



Review Article

COVID-19 PANDEMIC IN WEST AFRICA-REVIEW

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ABSTRACT

The coronavirus disease 2019 (COVID-19) outbreak which started in the Hubei province of China in 2019, has now spread to all continents, affecting 203 countries by May 2020. Successful efforts in containing the COVID-19 virus in Asia resulted in WHO declaring Europe as the epicenter of the disease on March 13. Whether warmer temperatures will slow the spread of the COVID-19 virus, severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), has been a point of much speculation and have a great impact on the health system and people in West Africa.

Keywords: Covid-19, Asia, Europe, West Africa.

INTRODUCTION

Soon after the novel coronavirus, SARS-CoV-2 (2019-nCoV), was first identified in a cluster of patients with pneumonia in the Chinese city of Wuhan on 31 December 2019, rapid human to human transmission was anticipated (Hui *et al.*, 2020). The fast pace of transmission is wreaking havoc and stirring media hype and public health concern globally (Ippolito *et al.*, 2020). When the World Health Organization (WHO) declared the disease (now officially named COVID-19), a Public Health Emergency of International Concern (PHEIC) on 31st January 2020 (WHO, 2020), the Director General Dr. Tedros Ghebreyesus justified the decision by stating that WHO's greatest concern was the potential for the virus to spread to countries with weaker health systems. Repeated outbreaks of other preventable emerging and re-emerging infectious diseases with epidemic potential have taken their toll on the health systems of many African countries. The devastating 2014–2016 Ebola Virus Epidemic in West Africa, demonstrated how ill-prepared the affected countries were to rapidly identify the infection and halt transmission (Hoffman & Silverberg, 2018; Hui *et al.*, 2014).

Similarly, the smoldering remnants of the 2018–19 Ebola Virus outbreak in the Democratic Republic of Congo, have demonstrated even for health services with considerable experience of dealing with a certain emerging pathogen, geography and sociopolitical instability, can hamper the response (Aruna *et al.*, 2019). This hypothesis has led some European countries to produce initial policies

relying on decreased transmission rates during the summer months and the belief that African countries will face smaller epidemics than their European counterparts. However, no strong evidence base exists for such claims; SARS-CoV-2 might have simply arrived later to warmer countries (Corman *et al.*, 2020).

We used data from the COVID-19 data repository of the Johns Hopkins Center for Systems Science and Engineering (Baltimore, MD, USA) to plot the cumulative number of cases since the diagnosis of both the first patient and the first five patients by country, both in Europe and Africa (Hanage, 2020). Although the first confirmed COVID-19 cases occurred later in West Africa than in Europe, once these first cases were confirmed in West Africa, the expansion in the number of confirmed COVID-19 was rapid. Of particular concern are Nigeria, Burkina Faso and Senegal, which saw sharp increases in the number of cases soon after the initial cases were confirmed in these countries. Cases in both countries might evolve in a similar way to what was observed in European countries with the most expansive epidemics (i.e., Italy and Spain, where SARS-CoV-2 spread quickly after case number five was detected). Senegal also confirmed its first three cases of community transmission on March 21 suggesting more cases in this country than the 119 confirmed on March 27 (Kock, 2020).

The impact of a similar epidemic as currently seen in Europe would be devastating in West Africa. Although some West African countries have measures in place from

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the 2014 Ebola epidemic, the region includes some of the poorest countries in the world. In addition, many West African countries have poorly resourced health systems, rendering them unable to quickly scale up an epidemic response. Most countries in the region have fewer than five hospital beds per 10 000 of the population and fewer than two medical doctors per 10 000 of the population (based on WHO global health observatory data), and half of all west African countries have per capita health expenditures lower than US\$50 (based on WHO global health expenditure data (Haider *et al.*, 2020).

MATERIALS AND METHODS

In our present study data was collected from various online sources like Google scholar, Academia, Research Gate, J Gate, etc.

RESULTS AND DISCUSSION

In contrast, Italy and Spain have 34 and 35 hospital beds, respectively, per 10000 of the population, 41 medical doctors per 10000 of the population, and US\$2840 and US\$2506 per capita expenditure. Despite having young populations (old age is a major risk factor for severe forms of COVID-19 and mortality), some west African countries have rates of other risk factors similar to European countries. For instance, 27% of Gambians have hypertension 5 and 6% have diabetes (Cham *et al.*, 2018; WHO, 2016). We believe the epidemic has started later in West Africa than for other regions globally because of the limited international air traffic, rather than the climate conditions. Now that community transmission is ongoing in some countries, the amount of time to prepare an epidemic response is limited (Dong *et al.*, 2020). Early identification of confirmed cases, swift contact tracing with physical isolation, community engagement, and health systems measures are all necessary to avert the potentially harmful consequences of an epidemic in the region.

CONCLUSION

Early comparisons between the number of confirmed cases in the worst affected European countries and the West African countries with confirmed COVID-19 cases do not support the hypothesis that the virus will spread more slowly in countries with warmer climates. In the case of West Africa, a rapid acceleration in the number of cases could quickly overwhelm already vulnerable health systems. Swift action to control further spread of the virus and to improve the response capabilities of affected countries in West Africa is therefore urgent.

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REFERENCES

- Aruna, A., Mbala, P., Minikulu, L., Mukadi, D., Bulemfu, D., Edidi, F., Kitenge, R. (2019). Ebola Virus Disease Outbreak Democratic Republic of the Congo, August 2018 - November 2019. *Morbidity and Mortality Weekly Report*, 68(50), 1162.
- Cham, B., Scholes, S., Ng Fat, L., Badjie, O., & Mindell, J. S. (2018). Burden of hypertension in The Gambia: evidence from a national World Health Organization (WHO) STEP survey. *International Journal of Epidemiology*, 47(3), 860-871.
- Corman, V.M., Landt, O., Kaiser, M., Molenkamp, R., Meijer, A., Chu, DK., Schmidt, M.L. (2020). Detection of 2019 novel coronavirus (2019-nCoV) by real-time RT-PCR. *Eurosurveillance*, 25(3), 2000045.
- Dong, E., Du, H., & Gardner, L. (2020). An interactive web-based dashboard to track COVID-19 in real time. *The Lancet Infectious Diseases*, 20(5), 533-534.
- Haider, N., Yavlinsky, A., Simons, D., Osman, A.Y., Ntoumi, F., Zumla, A., & Kock, R. (2020). Passengers' destinations from China: low risk of novel coronavirus (2019-nCoV) transmission into Africa and South America. *Epidemiology & Infection*, 148.
- Hanage, W. (2020). I'm an epidemiologist. When I heard about Britain's 'herd immunity' coronavirus plan, I thought it was satire. *The Guardian*, 3-15.
- Hoffman, S. J., & Silverberg, S. L. (2018). Delays in global disease outbreak responses: lessons from H1N1, Ebola, and Zika. *American Journal of Public Health*, 108(3), 329-333.
- Hui, D.S., I Azhar E, Madani TA, Ntoumi F, Kock R, Dar O, Ippolito G, Mchugh TD, Memish ZA, Drosten C, Zumla A, Petersen E. (2020). The continuing 2019-nCoV epidemic threat of novel coronaviruses to global health-The latest 2019 novel coronavirus outbreak in Wuhan, China. *International Journal of Infectious Diseases*, 91, 264-266.
- Hui, D.S., Memish, Z.A., & Zumla, A. (2014). Severe acute respiratory syndrome vs. the Middle East respiratory syndrome. *Current Opinion in Pulmonary Medicine*, 20(3), 233-241.
- Ippolito, G., Hui, D.S., Ntoumi, F., Maeurer, M., & Zumla, A. (2020). Toning down the 2019-nCoV media hype and restoring hope. *The Lancet Respiratory Medicine*, 8(3), 230-231.
- Kock, R.A., Karesh, W.B., and Veas, F. (2020). 2019-nCoV in context: lessons learned? *Lancet Planet Health*, 20(234), 2354-2359.
- World Health Organization, (2016). WHO diabetes country profiles: The Gambia. *World Health Organization Review*, 1(1-3).
- World Health Organization, W. H. (2020). Media briefing on COVID-19. *World Health Organization Briefing*, 1, 2-4.