



EXPERIENCES FROM THE FIELD

COVID-19 SOUTH OF THE SAHARA

Africa's Covid-19 situation is complex: while most sub-Saharan countries seem to be coping overall, things are playing out quite differently in South Africa, which accounts for half of the continent's Covid-19 cases and deaths. Yet despite unreliable data, a dearth of testing, and staffing shortages, Africans' resilience and will to tackle the crisis provide at least some room for hope.

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A COMPLEX AND HETEROGENEOUS SCENARIO

The first case of Covid-19 was reported in sub-Saharan Africa (SSA) on 28 February, in Nigeria, and the first death from the disease occurred on 13 March in Sudan. Thus Africa's outbreak came approximately 2 months after China's, and five weeks after cases began to be seen elsewhere. After a rapid rise in the numbers linked to imported cases came a slower exponential rise of approximately 5% per day linked to community transmission; that number has by now (on 30 June) fallen to 3% per day. **Figure 1** shows where SSA currently stands case-wise in comparison with some other hard-hit countries: the delay of the outbreak there is clear, as is the way in which Africa's curve lies well below those of the other countries shown. **Figure 2** illustrates a similar picture in terms of mortality. The congruity between the two figures is noteworthy, as is the even lower position of Africa's mortality curve. However, the aggregate data show a more problematic situation.

In fact, Covid-19's distribution and spread in SSA are very unequal,

FIGURE 1 / CASE TREND IN SSA AND OTHER REGIONS

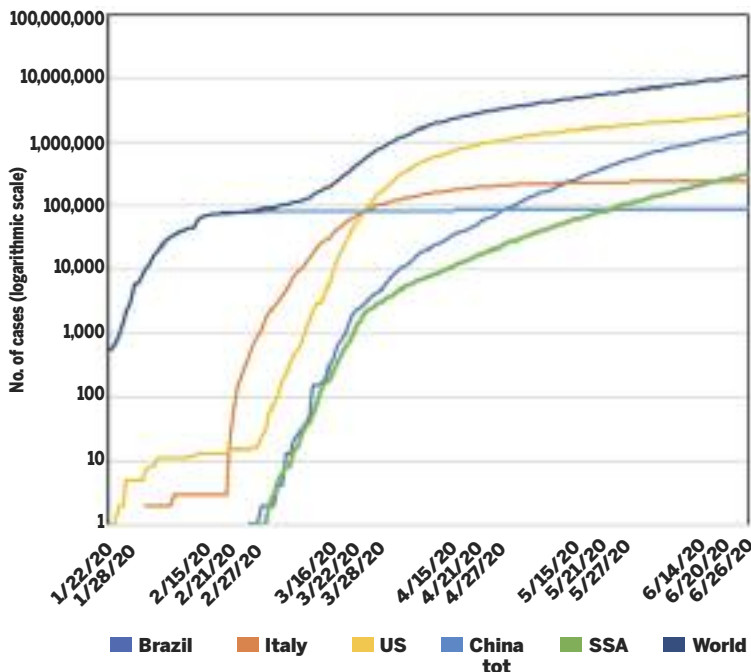


FIGURE 2 / MORTALITY TREND IN SSA AND OTHER REGIONS

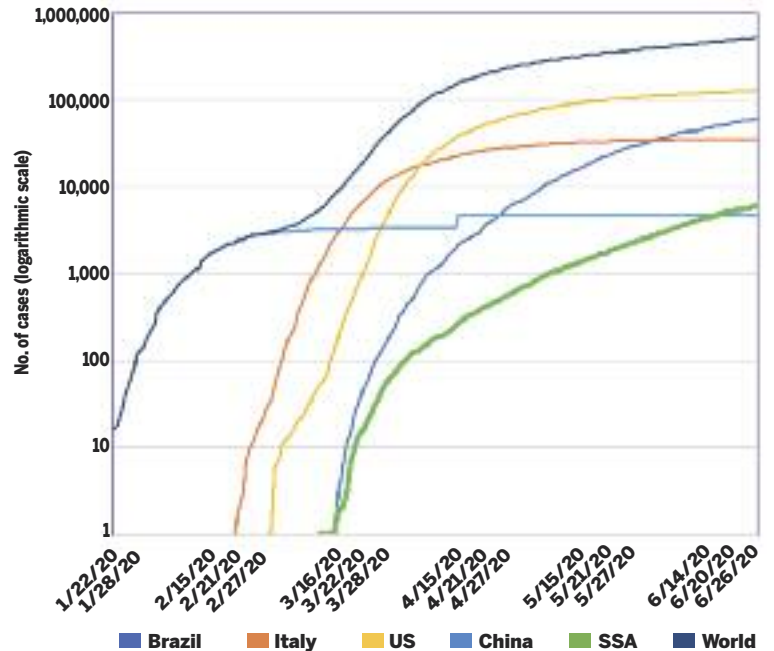
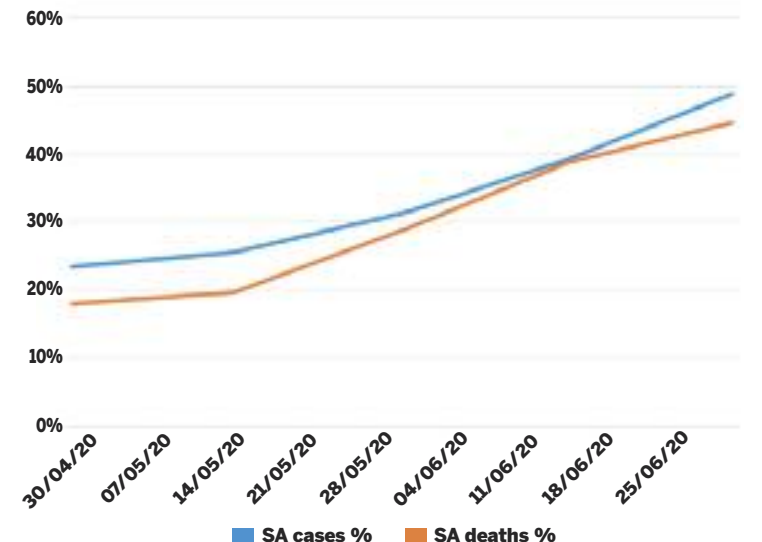


FIGURE 3 / CASE AND MORTALITY PERCENTAGES IN SOUTH AFRICA OUT OF SSA'S TOTAL CASE AND MORTALITY PERCENTAGES



with the vast majority of confirmed cases being seen in South Africa and other countries like Nigeria, Ghana, Cameroon and Ivory Coast. South Africa alone, while accounting for just 5% of SSA's population (60 million out of 1.14 billion), is now reporting nearly 50% of its Covid-19 cases and deaths, and these numbers continue to climb (see **Figure 3**). Indeed, South Africa's daily case growth rate is 5%, while SSA's other countries are reporting rates of around 2%. These variances reflect differences in health policies, the availability of diagnostic tests and the performance of health systems, as well as other factors such as the different stages of the pandemic in each country, due perhaps to the specific policies enacted and the differences in transmission rates (i.e. higher or lower). In some countries the low incidence of the disease is clearly correlated to poor testing policies or data manipulation dictated by political interests. It is also worth noting that SSA's Covid-19 infection fatality ratio (IFR) is low compared to the global average (1.9% vs. 4.9%); this likely has a demographic explanation. The reason underlying the wide IFR variance among individual countries is less clear.

“HIDDEN” DISEASE SPREAD

All of this raises the issue of the reliability of SSA's data on cases and deaths. What do they tell us? Table 1 shows that currently, on 30 June 2020, SSA remains somewhat less affected by the disease than the rest of the world; although it accounts for nearly 15% of the world's population, it has just 3%, approximately, of all Covid-19 cases and just over 1% of all deaths. However, these low numbers should not give rise to a false sense of security. Indeed, the table also shows how the region's case count has increased sixfold, and its deaths quadrupled, since 15 May, just 45 days prior; and how the percentage of the total, as well as some of the global rates, have slowly eroded. In other words, Africa's numbers, too, are on the rise and the disease is beginning to catch up on this continent as well. Yet they are still relatively low, especially when it comes to mortality and IFRs. This could be due to protective factors including demographics, the fact that large segments of the population live spread across wide areas, the possible immunostimulant role of the Bacillus Calmette–Guérin (BCG) vaccine and the impact of measures taken; but it might also reflect the late arrival of the pandemic to the region, the dearth of testing and the weak diagnostic capacity of local health systems. The curve of cases and deaths in upcoming weeks and months – and vi-

tally important epidemiological studies that should be conducted on the ground without further delay – will show the true state of affairs. A recent seroconversion study in Nampula (Mozambique), a city with more than 700,000 inhabitants, found a positivity rate of 5%, i.e. around 35,000 people who had come into contact with the virus, compared to the few hundred officially confirmed cases. The dynamics of the disease in this region are in large part hidden.

CONSTRAINTS: DIAGNOSTIC CAPACITY AND MEDICAL/HEALTH PERSONNEL

There are also issues of another nature. It makes no sense to view Africa's Covid-19 situation through a generic lens. In fact, the information available thus far shows a patchwork of broadly varying epidemics in SSA, at different stages of development and likely based on distinctive sets of dynamics, given the different settings in which they are occurring. There are different situations *within* individual countries as well. Of course this is the case in Europe, too: Belgium's outbreak is dissimilar to Slovakia's, and it stands to reason that the epidemic situations in Italy's northern and southern regions, e.g. Lombardy versus Molise, are also quite different. The situation in South Africa, which is pulling SSA's numbers upward, should not be considered simply as the result of a high-performing system that has implemented a forceful testing policy, but also as the reflection of an atypical African reality with an extremely high degree of urbanization, a dynamic economy entailing plenty of social interaction, a greater burden of degenerative diseases, and so forth.

In any case, two “technical” factors seem of crucial importance for controlling the pandemic. The first is greater diagnostic capacity, i.e. more laboratories able to do polymerase chain reaction (PCR) testing on swabs and respiratory tract aspirates, and more reagents. Major progress has been made since pre-pandemic days, when only Senegal and South Africa had diagnostic capacity for Covid-19. Unfortunately, though, many African countries, including large and heavily-populated ones, lack the capacity to conduct tests outside their capital cities, with all the relative implications, from logistics to the distortion of epidemiological data. The purchase of tests is another sticking point, due both to the limited financial resources of African countries and to the harsh competition by wealthier countries on the global market. But doing large numbers of PCR tests means little anyway if the results are not provided quickly (see South

TABLE / TREND OF SELECTED COVID-19 INDICATORS IN SSA AND THE WORLD FROM 15 MAY TO 30 JUNE 2020

	SSA		WORLD		SSA/WORLD RATIO	
	15 JUNE	30 JUNE	15 MAY	30 JUNE	15 MAY	30 JUNE
NO. OF CASES	52,666	310,057	4,542,347	10,476,823	1:86.2	1:33.8
NO. OF DEATHS	1,258	5,964	307,666	511,268	1:244.6	1:85.7
POPULATION	1,137,040,685	1,140,825,000	7,785,000,000	7,790,000,000	1:6.8	1:6.8
INCIDENCE RATE PER 10,000 PEOPLE-MONTHS	0.217	0.741	1.522	2.522	1:7.0	1:3.4
MORTALITY RATE PER 10,000 PEOPLE-MONTHS	0.005	0.014	0.103	0.123	1:19.9	1:8.5
INFECTION FATALITY RATE (IFR)	2.4%	1.9%	6.8%	4.9%	1:2.83	1:2.58

Africa's Covid-19 testing backlog) or if the testing is not done according to precise clinical and public health criteria. It should be noted that in a pandemic scenario, and with limited clinical resources, Covid-19 diagnoses can be done even without PCR tests.

The second factor is the loss of staff due both to illness and death and to absenteeism. Less than 2,000 health workers had been infected in Africa by mid-May 2020, about 4% of total cases. However, this is the early stage of the pandemic and these human resources are very limited. Future such losses, due primarily to a lack of personal protective equipment, could have a catastrophic impact on the operations of already shaky health systems.

THE PANDEMIC'S ECONOMIC AND SOCIAL IMPACT ON ALREADY PRECARIOUS SYSTEMS

Until now SARS-CoV-2 may well have generated more indirect damage, primarily of an economic and social nature, than it has health-wise. First of all, the crisis has distracted attention from other programs that help reduce mortality (from TB, HIV/AIDS and malaria), including vaccinations and maternal and child health services. The situation is bound to get worse if more health personnel are lost or go "missing in action", and if communities make less use of basic services due to fear of contagion or because they become harder to access. It is difficult to assess such indirect damages in SSA due to the poor reliability of the personal data statistics that make it possible, for example, for the European Union to estimate excess mortality; even so, based on what happened during the recent Ebola crisis in West Africa, it seems clear that things might go in an unfortunate direction. Secondly, restrictive measures based on the Chinese and European models to limit transmission of the disease, which were prematurely (in some countries even prior to the appearance of an index case) introduced to SSA may well have kept curves from spiking, but at a relatively heavy societal cost. This is particularly true for the countries that implemented the strictest measures, e.g. South Africa. Especially in urban areas, a large percentage of the population manages to survive only if allowed to remain relatively mobile (to

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engage in occasional work, informal trade, the search for food and water, etc.). Enacting rigid measures to tackle Covid-19 without providing food and other types of assistance could lead to further deprivation for such communities, including hunger and a dramatic increase in mortality, or defiance and rebellion against authorities perceived as inept and lacking in legitimacy.

Thirdly, far from being able to evade the 2020 recession, with an expected 3% contraction of the global economy, SSA is destined to sink even deeper into it than other regions. Raw material and other African exports including oil and textiles, as well as additional vital sources of income such as tourism and emigrant remittances, are expected to drop steeply. In this scenario, what security nets could be offered to populations already hit hard by disease-control measures, and what aid could wealthy countries provide while facing economic destabilization themselves?

A GLOBAL CRISIS CALLING FOR TRANSNATIONAL ACTION

Never before has there been a greater need for transnational political thinking, an approach that views this public health emergency as "everyone's problem" rather than as a series of national crises to be dealt with separately. SSA risks being seen from the latter perspective. Even so, previous health crises in the region, first and foremost AIDS and Ebola, did not lead, as expected, to total collapse. Most of Africa found ways to bounce back, in some cases – for example, Rwanda – even re-emerging as dynamic, flourishing societies. Thanks to the pandemic's delayed arrival in Africa, its countries have also had a chance to learn from mistakes made elsewhere, beginning with the unprecedented catastrophe that took place in Lombardy. Furthermore, there is a sort of "epidemic mentality" among Africa's health care professionals and laypeople, something not found in other regions of the world. Having been "schooled" in AIDS and Ebola, with their terrible human costs, Africans have become incredibly resilient to such crises. Thus while the current scenario is surely cause for concern, there is also some room for optimism. Africans no doubt have their usual strong will to tackle this crisis to the best of their ability.

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