ABSTRACT

The recently emerged novel coronavirus, “severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2)”, caused a highly contagious disease called coronavirus disease 2019 (COVID-19). The virus was first reported from Wuhan city in China in December, 2019, which in less than three months spread throughout the globe and was declared a global pandemic by the World Health Organization (WHO) on 11th of March, 2020. So far, the ongoing pandemic severely damaged the world's most developed countries and is becoming a major threat for low- and middle-income countries. The poorest continent, Africa with the most vulnerable populations to infectious diseases, is predicted to be significantly affected by the ongoing COVID-19 outbreak. Therefore, in this review we collected and summarized the currently available literature on the epidemiology, etiology, vulnerability, preparedness and economic impact of COVID-19 in Africa, which could be useful and provide necessary information on ongoing COVID-19 pandemics in the continent. We also briefly summarized the concomitance of the COVID-19 pandemic and global warming.

Introduction

There are hundreds of viruses that belong to the coronavirus family. However, only six (229E, NL63, OC43, HKU1, SARS-CoV and MERS-CoV) have been reported to cause mild to severe respiratory tract infections in humans .Among them are severe acute respiratory syndrome coronavirus (SARS-CoV) reported in November 2002 and middle east respiratory syndrome coronavirus (MERS-CoV) reported in September 2012, which emerged in human population from animal reservoirs and caused severe respiratory illness with high mortality rates .Once again, a novel severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2) has emerged, and caused an infectious disease called coronavirus disease 2019 (COVID-19) .The virus was first identified and reported from Wuhan city of China in December, 2019 .The SARS-CoV-2 is highly contagious, spread globally in a short period of time, and was declared a global pandemic by the World Health Organization on March 11, 2020 .As of 18th April, 2020, 10:00am CEST; WHO reported more than 2.1 million confirmed cases of COVID-19, including 142,229 deaths in 213 countries, areas or territories .The most-affected countries with more than 30,000 confirmed cases of SARS-CoV-2 are the United States of America, Spain, Italy, Germany, France, the United Kingdom, China, Iran, Turkey, Belgium, the Russian Federation, Canada and Brazil .However, the number of cases continues to rise throughout the globe and became a serious menace to public health.

COVID-19 is majorly affecting many countries all over the world, whereas Africa is the last continent to be hit by the pandemic. However, Africa is expected to be the most vulnerable continent where COVID-19 spreading will have a major impact .The continent confirmed its first case of COVID-19 in Egypt on 14th of February, 2020, and from sub-Saharan Africa the first case was reported in Nigeria on 27th of February, in an Italian patient who flew to Nigeria from Italy on 25th of February, 2020

related work

We searched and reviewed published work on COVID-19 from 1st January, 2020 to 18th of April, 2020. PubMed, ScienceDirect and Scopus were searched for research articles written on COVID-19 in English using the search words SARS-CoV-2, COVID-19 and coronavirus. The search was done in duplicate by two different individuals for the reproducibility with exclusion criteria for non-English articles and non-COVID-19 papers. After deduplication and exclusion, 54 out of 71 published articles as on 18/04/2020 were included. Reports and updates from the World Health Organization (WHO), the World Health Organization African Region, Centers for Disease Control and Prevention (CDC), Africa Centers for Disease Control and Prevention, and from other authentic sources were added. The results were grouped and systematically presented in this review.