health Organization (WHO) declared an international Public Health Emergency on pandemics on January 30, 2020 (7). Several strains of the virus have been discovered, the most notable of which are the delta and Omicron variants (5). COVID- The 19 symptoms range from minor to fatal. According to research, older people are more likely to suffer from virus complications (6,7).

There is great concern and research being conducted on the various pandemic waves. This could be due to weather patterns and predictable mutation (8-10). There is a need to investigate these cases by country and region to determine the infectious and spreadability of the various variants. Various studies have been conducted on the demographics, nature, and strength of the virus, and analyzing periodic data over time is also important in managing the trend (11-15). This study aims to provide an update report on the global distribution and implications of the Covid -19 pandemic from January 28th to February 3rd, 2022.

Materials and Methods

Study Area

Data from the United Nations Geoscheme and WHO were obtained from the 28th of January to the 3rd of February 2022 (WHO 2021). These days' data were chosen to provide updated information and to extend previous research.

Methodology

One hundred and ninety-six (196) nations from various continents and regions of the world were chosen for this study. Data were obtained from the United Nations Geoscheme and WHO from the 28th of January to the 3rd of February 2022. (16). The data obtained for these countries (over 7 days per 100,000 people) were analyzed and directly compared with the values obtained for the United States. The United States was used as a Comparison Factor (CF) or Oyepata Factor (OF) because it has one of the best health systems in the world as well as the highest COVID-19 cases with a relatively large population.

Statistical analysis

In this work, markers such as cumulative cases and cumulative deaths per 1,000,000 population were compared to that of the United States. To compare the proportions of all variables, bivariate analysis and the Chi-square test were used. Country observations are scaled to represent a comparison of two countries that are otherwise comparable.

Results

When available data was compared to that of the United States, the American continent had a higher mortality comparison factor than infection cases, whereas the European continents had a higher infectious comparison value than mortality value. With the exception of South Africa and Botswana, the African continents have a low mortality and infectivity rate when compared to the rest of the world (Table 1, Figure 1, and Figure 2).

Discussion

The pandemic has disrupted almost every aspect of human life, and if not properly understood, it may have severe and long-term consequences in some parts of the world. According to the data analysis, the American continent had a higher mortality comparison factor to infection cases, whereas the European continents had a higher infectious comparison value than a mortality value. Possible explanations include underreporting of cases and mortality, systematic errors in diagnosis and certification of cause of death due to a lack of tests, population structure differences, COVID-19 vaccination rates, comorbidity prevalence differences, and so on. With the exception of South Africa and Botswana, African continents have an unrivaled value of mortality and infectivity when compared to the rest of the world. Recently, there has been a new mutated strain of the virus from the original strain, with many possible strains unfortunately expected to continue reshaping our understanding of the situation (17,18). This has placed unprecedented strain on public health, food, and the global workforce. Several variants have been identified in several countries, and if not properly handled, it could result in thousands to millions of deaths (19,20).

Several infectious diseases, including dengue fever, smallpox, measles, chickenpox, Ebola, and polio, are known to thrive in Africa (21,22). In many cases, vaccination against some of these infections has been developed, or the body's immune system has successfully discovered a way to defend against these pathogens (23-26). This may have provided protection against exposure to the same or a related organism. The virus is likely to have spread quickly across African populations in a short period of time, exposing a large proportion to the virus without causing obvious symptoms and possibly even recovering.

Table 1: Cases and deaths of COVID-19 in 7 days from January 28th to February 3rd, 2022

| S/N | Country, | Cases in 7 days (A) | Deaths in 7 days (B) | Population | CIL7DPM | DIL7DPM | D/13460 | E/48.76 |
|-----|-------------|---------------------------|-------------------------------|---------------|---------|---------|---------|---------|
| | Other | | | | D | E | F | G |
| 1 | USA | 4,516,322 | 16,302 | 334,077,703 | 13460 | 48.76 | 1.00 | 1.00 |
| 2 | France | 2,223,231 | 1,821 | 65,502,366 | 39132 | 28.26 | 2.91 | 0.58 |
| 3 | India | 2,183,875 | 3,928 | 1,401,494,922 | 1558 | 2.80 | 0.12 | 0.06 |
| 4 | Brazil | 1,118,521 | 2,323 | 214,953,059 | 5204 | 10.81 | 0.39 | 0.22 |
| 5 | Germany | 816,069 | 1,089 | 84,208,414 | 9691 | 12.93 | 0.72 | 0.27 |
| 6 | Italy | 1,140,783 | 2,456 | 60,320,945 | 18912 | 40.72 | 1.41 | 0.84 |
| 7 | Russia | 375,597 | 4,770 | 146,033,616 | 2572 | 32.66 | 0.19 | 0.67 |
| 8 | UK | 677,921 | 1,854 | 68,450,986 | 9904 | 27.09 | 0.74 | 0.56 |
| 9 | Spain | 876,792 | 1,099 | 46,783,474 | 18741 | 23.49 | 1.39 | 0.48 |
| 10 | Turkey | 498,736 | 1,222 | 85,776,474 | 5814 | 14.25 | 0.43 | 0.29 |
| 11 | Netherlands | 365,763 | 61 | 17,194,945 | 21272 | 3.55 | 1.58 | 0.07 |
| 12 | Japan | 313,639 | 89 | 125,862,915 | 2492 | 0.71 | 0.19 | 0.01 |
| 13 | Israel | 501,868 | 116 | 9,326,000 | 53814 | 12.44 | 4.00 | 0.26 |
| 14 | Argentina | 723,215 | 1,283 | 45,852,707 | 15773 | 27.98 | 1.17 | 0.57 |
| 15 | Portugal | 361,620 | 281 | 10,149,596 | 35629 | 27.69 | 2.65 | 0.57 |
| 16 | Poland | 241,224 | 1,410 | 37,780,927 | 6385 | 37.32 | 0.47 | 0.77 |
| 17 | Belgium | 346,692 | 174 | 11,669,537 | 29709 | 14.91 | 2.21 | 0.31 |
| 18 | Australia | 413,858 | 449 | 25,968,473 | 15937 | 17.29 | 1.18 | 0.35 |

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|----|-------------|---------|-------|-------------|-------|-------|------|------|
| 19 | Denmark | 272,811 | 116 | 5,824,520 | 46838 | 19.92 | 3.48 | 0.41 |
| 20 | Mexico | 300,352 | 1,832 | 131,078,326 | 2291 | 13.98 | 0.17 | 0.29 |
| 21 | Czechia | 169,675 | 150 | 10,740,461 | 15798 | 13.97 | 1.17 | 0.29 |
| 22 | Peru | 352,532 | 942 | 33,699,175 | 10461 | 27.95 | 0.78 | 0.57 |
| 23 | Austria | 174,606 | 77 | 9,087,812 | 19213 | 8.47 | 1.43 | 0.17 |
| 24 | Switzerland | 243,850 | 97 | 8,754,887 | 27853 | 11.08 | 2.07 | 0.23 |
| 25 | Sweden | 273,427 | 178 | 10,199,030 | 26809 | 17.45 | 1.99 | 0.36 |
| 26 | Romania | 120,590 | 295 | 19,034,321 | 6335 | 15.50 | 0.47 | 0.32 |
| 27 | Ukraine | 121,400 | 894 | 43,317,391 | 2803 | 20.64 | 0.21 | 0.42 |
| 28 | Chile | 108,231 | 116 | 19,376,133 | 5586 | 5.99 | 0.41 | 0.12 |
| 29 | Iran | 39,710 | 161 | 85,695,494 | 463 | 1.88 | 0.03 | 0.04 |
| 30 | Norway | 126,776 | 27 | 5,488,393 | 23099 | 4.92 | 1.72 | 0.10 |
| 31 | Greece | 126,867 | 655 | 10,342,374 | 12267 | 63.33 | 0.91 | 1.30 |
| 32 | Georgia | 68,290 | 262 | 3,977,033 | 17171 | 65.88 | 1.28 | 1.35 |
| 33 | Colombia | 183,993 | 1,469 | 51,741,894 | 3556 | 28.39 | 0.26 | 0.58 |
| 34 | Serbia | 112,649 | 216 | 8,681,600 | 12976 | 24.88 | 0.96 | 0.51 |
| 35 | S. Korea | 49,877 | 210 | 51,339,099 | 972 | 4.09 | 0.07 | 0.08 |
| 36 | Hungary | 96,018 | 417 | 9,621,480 | 9980 | 43.34 | 0.74 | 0.89 |
| 37 | Philippines | 188,837 | 636 | 111,890,761 | 1688 | 5.68 | 0.13 | 0.12 |
| 38 | Canada | 140,678 | 1,141 | 38,266,342 | 3676 | 29.82 | 0.27 | 0.61 |
| 39 | Vietnam | 110,186 | 1,038 | 98,725,892 | 1116 | 10.51 | 0.08 | 0.22 |
| 40 | Slovenia | 77,824 | 83 | 2,079,391 | 37426 | 39.92 | 2.78 | 0.82 |
| 41 | Bangladesh | 83,203 | 92 | 167,288,252 | 497 | 0.55 | 0.04 | 0.01 |

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|----|------------|--------|-----|-------------|-------|-------|------|------|
| 42 | Slovakia | 44,937 | 300 | 5,463,832 | 8224 | 54.91 | 0.61 | 1.13 |
| 43 | Jordan | 53,158 | 88 | 10,363,573 | 5129 | 8.49 | 0.38 | 0.17 |
| 44 | Indonesia | 20,400 | 64 | 278,104,745 | 73 | 0.23 | 0.01 | 0.00 |
| 45 | Lithuania | 43,015 | 99 | 2,662,093 | 16158 | 37.19 | 1.20 | 0.76 |
| 46 | Kazakhstan | 95,567 | 66 | 19,132,410 | 4995 | 3.45 | 0.37 | 0.07 |
| 47 | Uruguay | 78,333 | 86 | 3,492,804 | 22427 | 24.62 | 1.67 | 0.50 |
| 48 | Bulgaria | 61,891 | 531 | 6,865,554 | 9015 | 77.34 | 0.67 | 1.59 |
| 49 | Croatia | 60,982 | 290 | 4,065,148 | 15001 | 71.34 | 1.11 | 1.46 |
| 50 | Thailand | 53,546 | 101 | 70,077,492 | 764 | 1.44 | 0.06 | 0.03 |
| 51 | Latvia | 36,531 | 72 | 1,853,150 | 19713 | 38.85 | 1.46 | 0.80 |
| 52 | Lebanon | 40,273 | 101 | 6,777,009 | 5943 | 14.90 | 0.44 | 0.31 |
| 53 | Tunisia | 62,092 | 184 | 12,014,494 | 5168 | 15.31 | 0.38 | 0.31 |
| 54 | Iraq | 42,420 | 47 | 41,650,829 | 1018 | 1.13 | 0.08 | 0.02 |
| 55 | Pakistan | 47,631 | 93 | 227,681,484 | 209 | 0.41 | 0.02 | 0.01 |
| 56 | Panama | 67,536 | 83 | 4,422,310 | 15272 | 18.77 | 1.13 | 0.38 |
| 57 | Réunion | 46,914 | 38 | 905,434 | 51814 | 41.97 | 3.85 | 0.86 |
| 58 | Bahrain | 24,599 | 1 | 1,795,081 | 13704 | 0.56 | 1.02 | 0.01 |
| 59 | Kuwait | 33,069 | 9 | 4,370,577 | 7566 | 2.06 | 0.56 | 0.04 |
| 60 | Estonia | 30,107 | 26 | 1,327,949 | 22672 | 19.58 | 1.68 | 0.40 |
| 61 | Paraguay | 38,457 | 188 | 7,271,292 | 5289 | 25.86 | 0.39 | 0.53 |
| 62 | Ecuador | 52,763 | 125 | 18,067,256 | 2920 | 6.92 | 0.22 | 0.14 |
| 63 | Costa Rica | 35,732 | 67 | 5,167,802 | 6914 | 12.96 | 0.51 | 0.27 |

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|----|------------------------|--------|-----|-------------|-------|-------|------|------|
| 64 | Palestine | 14,610 | 41 | 5,289,066 | 2762 | 7.75 | 0.21 | 0.16 |
| 65 | Finland | 57,026 | 91 | 5,554,358 | 10267 | 16.38 | 0.76 | 0.34 |
| 66 | Singapore | 22,146 | 7 | 5,923,229 | 3739 | 1.18 | 0.28 | 0.02 |
| 67 | Malaysia | 26,291 | 100 | 33,022,719 | 796 | 3.03 | 0.06 | 0.06 |
| 68 | Bolivia | 57,191 | 380 | 11,925,171 | 4796 | 31.87 | 0.36 | 0.65 |
| 69 | Ireland | 38,081 | 52 | 5,025,145 | 7578 | 10.35 | 0.56 | 0.21 |
| 70 | Nepal | 59,665 | 43 | 29,966,412 | 1991 | 1.43 | 0.15 | 0.03 |
| 71 | Saudi Arabia | 34,925 | 14 | 35,672,322 | 979 | 0.39 | 0.07 | 0.01 |
| 72 | Morocco | 47,939 | 189 | 37,603,446 | 1275 | 5.03 | 0.09 | 0.10 |
| 73 | Moldova | 23,946 | 104 | 4,019,106 | 5958 | 25.88 | 0.44 | 0.53 |
| 74 | Azerbaijan | 9,941 | 91 | 10,283,940 | 967 | 8.85 | 0.07 | 0.18 |
| 75 | Libya | 11,881 | 87 | 7,019,256 | 1693 | 12.39 | 0.13 | 0.25 |
| 76 | South Africa | 21,310 | 846 | 60,492,914 | 352 | 13.99 | 0.03 | 0.29 |
| 77 | Guatemala | 17,103 | 94 | 18,440,180 | 927 | 5.10 | 0.07 | 0.10 |
| 78 | Maldives | 16,182 | 6 | 555,616 | 29124 | 10.80 | 2.16 | 0.22 |
| 79 | Cuba | 22,534 | 28 | 11,315,661 | 1991 | 2.47 | 0.15 | 0.05 |
| 80 | Cyprus | 11,032 | 24 | 1,221,282 | 9033 | 19.65 | 0.67 | 0.40 |
| 81 | Armenia | 5,586 | 10 | 2,972,019 | 1880 | 3.36 | 0.14 | 0.07 |
| 82 | UAE | 19,803 | 26 | 10,079,655 | 1965 | 2.58 | 0.15 | 0.05 |
| 83 | Oman | 11,311 | 8 | 5,312,100 | 2129 | 1.51 | 0.16 | 0.03 |
| 84 | Belarus | 12,109 | 109 | 9,444,398 | 1282 | 11.54 | 0.10 | 0.24 |
| 85 | Luxembourg | 15,689 | 5 | 642,102 | 24434 | 7.79 | 1.82 | 0.16 |
| 86 | Venezuela | 14,394 | 27 | 28,308,265 | 508 | 0.95 | 0.04 | 0.02 |
| 87 | Egypt | 10,947 | 226 | 105,389,671 | 104 | 2.14 | 0.01 | 0.04 |
| 88 | Mongolia | 18,978 | 9 | 3,361,876 | 5645 | 2.68 | 0.42 | 0.05 |
| 89 | Bosnia and Herzegovina | 15,646 | 248 | 3,248,480 | 4816 | 76.34 | 0.36 | 1.57 |
| 90 | Dominican Republic | 33,870 | 22 | 11,020,216 | 3073 | 2.00 | 0.23 | 0.04 |
| 91 | Algeria | 13,847 | 81 | 45,104,553 | 307 | 1.80 | 0.02 | 0.04 |
| 92 | Qatar | 21,588 | 7 | 2,807,805 | 7689 | 2.49 | 0.57 | 0.05 |
| 93 | North Macedonia | 11,665 | 127 | 2,083,238 | 5599 | 60.96 | 0.42 | 1.25 |

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|-----|---------------------|--------|-----|------------|-------|-------|------|------|
| 94 | Guadeloupe | 20,806 | 9 | 400,232 | 51985 | 22.49 | 3.86 | 0.46 |
| 95 | Martinique | 11,620 | 13 | 374,804 | 31003 | 34.68 | 2.30 | 0.71 |
| 96 | Iceland | 10,151 | 1 | 344,751 | 29444 | 2.90 | 2.19 | 0.06 |
| 97 | Albania | 14,529 | 40 | 2,872,818 | 5057 | 13.92 | 0.38 | 0.29 |
| 98 | Sri Lanka | 5,947 | 99 | 21,555,499 | 276 | 4.59 | 0.02 | 0.09 |
| 99 | Uzbekistan | 9,129 | 23 | 34,237,280 | 267 | 0.67 | 0.02 | 0.01 |
| 100 | Botswana | 6,017 | 31 | 2,426,780 | 2479 | 12.77 | 0.18 | 0.26 |
| 101 | Montenegro | 8,341 | 45 | 628,192 | 13278 | 71.63 | 0.99 | 1.47 |
| 102 | New Caledonia | 2,469 | 1 | 289,845 | 8518 | 3.45 | 0.63 | 0.07 |
| 103 | El Salvador | 4,768 | 25 | 6,538,056 | 729 | 3.82 | 0.05 | 0.08 |
| 104 | Faeroe Islands | 4,465 | 2 | 49,157 | 90831 | 40.69 | 6.75 | 0.83 |
| 105 | Trinidad and Tobago | 5,384 | 111 | 1,406,668 | 3827 | 78.91 | 0.28 | 1.62 |
| 106 | Barbados | 4,246 | 6 | 287,933 | 14746 | 20.84 | 1.10 | 0.43 |
| 107 | Belize | 5,148 | 11 | 409,055 | 12585 | 26.89 | 0.94 | 0.55 |
| 108 | Laos | 4,787 | 29 | 7,442,735 | 643 | 3.90 | 0.05 | 0.08 |
| 109 | Afghanistan | 1,288 | 13 | 40,315,711 | 32 | 0.32 | 0.00 | 0.01 |
| 110 | Jamaica | 6,450 | 58 | 2,981,645 | 2163 | 19.45 | 0.16 | 0.40 |
| 111 | Zambia | 4,537 | 32 | 19,198,341 | 236 | 1.67 | 0.02 | 0.03 |
| 112 | Channel Islands | 2,384 | 5 | 176,401 | 13515 | 28.34 | 1.00 | 0.58 |
| 113 | Suriname | 5,655 | 26 | 594,958 | 9505 | 43.70 | 0.71 | 0.90 |

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|-----|-----------------|-------|----|-------------|-------|--------|------|------|
| 114 | Seychelles | 1,521 | 3 | 99,312 | 15315 | 30.21 | 1.14 | 0.62 |
| 115 | Cameroon | 4,447 | 14 | 27,591,338 | 161 | 0.51 | 0.01 | 0.01 |
| 116 | Ethiopia | 3,561 | 96 | 119,469,104 | 30 | 0.80 | 0.00 | 0.02 |
| 117 | Sudan | 3,488 | 21 | 45,469,298 | 77 | 0.46 | 0.01 | 0.01 |
| 118 | Guyana | 4,594 | 47 | 792,565 | 5796 | 59.30 | 0.43 | 1.22 |
| 119 | Kyrgyzstan | 4,944 | 18 | 6,694,613 | 739 | 2.69 | 0.05 | 0.06 |
| 120 | Cayman Islands | 0 | 0 | 66,944 | 0 | 0.00 | 0.00 | 0.00 |
| 121 | Myanmar | 975 | 5 | 54,987,647 | 18 | 0.09 | 0.00 | 0.00 |
| 122 | Madagascar | 1,548 | 54 | 28,817,252 | 54 | 1.87 | 0.00 | 0.04 |
| 123 | Malta | 2,017 | 27 | 443,406 | 4549 | 60.89 | 0.34 | 1.25 |
| 124 | Honduras | 5,020 | 32 | 10,154,024 | 494 | 3.15 | 0.04 | 0.06 |
| 125 | French Guiana | 4,080 | 11 | 310,930 | 13122 | 35.38 | 0.97 | 0.73 |
| 126 | Andorra | 4,813 | 3 | 77,461 | 62134 | 38.73 | 4.62 | 0.79 |
| 127 | Bhutan | 781 | 0 | 785,065 | 995 | 0.00 | 0.07 | 0.00 |
| 128 | Solomon Islands | 619 | 2 | 713,535 | 868 | 2.80 | 0.06 | 0.06 |
| 129 | Uganda | 1,778 | 60 | 48,025,301 | 37 | 1.25 | 0.00 | 0.03 |
| 130 | San Marino | 1,147 | 5 | 34,044 | 33692 | 146.87 | 2.50 | 3.01 |
| 131 | Zimbabwe | 1,889 | 50 | 15,205,526 | 124 | 3.29 | 0.01 | 0.07 |
| 132 | Mozambique | 2,651 | 25 | 32,640,542 | 81 | 0.77 | 0.01 | 0.02 |

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|-----|---------------|-------|----|-------------|-------|-------|------|------|
| 133 | Palau | 590 | 0 | 18,231 | 32362 | 0.00 | 2.40 | 0.00 |
| 134 | Saint Lucia | 2,301 | 12 | 184,957 | 12441 | 64.88 | 0.92 | 1.33 |
| 135 | Gibraltar | 1,053 | 0 | 33,675 | 31269 | 0.00 | 2.32 | 0.00 |
| 136 | Kenya | 2,335 | 58 | 55,645,701 | 42 | 1.04 | 0.00 | 0.02 |
| 137 | Curaçao | 1,956 | 14 | 165,156 | 11843 | 84.77 | 0.88 | 1.74 |
| 138 | New Zealand | 517 | 0 | 5,002,100 | 103 | 0.00 | 0.01 | 0.00 |
| 139 | Mauritius | 552 | 0 | 1,275,112 | 433 | 0.00 | 0.03 | 0.00 |
| 140 | Liechtenstein | 831 | 0 | 38,301 | 21697 | 0.00 | 1.61 | 0.00 |
| 141 | Ghana | 1,893 | 29 | 32,099,491 | 59 | 0.90 | 0.00 | 0.02 |
| 142 | Grenada | 1,478 | 1 | 113,349 | 13039 | 8.82 | 0.97 | 0.18 |
| 143 | Hong Kong | 453 | 0 | 7,593,331 | 60 | 0.00 | 0.00 | 0.00 |
| 144 | Greenland | 1,238 | 1 | 56,926 | 21748 | 17.57 | 1.62 | 0.36 |
| 145 | Fiji | 1,919 | 33 | 906,736 | 2116 | 36.39 | 0.16 | 0.75 |
| 146 | Haiti | 742 | 3 | 11,622,670 | 64 | 0.26 | 0.00 | 0.01 |
| 147 | Gabon | 793 | 1 | 2,308,835 | 343 | 0.43 | 0.03 | 0.01 |
| 148 | Monaco | 847 | 0 | 39,683 | 21344 | 0.00 | 1.59 | 0.00 |
| 149 | Nigeria | 1,337 | 17 | 214,223,246 | 6 | 0.08 | 0.00 | 0.00 |
| 150 | Dominica | 770 | 3 | 72,269 | 10655 | 41.51 | 0.79 | 0.85 |
| 151 | Mauritania | 1,790 | 23 | 4,843,004 | 370 | 4.75 | 0.03 | 0.10 |
| 152 | Angola | 3,319 | 21 | 34,483,018 | 96 | 0.61 | 0.01 | 0.01 |
| 153 | DRC | 1,776 | 0 | 93,867,492 | 19 | 0.00 | 0.00 | 0.00 |

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|-----|-----------------------|-------|----|---------------|-------|-------|------|------|
| 154 | Antigua and Barbuda | 677 | 1 | 99,213 | 6824 | 10.08 | 0.51 | 0.21 |
| 155 | Senegal | 1,279 | 21 | 17,441,958 | 73 | 1.20 | 0.01 | 0.02 |
| 156 | Papua New Guinea | 124 | 1 | 9,215,300 | 13 | 0.11 | 0.00 | 0.00 |
| 157 | Aruba | 1,186 | 7 | 107,484 | 11034 | 65.13 | 0.82 | 1.34 |
| 158 | Malawi | 1,038 | 54 | 19,911,995 | 52 | 2.71 | 0.00 | 0.06 |
| 159 | Rwanda | 2,245 | 20 | 13,460,207 | 167 | 1.49 | 0.01 | 0.03 |
| 160 | Isle of Man | 682 | 0 | 85,746 | 7954 | 0.00 | 0.59 | 0.00 |
| 161 | Kiribati | 42 | 0 | 122,351 | 343 | 0.00 | 0.03 | 0.00 |
| 162 | Bermuda | 1,118 | 4 | 61,913 | 18058 | 64.61 | 1.34 | 1.32 |
| 163 | Namibia | 764 | 91 | 2,613,749 | 292 | 34.82 | 0.02 | 0.71 |
| 164 | Caribbean Netherlands | 854 | 1 | 26,609 | 32094 | 37.58 | 2.38 | 0.77 |
| 165 | French Polynesia | 519 | 0 | 283,481 | 1831 | 0.00 | 0.14 | 0.00 |
| 166 | Taiwan | 460 | 0 | 23,885,078 | 19 | 0.00 | 0.00 | 0.00 |
| 167 | China | 447 | 0 | 1,448,129,940 | 0 | 0.00 | 0.00 | 0.00 |
| 168 | Ivory Coast | 928 | 19 | 27,411,758 | 34 | 0.69 | 0.00 | 0.01 |
| 169 | Syria | 291 | 21 | 18,173,320 | 16 | 1.16 | 0.00 | 0.02 |
| 170 | Mayotte | 1,063 | 1 | 283,230 | 3753 | 3.53 | 0.28 | 0.07 |
| 171 | Burundi | 388 | 0 | 12,450,875 | 31 | 0.00 | 0.00 | 0.00 |
| 172 | Bahamas | 1,133 | 12 | 399,196 | 2838 | 30.06 | 0.21 | 0.62 |

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| 173 | Brunei | 191 | 0 | 444,114 | 430 | 0.00 | 0.03 | 0.00 |
| 174 | Tanzania | 1,525 | 33 | 62,425,392 | 24 | 0.53 | 0.00 | 0.01 |
| 175 | Cambodia | 247 | 0 | 17,085,369 | 14 | 0.00 | 0.00 | 0.00 |
| 176 | Saint Pierre Miquelon | 242 | 0 | 5,749 | 42094 | 0.00 | 3.13 | 0.00 |
| 177 | Turks and Caicos | 375 | 4 | 39,546 | 9483 | 101.15 | 0.70 | 2.07 |
| 178 | Eritrea | 305 | 6 | 3,624,146 | 84 | 1.66 | 0.01 | 0.03 |
| 179 | Lesotho | 233 | 2 | 2,169,151 | 107 | 0.92 | 0.01 | 0.02 |
| 180 | St. Barth | 355 | 0 | 9,925 | 35768 | 0.00 | 2.66 | 0.00 |
| 181 | Saint Kitts and Nevis | 277 | 4 | 53,795 | 5149 | 74.36 | 0.38 | 1.52 |
| 182 | Benin | 273 | 1 | 12,625,546 | 22 | 0.08 | 0.00 | 0.00 |
| 183 | Togo | 316 | 4 | 8,585,747 | 37 | 0.47 | 0.00 | 0.01 |
| 184 | Burkina Faso | 224 | 0 | 21,809,963 | 10 | 0.00 | 0.00 | 0.00 |
| 185 | Guinea- Bissau | 344 | 1 | 2,041,601 | 168 | 0.49 | 0.01 | 0.01 |
| 186 | Djibouti | 283 | 0 | 1,010,751 | 280 | 0.00 | 0.02 | 0.00 |
| 187 | Tajikistan | 134 | 0 | 9,876,647 | 14 | 0.00 | 0.00 | 0.00 |
| 188 | Equatorial Guinea | 240 | 3 | 1,475,866 | 163 | 2.03 | 0.01 | 0.04 |
| 189 | Chad | 186 | 5 | 17,171,372 | 11 | 0.29 | 0.00 | 0.01 |
| 190 | Liberia | 122 | 2 | 5,245,781 | 23 | 0.38 | 0.00 | 0.01 |

| | | | | | | | | |
|-----|---------------------------|-------|---|------------|-----|-------|------|------|
| 191 | St. Vincent Grenadines | 58 | 4 | 111,498 | 520 | 35.88 | 0.04 | 0.74 |
| 192 | Comoros | 43 | 0 | 898,918 | 48 | 0.00 | 0.00 | 0.00 |
| 193 | Sierra Leone | 49 | 0 | 8,233,735 | 6 | 0.00 | 0.00 | 0.00 |
| 194 | Somalia | 1,127 | 0 | 16,594,596 | 68 | 0.00 | 0.01 | 0.00 |

CIL7DPM = Cases in the last 7 days/1M population

DIL7DPM = death in the last 7 days/1M population

Data used were obtained from WHO/World meters as of 18th, January 2022

Figures obtained for the USA were used in determining the comparison factor (CF) or Oyepata Factor which is a ratio of the figure obtained to that of a particular country population divided by that of the USA.

Values of CF1 (or OF1) and CF2 (or OF2) represent the case/incidence and mortality index.

Factor of more than 1 = very high infection and mortality index

Factor of approximately 1 = high infection and mortality index

Factor of ≤ 1 but ≥ 0.5 = moderately high infection and mortality index

Factor of ≤ 0.5 but ≥ 0.1 = low infection and mortality index

Factor of < 0.1 = very low infection, mortality, and recovery index (17)

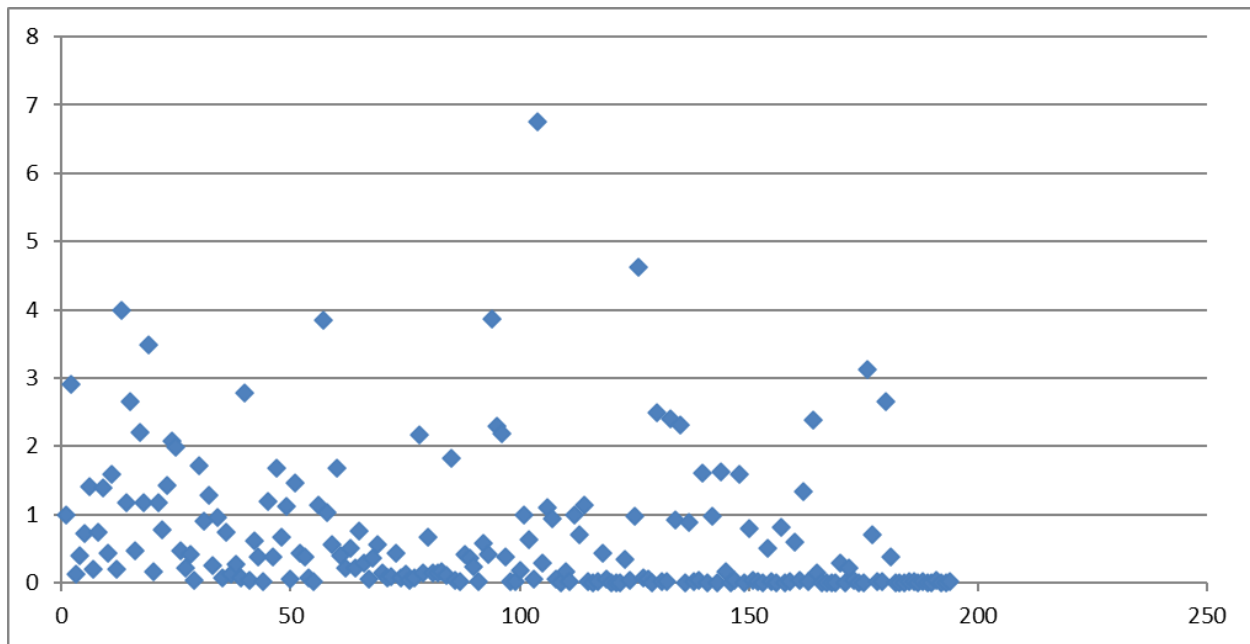


Figure 1. Comparison factor per country relative to USA19th to 25th of January 18, 2022.

The X-axis represents the Comparison (Oyepata) factor, Y-axis represents countries

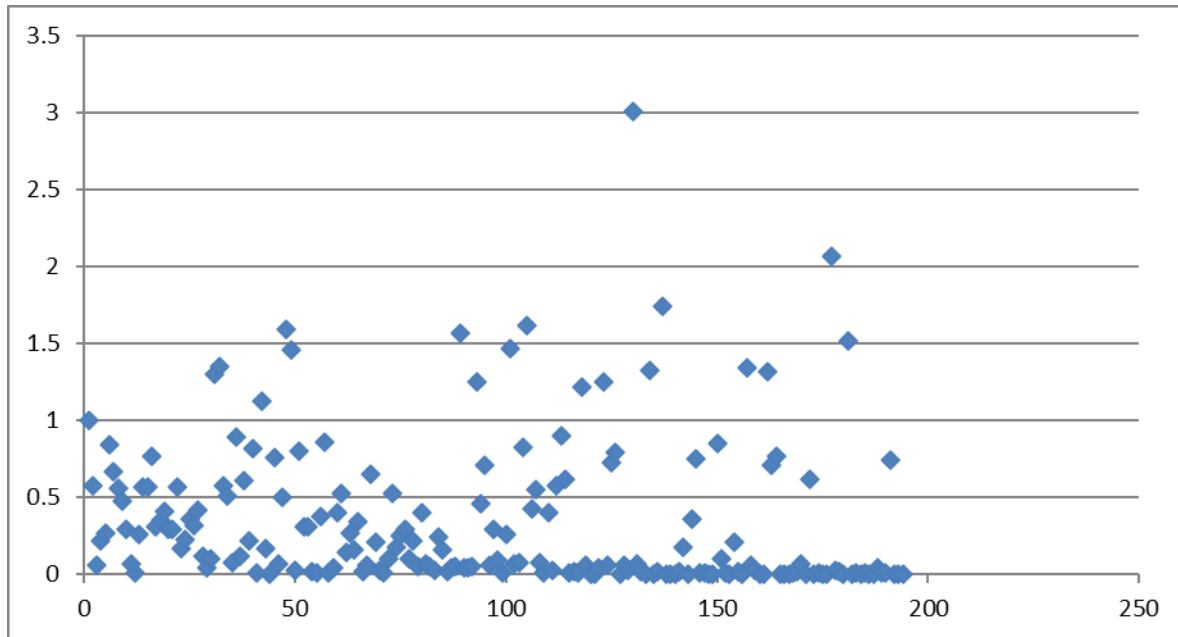


Figure 2. Death Oyepata factor caused by COVID-19 for each country relative to the USA as at 19th to 25th, January 2022.

The X-axis represents the Comparison (Oyepata) factor, Y-axis represents countries

The new variant of COVID-19 appears to have more infectivity and higher reports of mortality on the American continent. At all stages, Africa has been the least affected by all variants. Furthermore, when compared to the American continents, most European countries have a lower mortality ratio. These findings are intriguing when compared to previous research on the virus's cumulative effect (27-29). Africans appear unaffected by this ostensibly uncontrollable and lethal unleash. Apart from having fewer cases of the infection, Africans have shown the potential to have much lower mortality even when the infection is present (30-32). This suggests that the African body system has evolved a more progressive, robust, and faster immune response over time, reducing the likelihood of the virus causing disease-related health complications. Though the mortality rate remained higher than in other Western countries, the United States has made remarkable strides in preventing and reducing cases of infection when compared to several other countries that suffered the same fate from the virus. According to available data, Africa, which is

generally classified as third world or underdeveloped, does not suffer from severe medical consequences of the infection, and when infected, they tend to recover faster with a lower risk of complications and mortality.

As previously stated, Africans live in communities and dense clusters, in contrast to most western countries, which exist in a solitary system (33,34). As a result, most people in Africa are likely to have been exposed to the virus without knowing it or developing major symptoms. Several observers around the world have speculated that Africa may become a graveyard as a result of this. Many analysts around the world have been perplexed by the reasons for this fortunately unexpected result. According to studies, African children's immune systems develop faster and more robustly than Dutch children's due to poor health and environment (35,36). Childhood Exposure to the pathogenic organism may have boosted the immune system and protected children from developing certain allergies and infectious diseases later in life, when they were exposed to a

similar allergen or pathogen (37,38). This viewpoint is backed up by data and comparison factors obtained from Haiti. Haiti is currently the poorest country in Latin America and the Caribbean region, and one of the world's least developed countries (39,40,41). They have one of the lowest rates of infection and mortality, resulting in little to no statistical significance of the comparison factor. Thus, in poor countries, childhood or early exposure to some diseases may have encouraged a more robust immune response to the same or related infection. As a result, several African countries are vulnerable as well as potentially more defensive against the COVID-19.

Significance of the Study

The study discovered that America and Europe, two of the world's most developed continents, are still the most affected by the pandemic. Contrary to popular belief, Africa has shown little evidence of being affected by the pandemic. This could be due to environmental exposure or vaccination against related microorganisms, which could have resulted in some kind of biological immunity that is now beneficial against future exposure. The study also revealed that Africa, like every other continent, requires vaccines but that they are not in particularly high demand.

Conclusion

Many underdeveloped countries, particularly Africans and Haitians, have survived the virus's onslaught. While there appears to be conflicting views on how to best deal with the virus, the virus and its innumerable variants suggest that understanding and utilizing Africa's biological and inherent survival mechanisms may be the best way to regain near-normal freedom.

Authors' contributions

Simeon, J.O. and Tosin, J.O. were involved in the collection of data and the development of an analysis model. Simeon, J.O., Joseph SO, Tosin, J.O. and Zubairu, S.A. were responsible for the analysis and writing of this manuscript.

Conflict of Interest

The authors declare that there are not any potential conflicts of interest.

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