

COVID-19 in Nigeria: Situation update and combative measures taken by the government

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Aside the monkey pox and Lassa fever endemicity currently going on in Nigeria, coronavirus disease (COVID-19) has joined the queue.^{1,2}

Coronavirus disease (COVID-19) is a novel contagious disease caused by a strain of coronavirus named severe acute respiratory syndrome coronavirus 2 (SARS-COV-2).^{3,4} On December 31, 2019, China reported the disease to the World Health Organization as cases of pneumonia caused by the novel virus in Wuhan, Hubei province. By March 2020, the disease was announced a pandemic by the WHO.^{3,4} Among the symptoms are cough, fever and difficulty in breathing. More rare symptoms include acute respiratory syndrome that could possibly lead to death especially in persons with co-morbidities, underlying chronic illness and aged patients.³

On February 27, 2020 Nigeria recorded its confirmed index case of COVID-19 – a 44-year-old Italian citizen who had arrived in Murtala Muhammed International Airport, Lagos, Nigeria at 10 pm on February 24, 2020 aboard Turkish

airline from Milan, Italy. He later moved to Ogun State before his morbidity that led to the referral to Infectious Disease Hospital (IDH) in Lagos and his subsequent diagnosis.⁵

Until June 15, 2020, the report by the Nigeria Center for Disease Control (NCDC) showed that there are 16,085 confirmed cases, 10,445 active cases, 5,220 discharged cases and 420 deaths giving a mortality rate of 2.6%. A total of 94,323 samples have been tested giving a test to confirmation ratio of 1:17.0% (proportion of confirmed cases: proportion of confirmed cases per tests conducted). Lagos State, Federal Capital Territory (FCT), Kano State, Edo State, Ogun State, Oyo State, Rivers State, Kaduna State, Borno State and Katsina State were the leading states in terms of confirmed cases accounting for 44.1% (n=7,103), 7.7% (n=1,247), 7.1% (n=1,137), 3.6% (n=580), 3.4% (n=559), 3.1% (n=507), 3.0% (n=489), 2.8% (n=446), 2.7% (n=438) and 2.6% (n=414), respectively. On the other hand, Lagos State, Kano State, Borno State, FCT, Edo State, Katsina State, Rivers State were leading states in terms of deaths, accounting for 19.5% (n=82), 11.9% (n=50), 6.9% (n=29), 6.2% (n=26), 5.9% (n=25), 5.2% (n=22) and 5.2% (n=22) of all COVID-19 deaths at the time of the report. While Lagos State (40.1%), FCT (7.7%) and Kano State (7.1%) led in terms of reported cases and Lagos State (19.5%), Kano State (11.9%) and Borno State led in terms of death recorded, the highest mortality rates were recorded in Ondo State (14.0%), Anambra State (13.8%), Yobe State (17.75%), Sokoto State (10.6%), Kebi State (10.5%) and Adamawa State (9.5%). The least mortality (no death) was recorded in Abia, Ebonyi, Taraba and Kogi States. Cross River State is the only state out of 36 states and the Federal Capital Territory in Nigeria that has no COVID-19 case (Figure 1). Future studies would be focused on the strategy of the states with no cases (Cross River State) and the reasons behind states with high morbidity

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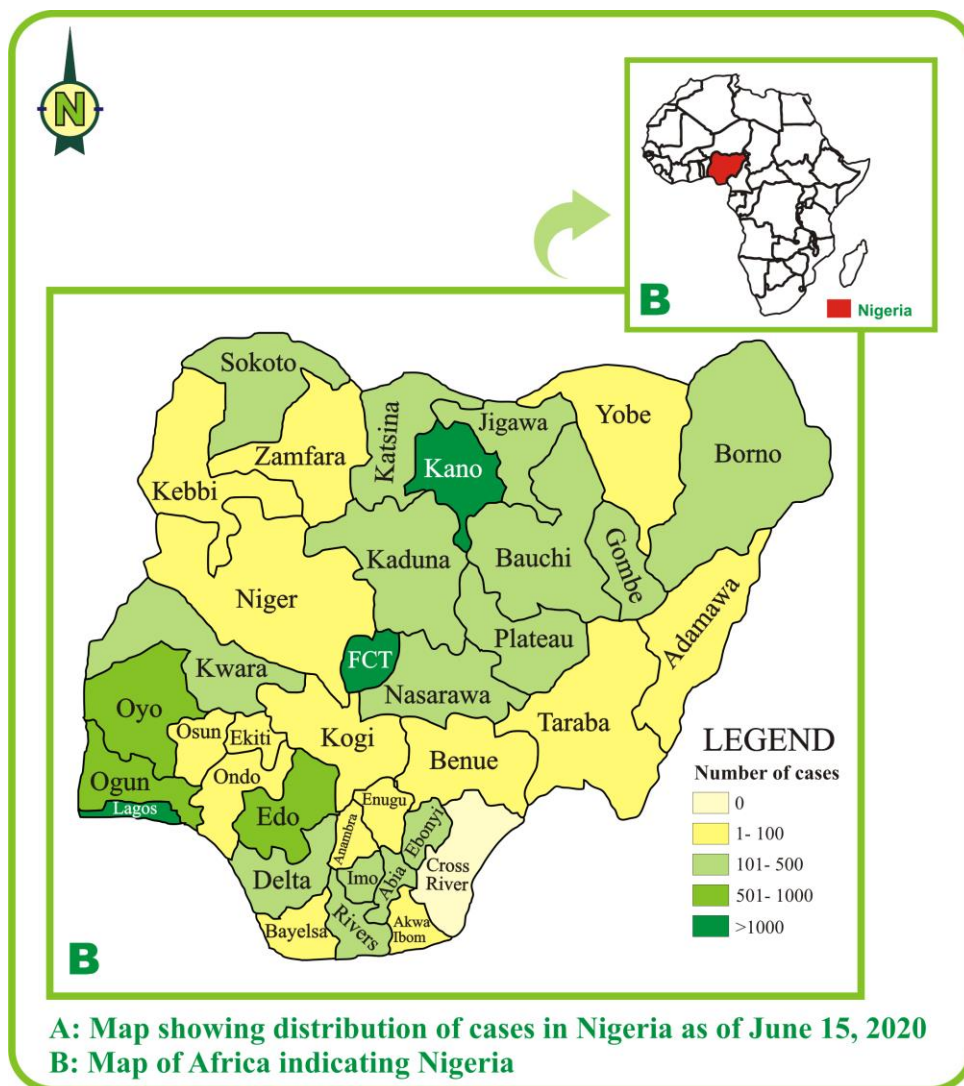


Figure 1. Map showing distribution of COVID-19 cases in Nigeria as of June 15, 2020

but low mortality as well as causes of high mortality in the recorded areas.⁶ Gender distribution of the report showed male preponderance (67%). Age distribution showed highest incidence of the disease in the 31-40 years age bracket in the males while the highest incidences in the females were recorded in the 21-30 and 31-40 years age brackets. Cumulatively, the most affected age group was 31-40 years, which accounted for 24% of all affected cases. The age groups ≤ 10 years and > 70 years constituted the least of the infected persons (Figure 2).^{6,7}

Following the increasing cases per day, as 403 cases were reported within twenty-four hours pre-report (June 14, 2020), restrictive measures are still intact. All educational institutions are completely shut down. Markets are regulated, and interstate travels are still restricted. However, following agitations, restriction on worship centers has been relaxed and only given guidelines on protocols. Nigeria is a highly religious country and such agitations are usually treated with care to evade religious unrest. This might play a role in the future trend of the pandemic.

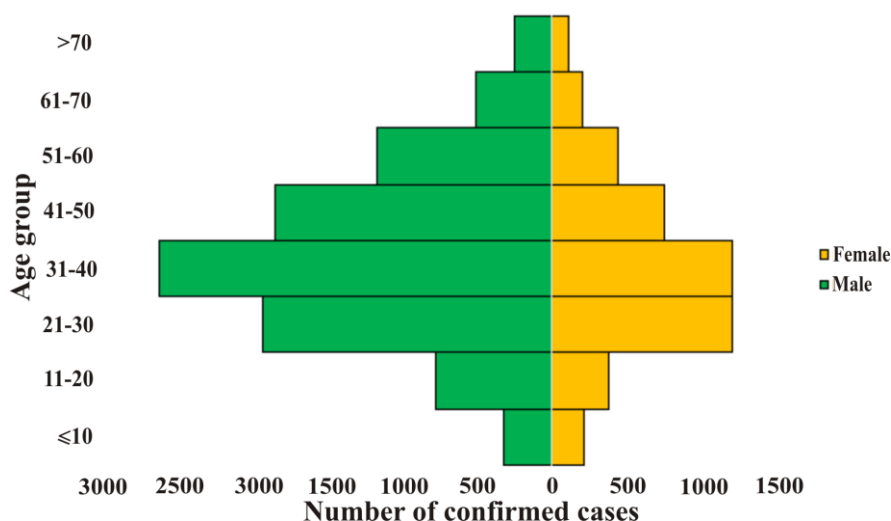


Figure 2. Chart showing gender and age distribution of infected persons as of June 15, 2020

Juxtaposed in global perspective, as of June 15, 2020, COVID-19 is footed in 213 countries and territories around the world and 2 international conveyances.⁸ The WHO June 14, 2020 update showed global data of United States and Brazil leading in the global pandemic with 2,032,524 and 828,810 infected cases and 114,466 and 41,828 deaths respectively. Next in line is Russia with 528,964 cases and 6,948 deaths while India has 320,922 cases and 9,195 deaths. The UK has 294,379 cases with 41,662 deaths, while Spain has 234,605 cases with 27,136 deaths.⁹

Measures taken by the Nigerian Government to combat COVID-19

1. On February 28, 2020, the Federal Ministry of Health via the Nigeria Centre for Disease Control activated a multi-sectoral emergency operation center (EOC) at level 3 which is the highest level of response to public health emergencies. On the same day, risk communication campaigns were initiated across the country.
2. On March 3, 2020, passengers screening commenced at international airport using temperature scanners. The same day, NCDC designed and published infographics and were disseminated in various national media channels. Furthermore, training commenced for representatives from private health facilities in collaboration with Guild of Medical Directors (GMD). The trainings included: Infection Prevention and Control Recommendations for Health Workers (which consists of guidelines on early detection, screening, isolation and management of suspected cases), proper use of personal protective equipment, case definition guide for diagnosis, and frequently asked questions and how to notify NCDC of suspected case(s).
3. On March 4, 2020, the Federal Ministry of Health via NCDC commenced development of infection prevention and control (IPC) scorecard. The scorecard is for the evaluation of IPC implementation in healthcare centers.
4. On March 7, 2020, draft tools for tracking and monitoring healthcare workers (HCW) infection was developed. This ensures documentation and monitoring of all HCWs who are ill with fever and/or respiratory symptoms (e.g., cough or dyspnea) or have been in contact (unprotected) with a person with suspected or confirmed case of COVID-19, or are designated as self-isolation according to local public health directives and same is ensured not to enter or return to the acute healthcare setting for at least 14 days after their last exposure.
5. On March 8-9, 2020, protocol for follow up testing for negative result was developed and implemented. Suspected cases with negative results are documented and followed up

- concurrently in event of future developments.
6. On March 9, 2020, President Buhari inaugurated Presidential Task Force on COVID-19 that later implemented compulsory wearing of non-medical face mask in public places and maintenance of social distancing and ensured compliance by worship centers.
 7. On March 17, 2020, guidelines for safe mass gathering were published. The regulation requires organizers of social gatherings to provide: temperature scanners at point of entry, closed waste management system, hand washing facility, disinfectants at post-gathering, health personnel to detect fever on entry, and review of some activities of worship centers such as shaking of hands, sharing of communion cups, ablution and more.
 8. On March 21, 2020, contact tracing of new confirmed cases commenced as this wasn't formally instituted.
 9. On March 22, 2020, laboratories with PCR testing capacity were assessed and added to the existing ones. The total testing laboratories became 23 in number.
 10. The Federal Government shut down schools, organizations, businesses, worship centers and movement in FCT, Lagos and Ogun States on 30th March, 2020 for 14 days which was later extended for another 14 days. Also, inter-State movement was restricted for essential duties and goods only.
 11. Fully expanded laboratory network for COVID-19 across the 6 geopolitical zones with 7 laboratories was activated on March 31, 2020. Also, rapid response team were deployed in all states with cases. The team comprised: medical personnel that cuts across medical professions among doctors, nurses, laboratory staff, epidemiologists and more.
 12. On April 13, 2020, COVID-19 starter packs were deployed to all tertiary institutions and federal medical centers. The starter packs consisted of medical consumables which include personal protective equipment, diagnostic and case management equipment and human resources for contact tracing and follow-up.
 13. On May 7, 2020, NCDC developed jingles in 7 local languages on proper use of face mask.
 14. On June 13, 2020, guidelines on re-opening of worship places were launched and circulated to religious leaders and the public. The guideline requires all attendees of religious gathering to wear face mask and the number of attendees should not exceed 1/3 of the seating capacity of the venue. Also, the provision of: hand washing facilities and hand sanitizers at point of entry, marked sitting positions that are maintained at least 2 meters apart. The requirement also discouraged attendance of sick persons, practice of handshake, peace sign, ablution and any activity that requires direct contact, plus disinfection of worship center post worship.
- In comparison with other Sub-Saharan countries, the response strategy is similar hinging on social distancing, isolation of confirmed cases and practice of personal hygiene. However, Ghana has upped their game by adopting pooled sampling (testing) which have aided to cover a larger proportion of the population.¹⁰ However, some authors have suggested novel precision epidemiological approaches such as testing for seroconversion to identify the proportion that have developed immunity and also documenting the variant of SARS-Cov-2 affecting a particular geographical population.¹¹
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