

An Overview of COVID-19 in Nigeria from the Index Case till Now

^aOyenyin Babatunde David, ^bOpeyemi Oluwasanmi Adeloye ^c Odewumi K.O, ^dOyenyin Tosin

^aUniversity of Medical Science Teaching Hospital, Ondo, Nigeria

^b University of Medical Science Teaching Hospital, Ondo, Nigeria

^cUniversity of Medical Science Teaching Hospital, Ondo, Nigeria

^d General Hospital, Owo, Nigeria

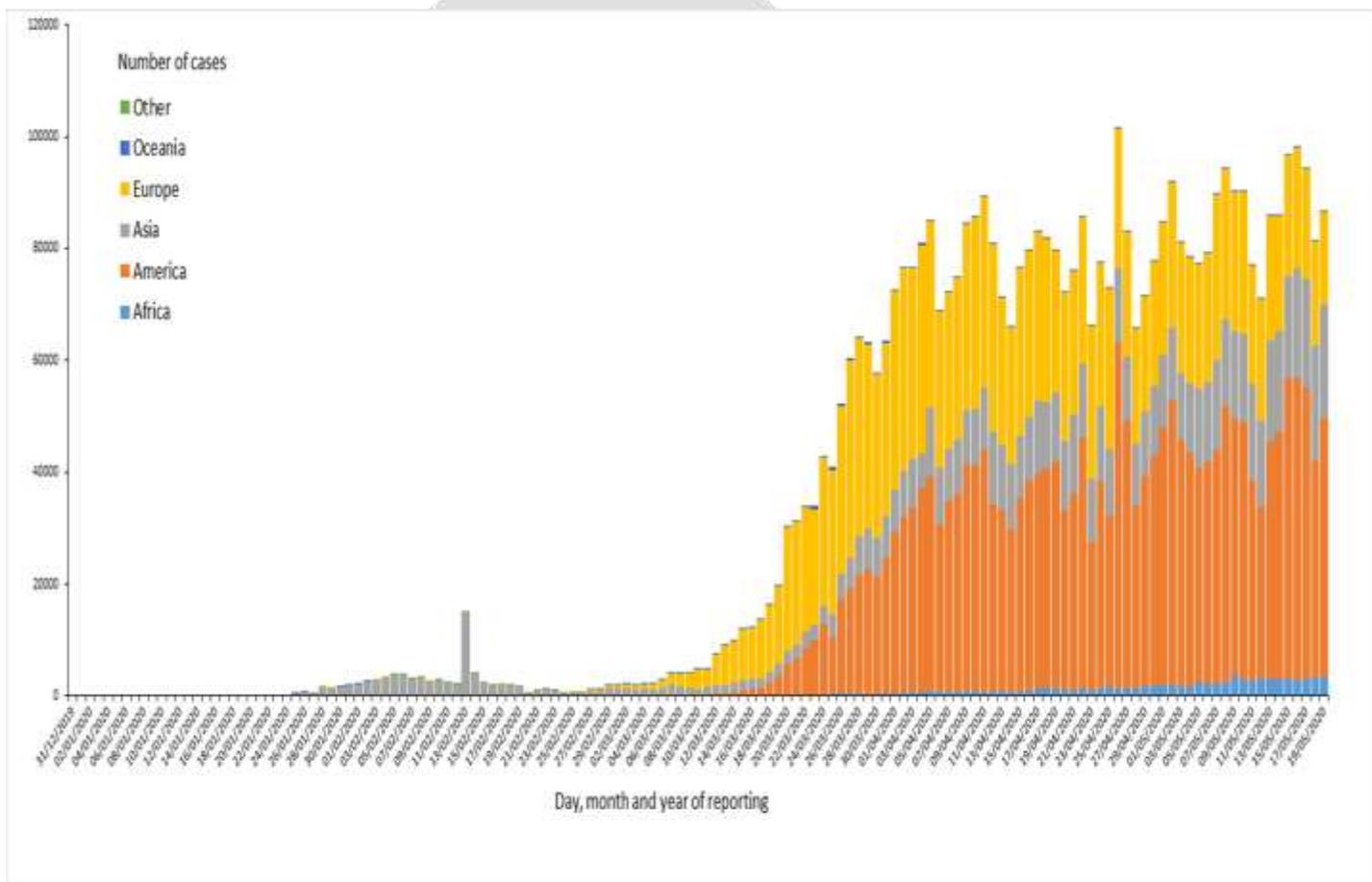
Abstract

Coronavirus (Covid19) as an infectious disease caused by a newly discovered coronavirus. It is an ongoing pandemic disease. After an outbreak of a mysterious pneumonia in late December 2019 in Wuhan, Hubei, China, the disease characterized by fever, dry cough, fatigue, and occasional gastrointestinal symptoms according to World Health Organization. Almost 400 world scientists gathered from 11-12 February 2020 at WHO's Geneva Headquarters to discuss the current level of knowledge about the COVID-19 virus (transmission route, epidemiological studies, natural history of the disease, researches on its origins) and also in identifying new strategies to prepare the world for future outbreaks, including clinical management, infection prevention and control measures in both individuals and healthcare workers, candidate therapeutics and vaccines. Here, we investigate the Nigeria outbreaks, socioeconomic impact including clinical management, infection prevention and control measures in individuals and healthcare workers, candidate therapeutics and vaccines. Keywords: Covid-19, vaccine, pandemic and strategies

Introduction

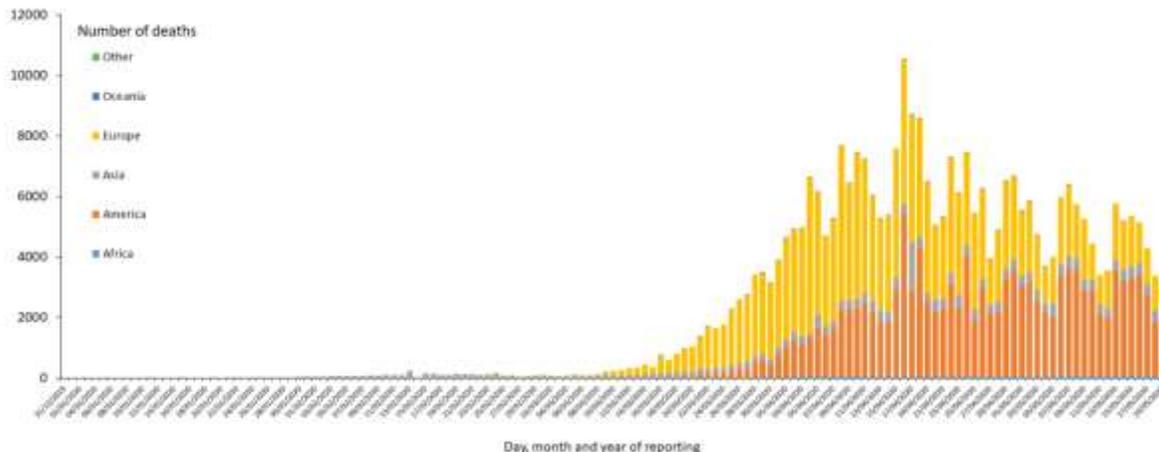
The world health organization (WHO) refer to Coronavirus disease (COVID-19) as an infectious disease caused by a newly discovered coronavirus. It is an ongoing pandemic disease. After an outbreak of a mysterious pneumonia in late December 2019 in Wuhan, Hubei, China, the disease characterized by fever, dry cough, fatigue, and occasional gastrointestinal symptoms, the World Health Organization identified SARS-CoV-2 as a new type of coronavirus by early 2020. The name "coronavirus," coined in 1968, is derived from the "corona" like or crown-like morphology of its envelope. In June 2005, at the 10th International Nidovirus Symposium in Colorado Springs, it was proposed that the *Coronaviridae* family be divided into two subfamilies, the coronaviruses and the toroviruses, the latter of which cause enteric diseases in cattle and possibly in humans. Coronaviruses cause acute and chronic respiratory, enteric, and central nervous system (CNS) diseases in many species of animals, including humans. The first report of a human coronavirus isolation dated back to 1965 from child nasal washings. Currently, seven genotypes of Coronaviruses (HCoV) and four sub-groups (alpha, beta, gamma, and delta) have been identified in humans. Only alpha and beta CoVs are known to infect humans (de Wilde AH, et al). Little attention was given to HCOVs due to their mild phenotypes in humans until the SARS outbreak in 2002. SARS-CoV, which was shown to cause a severe acute respiratory syndrome was the first example of serious illness in humans caused by a coronavirus. SARS-CoV-2 is one of seven types of coronavirus, including the ones that cause severe diseases like Middle East Respiratory Syndrome (MERS) of 2012 and Sudden Acute Respiratory Syndrome (SARS) of 2003. The Other Human coronaviruses (HCoVs) are considering inconsequential pathogens, causing the "common cold" in otherwise healthy people.

By January 23, the disease was already in ten countries. The World Health Organization declared the outbreak a Public Health Emergency of International Concern on 30 January, and on March 11, it was declared a pandemic by WHO. From 31 December 2019 to 19 May 2020, 4 766 468 cases of COVID-19 have been reported, including 318 201 deaths (ECDC). The first confirmed death was in Wuhan on 9 January 2020. The first death outside of China occurred on 1 February in the Philippines, and the first death outside Asia was in France on 14 February. Emergency Committee on the novel coronavirus (2019-nCoV) in order to detect the disease as early as possible put in place strong measures which were adopted by all nations, which is to isolate and treat new cases, trace contacts of symptomatic and asymptomatic patients, and promote social distancing measures on the web, by media and social media. Almost 400 world scientists gathered from 11-12 February 2020 at WHO's Geneva Headquarters to discuss the current level of knowledge about the COVID-19 virus (transmission route, epidemiological studies, natural history of the disease, researches on its origins) and also in identifying new strategies to prepare the world for future outbreaks, including clinical management, infection prevention and control measures in both individuals and healthcare workers, candidate therapeutics and vaccines.



Distribution of cases of COVID-19 by continent (according to the applied case definition and testing strategies in the affected countries). (SOURCE, ECDC)

Distribution of cases of COVID-19 deaths worldwide, by continent Distribution of cases of COVID-19 deaths worldwide, by continent (SOURCE ECDC)

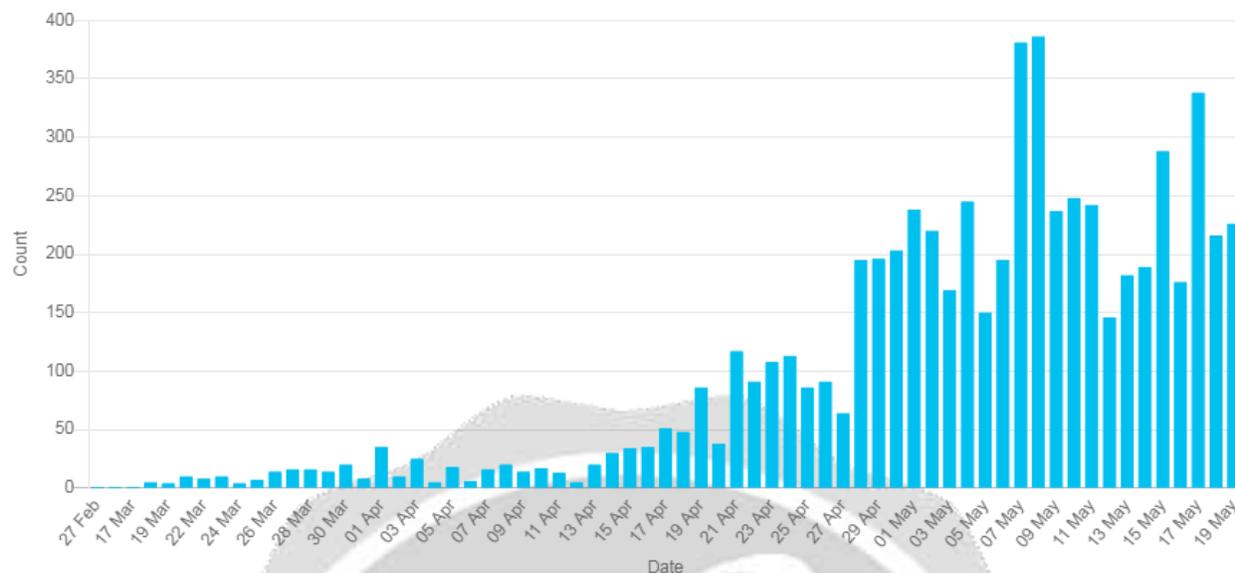


Outbreak of covid-19 In Nigeria

The World Health Organization on 31 January listed Nigeria among other 13 African countries identified as high-risk for the spread of the virus. The first case of coronavirus diseases (covid-19) in Nigeria was confirmed in Lagos on the 27th of February 2020 since the beginning of the outbreak of the disease in China. The index case, an Italian citizen who returned from Italy on 25th of February said to be clinically stable, with no serious symptoms was diagnosed positive by the Virology Laboratory of the Lagos University Teaching Hospital. The patient was admitted at the Infectious Disease Hospital in Yaba, Lagos. Following the first case, a COVID-19 national Emergency Operations Centre (EOC) was activated by Nigeria center for disease and control (NCDC) on the 28th of February. On 23 March, NCDC confirmed the first dead case of covid-19, a 67-year-old man who returned from United Kingdom with underlying health conditions, the same day international flight were suspended. On 30 March, President Muhammadu Buhari, placed a lockdown on two states namely; Lagos and Ogun, and the federal capital territory (Abuja) with the goal to prevent the further spread of the virus. These two states and FCT accounted for 72% when the lockdown was effected. Other states also put in measures that involves banning inter-states travelling, a dusk-to-dawn curfew and regulation of social gathering.

As of May 19, 2020, 6401 cases have been confirmed, 1734 cases have been discharged and 192 deaths have been recorded in 34 states and the Federal Capital Territory with 36,899 samples tested. With population estimate of 198,000,000 (NPC), low samples tested so far and densely populated cities it is more likely that the number of cases in the country is far more than the documented number. With the growth rate of the cases recorded in Italy, USA and South Korea, two months after the first case, tens of thousands of cases would have been expected to be recorded but the growth rate in Nigeria has been an epic one.

The world health organization (WHO) has emphasized that all people must protect themselves from COVID-19 infection in order to protect the whole population. According to statistics from NCDC, people within the age of 31 to 40 were more susceptible to contracting the coronavirus (COVID-19) in Nigeria. However, evidence has shown that people of all ages can be infected by covid-19. The risk of getting severe disease and pulmonary complications from covid-19, gradually increases with age starting from around 40 years and it is maximal from around 60 years old, but it also involved those patients with underlying medical conditions (such as chronic respiratory disease, cardiovascular disease, diabetes, immunodepression/immunosuppression and cancer).



Epicurve of covid-19 cases in Nigeria as at May,19,2020(source, NCDC).

The perception poll by NOIPolls demonstrates that progress were made as far as sensitizing citizens about the disease and how to prevent the transmission. Emphasis were on the use of nose mask in public, maintaining distance of at least one meter from one person, performing hand hygiene frequently, ban on social and religious gathering, avoid touching mouth and nose. The most common symptoms reported at the onset were: fever, dyspnoea, coughing, diarrhoea and haemoptysis (Luigi Santacroce, et al 2020). Treatment for the disease has been symptomatic management. Recently, an anti-retroviral drug named Remdesivir is currently been use in treating Coronavirus patients in the country.

With the world facing one of her greatest challenges in history, with all tenacity, humanity is searching for an effective and safe vaccine against COVID-19. Hope has risen with scores of vaccines facing competition. With various developers working on different vaccines, the WHO's proposed Solidarity Vaccine Trial that seeks to speed development with an adaptive design. While the research team of the University of Pittsburgh in USA has developed a vaccine, called PittCoVacc, (Pittsburgh CoronaVirus Vaccine), using laboratory-created viral protein fragments that can stimulate the immune response, in UK the Jenner Institute at the University of Oxford, has equally developed a vaccine that is currently undergoing early-phase trials. In Nigeria, currently, there is no evidence to show that any vaccine is being develop.

Healthcare system in Nigeria before the outbreak of covid-19 was very poor. The pandemic has further exposed the weakness of the healthcare system of the country, having put so much pressure on it. In a country of almost 200 million people, there are 330 ICU facilities, including 30 in Lagos state, the epic center of the disease in Nigeria, so far with a total number of 2755 cases as at May 19,2020. Despite the fact that the rate of transmission is not as high as earlier projected weeks after the first case was recorded, it's obvious that in few months the health facilities would be over stretched. Currently, there are 12 Functional COVID-19 testing laboratories in the country as confirmed by the health minister. Assessment of some treatment centers by WHO, revealed that majority are not well equipped and the capacity to respond is particularly weak in the North. With the country current healthcare capacities, there is the need for concerted effort to be made to prevent a likely third wave outbreak of the disease.

MORE THAN THE COVID-19 PANDEMIC IN NIGERIA

As the world and Nigeria in particular are battling with the covid-19 disease, it's evident that the pandemic already had a social economic impact on the country. This nightmare, have no doubt wreck a devastating effect on the country economy. While lockdown was imposed on the three states which coincidentally happen to be the economy powerhouses of the country, their lockdown is expected to have significant economic implications in other parts of the country. The lockdown, though is a bold step in combating this virus, it comes with a price. This lockdowns will

become increasingly expensive in time , as the number of those requiring economic packages will increase .According to united nations development programme(UNDP), the country economy is inevitably heading towards a recession and there is possibility of its contracting as much as 3.6 percent. In 2019, Nigeria surpassed India to become the country with the highest number of people living in abject poverty. With a recession in view sequel to this outbreak, the number will only grow if appropriate measures are not put in place.

The FG has given ₦15 billion to support national COVID-19 response, also providing N50 billion to firms affected by the virus through the central bank of Nigeria (CBN) and equally increasing credit to the health sector , as well as providing other economic stimulus and social protection packages for its most vulnerable. All these stimulus means additional expenses which can cause an overshoot in the budget deficit from the original estimate of 1.5% to 8.3% in 2020.

The current COVID-19 pandemic has caused great changes in our lifestyles in a short span of time with both positive and negative effects. On a positive note, the atmospheric pollutions are widely decreasing as a lockdown consequence, consciousness of personal hygiene is more than before , dietary habits are ameliorated, etc. while example of the negative impact include job loss and the consequent unemployment stress, disruption of academic school calendar etc.

While there are hope on development of vaccines that can tackle this virus, we do agree with lichfield to end coronavirus, we need to totally change some things in our aspects of live ranging from the way we work, our healthcare, socialization etc.

RECOMMENDATION

While the critical issue in the minds of national and global leaders amidst this pandemic is how affected communities will bounce back and a sustainable manner recovery pathway from the crisis. This pandemic is indeed a reality check in Nigeria and has further exposed the weakness not only in our health sector but in many sectors. This is the time for us as a country to reassess the quality and capabilities of the nation medical research sector, overhauling of our healthcare facilities and the financial sector should be more strengthened. Our economy should be diversified from a mono-economy that is solely dependent on oil, the impact of the covid-19 pandemic has caused the world price of crude oil to come crashing, this will definitely have a ripple effect on capital projects and the economy at large.

CONCLUSIONS

Covid-19 is indeed an important and a trending topic, it has brought open the vulnerability of the world healthcare system while equally threatening the continuous existence of mankind. The race. While the world still await the vaccine that can help develop immunity against this virus, all necessary preventive measure to curtail it should be ensured in the country.

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