Analysis of COVID-19 Prevalence in Africa Based on the Geographic Division and Income by the End of 2022: A Cross-Sectional Study

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ABSTRACT

Objectives: Africa has become the focus of attention of the world, as it has been the least affected continent by the Coronavirus-19 Disease (COVID-19) pandemic. This study used COVID-19 data to examine the COVID-19 prevalence across Africa by the end of 2022 based on income and geographic division.

Methods: COVID-19 data, including the vaccination coverage rates, for each African country, were obtained from well-known publicly online websites. The analysis of variance (ANOVA) test and an Independent Samples t-Test was used to determine how much COVID-19 differs across the continent.

Results: By the end of 2022, Africa's share of global COVID-19 cases, deaths, and tests was 1.92%, 3.85%, and 1.62%, respectively. There was a significant difference in the means of median age, the vaccination coverage rate (the 2021 end), cases per million, deaths per million, and tests per population where low-income African countries had lower values than middle-income ones. Across Africa's five regions, Southern Africa was the most affected. In contrast, Central Africa was the least affected, with 2,337 cases per million and 35 deaths per million.

Conclusions: Although the impact of the COVID-19 pandemic on Africa was the least compared to other continents, the impact across Africa has been inconsistent. Low-income African countries were affected less than middle-income African countries. Moreover, COVID-19 statistics were uneven across the five parts of Africa. The inadequate testing capacity possibly plays an essential role in such inconsistency. Africa's experience with the COVID-19 pandemic must remain an open book to document mistakes made and lessons learned.

Keywords: Case-fatality, Median age, SARS-CoV-2, Testing, Vaccination coverage rate

Bahrain Med Bull 2023; 45 (3): 1632 - 1639

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