Background: According to World Health Organisation (WHO) Afro data, the number of cases of Coronavirus Disease 2019 (COVID-19) pandemic currently ravaging the universe with its catastrophic effects on man nearly doubled in number from 633 to 1187 in Africa within three days between 19th and 22nd of March, 2020. Currently, there are more than 3400 positive cases from 46 countries and over 90 deaths recorded in about 20 African countries. The first death in sub-Saharan Africa was recorded in Burkina Faso on Wednesday (18 Mar 2020) of a female patient aged 62, with underlying diabetes while the second death was in Gabon on Friday (20 Mar 2020) followed by the third death in Democratic Republic of Congo on that same Friday (20 Mar 2020). However, Nigeria recorded her first death on the 21st March, 2020. Hence, there is an urgent need for African countries including Nigeria to re-strategise in expanding its current case detection, isolation and establishment of pre-case index plan possibly in different locations. This review points out some of the needed actions and required expansion in Nigeria which may be applied elsewhere.

Keywords: COVID-19, Coronavirus, Preparedness, Nigeria, African-region
1.0 INTRODUCTION

There are currently over 566,000 reported cases of COVID-19 from more than 200 countries and territories of the world [1, 2]. More than 120,000 people have recovered while over 25,000 people have died due to COVID-19 with more than 3400 positive cases from 46 countries and over 90 deaths recorded in about 20 African countries as at 27th March, 2020 [2, 3]. The ongoing coronavirus disease is now spreading fast in Africa with most cases so far reported being importations from other countries and few community transmissions in those who do not have recent travel history. However, there may be silent unreported cases due to weak surveillance and poor health systems.

In Nigeria, a total of 81 COVID-19 pandemic cases have been confirmed as at the 27th March, 2020, with three discharged and one death from different States of the federation including: Lagos (52), Federal Capital Territory (FCT) (14), Ogun (3), Oyo (3), Bauchi (2), Edo (2), Enugu (2), while 1 case was recorded in each of Ekiti, Rivers and Osun [4]. Cases in Edo State are being treated at Irrua Specialist Teaching Hospital; cases in the FCT are being treated at the University of Abuja Teaching Hospital, Gwagwalada while Lagos cases are being treated at the Infectious Disease Hospital, Yaba.

Although, the Nigerian government has officially announced a travel ban on 13 countries considered to be of high risk for COVID-19 on the 18th of Mar 2020, including: China, Italy, Iran, South Korea, Spain, Japan, France, Germany, Norway, the USA, the UK, Netherlands, and Switzerland, there is need to expand and support the current facilities of three isolation and five case testing centres that included NCDC Abuja, Centre for Human and Zoonotic Virology in Lagos University Teaching Hospital/ College of Medicine of the University of Lagos; Centre for Genomics of Infectious Diseases, Redeemers University of Nigeria; and Irrua Specialist Hospital, Edo State. There is need to plan ahead for the likely spread to other regions of the country. This review summarised some of the required actions and the needed expansion that should be urgently implemented in Nigeria and other African countries.

2.0 MORE PREPAREDNESS ON COVID-19 FOR AFRICA

According to Lipsitch et al., [5], our previous experience with severe acute respiratory syndrome (SARS), Middle East respiratory syndrome (MERS) and H1N1pandemic09 influenza has revealed that as an epidemic evolves, there is an urgent need to expand the public health facilities and involve more experts. The recent attempt by South African Researchers to start working on developing vaccines from COVID-19 pandemic isolates is a clarion call for other African nations including the Nigerian government to engage Biomedical Scientists at her various Universities and Institutes for local contents on possible antiviral drugs and vaccine developments along with international partners as recently done by the Lagos State Government in collaborating with the Canadian government to build a biosecurity laboratory.

The immediate action of some State governments in Nigeria including the North west governors, the Lagos and Kaduna State Governors on social distancing by ordering closure of primary and secondary schools and reducing number of individuals at different gatherings including places of worships, the NUC directive on the closure of tertiary institutions, and asking the civil servants on levels 1 to 11 to stay at home are all commendable. However, the delay in the closure of land and air borders till 23rd of March, over three weeks after the recorded index case of an Italian and interstate movement till date despite continuous increase in the number of imported COVID-19 pandemic cases and community transmission in the country, spreading into different states calls for worry.

Furthermore, efforts must be geared to do more on the part of all including the governments at different levels (Federal, State and Local), the private sector (multinationals, the rich and middle class), the professionals, non-professionals and the entire citizenry for possible donations, support and compliance to simple control measures especially social distancing and stay at home strategy that can be further promoted through telecommunication networks, social and mass media. There is need for the following at stemming the scourge of the ongoing COVID-19 pandemic in Africa’s most populous nation:

- Building or dedication of more isolation centres across the different states in the country as exemplified by the Chinese government in Wuhan. In agreement with the study of Zou et al., [6], that there is need for unique isolation strategies different from those of other SARS- epidemics because of the high viral load detected in patients shortly after symptom manifestation. Other studies have shown viral shedding and transmission prior to manifestation of clinical symptoms.
Also, a call to and readiness of the Nigerian virologists, laboratorians, and researchers to braise-up in preparedness for prompt laboratory detection in case of further spread and more cases in other parts of the country while the government must be willing to tap into the various polymerase chain reaction (PCR) equipment available in some Universities across the country with the NCDC coordinating along with the various State governors as incident Commanders as recently shown by the Lagos State Governor. Interestingly, the NCDC can act as the supply chain and logistics Coordinator of basic materials including an urgent and immediate plan for laboratory containment, personal protective equipments (PPEs) as done at the Lagos infectious Disease hospital in Mainland and a BSL-2 laboratory under stringent safety guidelines for molecular detection of highly infectious viral pathogen demonstrated by Salu et al., [7] with a big lesson for other African nations without laboratory class-4 facility.

Provision of extraction kits, master mixtures and probes or agarose gel powder for prompt detection and confirmation of suspected cases while volunteered and dedicated Infectious Diseases Consultants, physicians and nurses can be assigned the clinical roles as demonstrated in China where over 40,000 Chinese doctors and nurses traveled from all over different provinces of the country to Wuhan in order to save the lives of COVID-19 pandemic patients during the epidemic in the country.

There is need for continuous enlightenment and education of the populace to dispel rumours. Parents must take special care of their children to prevent exposure to COVID-19 in the neighbourhood while the government must assist the citizens with essentials including food-stuffs to ensure the stay at home strategy and give special intervention to people living with disabilities and their caregivers, the internally displaced persons with special attention to other vulnerable persons and immunocompromised individuals including pregnant women, old people, persons living with HIV/AIDS, tuberculosis, hypertension and diabetes that are prone to COVID-19 pandemic due to their impaired immune status. Also, the government must use the period of the lockdown to carry out mass fumigation of public places including the markets, bus and train stations.

Fauci et al., [8] opined that there is need for constant surveillance, prompt diagnosis and thorough research and support hence, Africa must tap into the Ebola and influenza network and infrastructure already established on the continent at fighting the scourge of COVID-19 pandemic. We may also need to work on developing a point of care kit for prompt diagnosis. The first point of care test kit for coronavirus was approved by the Food and Drug Administration on Friday (20 Mar 2020). It is a rapid molecular assay produced by a California company known as Cepheid. It has a shorter turnaround time of 45 minutes designed to operate on the company’s automated GeneXpert Systems compared to the PCR technique that is more technical and time consuming [9].

For the third time, a zoonotic coronavirus crossed species barrier to cause fatal consequences in human population [10]. Therefore, there is need to institute stringent biosecurity measures and education at the farm level in order to prevent reverse zoonotic transmission of COVID-19 to animals including pigs to prevent similar occurrences reported by the World Organisation for Animal Health (OIE) where dogs tested positive for SARS-CoV-2 from one household before they were placed under quarantine on the 18th March, 2020 after their owner was hospitalised due to COVID-19 infection [11] and the recent case of a cat that developed clinical symptoms of diarrhoea, vomiting, and difficulty in breathing on the 27th March, 2020 as a result of reverse zoonotic transmission from the owner in Belgium [9].

3.0 CONCLUSION

Africa recorded her first death of COVID-19 in Burkina Faso on Wednesday 18th March 2020, of a female patient aged 62 years old, with underlying diabetes condition while the second death was recorded in Gabon on Friday 20th March 2020. The third death was recorded in the Democratic Republic of Congo on the same Friday of 20th March 2020. In Nigeria, the only death recorded so far was on the 23rd of March 2020 of a 67-year-old male who returned from United Kingdom with underlying health conditions. With a steady increase despite Africa’s limited infrastructure, and with Nigeria being a powerhouse of Africa, all hands must be on deck to re-strategise and increase the level of preparedness at stemming the deadly monster, COVID-19 pandemic.

References

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