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The second wave of COVID-19 could be catastrophic for Africa

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Abstract:

Just as the first wave of COVID-19 seems to have been gentler on the African continent compared to the rest of the world, everything indicates that the second wave could be catastrophic for Africa. Although it is true that for some European countries there is talk that we are experiencing the third or even the fourth wave of this pandemic; when referring to the African continent, experts speak of the second wave, which is what this document will deal with.

Keywords:

COVID-19, Africa, second wave

La segunda ola de la COVID-19 en África: ¿una catástrofe?

Resumen:

Así como la primera ola de la COVID-19 parece haber respetado al continente africano en comparación con el resto, todo apunta a que la segunda ola puede ser catastrófica para África. Si bien es cierto que para algunos países europeos se habla de que estamos viviendo la tercera o incluso la cuarta ola de esta pandemia; para referirse el continente africano los expertos hablan de segunda ola, que es de la que tratará este documento.

Palabras clave:

COVID-19, África, segunda ola.

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Introduction: the first wave

Although it is assumed that the figures of infected people and deaths are not accurate, due to a lack of resources, Africa has nevertheless been almost tiptoeing over the past few months, which have been devastating in other continents.

There are several hypotheses about the behaviour of the virus in the first wave and its lower incidence in Africa:

- The youth of the African population, an age that made them less vulnerable to the first Covid-19 variant.
- Lessons learned from other diseases such as Ebola and malaria.
- The rapid closure of airports and other places of possible contact with foreign travellers.
- The possibility that the tuberculosis vaccine has protected many citizens from Covid-19-related death. Furthermore, despite the fact that more than half of the population lives in overcrowded slums, where access to water and soap is difficult and interpersonal distance is impossible, some scientists believe that the T-cells that the immune system develops when exposed to other common coronavirus flus have been able to protect them[1].
- The hot and humid climate in Africa during the first waves may have acted as a protective agent for many months.

However, the hitherto supposed leniency of the virus in Africa could be a mirage.[2] It is expected that things will change for the worse. The key is in how the virus mutates[3], making it capable of affecting younger people more virulently.

[1] Africa's Medical Media Digest. "Africa's enigma: Why has the pandemic been less severe here?" Medical Brief. 07/10/2020 https://www.medicalbrief.co.za/archives/africas-enigma-why-has-the-pandemic-been-less-severe-here/

[2] DEIROS BRONTE, Trinidad. COVID-19 en África: una pandemia aún controlada que amenaza con una posible catástrofe futura. IEEE Opinion Paper 58/2020. http://www.ieee.es/Galerias/fichero/docs_opinion/2020/DIEEEO58_2020TRIDEI_covidAfrica.pdf

[3] HERRERO, Amado. "Los científicos rastrean las nuevas mutaciones del SARS-CoV-2" El Mundo. 22/01/2021. https://www.elmundo.es/ciencia-y-salud/salud/2021/01/21/600730d7fc6c833b358b45a6.html

This major problem of the pandemic must be considered in addition to some of the endemic ills affecting the continent, such as corruption, poverty, armed conflicts, the scarcity or non-existence of adequate health systems, etc. In any case, we are dealing with a continent where generalising adds a touch of unreality to any analysis, as the situation in South Africa is not the same as that of Kenya and, for example, that of its large suburb of Kibera, where more than a million inhabitants are crammed together in miserable conditions.

The second wave

Against the backdrop of all the difficulties that we are going to see below, according to Africa CDC and WHO, the number of registered cases has increased since September 2020 and we should be talking about a second wave of the pandemic[4]. South Africa, for example, accounts for more than 60% of the cases detected in all of sub-Saharan Africa. The number of infected people is also rising in North Africa, with a particular incidence in Morocco. But let's keep in mind that South Africa and Morocco have the best conditions for counting infections. To a lesser extent, also, as we are pointing out, due to difficulties in counting and lack of means, an increase in the number of cases is noted in Nigeria, Egypt, Democratic Republic of Congo, Uganda, Kenya and Ethiopia.

COUNTRY HIGHLIGHTS (22 DECEMBER–4 JANUARY)

Largest # of New Cases[3]	Highest % Increase in New Cases[3]	Largest # of New Deaths[3]	Highest % Increase in New Deaths[3]	Test per Case Ratio <10[4]	Case Fatality Rate > 5%[5]
South Africa (182,638), **Morocco** (25,800), **Tunisia** (25,343), **Egypt** (17,191) and **Nigeria** (12,561)	**Malawi** (385%), **Zambia** (285%), **Eritrea** (252%), **Eswatini** (149%) and **Egypt** (131%)	**South Africa** (5,104), **Tunisia** (735), **Egypt** (733), **Morocco** (538), **Libya** (167)	**Eswatini** (472%), **Egypt** (115%), **South Africa** (92%), **Libya** (55%), **Tunisia** (38%)	Algeria, Angola, CAR, Cape Verde, Comoros, DRC, Egypt, Eswatini, Gambia, Libya, Madagascar, Namibia, SADR, Sao Tome & Principe, Somalia, South Africa, Sudan, Tanzania and Tunisia	Egypt, SADR, Sudan

Figure 1: Highlights from Africa. Source: PERC[5], Reporting period: 22 December 2020–4 January 2021

[4] Africa Centres for Disease Control and Prevention (CDC)
[5] Partnership for Evidence-Based Response to Covid-19 (PERC) is a public-private partnership aimed at supporting evidence-based measures to reduce the impact of Covid-19 in African Union Member States.

According to John Nkengasong[6], director of the Africa Center for Strategic Studies (ACSS), which has so far played a leading role in coordinating preventive measures and promoting a coherent African response, three different trajectories can be distinguished in Africa with respect to Covid-19:

- Those countries that did not have a significant number of cases until August 2020 but that started to after.
- Those who flattened the curve after cases peaked in July are now seeing another spike in numbers.
- Those which, after an initial peak in cases, continue to see their infection numbers fall.

Of course, these statements have to be qualified by the evidence, set out above, that the amount of testing being done in Africa in general is very low.

Most notable shortcomings and difficulties in fighting the second wave

Sheri Fink headlined her article for the New York Times on 26 December 2020 "As Virus Resurges in Africa, Doctors Fear the Worst Is Yet to Come[7]". The article focuses on South Africa, where the number of cases is rising exponentially. They have no ICUs, no ventilators, hardly any specialists, not even oxygen. And it is one of the most privileged countries on the continent. For this reason, the number of people infected or killed by Covid-19 is increasing. Other countries do not even have tests or any way of knowing their true situation. Africa is a diverse continent in all matters, including inequalities. See Table 1 to compare just two data points between South Africa –one of the richest countries on the continent– with Mali –one of the most disadvantaged– and Spain, in order to get a better understanding of African shortcomings, with first-hand knowledge of our reality as we know it.

[6] MWAI, Peter. "Coronavirus: Africa infections have risen sharply in worst-affected countries", BBC, 27/01/2021. https://www.bbc.com/news/world-africa-53181555?intlink_from_url=https://www.bbc.com/news/world&link_location=live-reporting-story

[7] FINK, Sheri. "As Virus Resurges in Africa, Doctors Fear the Worst Is Yet to Come". The New York Times, 26 December 2020. https://www.nytimes.com/2020/12/26/world/africa/africa-coronavirus-pandemic.html

	DOCTORS	HOSPITAL BEDS
SOUTH AFRICA	0.91 doctors/1,000 people (2017)	2.3 beds/1,000 people (2010)
MALI	0.14 doctors/1,000 people (2016)	0.1 beds/1,000 people (2010)
SPAIN	3.87 doctors/1,000 people (2017)	3 beds/1,000 people (2017)

Table 1: Number of doctors and hospital beds. Source: CIA Factbook

As with so many other measurable aspects (such as the data in Table 1, which in some cases date from 2010), if in Spain the situation is complex and there are disparities in the figures and data relating to the disease, in most of the African continent the simple fact of having the infrastructure to count is impossible, not only due to the lack of means, but also because of the dispersion of the population, armed conflicts, etcetera, etcetera. Even in the more privileged African countries, where it is estimated that many people are dying at home[8].

Figure 2: Confirmed cases of Covid-19 by country. Source: Johns Hopkins University. Updated 11 January 2021

[8] Ibīdem.

Dramatic lack of oxygen

Medical oxygen is essential for a multitude of medical interventions, but in the case we are analysing, it is an element that, in many cases, makes the difference between life and death in seriously ill Covid-19 patients.[9]

Personal protective equipment (PPE) for frontline health workers is also an essential element to prevent them from being a conduit for the virus. This vital equipment has received increased attention as many African health systems have had to stockpile it. This has not been the case for oxygen, which has received much less attention and is notoriously lacking in most countries on this continent, and which is and will undoubtedly affect the current and future response to the second wave of the virus[10].

Difficulties of access to vaccines

According to a pessimistic (or realistic) article in The Economist[11], the difficulties in obtaining vaccines in most African countries will be insurmountable because of their impoverished and poor health systems and their vast and dispersed populations. The most significant difficulties in accessing the various vaccines are as follows:

Most African countries have already seen how they are on the periphery of the global vaccine fight as they have experienced little success in gaining access to current and future supplies of Covid-19 vaccines. These countries, which are the majority, will depend on collective bargaining and the goodwill of the international community.

Other countries, those with greater relative wealth, which is a strategic importance for vaccine-producing nations, and a strong logistical offer to ensure early access to vaccines through the COVAX initiative[12], will find a smoother path at the cost of going into debt or granting exclusive access to certain raw materials in exchange. China, for example, will

[9] STEIN, Felix; PERRY, Meghan; BANDA, Geoffrey et al. "Oxygen provision to fight COVID-19 in sub-Saharan Africa". BMJ Global Health, Volume 5, Issue 6. June 2020. http://dx.doi.org/10.1136/bmjgh-2020-002786

[10] PMNewsNigeria, "Africa lacks enough oxygen to treat COVID-19 patients – CDC", 21/01/2021. https://www.pmnewsnigeria.com/2021/01/21/africa-lacks-enough-oxygen-to-treat-covid-19-patients-cdc/

[11] The Economist. Intelligence Unit. "Africa faces major obstacles to accessing Covid vaccines", 25/01/2021. https://www.eiu.com/n/africa-faces-major-obstacles-to-accessing-covid-vaccines/

[12] The Covid-19 Vaccines Global Access (COVAX) Fund is a public-private partnership to ensure equitable access to vaccines against the Covid-19 coronavirus. The initiative is led by the Gavi Vaccine Alliance (Gavi), the Coalition for Promoting Epidemic Preparedness Innovations (CEPI) and the World Health Organization (WHO). For more information on this international initiative: https://www.who.int/es/initiatives/act-accelerator/covax

almost certainly use access to vaccines to strengthen its economic and political leverage in Africa and other regions struggling to obtain sufficient vaccines[13]. We could start talking about "vaccine diplomacy".

The COVAX programme will cover the most vulnerable 20 percent of the population in each country. Assuming that each vaccine requires the administration of two doses, Africa, with a population of over 1.3 billion people, will need at least 1.6 billion doses to meet its 60 percent vaccination target.

Transport, storage and distribution problems will pose a major challenge to vaccine delivery in much of Africa, contributing to a slow start and slow progress of national vaccination programmes, leaving most of Africa unvaccinated by the end of 2021. It is estimated that we will only be able to speak of a significant proportion of the African population being vaccinated by 2024. It took 24 years to eradicate polio on the African continent.

Lockdown vs hunger

Research[14] shows that lockdown is a very effective measure to reduce the number of new infections. This has been seen in countries that have implemented them as opposed to those that have not. In particular, an improvement is noticeable 10 days after the implementation of this measure and even more clearly after 20 days. The other side of the coin is the serious impact of this measure on domestic and national economies. Spain, which imposed a national home lockdown in March, has since suffered a fall in GDP from which it will take a long time to recover.

Of course, if this is applied to African countries, their economies would suffer equally or more in macroeconomic terms. The pandemic itself is already having disastrous impacts on the economy. But in Africa the problem, if we add home lockdowns to this, is even greater when we look at the micro-economic impact, as it does not only affect the closure of businesses or small shops. The problem is more vital and urgent, as in most African

[13] CAMPBELL, John. “Vaccine Diplomacy: China and SinoPharm in Africa”. Council on Foreign Relations. 06/01/2021. https://www.cfr.org/blog/vaccine-diplomacy-china-and-sinopharm-africa
[14] ALFANO, Vicenzo and ERCOLANO, Salvatore. “The Efficacy of Lockdown Against COVID-19: A Cross-Country Panel Analysis”. Analysis. Appl Health Econ Health Policy 18, pp. 509–517 (2020). https://doi.org/10.1007/s40258-020-00596-3

households, if you don't leave the house for a day, you don't eat.[15] Therefore, a general lockdown of the population to their homes cannot be imposed in Africa, even though it has been shown in more developed countries to be an effective measure in terms of health, because many people are homeless, and even those who are homeless are dependent on daily sustenance.

New mutations

As if all of the above did not put the continent in a more worrying situation, mutations in the Covid-19 virus have been detected in South Africa and Nigeria[16]. In particular, a new SARS-CoV-2 lineage, 501Y.V2, which shows signs of being potentially more transmissible. As of 21 December 2020, more than 300 501Y.V2 variant genomes have been identified, all in South Africa. Preliminary analysis in South Africa (501Y.V2) and the UK (501Y) suggests that this variant is significantly more transmissible than previously circulating variants and with a potentially higher viral load in South Africa[17].

In this globalised world in which we live, we already know that both opportunities and threats are shared. A further example of this is that, as these lines are being written, the South African variant has already made its way to Spain.[18]

Measures taken by the African Union

The catastrophe was already visible from the first wave, from which the African continent came out of it reasonably well[19]. For this reason, the African Union has not been standing idly by, but has taken several initiatives to help the continent prepare for what lies ahead.

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[15] AFP. "'Starve or get sick': Africa's lockdown dilemma". 14/04/2020 https://www.thesouthafrican.com/news/africa-lockdown-dilemma-starve-sick-covid-19/

[16] Africa Center for Strategic Studies. "Analyzing Africa's Second Wave of COVID-19". 05/01/2021 https://africacenter.org/spotlight/analyzing-africas-second-wave-of-covid-19/

[17] Africa CDC. "Alert Notification: New SARS-CoV-2 variant with multiple spike protein mutations". 21/12/2020. https://africacdc.org/download/alert-notification-new-sars-cov-2-variant-with-multiple-spike-protein-mutations/

[18] PUGA, Natalia. "La cepa sudafricana llega a España: Se transmite mejor y llega a más gente". El Mundo, 29/01/2021. https://www.elmundo.es/ciencia-y-salud/salud/2021/01/29/6013d77121efa01a2f8b45c1.html

[19] ANDREI, Mihai. "Coronavirus in Africa is a ticking time bomb". ZME Science, 5/5/2020 https://www.zmescience.com/science/coronavirus-in-africa-is-a-ticking-time-bomb/
DEIROS BRONTE, Trinidad. *Op. Cit.*

We can highlight the creation of a working group for the fight against the coronavirus: Africa Task Force for Coronavirus (AFTCOR[20]), comprising state public health representatives, non-governmental organisations, research institutions, African CDC staff and multilateral organisations. It brings together key stakeholders to promote capacity building, provide coordination and identify urgent needs within member states.

Where countries cannot afford to conduct large-scale testing campaigns, AFTCOR can scale up this capacity in more than 40 African countries. Even so, the testing capacity is estimated to be substantially less than what will be needed[21].

In addition to this, another creation has been the CDC Africa Consortium for Covid-19 Vaccine Clinical Trials (CONCVACT[22]), with the aim of supporting high quality vaccine clinical trials in Africa, as well as to encourage initiatives taken by African manufacturers.

For its part, the Africa CDC has also facilitated the establishment of the Africa Medical Supply Platform (AMSP) to support the procurement and supply of medical equipment related to Covid-19. Its ambitious aim is to provide immediate global and continental access to suppliers and service providers.[23]

Conclusions

In spite of these successful measures taken by the African Union, as we have seen in this document, the lack of tests, doctors and ICU beds; the difficulties in accessing vaccines; the impossibility of generalised lockdown; the harshness of the new mutations as well as the well-known endemic ills that generally affect the continent, such as corruption, poverty and armed conflicts, mean that the outlook for the future is not at all promising.

It is not difficult to conclude the obvious. If in the so-called developed world, there have been a very high number of deaths from Covid-19, and there have been considerable difficulties in obtaining adequate equipment, ICU beds, staff, vaccines, etc., it is no

[20] https://africacdc.org/news-item/africa-cdc-establishes-continent-wide-task-force-to-respond-to-global-coronavirus-epidemic/
[21] DEIROS BRONTE, Trinidad. *Op. Cit*
[22] https://africacdc.org/download/africa-cdc-consortium-for-covid-19-vaccine-clinical-trials-concvact/
[23] BEBINGTON, Katharine and PRAH, Andrea. "Africa and the implications of a second wave of COVID-19 infections". ACCORD, 18/11/2020. https://www.accord.org.za/analysis/africa-and-the-implications-of-a-second-wave-of-covid-19-infections/

exaggeration to expect that, not only in the poorer countries of Africa but also in the richer ones, things are going to be very difficult. If the future in Europe, and not just with the virus and its evolution, but with the economy as well, is uncertain and negative, the outlook for Africa is bleak. And not only at the socio-economic level. We have seen it before: terrorist groups, like carrion birds, feed on need and misfortune. And let us never forget, we have known for years –especially by neighbouring countries such as Spain– that risks are shared.

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