

Culture, health and well-being sit in places. Impact of COVID-19 on the African Society: geo-anthropological perspectives.

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Abstract

Through an interdisciplinary contribution, the authors intend to propose an updated framework of the progress of the COVID-19 pandemic on the African continent and some critical reflections on various geopolitical and geo-anthropological aspects concerning the new vulnerabilities associated with the pandemic crisis in Africa and the importance of culture and its effects on well-being and health.

The pandemic seems to have hit the African continent much less severely than the rest of the world, with a mortality index (2,4%) lower than the global one (3,5%). The spread of the virus in this geographical area is largely underestimated because health care facilities do not have the tracking power that rich countries have, several factors show how Africa is managing to counter the impact of the pandemic. One reason could be the intervention of the immune capacity of a population exposed in the recent past to numerous other infections that could have stimulated greater protection, both in terms of innate and acquired immunity. The dispersion of the rural population, which represents the majority of the African population (43%), could act as a geographical barrier to the virus. It is a complex picture where there are feelings of distrust between the institutions and the population on the management of the pandemic and the circulation of an excessive amount of data that creates confusion. In the African context, the need to understand the relationship between culture and health becomes fundamental. If the role of cultural values is underestimated, the positive potential of culture as a critical element for maintaining and improving health is negated. According to the World Health Organization, traditional medicine is the cornerstone of health care or its complement in the countries where community membership is most deeply rooted. In Africa, the World Health Organisation estimates that 85% of the population uses it because it is more widespread and accessible than traditional healing systems.

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*Only one form of contagion travels faster
than a virus. And that's fear.
Dan Brown*

Key words: *Africa, COVID-19, culture, health, tourism, migration, policy*

1. Introduction

The COVID-19 coronavirus pandemic appears to have affected the African continent much less severely than the rest of the world, with a lower mortality rate (2.4%) than the global rate (3.5%). Although the spread of the virus on the African continent may be largely underestimated because health structures do not have the tracking power that rich countries have, several factors suggest that Africa is managing to counter the impact of the pandemic better than other continents are trying to do. One reason may be the intervention of the immune capacities of a population exposed in the recent past to many other infections, which may have stimulated greater protection, both in terms of innate and acquired immunity. The dispersion of the rural population, which represents the majority of the African population (43%), could act as a geographical barrier to the virus. The climate with warmer temperatures could also weaken the virus, as could the young age of the African population (60% of the population under 25 years old; median age 19,7 years).

But these are only the most obvious aspects of the epidemic, which is actually having more serious indirect consequences. Predicting possible developments in Africa is a complex matter and cannot focus solely on information and data linked to the disease and its spread.

It is the secondary effects that are proving to be more lethal that are of concern. The fragility of Africa's health structures, the problems of supplying medicines to people suffering from malaria, tuberculosis and chronic diseases, the life of the urban population in unhealthy and overcrowded suburbs and the scourges of armed conflicts and social tensions (in 20 African countries) that add up to a very serious situation of food poverty.

In this complex picture, there are growing feelings of mistrust between institutions and the population about the management of the pandemic, and the circulation of an excessive amount of data, often not carefully screened, makes it even more difficult for the population to find its way around and find reliable sources of information.

Within a culture, between cultures and in multicultural contexts, the influence of culturally oriented value systems on health outcomes is very high.

All human beings have value systems which, although constantly changing and blending over time and space, persist in different lifestyles and beliefs. Even the idea of what constitutes health varies enormously from society to society. Unfortunately, however, there is a tendency to "standardise human nature", both because of a lack of awareness of the many forms that the idea of health and well-being can take in

contexts other than the West, and because of a determination to formulate people's needs and the duties of careers in universally understandable terms.

In a context as complex as the African one, the need to understand the relationship between culture and health becomes fundamental, especially with reference to factors affecting behaviour aimed at improving it.

If, however, the biological dimension is recognised as the only yardstick in defining well-being and health, and the role of cultural values is underestimated, the positive potential of culture as a key element in maintaining and improving health is negated. An example of this is the widespread use of traditional medicine in Africa. According to the World Health Organisation (WHO), in countries with strong community roots, traditional medicine is the cornerstone of health care or its complement. In Africa, WHO estimates that 85% of the population use it because it is more widespread and accessible than conventional medicine.

Failure to recognise the intersection of cultural elements with other structural and social factors can lead to painful health outcomes, internal lacerations and new vulnerabilities.

Not only that, the lack of attention paid to the 'modified sociality' that characterises everyone's actions in this historical period can contribute to aggravating critical situations in the complex African society. New perceptions of danger, accompanied by moral judgments and ethical stigmatisation phenomena linked to the major models of development and contemporary lifestyles, are emerging at the crossroads between scientific opinions, which often differ, political positions, common sense and public opinion. New fragilities are thus added, linked in particular to the reduced or even impossible interconnection typical of every human system, which also affect the moment of transition from life to death, which is particularly important in societies strongly based on a sense of community such as Africa. Such multifaceted and complex social issues in relation to culture and health in Africa require special attention and profound reflection.

Through an interdisciplinary contribution, we intend to propose, in addition to an updated framework of the progress of the COVID-19 pandemic in the African continent, some reflections on various geopolitical and geo-anthropological aspects of no little importance concerning the new vulnerabilities related to the pandemic crisis in Africa and the importance of culture and its effects on well-being and health.

2. Framework on the spread of the COVID-19 pandemic in Africa

There are many aspects of COVID-19 and its aftermath that we are trying to put in order, to make sense of, we need to start with two elements. The first question is whether, in the case of Africa, we are dealing with a 'contained' or an 'uncontained' virus. Is there a success to be acknowledged in containing its propagation, or a failure to detect the spread of the epidemic.

It is now well known that SARS-CoV-2 infection is very complicated to analyse because there are many different factors that contribute to its spread and severity. There are biological factors (possible differences between viral strains and, therefore, between human populations), social factors (size of households and the network of relationships that binds members of the various communities), socio-health factors

(severity of social isolation measures and percentage of people who do not have health coverage) and environmental factors (polluted environment).

The COVID-19 pandemic continues slowly but progressively to spread in Africa, despite various hypotheses about African populations being less prone to contracting the disease, either because their average age is lower, or because vaccinations against tuberculosis may be slowing down or even due to genetic causes. It would seem useful to go over the various phases of the spread of the virus in Africa, which seems to have arrived through travellers returning from hotspots in Asia, Europe and the United States: the first case was recorded on February in Egypt and, from the very beginning of the first collection of data on the spread of COVID-19, and based on the data provided by WHO & UNOCHA- Office for the Coordination of Humanitarian Affairs(OCHA, 2020a; 2020b) and other accredited sources, the spread of COVID-19 in Africa appears to be limited compared to other areas of the planet, especially when looking at the number of infections. In fact, if the number of infections, even the most recent, is compared with the population of the continent, it is clear that these numbers are limited considering that 1,3 billion people live in Africa and that almost all African countries now have substantial and regular relations with China where the virus first appeared in Wuhan (the first recognized outbreak of the epidemic) in inland China at the end of 2019. However, it must be highlighted how the data provided are influenced by the possibility of both testing the sick and establishing the causes of deaths, and still the main cause of death in the Continent are respiratory infections from diseases that have the same symptoms as COVID-19, so it is not easy to distinguish "normal" cases of deaths from pneumonia from Coronavirus-related deaths. In addition, although there are no scientific claims to this effect and no data are available, it should be remembered how undernourished people are potentially more at risk of being affected by COVID-19 because of their fragile immune systems. Those who suffer from hunger, as is known, live in more than precarious socio-economic conditions (access to basic needs non-existent) and with great difficulty in being able to wash their hands with soap and even access basic hygiene care.

In order to draw up a sort of framework for the spread of the virus on the African continent, it is useful to retrace the most significant stages of the spread.

After the first case recorded in Egypt (February 14), just under two weeks later the first infection was recorded south of the Sahara, in the most populous and worrying Country on the Continent: Nigeria (2020, February 28).

Right at the dawn of the spread of COVID-19 in Africa, a team of French researchers has calculated the risk levels, Country by Country, of the spread of the COVID-19 in Africa, an area which, for the moment, is still spared in terms of the number of infections. The study was carried out by researchers from the French Institute for Health and Medical Research (INSERM) in collaboration with other institutes.

A total of fewer than 3.000 cases (64 deaths) were reported in March (WHO, 2020a). By the first half of April, COVID-19 was widespread in 51 out of 54 Countries (15.000 cases; 1.460 deaths). Comoros, Lesotho and Sao Tome and Principe are the only countries that have not reported cases of infection. For two island countries such as the Comoros Islands (Islamic Federal Republic of the Comoros) and Sao Tome and Principe, two factors certainly played an important role, the status of insularity and the fact that they are not subject to frequentation from outside; especially the second

because the factor of insularity has not spared from contagion island countries such as Seychelles and Mauritius, the latter especially presented data related to infected equal to over 260 units (7 deaths) a very high figure when compared to the population of the island that has about 1,2 million inhabitants.

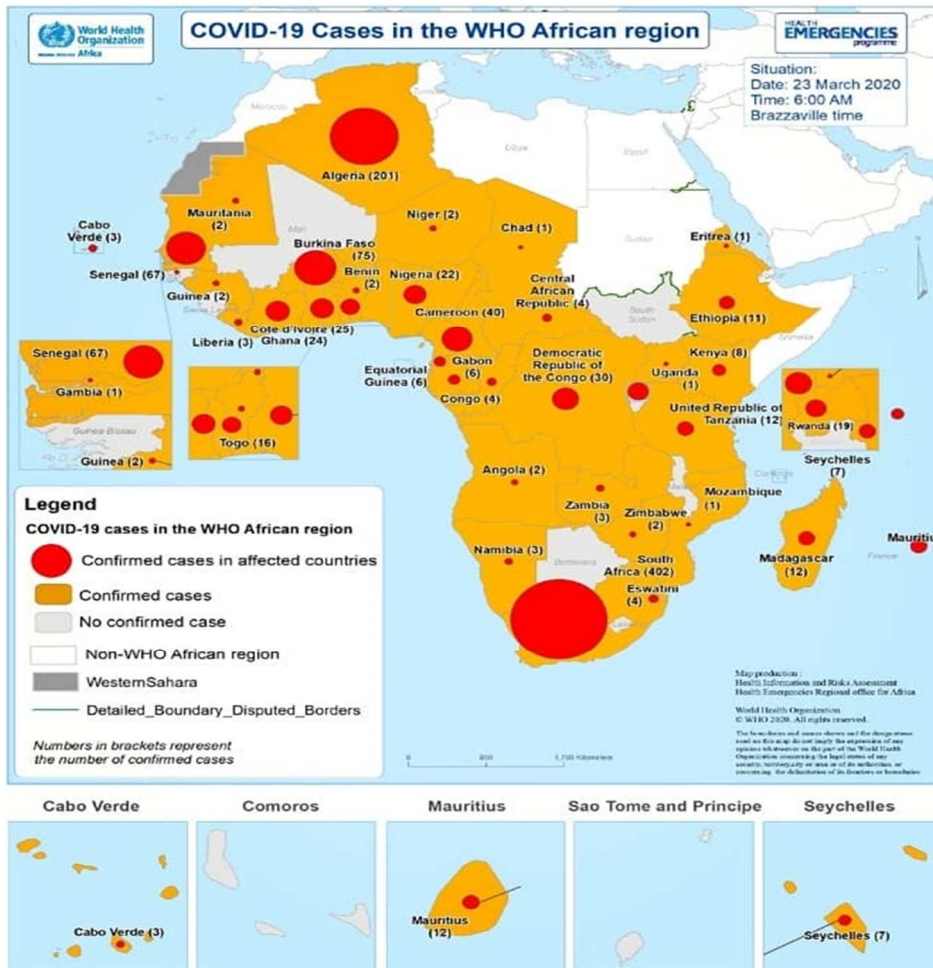


Figure 1 - Countries in the African region for WHO: the spread of COVID-19 (March 2020) - Source: WHO, 2020

Here fore, in the first half of April, based on the data released by the WHO, the countries most affected were: South Africa, with 1.749 cases and 13 deaths, Algeria with 1.468 cases (194 deaths) and Morocco with 1.141 cases (83 deaths). Also during this period, some peculiarities of West Africa should be noted, such as Burkina Faso and Nigeria.

The case of Burkina Faso (380 cases and 18 deaths) is reported because government sources have stated that the epidemic has spread throughout the country in both rural and urban areas and the risk is even higher in the north of the country hit by the jihadist conflict that has already caused over 800.000 internally displaced persons. In

Djibo, the capital of the province of Soum, whose population has doubled due to the arrival of displaced persons in March and April, it has not been possible to impose safety distances on inhabitants, even access to water and soap is limited, and still in the areas affected by the conflict those few hospitals, ambulances and medical personnel are subject to continuous attacks because COVID-19 has not stopped the fighting. Also in West Africa, strong monitoring has been done in Nigeria, Africa's demographic giant with over 190 million inhabitants (De Agostini, 2019) where, in March-April, a lockdown was imposed with substantial containment-prevention measures ordered by the Nigerian government that seem to have had good results if the official data transmitted in April indicate 276 infections and 6 deaths. These figures are very limited if you consider that the average population density in Nigeria is 206,64 inhabitants/sq.km⁶. In Central Africa, it is important to highlight the case of the Democratic Republic of the Congo where the number of cases is 183 (20 deaths), but for this country the data must be considered highly indicative due to the fact that the country is in a constant state of war. At the end of June, around 225.000 people were infected throughout Africa, or just over 2,5% of the 8,8 million cases registered globally. This is a long way from the quota that would "belong" to Africans, who represent 17% of the world population. Similar is the situation of deaths, approximately 8.100, equal to 1,7% of the 464.000 deaths that COVID-19 has claimed throughout the World. Based on the most recent statistics as of 18 December 2020, the following tables provide a picture of the spread of COVID-19 in relation to the five geographical areas into which the Continent is geographically divided. In addition to the number of official cases, the tables also show deaths, healings, tests performed and test-to-case ratios (i.e. tests conducted vs confirmed cases). In North Africa, Morocco and Egypt are the two most affected Countries: Morocco is one of the most affected Countries in the whole country (Table 1) with more than 400.000 cases; Egypt is the 'Virus entry Country' because the official case was registered there.

⁶ It is questionable whether prevention in a situation such as Nigeria has been and should be based on containing imported cases and trying to stop transmission in the community.

North Africa countries	Total confirmed cases	Confirmed deaths	Recovered cases	Total tests	Test-to-case ratio
ALGERIA	94.781	2.659	62.869	230.553	2,4
EGYPT	124.891	7.069	106.481	1.000.000	8,0
LIBYA	93.772	1.346	63.231	499.618	5,3
MAURITANIA	12.278	273	8.548	129.893	10,6
MOROCCO	415.226	6.909	375.623	4.287.640	10,3
TUNISIA	119.151	4.126	87.884	541.456	4,5
REP. ARABIAN SAHARAWI	30	3	28	903	30,1
Total	860.129	22.385	704.664	6.690.063	

Table 1 - Situation of COVID-19 in North Africa - Source: Authors' elaboration (data collated by Africa CDC Dashboard; 18 December 2020).

In West Africa (Table 2), the most affected countries are Nigeria (around 78.000 cases) and Ghana (around 54.000 cases), although the figures are also underestimated due to the small number of swabs carried out on the population. As far as Niger is concerned, although it is very difficult to get an overall picture of the spread of the epidemic in a country of 200 million inhabitants from these numbers, it can be said that so far the epidemic spread has been rather slow and gradual.

West Africa countries	Total confirmed cases	Confirmed deaths	Recovered cases	Total tests	Test-to-case ratio
BENIN	3.152	44	2.973	360.194	114,3
BURKINA FASO	4.954	74	3.504	86.176	17,4
CAPE VERDE	11.567	111	11.215	107.404	9,3
IVORY COAST	2.189	133	21.451	237.469	10,8
GAMBIA	3.786	124	3.656	27.727	7,3
GHANA	53.653	331	52.331	636.366	11,9
GUINEA	13.532	80	12.905	284.387	21,0
GUINEA-BISSAU	2.447	44	2.337	34.336	14,0
LIBERIA	1.779	83	1.406	51.745	29,1
MALI	6.164	220	3.798	125.283	20,3
NIGER	2.612	86	1.406	56.198	21,5
NIGERIA	77.933	1.218	67.784	874.617	11,2
SENEGAL	1.767	361	16.493	264.973	15,0
SIERRA LEON	2.497	75	1.854	65.275	26,1
TOGO	3.396	66	2.974	166.894	49,1
Total	227.032	305	206.087	3.379.044	

Table 2 – Situation of COVID-19 in West Africa - Source: Authors' elaboration (data collated by Africa CDC Dashboard; 18 December 2020).

In East Africa (Table 3), Ethiopia and Kenya have the highest number of cases and the number of deaths is also very high.

East Africa countries	Total confirmed cases	Confirmed deaths	Recovered cases	Total tests	Test-to-case ratio
COMOROS	643	7	610	6.227	9,7
DJIBOUTI	5.781	61	5.649	97.151	16,8
ERITREA	754	0	580	22.647	30,0
ETHIOPIA	119.494	1.846	102.153	1.738.290	14,5
KENYA	94.151	1.633	75.559	1.003.493	10,7
MADAGASCAR	17.587	259	16.992	96.565	5,5
MAURITIUS	524	10	489	301.345	575,1
RWANDA	7.232	59	6.089	686.676	94,9
SEYCHELLES	202	0	184	16.401	81,2
SOMALIA	4.662	124	3.566	26.509	5,3
SOUTH-SUDAN	3.228	62	3.090	64.421	20,0
SUDAN	22.621	1.425	13.024	95.990	4,3
TANZANIA	509	21	178	3.880	7,6
UGANDA	30.702	230	10.360	707.418	23,0
Total	308.090	5.737	238.523	4.867.013	

Table 3 – Situation of COVID-19 in East Africa - Source: Authors' elaboration (data collated by Africa CDC Dashboard; 18 December 2020).

Ethiopia's geographical position at the centre of the migratory crossroads in the Horn of Africa should be highlighted. Ethiopia is the point of origin, transit and destination for migratory flows within and beyond the region: to the Middle East through Djibouti and Yemen on the eastern migration route; to South Africa through Kenya and East African countries on the southern route; and to Europe through Libya and Sudan on the northern migration route. Within this framework, and in the midst of the COVID-19 outbreak, thousands of forcibly repatriated Ethiopian migrants (along with other migrant groups) from Djibouti, Somalia, Kenya, Sudan, Saudi Arabia, Mozambique, and other countries are flowing into Ethiopia, creating a second health emergency (Ethiopian Public Health Institute-EPHI; 2020).

In Central Africa (Table 4), Cameroon and the Democratic Republic of Congo (DRC) emerge as the countries most affected by the virus.

Central Africa countries	Total confirmed cases	Confirmed deaths	Recovered cases	Total tests	Test-to-case ratio
BURUNDI	688	1	549	Nd	Nd
CAMERON	25.724	445	23.851	659.314	25,6
C.A.R.	4.936	63	4.852	34.679	7,0
CHAD	1.867	102	1.632	63.040	33,8
CONGO	6.200	101	4.891	48.174	7,8
R.D.C.	15.397	369	13.310	89.274	5,8
GUINEA EQUATORIAL	5.214	85	5.064	73.875	14,2
GABON	9.400	64	9.254	343.800	36,6
SAO TOME & PRINCIPE	1.012	17	958	7.498	7,4
Total	70.438	1.247	64.361	1.319.654	

Table 4 - Situation of COVID-19 in Central Africa - Source: Authors' elaboration (data collated by Africa CDC Dashboard; 18 December 2020).

The government of Cameroon has developed a plan based on awareness, detection and case management. Isolation and treatment centres were identified. While the capacity for testing has been slightly strengthened, the number of infections is increasing. The Ministry of Health is working on identifying health personnel to be deployed for risk communication and safety measures to communities.

In the far North, despite the UN ceasefire, attacks by Boko Haram armed groups continue to be recorded, making it difficult to raise awareness of the virus in these areas. In the Democratic Republic of Congo, there are not enough tests to have accurate data and the national response committee to COVID-19 has long stopped issuing daily reports on the situation. More than 15.397 cases of infection have been reported. The health system is overloaded and there are growing complaints about the lack of adequate response and use of government funds allocated to the pandemic response. The most vulnerable areas are the eastern provinces of North-Kivu, Ituri, South-Kivu (Rutayisire; 2020). The Democratic Republic of Congo is facing major public health challenges due to a concurrence of major epidemics: Ebola virus (started in August 2018 with strong increase until May 2020), measles (over 300.000 cases in 2019) and the first case of COVID-19 was diagnosed on March 10, 2020 and the Government after a few days declared a state of emergency (March 24, 2020), established the national multi-sectoral response committee and closed in the capital, Kinshasa, the epicentre of the epidemic in the country where every day there are 100 confirmed cases (Nachega et al., 2020). Among the southernmost regions of the African Continent (Table 5), South Africa presents an unique and really complex case. In the world ranking of the spread of COVID-19, South Africa is among the most affected on the Planet. In the Southern Region, COVID-19 cases are the highest percentage: nine-tenths of the entire Region. Since the beginning of the pandemic (last statistics on 18-20 December), South Africa has recorded 988.000 infected people, of whom about 24.300 have died and almost 788.000 have been cured. The highest peak of infections was reached in July, with 15.000 infections per day.

A sharp increase was recorded in six provinces, and in this second wave many young people between the ages of 15 and 19 are also affected.

Southern Africa countries	Total confirmed cases	Confirmed deaths	Recovered cases	Total tests	Test-to-case ratio
ANGOLA	16.626	386	9.518	171.247	10,3
BOTSWANA	12.873	38	10.456	495.696	38,5
ESWATINI	7.305	137	6.662	74.918	10,3
LESOTHO	2.546	48	1.445	30.486	12,0
MALAWI	6.153	187	5.662	81.471	13,2
MOZAMBIQUE	17.447	147	15.451	256.524	14,7
NAMIBIA	18.437	171	15.849	186.883	10,1
SOUTH-AFRICA	912.467	24.539	787.782	6.100.373	6,7
ZAMBIA	18.620	373	17.756	518.986	27,9
ZIMBABWE	12.151	318	9.984	217.567	17,9
Total	1.024.625	26.344	880.565	8.134.151	

Table 5 - Situation of COVID-19 in Southern Africa - Source: Authors' elaboration (data collated by Africa CDC Dashboard; 18 December 2020).

It is noteworthy that at this time the summer holidays characterised by school parties begin, and South Africans living in the cities are in the habit of spending Christmas with their loved ones in their home villages. The authorities in Pretoria do not intend to resort to new restrictive measures at a national level, much less a lockdown (the South African government had imposed very strict rules for two months in March-April, with total closure of schools, shops, borders and a ban on going out) so as not to further undermine the economy, already severely tested by the first wave of COVID-19. Mass gatherings are prohibited throughout the country, especially after funerals. There is great concern in the medical community about the development of the epidemic and it is believed that the measures currently in place are not sufficient to stop the second wave.



Figure 2 - Overview of COVID-19 prevalence in South Africa broken down by provinces - Source: Republic of South Africa, Department of Health

Looking at the official data above, the assumption of the WHO study (2020b) that 150.000 deaths would be reached by the end of 2020 does not correspond to reality. In fact, as of 18 December 2020, the total number of deaths in Africa stands at 58.763.

Countries	Total confirmed cases	Confirmed deaths	Recovered cases	Total tests	Test-to-case ratio
SOUTH-AFRICA	912.467	24.539	787.782	6.100.373	6,7
MOROCCO	415.226	6.909	375.623	4.287.640	10,3
EGYPT	124.891	7.069	106.481	1.000.000	8,0
ETHIOPIA	119.494	1.846	102.153	1.738.290	14,5
TUNISIA	119.151	4.126	87.884	541.456	4,5
ALGERIA	94.781	2.659	62.869	230.553	2,4
KENYA	94.151	1.633	75.559	1.003.493	10,7
LIBYA	93.772	1.346	63.231	499.618	5,3
NIGERIA	77.933	1.218	67.784	874.617	11,2
GHANA	53.653	331	52.331	636.366	11,9

Table 6 - The 10 most affected Countries by COVID-19 - Source: Authors' elaboration (data collated by Africa CDC Dashboard; 18 December 2020).

Tests carried out which corresponds to 2% of the total population of the Continent. A final reflection leads us to affirm that the course of the pandemic in Africa has so far been very different from that in Europe or Italy (30.000 deaths in just three months in the first phase), otherwise the deaths in Africa would be around 600.000. In terms of statistics, which we know are not precise and must be considered estimates, Africa is an anomaly in the pandemic: transmission is slower, leading to fewer cases, less severe infections, and far fewer deaths.

3. Socio-economic impacts of the pandemic

African Countries have also benefited from the fact that they were among the last arrivals of the virus, which has allowed them to waste no time in closing their borders and putting in place lockdown measures; South Africa did so before even registering the first death. There is little doubt that there is widespread under-reporting of cases in Africa, but this cannot be the only explanation. A Country as capable of effective monitoring as South Africa should otherwise show an epidemic pattern not too different from that of more affected nations, but this has not been the case.

Even more than the health impact (see par. 4) the indirect effects of the pandemic are the hardest and most serious for the Sub-Saharan area. From this point of view, the COVID-19 pandemic is likely to be an 'emergency within an emergency' that will worsen structural economic, social and political fragilities common to many Countries in the Area.

It is important to emphasise that the pandemic began to hit African economies even before the Virus landed on the Continent, through the sharp drop in international demand for commodities and agricultural products, the halt in foreign investment and capital flight, the slowdown into which sectors such as tourism and air transport immediately entered, and the collapse of remittances from the diaspora. Then came the lockdown measures adopted by African governments themselves. All reasons for loss of work and potentialities for the economies of the region which, despite the progress of the past two decades, remains the poorest on the Planet. Sub-Saharan Africa will close 2020 with its first recession in 25 years, according to the World Bank,

UNCTAD forecasts that in 2020 foreign investment in Africa will decrease between 25% and 40% depending on the country. The International Monetary Fund, in its document on the economic outlook for Africa, published in October 2020, forecasts a contraction of the continent's Gross Domestic Product of 3% in 2020 and a recovery of 3.1% in 2021 (UNCTAD, 2019; 2020a; 2020b).

Due to the global economic crisis, migrants, who are often employed in the informal economy, are among the first to lose their jobs or experience wage decreases. This leads to a significant decrease in remittances. The World Bank foresees, by 2020, a decrease in remittances from migrants of 19,9% globally (from 554 to 445 billion dollars) and 23,1% in Sub-Saharan Africa (from 48 to 37 billion dollars)

3.1 The crisis in the tourism sector

Tourism, an important sector of economic activity for many African countries, has been and will continue to be strongly affected by COVID-19 with the generalisation of travel restrictions, border closures and social displacement.

IATA estimates the economic contribution of the air transport industry in Africa at \$55.8 billion, supporting 6.2 million jobs and contributing 2.6% of GDP. However, in normal times, air transport about 35% of world trade, and each air transport job supports another 24 in the travel and tourism value sector, which generates around 70 million jobs (IATA, 2020).

According to an IATA statement, international bookings in Africa declined by about 20% in March and domestic bookings fell by around 15% in March and 25% in April. According to the same data, major African airlines (Ethiopian Airlines, EgyptAir, Kenya Airways, South African Airways) have already lost \$4.4 billion in revenue by 11 March 2020 as a result of COVID19. Ethiopian Airlines reported a loss of \$190 million

To the latest data Ticket redemptions increased by 75% in 2020 compared to the same period in 2019 (01 February - 11 March).

Based on statistics from the World Tourism Organisation (WTO), the number of tourists to the Continent continued to grow with an average annual growth rate of 5%. In 2019, the number of tourists travelling to Africa was about 70 million and the WTO had made a forecast of 75 million tourists for 2020.

Travel and tourism is one of the main growth engines of the African economy, accounting for 8.5% of GDP in 2019, according to the World Tourism and Travel Council (WTTC).

For 15 African Countries, the tourism sector accounts for more than 10% of GDP and for 20 of the 55 African Countries, the tourism sector accounts for more than 10% of GDP. In Countries such as the Seychelles, Cape Verde and Mauritius, tourism contributes much more to GDP, reaching over 25%.

Tourism employs more than one million people in each of the following countries: Kenya Ethiopia, South Africa, Tanzania and Nigeria. Tourism employment comprises more than 20% of total employment in Seychelles, Cape Verde, São Tomé and Príncipe and Mauritius.

Still according to the World Travel & Tourism Council (WTTC), in 2018, the tourism industry contributed 8,5% (\$194.2 billion) of the Continent's gross domestic product (GDP). Furthermore, according to the United Nations, Africa was the second fastest growing tourism region in the world with 5,6% in 2018 compared to the global average rate of 3,9%. Out of 1,4 billion international tourist arrivals in 2018, Africa received only 5%.

In relation to the tourism industry which contributed strongly to the GDP growth of many countries in 2019 (Seychelles, Cape Verde, Mauritius, Gambia, Tunisia, Madagascar, Lesotho, Rwanda, Botswana, Egypt, Tanzania, Comoros and Senegal), economic growth is expected to shrink to an average of -3,3% in 2020. Specifically for Seychelles, Cape Verde, Mauritius and Gambia the impact will be much higher at least -7% in 2020.

Before the COVID-19, the outlook for the tourism industry in Africa was more than positive and strong compared to other regions of the World: an increase between 3% and 5% in 2020.

With restrictions in place, however, hotels are in the phase of semi-closing with redundancies for employees. First impacts involve the partial unemployment of airline staff and equipment.

Workers and travel agencies are closing in many African countries, negative growth is likely to be expected. The overall impact of COVID-19 on the economies of major tourism countries will be much bigger than can be expected.

As foreseen by the United Nations Tourism Organization estimates, by the end of 2020, tourist arrivals will have fallen by between 20% and 30% worldwide. In African countries, the decrease will be between 60% and 80%. UNCTAD forecasts that in 2020, foreign investment in Africa will decrease between 25% and 40% depending on the country (World Bank, 2020). The International Monetary Fund, in its document on the economic outlook for Africa, published in October, forecasts a contraction of the continent's GDP of 3% in 2020 and a recovery of 3,1% in 2021. The same document recognizes the volatility of these forecasts linked to the persistence of the pandemic, the availability of external aid and the arrival of an effective and available vaccine (see par. 4).

3.2 Geopolitics, elections and social security

The non-sanitary implications of COVID-19 in Africa do not only concern economic development but also the political sphere of the Continent. It became clear that in European countries as well as in Japan, proclaiming a state of emergency or governing temporarily by decree was a forced choice for many countries. Particularly for African countries, it may then be more difficult to backtrack (or easier to avoid backtracking, depending on one's point of view) towards a weakly entrenched rule of law and democratic practices.

Indeed, there is a risk that the pandemic will favour authoritarian backsliding (one already reads "pandemic backsliding") as well as the consolidation of already autocratic regimes. African authoritarian governments favour lockdown, because they proclaim a state of emergency for the public good, for public health, because it is essential to rule by decree, because it is necessary to ban movements and

gatherings, and because it is therefore necessary or appropriate to postpone elections or monitor media communication. To all this, new formulas have been added to promote surveillance. Last May, for example, Burundi held a historic presidential election, but also managed to keep foreign observers away from a controversial vote, or at least most of them, discouraged by the requirement of a 14-day quarantine.

As many as 16 countries in the Sub-Saharan region were scheduled to hold national elections in 2020, and many were faced with a choice: to favour democratic participation (by sending voters to the polls despite the risk of infection) or to defend public health by temporarily giving up the right to vote. In late spring, some countries decided to proceed with voting, such as Burundi, Mali and Guinea, while Ethiopia suspended voting. Maybe Niger will be able to do them in the last days of 2020. However, there is also the opposite scenario, of destabilisation of some authoritarian regimes rather than their consolidation. The social and economic suffering that the COVID-19 will bring to the people of Africa - with the slowdown in growth, the increase in poverty and unemployment, the spread of food insecurity - could trigger new popular protests already emerged in the past two years, and focus especially on the more closed and discredited regimes, such as those of oil states like Cameroon, Gabon or Congo-Brazzaville, in serious difficulty due to the collapse in the price of crude oil. It is only to be hoped that, to the extent that social difficulties are transformed into dissent and political mobilisation to demand change, this will not be through new violent uprisings.

The pandemic is likely to pose security challenges to many populations, particularly in the Sahel Region, as many of these Countries are vulnerable due to the conflicts that have generated and continue to generate large population movements. Covid19 has arrived at a time when this region is already facing the daunting challenges of fragility, conflict and violence due to terrorists, the jihadist mix, community militias, bandits, political instability and climate change factors.

As national governments and regional institutions strive to curb the spread of Covid19 and loosen security and defence policies in the region, the threat of the Boko Haram jihadist group active in the region is always at the ready. It is certain that the spread of the pandemic in this region will make it difficult for security forces, health service providers and international relief organisations to provide relief and protect the local populations.

In this typically African context, where emergencies often become a tool for governments to repress, control the population and defend their acquired powers, Michelle Bachelet, the United Nations High Commissioner for Human Rights, addressed a warning to the various countries, not only in Africa, not to use the pretext of the pandemic to violate human rights (ANSA, 2020).

3.3 Different lockdown and restrictions

In an attempt to control the spread of COVID-19 many African countries have introduced more or less stringent containment measures at very early stages of the pandemic. Rwanda was the first country to do so, on March 21, when it had 17 confirmed cases (AA.VV., 2020). Confinement measures were introduced and imposed in different ways in different countries and within countries (Haider N, et al. 2020). Therefore, on the African continent, in March, April and May, there was a

true Lockdown period of varying duration from country to country, but invasive. The borders between one country and another were officially closed, the lockdown was activated in two-thirds of the continent and, where it was not made official by governance, there were in fact major restrictions on travel (Fig. 4).



Figure 4. Rwanda: measures in force beginning at 23:59 on 21/03/2020 for 2 weeks - Source: Office Prime Minister of Rwanda 2020.

The measures taken by the various governments have almost everywhere been very strict and focused on prevention. At the moment, lockdown has been the only prevention, but it is clear that measures such as those in China or Europe cannot be proposed for long in African countries where most of the economy is informal: day jobs, salaries and non-existent contracts. It is very difficult, if not almost impossible, to force people to "stay at home" in the slums where the concept and reality of home is far removed from that of the West. It is unthinkable to impose not to go out where food must be bought or sought every day. On the other hand, religious celebrations have been banned in all countries, both in countries with a Christian majority and in Muslim ones.

The strong restrictions imposed by the various governments, which have imposed invasive closures, in practice blocking informal commerce, have caused problems of public order, looting of supermarkets and social uprisings harshly repressed with many arrests in Kenya, Nigeria, South Africa and Uganda. To avoid these risks, some governments have opted for hybrid models, with a curfew from 8 pm instead of a lockdown: commercial activities open, but all movement prohibited in the evening, or some have identified one or two weekly days for food supply with different time slots for the population.

In Nigeria, where the lockdown was introduced even before the virus spread to avoid the collapse of the health system, these measures have been met with mistrust by the public. Many have a kind of psychological refusal to accept the pandemic as a real problem.



Figure 5. Limitations and closures of African Countries - Source: WHO (situation on 17 March 2020).

However, the repercussions of lockdown within poor communities may have been underestimated, and it is plausible that, at the end of the day, the lives lost to lockdown may exceed those saved by COVID-19. Indeed, some unintended and potentially fatal consequences of social isolation include worsening economic conditions and exacerbating food insecurity that eventually affect social stability and the efforts of some countries in the midst of transitioning to possible horizons of democracy (Carbone & Casola, 2020).

Many are and will be the consequences of lockdown and social isolation. Interesting is the recent report of the Kenyan Ministry of Health that certifies an increase in the

number of women who became pregnant since March, the first month of the restrictions imposed by the government to contain the spread of COVID-19. The causes of this increase are still in the field of hypotheses. Among the most accredited, the various consequences of anti-COVID-19 restrictions. a key role was played by the decline in supplies and purchases of contraceptives, as well as reproductive health care. A phenomenon, this, mainly due to the stress to which the national health system has been subjected.

UN Secretary General Antonio Guterres has reiterated on several occasions that terrorist groups are taking advantage of the COVID-19 pandemic to intensify their attacks and to challenge state authority throughout the Sahel area, particularly in Liptako-Gourma, a border area between Mali, Niger and Burkina Faso, where Al-Qaeda and IS affiliates operate.

There is no doubt that Sahelian jihadists have proven to be very adept at garnering support from the population by exploiting the failings of states, alternating coercion with protection.

4. The healthcare system: strengths and weaknesses

4.1 Overview

The ability of a healthcare system to support the health and wellbeing of the population during a pandemic such as the current COVID-19 pandemic is affected by several factors: the baseline burden of other diseases, the local transmission scenario of the pandemic and the ability of the health system to respond at the beginning and as the pandemic evolves.

Sub-Saharan Africa is characterised by low levels of health spending, mostly driven by the high cost of finance and limited government revenues, as well as severe poverty (Kiross, 2020). In 2019, Sub-Saharan Africa's health sector had a financing gap of US \$66 billion (UNECA, 2019). As health expenditure is a major determinant of health outcomes, low levels of health expenditure result in the majority of overall morbidity (HIV/AIDS, tuberculosis, malaria) and mortality (maternal and child mortality), as well as low life expectancy (Hlafa et al., 2019; Nketiah-Amponsah, 2019).

Most African Union countries are still a long way from meeting the 2001 Abuja Declaration target of allocating at least 15% of their annual national budgets to health (WHO, 2001).

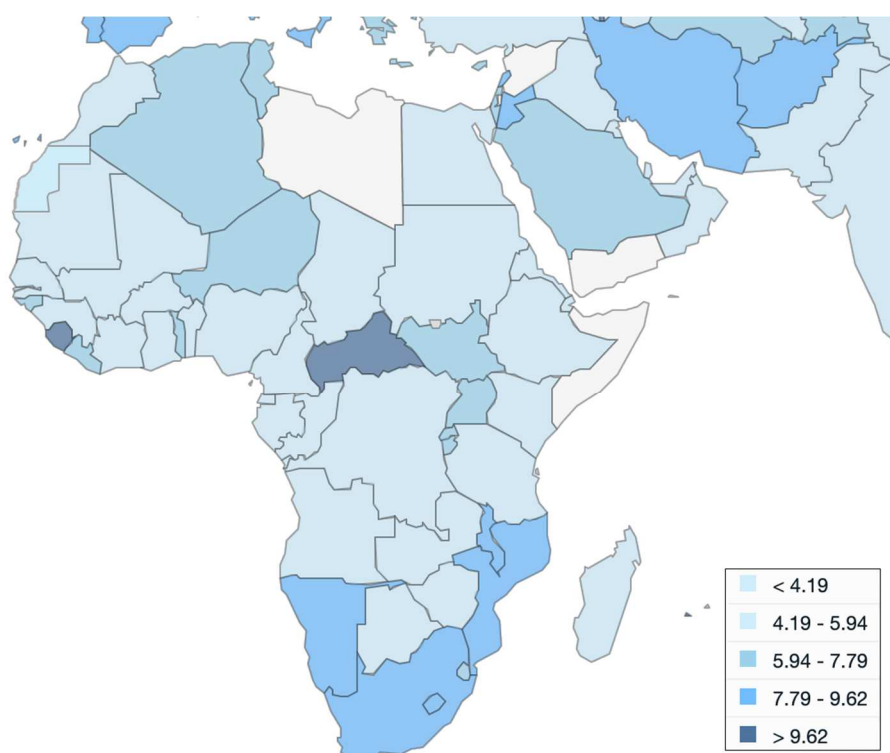


Figure 6 - Current health expenditure – Sub-Saharan Africa (% of GDP) - Source: World Health Organization Global Health Expenditure database (2018)

Limited testing capacity, shortage of qualified personnel needed for diagnostics, lack of intensive care units, inadequate ventilators, scarcity of personal protective equipment for health workers, and low funding for the health sector are some of the key health care issues that make Africa more susceptible to the COVID-19 pandemic in perspective (OECD, 2020a; 2020b).

Moreover, if investment in health is low, so are levels of human capital. Investment in human capital plays a key role in economic growth for both productivity and innovation, as it contributes to a reduction in mortality and a related increase in life expectancy (Chireshe & Ocran, 2020).

It is important that countries achieve at least the minimum goal of providing sufficient health benefits, especially to the poor. In other words, to be fair, a health system should be "highly unequal", favouring the weakest population groups. Unfortunately, however, "The inverse care law", coined in 1971 by J.T. Hart (1971), still applies almost everywhere: "the availability of quality health services varies inversely with the need for them in the population served".

The Figure 6 shows the extent to which African governments' policies, taken as a whole (including fiscal policy, for example), prioritise public health spending in their country (WHO, 2020c).

The intensity of the colour reflects the value: the lighter the colour, the higher the priority assigned by governments to public health spending. Grey indicates lack of data.

Health care in any society has considerable ethical value, as the way in which health care institutions treat the most vulnerable part of the population is an indication of how society understands itself.

Another element that makes the situation on the African continent even more potentially critical is the fact that the pandemic has slowed down the growth of growing economic sectors, such as the African pharmaceutical industry. This aspect is very important even though it affects a limited number of producing countries (South Africa, Nigeria, Ghana, Mauritius, Algeria, Morocco) (UNECA, 2020), as it affects a much larger number of neighbouring importing countries (Fig. 7). Local manufacturers produce about 25-30% of the pharmaceutical products and about 10% of the medical supplies on the African market. More than half (57%) of Africa's official exports of pharmaceutical products go to neighbouring African countries. The production of pharmaceutical products locally on the continent is, in fact, essential to better fight local diseases and advance the continent's productivity.

The closure of many pharmaceutical companies in India and China, which is the world's largest producer of raw materials for drug production, has severely affected both the production and importation of drugs in Africa.

The consequences have been severe for African countries, which together import 94% of their pharmaceutical needs.

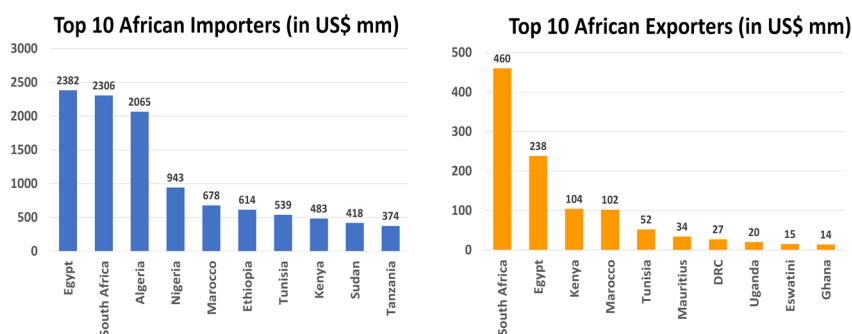


Figure 7 - Top 10 African exporters/importers of medicinal and pharmaceutical products - Average (2016-18) - Source: ECA based on UNCTADStat (www.uneca.org)

Beyond emergency policies to combat the pandemic, it is necessary to use this situation to improve long-term growth prospects by investing more effectively in health, strengthening basic infrastructure and promoting economic transformation. In fact, the pandemic is also an opportunity for African countries to put in place all the necessary infrastructure in the informal settlements that have sprung up as a result of urbanisation, such as water supply, waste management, sanitation, etc. Moreover, the digital transition can facilitate the technological leap towards a more sustainable economy powered by renewable energy. In addition, as Cilliers et al. (2020) pointed out in their report on the potential impact of COVID-19 in Africa, an accelerated structural transformation towards economic and labour diversification can reduce the current heavy dependence on foreign commodities and products.

It is difficult for health systems to respond to the needs of the local population during a pandemic, all the more so when the pandemic, such as the current COVID-19 pandemic, has different characteristics from previous ones, as extensively indicated in the previous paragraphs. First, the geographical spread is much wider: all health systems in Africa are dealing with COVID-19 at the same time. This is different from the 2014 Ebola outbreak, when several countries without Ebola cases had been able to provide direct support to affected West African countries. Secondly, the temporal length of the pandemic can result in prolonged interruptions to health care. Restoring services in the context of a “new normal” will continue to present ongoing risks of transmission. Thirdly, a significant proportion of people infected with the virus are asymptomatic and patients with symptoms are more infectious early in the course of the disease, even before symptoms develop. It is easier to control the spread of the disease when, as in the case of Ebola, symptomatic patients account for the majority of cases. Finally, and perhaps most significantly, the measures taken by governments to control the pandemic have been and are more disruptive to society than measures taken during other epidemics. In sub-Saharan Africa, many governments have adopted severe public health measures, which in fragile economies have the potential to be significantly detrimental to health systems and the health of the population. The pandemic, therefore, falls disproportionately on sub-Saharan Africa, where there is a significant burden of communicable and non-communicable diseases. In that part of the continent, the incidence of HIV, tuberculosis and malaria, the three main global threats to public health, is very high. The burden of vaccine-preventable diseases, such as measles, which are an important cause of death among children, is therefore high (WHO, 2020d).

In addition, over the last decade, the phenomenon of urbanisation of populations and the resulting change in lifestyles have been accompanied by an increase in non-communicable diseases, such as diabetes, cancer, cardiovascular diseases and chronic kidney diseases.

In this situation, an uncontrolled spread of COVID-19 risks being devastating.

So far, fortunately, it seems that the impact of COVID-19 is less dramatic than expected with fewer cases than in other continents and a much lower mortality rate, as highlighted in the previous paragraphs. However, the direct effects of COVID-19 are dynamic and worsening, and health systems that were already fragile risk being further weakened by the pandemic. This raises concerns that the pandemic may reverse the progress made in reducing the burden of disease that has plagued the continent in recent decades.

With the exception of Kenya and South Africa, in the event of a new pandemic crisis, health facilities would not be able to cope with large numbers of patients in need of intensive care. In fact, intensive care services in most African hospitals have very limited capacity, with often only 10 beds available.

Let us not forget that Sub-Saharan Africa has the lowest ratio of doctors, nurses and population in the world (Fig. 8), averaging 2.3 doctors and 9.8 nurses per 10,000 people, compared to 36.1 and 88.3 in Europe (WHO, 2020e).

Geographic Area	Type of occupation	2018
Central Asia	Nursing and midwifery personnel	84,30
	Medical doctors	27,28
Eastern Asia	Nursing and midwifery personnel	35,75
	Medical doctors	20,54
Europe	Nursing and midwifery personnel	88,37
	Medical doctors	36,10
Latin America and the Caribbean	Nursing and midwifery personnel	50,57
	Medical doctors	22,90
Northern Africa	Nursing and midwifery personnel	17,21
	Medical doctors	7,76
Northern America	Nursing and midwifery personnel	140,77
	Medical doctors	25,82
Oceania	Nursing and midwifery personnel	93,67
	Medical doctors	27,19
South-Eastern Asia	Nursing and midwifery personnel	26,33
	Medical doctors	6,37
Southern Asia	Nursing and midwifery personnel	14,38
	Medical doctors	8,69
Sub-Saharan Africa	Nursing and midwifery personnel	9,81
	Medical doctors	2,35
Western Asia	Nursing and midwifery personnel	30,54
	Medical doctors	19,34

Figure 8 – Health worker density, by type of occupation (per 10.000 population; 2018) - Source: Authors' elaboration (data from UN - Global SDG Indicators Database)

Measuring and monitoring the density of healthcare workers is crucial for understanding the available resources in a health system. The density of health workers is an indicator for monitoring Sustainable Development Goal 3 Health and Wellbeing; Target 3.c "Substantially increase health financing and the recruitment, development, training and retention of the health workforce in developing countries, especially in least developed countries and small island developing States" (UN, 2015).

Moreover, in a few countries the number of nurses per 10.000 inhabitants is above 25 (South Africa, Mauritius, Botswana, Seychelles, Namibia, Gabon and Tunisia), while only Libya exceeds 60. The density of doctors per 10.000 inhabitants reaches 20 only in Libya and Mauritius, 18 in Algeria and 13 in Tunisia, in 5 countries it is above 7, but in the remaining 43 countries it is below 5 per 10.000 inhabitants.

Health personnel are on the front line in the daily fight against epidemics and this leads to a high risk of contracting communicable diseases, including COVID-19.

A significant number of health workers have been affected by COVID-19, with 20 percent being infected in 38 countries since the beginning of the outbreak. Overall, South Africa has been the most affected, with 34 percent health workers infected. Niger 17 percent and Burundi 14 percent have the highest country specific proportion of health workers (WHO, 2020f).

This puts an even greater strain on the healthcare system. The experience of the Ebola crisis in West Africa from 2014 to 2016 showed that health workers were more likely to be infected and die, after contracting the infection, than other groups. The

high risks of infection for the already few health workers (WHO, 2020g) were caused by the inadequacy of many health facilities in applying the protocol of isolation of infectious patients and the lack of personal protective equipment.

It should also be noted that the majority of nurses in Africa are women (65%), who are joined by 28% of female doctors (Boniol, 2019), as the table below highlights.

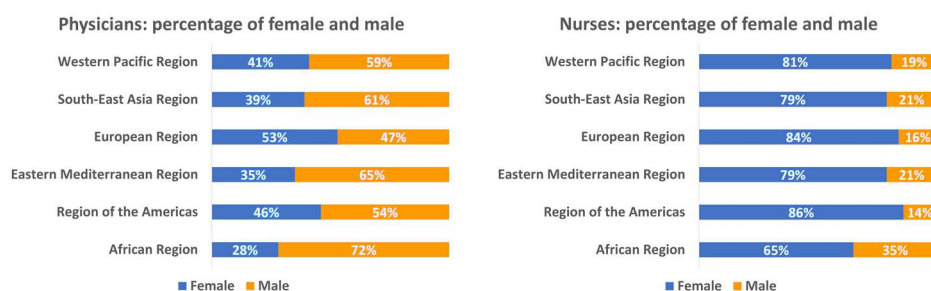


Figure 9 – Distribution of physicians and nurses by gender - Source: Data from NHWA for 91 countries for physicians and 61 countries for nursing data (elaboration of data from Boniol et al., 2019)

According to data (Fig. 9), women are more involved in the care of people infected with COVID-19, female social workers are more likely to be infected with the virus (Harman, 2016).

Indeed, during the Ebola virus outbreak in West Africa in 2014-16, women were at greater risk than men, given their predominant role as caregivers within families and as frontline health workers (Davies, 2016; Gyasi, 2020).

The experience of past epidemics has shown that in order to improve the effectiveness of health interventions, it is also important to adopt a gender analysis and to promote gender and health equity objectives.

Nor should it be overlooked that in sub-Saharan Africa the indirect effects of the pandemic are likely to be far more serious than the direct ones.

A recent WHO study of 14 African countries highlighted concerns about the indirect effects of COVID-19 on five basic health services, namely outpatient visits, hospital admissions, attended births, treatment of confirmed malaria cases, and immunisation. The results showed a 50% decrease in the provision of these primary services between January and September 2020 compared to the same period in the previous two years (Siedner et al., 2020; Falchetta et al., 2020). The effects were worrying: in almost all the countries studied, drastic decreases in vaccination campaigns were observed and in many countries, such as Nigeria, maternal deaths almost doubled.

Cholera cases have risen dramatically due to a drop of about 50% in the number of people unable to access treatment due to COVID-19. Oxfam and UNICEF reported that 17 African countries are now facing a severe cholera epidemic (UNICEF, 2020). COVID-19 effects on malaria vary widely between nations, and are driven by each country's epidemiological context, size, and current intervention coverage status.

As pointed by Weiss et al. (2020), "the incidence of malaria in 2020 would increase by 21,5% (95% UI 16,3-27,9), or 46,4 (35,0-60,0) million cases, relative to the mean baseline level across malaria-endemic African countries. Furthermore, in this scenario, malaria-attributable deaths would nearly double, from 386,4 (307,8-497,8)

thousand to 768,6 (586,1-1038,7) thousand. The large increase in deaths is a result of the crucial role of antimalarial drugs in preventing progression to death in malaria-infected individuals".

Access to basic health services changed during the closure: there was a reduction in health visits for children during the isolation, both in children under one and in children between one and five years of age (Siedner et al., 2020). In contrast, when isolation was lifted, there was an immediate increase in HIV visits (Jewell, 2020).

The COVID-19 outbreak reduced the number of women giving birth in hospital and significantly increased in-hospital mortality among pregnant women compared to the pre-blockade period (McDonald et al., 2020).

A recent study published in the Lancet estimated that, in Africa, each vaccination suppressed to avoid a death from COVID-19 potentially contracted during a vaccination session can cost up to 84 child deaths from other diseases (Abbas et al., 2020).

Therefore, being able to assess the possible mutation of the virus and not just follow its evolution becomes crucial, particularly for Africa, in order to achieve the fastest and most effective response.

4.3 Facts about COVID-19 test and vaccines

The COVID-19 pandemic led to the need for rapid testing to provide the diagnoses needed to effectively treat, cure and control the spread of the virus (Vandenberg et al., 2020). Some of the African countries at the start of the pandemic were unable to test the new coronaviruses because they lacked infrastructure and equipment, trained human resources and, most importantly, reagents. Figure 10 shows a snapshot of the situation at the start of the pandemic.

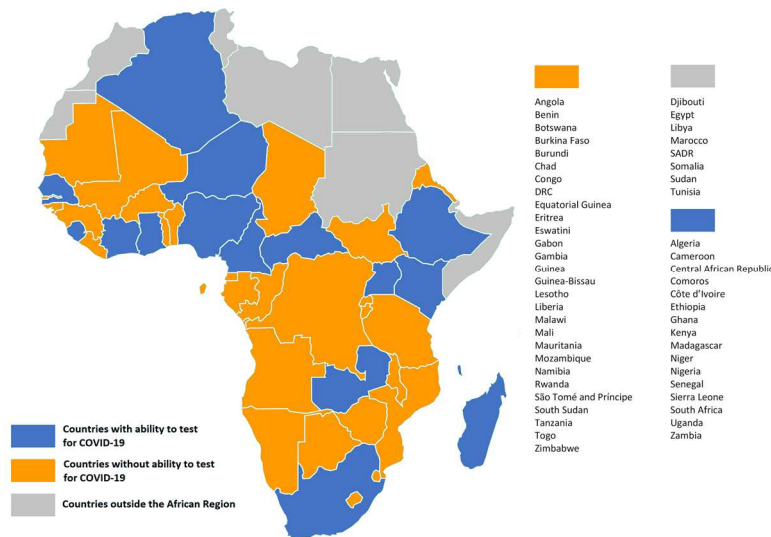


Figure 10 – Countries with ability to test for COVID-19 in the African Region - Source: Authors' elaboration (data from WHO African Region data on February 2020)

The recommended reference standard for diagnosing COVID-19 was in the early months the nucleic acid amplification test, which, however, is not accessible in low- and middle-income countries and requires specialised laboratory technicians in many health care settings that are not available. At the beginning of the pandemic, only Senegal and South Africa were able to perform tests to identify the virus.

Among the hundreds of new tests available on the market, countries first faced the challenge of selecting and implementing effective molecular and serological diagnostics. More recently, they have expressed the need for support for the appropriate implementation of antigen-detecting rapid diagnostic tests.

Another problem that has emerged concerns the shipment of clinical samples to laboratory facilities, which is associated with significant delays in reporting results, with serious consequences for clinical decision-making and interruption of transmission.

With the aim of coordinating the complex process of tracking infections, the African Centres for Disease Control and Prevention (Africa CDC) and the World Health Organisation (WHO) activated a network of laboratories to strengthen the sequencing of the genome of the virus that causes COVID-19. The establishment of the network has contributed to improved surveillance on the continent and helped countries to manage and control the pandemic more effectively.

The network's specialised and regional reference laboratories were responsible for carrying out data analysis and other support services to the countries in which they are located and also to neighbouring countries (Fang, 2019).

Other tests have recently been developed and marketed; simple to use, they offer the possibility of rapidly detecting cases, especially of the most infectious patients in the first week of illness. Unfortunately, performance is highly variable depending on the characteristics of the test and the population tested.

Today all countries can test, albeit at very different intensities, but WHO complains that the level of testing in Africa is still low compared to other countries.

Many African countries have struggled to carry out sufficient testing, with only 12 countries reaching the key threshold of 10 tests per 10,000 people per week in November. When compared to similar countries on other continents, the number of tests was significantly lower. For example, Senegal has significantly increased its testing capacity, but is testing 14 times less than the Netherlands, Nigeria is testing 11 times less than Brazil.

Only ten countries account for about 70% of the total number of tests conducted - South Africa, Morocco, Ethiopia, Egypt, Kenya, Nigeria, Cameroon, Rwanda, Uganda and Ghana, and there are wide variations in the testing rates.

In some countries, there is still insufficient or no data available on testing.

The widespread use of high-quality rapid antigen-based tests, mentioned above, recently approved by WHO, may revolutionise the continent's response to COVID-19.

The new rapid tests are easy to use, cheaper and provide results quickly, allowing countries to decentralise testing. WHO is also supporting countries to procure tests through the supply portal created by the UN.

To ensure equitable access to tests, possible treatments and vaccines when they become available, COVAX (GAVI, CEPI, WHO, 2020) was born. It is one of the

three pillars of the Access to COVID-19 Tool (ACT), launched last April by the WHO to accelerate research and production of tests, treatments and vaccines to control the pandemic.

COVAX, coordinated by GAVI, WHO and CEPI (Coalition for Epidemic Preparedness and Innovations), deals with vaccines. Governments, international organisations, philanthropic organisations, civil society, the private sector and pharmaceutical companies participate in this alliance. To date, COVAX has raised two billion dollars. It will need at least five more to try to ensure fair access to vaccines for 92 low- and middle-income countries, 47 of which are African (25 low-income and 22 lower middle-income).

Globally, studies on the COVID-19 vaccine are conducted on all continents, representing all the different human populations of the world.

The international coordination of WHO, the pooling of supply with COVAX and innovative developments offer hope and optimism. But there are still major obstacles to overcome, especially for developing countries. The first of these is the fact that at least one of the promising vaccines must be kept at extremely low temperatures before use. This is a major constraint for most African countries.

Significant investments will have to be made before the vaccine can be launched in rural and remote communities. This could cause huge delays, especially in low- and middle-income countries. Undoubtedly, innovative approaches, such as the design and development of appropriate transport containers, could enable these challenges to be addressed more effectively.

In addition, there are concerns about access to vaccines once production starts. Is the availability of sufficient doses of vaccine to meet the high demand guaranteed? And then there is the question of affordability. Resources will be needed to procure and distribute vaccines quickly.

Therefore, national policy-makers will need to meticulously consider the strengths and weaknesses of each of the vaccines available on the market before deciding which to use.

4.4 Social participation as a key driver of health equity

To slow down and try to stop the spread of the COVID-19 pandemic, three main strategies have been adopted: personal hygiene, social distancing and isolation. Personal hygiene is crucial, and numerous messages have reinforced the need to wash hands regularly and thoroughly with alcohol or soap and water. As mentioned in the previous paragraphs, in sub-Saharan Africa due to the lack of basic infrastructure such as water pipes, sewers or ecological dumpsites this recommendation is a challenge. Approximately 43.8% of the population lives in urban cities, but more than 70% of them reside in degraded urban areas outside the largest cities, while more than 50% of urban residents live in slums with unfavourable living conditions such as overcrowding and insecurity. More than 42% of the African population lacks basic water supply and over 70% lacks basic sanitation (WHO-UNICEF, 2020). About 90% of the waste generated in Africa is disposed of to uncontrolled and controlled dumpsites. Only about 4% of the waste generated in Africa is recycled (IFC, 2020).

Similarly, the guidelines of international organisations have identified social distancing as a way to stop the spread of the pandemic, without considering that, in collective cultures such as that of sub-Saharan Africa, social support networks are key aspects of treating and healing the sick.

The admission of a sick person to hospital immediately entails that, in order to ensure adequate care for the patient, a close relative becomes a caregiver alongside the professional health workers who are very much lacking in health institutions, as highlighted in the previous paragraphs. Moreover, the relationships between health professionals, patients and relatives are rooted in a cultural substratum which roots the expectations of care and recovery in the interaction between them. In this context, drastic measures such as social isolation and self-isolation may on the one hand provoke loneliness and stigmatisation, as in some communities where cured persons are driven out of their homes by the community due to a limited understanding of the disease or simply fear, and on the other hand may increase the risks of poor mental health, unhealthy lifestyles and the use of psychotropic drugs.

The construction of social isolation is therefore incompatible with most collectivity-oriented cultures, whereas it thrives in the individualistic cultures of most industrialised countries. In the latter, the emphasis is on valuing freedom, autonomy, personal space, privacy, independence and self-sufficiency. By contrast, in sub-Saharan communities, the emphasis is on collectivity, interdependence, responsibility towards society, and the maintenance of traditional values and practices. As common law coexists with customary law, social distancing interventions must take cultural diversity and contexts seriously and be specifically designed so as not to benefit some and penalise others.

Instead, the African ruling classes have fully embraced the Western countries' model of crisis management, based on restrictive measures of gradual intensity up to the so-called lockdown (South Africa), without any critical sense. But it is not clear whether they have properly assessed the social costs of this pressure, the actual ability to impose it, and also the ability of governments to provide relief to poor populations living hand-to-mouth.

Slowing down epidemic progression does not necessarily have to overwhelm the social system.

It is clear from the above that, in addition to changing the way health services are delivered and the way health systems respond to crises, the COVID-19 pandemic has highlighted the importance of the social determinants of health (Marmot & Wilkinson, 2005). They are crucial factors that affect people's health and health inequalities, but operate outside the health sector (Fig. 11). They include the living conditions and care and welfare practices of the population (WHO- Commission on Social Determinants of Health, 2008) and recognise the importance of synergy between different actors.

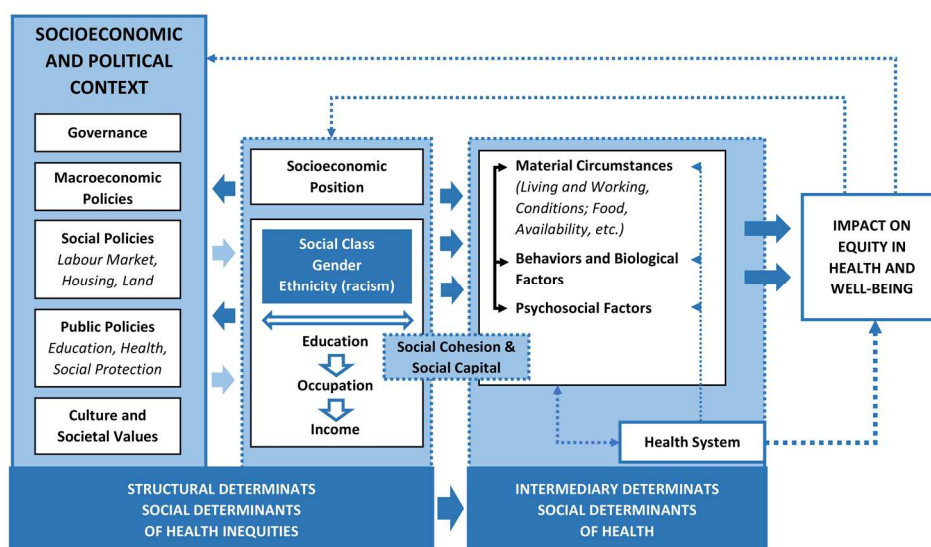


Figure 11 – Social Determinants of Health (Source: WHO- Commission on Social Determinants of Health, 2008)

Of particular importance among the social determinants of health is social cohesion, a key risk-reducing factor (WHO, 2020h).

Involving the population in decisions and activities that affect their health is a key driver of health equity. In particular, the health community can promote a higher level of social participation throughout the entire policy process, from diagnosis to evaluation, from the level of health providers to that of health systems, and also when working on intersectoral strategies, programmes and activities.

Promoting social participation is a key driver of health equity because it raises awareness and recognises the rights of groups with the highest level of health disadvantage; transforms so-called vulnerable groups into protagonists and actors in the programmes themselves; produces new collective knowledge that challenges dominant narratives; and promotes coherence, responsiveness, and transparency (WHO, 2019).

Reduced levels of social participation limit opportunities to detect the specific needs of social groups, distort decisions in favour of the more advantaged social groups, base decisions on available knowledge and do not develop specific knowledge adapted to the topic under discussion and the social groups concerned, and do not coordinate the visions and actions of different stakeholders.

Low inclusiveness therefore has a great potential to produce negative consequences such as health inequity and inefficiency.

The quality of social relations and the presence of mutual trust and respect in communities or society helps to protect people and their health. Social cohesion acts as a resource for individuals and facilitates collective action for common benefit.

Many approaches taken to prevent or reduce the rate of infection and transmission of COVID-19 and, to some extent, its management, are also part of the social determinants of health. They are multi-sectoral and, as mentioned above, are predominantly outside the health sector. They include the use of personal protective

equipment, social distancing, closure of schools and gathering places, restriction of travel, practising good hygiene, sanitation, tracking and quarantining suspected cases, self-isolation and complete isolation in a country or region. The effectiveness of these approaches may depend on effective communication.

Effective communication is also a crucial social determinant of health during epidemic and pandemic crises (WHO, 2020h).

In many developing countries, communication needs to be aware of the inequalities and socio-economic fragilities that already exist in the countries in order to be effective; it needs to take into account the size of the rural population, the low level of education and the limited access to social services. Communication also needs to be based on sensitivity to the diversity of people, cultures and languages spoken. In Africa, for example, the African Centres for Disease Control and Prevention have set up a task force to improve, among other things, risk communication strategies across the continent.

WHO has launched a platform that aims to combat misinformation about COVID-19, which can lead to serious public health problems (Zarocostas, 2020).

In many rural locations in developing countries, information shared through these 'informal' platforms, social media and word of mouth, plays a significant role in disseminating information, but is unfortunately often inaccurate and can therefore contribute to considerable infodemia that could make the situation worse (Ataguba et al., 2020). Although there is no one-size-fits-all approach or strategy, it is crucial to understand the predominant communication strategies used by different populations in order to design more appropriate actions (Covello et al., 2001). For example, in rural localities, village leaders, who are the most respected, could serve as communication channels. In addition, role models or religious leaders could be useful for more effective communication.

Social mobilisations in addition to other communication initiatives, including posters and advertising in the press and media, lead to greater confidence in prevention programmes.

Health experts and governments must ensure reliable information for the population and assume the role of official source, leaving the widespread dissemination of news to the community.

Only with community engagement can governments and health workers build a relationship of trust that is valuable in the fight against the COVID-19 pandemic and other epidemics.

What is communicated is as important as how it is communicated.

The health community is in a strategic institutional position to promote higher levels of health equity through social participation, through the adoption of a participatory institutional culture, the inclusion of the whole population in the different stages of the policy process (diagnosis, planning, implementation, monitoring and evaluation) and the creation of partnerships with other sectors (WHO Regional Office for Europe, 2019).

5. The COVID-19 pandemic in Africa and its relationship with migrations

The relationship between migration and the COVID-19 pandemic is not easy to estimate, especially since the long-term consequences of the pandemic on international mobility, especially flows from Africa, are still unclear. In the international debate, migration was initially considered at the same time as a dangerous spread of COVID-19 and, as a consequence, a further threat to the public health of both Europeans and migrants. Later on, they lost importance in the European debate because, while maintaining a high level of tension at the borders of the European Union, governments focused mainly on the measures to be implemented to contain the diffusion of the Virus. A study by the ISMU Foundation (Multi-ethnicity Initiatives and Studies) has highlighted the consequences of migration in Europe both for the countries of origin and destination, showing how the pandemic risks exacerbating some delicate aspects within European countries such as the health of migrants, the influx in reception facilities, the situation of asylum seekers and job insecurity⁷. As mobility is a transnational phenomenon, the emergency has also had considerable consequences for countries of origin, especially African countries, given the complex relationship between migration and development.

On the basis of the analysis conducted by the ISMU on the impact of COVID-19 on migration in Africa and from Africa to Europe, some critical issues emerge:

- 1) The decrease in remittances: rising unemployment and job insecurity have significantly reduced money flows to countries of origin, which has caused a negative impact on the income of African families, who are dependent on money flows from abroad. The impact is variable from country to country and is influenced by the emigration rate, in fact it will be higher in reality as in Senegal where remittances are worth 10.1% of the national GDP.
- 2) Holders of international protection in Africa are a particularly disadvantaged group in the context of the COVID-19 pandemic because, according to reports provided by UNHCR, the camps are in overcrowded conditions in poor areas with poor access to water resources, where it is not possible to comply with the rules of physical distancing to contain the spread of the pandemic. In this sense UNHCR has intervened with preventive measures in the refugee camps managed by Sudan, Ethiopia, Burkina Faso, Democratic Republic of Congo and Chad⁸.
- 3) The closure of the borders. Since the beginning of the pandemic, many African countries have decided to adopt, as in Europe, measures to contain internal and external mobility, sometimes deciding to close their borders. These decisions, despite a generally favourable reception from public opinion, appear to be in sharp contrast to the trend in the continent, which sees more than half of mobility taking place between African countries.
- 4) The health issue. One of the main challenges for Africa in the face of the pandemic is that relating to the maintenance of health and welfare systems, which are

⁷ Source: <https://www.ismu.org/africa-migrazioni-sviluppo-ai-tempi-del-covid-criticita/>

⁸ Source: <https://www.ismu.org/africa-migrazioni-sviluppo-ai-tempi-del-covid-criticita/>

fundamental for ensuring treatment for the sick and preventing the contagion of healthy citizens. Unfortunately, the above is hardly applicable to many African countries, in fact there are often no social shock absorbers that allow citizens to support themselves in case of lockdown. This has caused a counter-flow of migrants from cities to rural areas that could cause a loss of control over the spread of the pandemic and the transmission of data to international organisations.

5) The crisis in the agricultural sector. The pandemic has already had a serious impact on African economies, largely dependent on agriculture, by conditioning the prices of agricultural products sold on the African and world markets. In addition to government measures to deal with the spread of the Virus, there has been heavy internal migration caused by the exodus of labour linked to environmental events within the global climate crisis, such as the locust invasion in East Africa (Spring 2020). This phenomenon, according to the World Food Programme, has strongly contributed to the spread of the food crisis in the Sahel Region.⁹

The phenomena described are to be understood as a framework to describe in general the critical issues that have affected migration within Africa and from Africa to Europe, in the light of the COVID-19 pandemic.

Moreover, as illustrated in the next paragraph, the collapse of some economic sectors, such as tourism, has caused new types of African migrations to Europe.

5.1 Crisis in the tourism sector and new migrations

The COVID-19 pandemic and the resulting travel restrictions adopted by many governments around the world have caused an unprecedented collapse of the tourism sector on a global scale. The recession has had a more negative impact in Africa, where there is no real welfare state system. All this has caused the emergence of a new profile of the economic migrant, the former tourism worker (e.g. hotelier, shopkeeper, tour guide) who has lost all income possibilities with the almost zero tourism flows in sub-Saharan Africa.

This is the testimony that unites hundreds of migrants who arrived in the Canaries in 2020 (many of the 11,000 in total arrived in 2020), leaving mainly from Senegal (but not only), crossing one of the most dangerous sea routes (Vietti, 2020; Martin, 2020). What is happening along the "Atlantic route" reflects a global phenomenon that is not easy to grasp because of its size, namely the effects of the pandemic on the mobility of people in the world whose cultural, social and economic consequences will be long-lasting.

In fact, according to data provided by the World Tourism Organization, the number of tourists who went abroad in 2019 was about one and a half billion, while in the first 8 months of 2020, this number decreased by 70% overall, reaching a global loss of 730 billion dollars (UNWTO, 2020).

This situation has two consequences for migration: the first one concerns the impact of the crisis on the lives of employees who revolve around the tourism industry; the second one reflects on the formation of new migration flows involving those who

⁹ Source: <https://www.ismu.org/africa-migrazioni-sviluppo-ai-tempi-del-covid-criticita/> and <https://it.wfp.org/>

have lost jobs and income due to the crisis in the tourism market, as in the case of Senegalese migrants arriving in the Canary Islands described above.

As regards the first aspect, it should be highlighted that tourism is, globally, one of the sectors where the presence of immigrant workers is very important. In particular, many migrants are employed in the cruise sector: during the lockdown period there were 100,000 crew members stranded at sea far from their country of origin (Demster & Zimmer, 2020). Moreover, according to Eurostat data (2018), in the 28 European countries immigrants working in tourism are 16%, with peaks between 25% and 30% in Belgium, Austria, Malta and Spain. In Italy, on the other hand, as shown in the *Dossier Statistico Immigrazione 2020* immigrants represent one fifth of workers in the hotel sector and one third of street vendors and in the catering sector (Vietti, 2020). The economic crisis due to the pandemic has generated a great loss of employment and income that has only been partially offset by the social shock absorbers implemented by the Italian government (IDOS, 2020).

On the other hand, as far as the second aspect is concerned, since March the tourist activity has stopped, the vast majority of trips could not be made. For example, all the 2020 tours planned in Morocco, Senegal, Peru, Ecuador or Vietnam were cancelled in 2020, causing the loss for those countries and for all the employees in the sector of hundreds of thousands of euros (Vietti, 2020). UNWTO data show that the drop in arrivals in 2020 affects tourist destinations worldwide, but the effects of the phenomenon vary from country to country, depending on the measures put in place to tackle the economic crisis caused by the pandemic.

Overall, in 2020, holidays abroad were necessarily abandoned in favour of a trend, defined as "proximity tourism", a form of tourism that aims to rediscover and enhance the internal areas of one's own country, often present in the same region of residence of tourists, a trend that was particularly successful in Italy (Meloni, Pulina, 2020).

The sociologist Zygmunt Bauman (2000), had defined the figure of the tourist and the migrant as symbolic expression of the mobility regimes in the world of globalization: the first as free to move for leisure and pleasure, the second forced to leave out of necessity and subjected to forms of control and segregation. Finally, the social, economic and cultural consequences of the COVID-19 pandemic and the measures implemented by the various governments have also transformed the figure of the tourist, subjecting him to a more restrictive mobility and symbolically approaching him/her to some historical stereotypes linked to migrants such as, for example, that of being vehicles for spreading epidemics (Vietti, 2020).

6. Final reflections

In this contribution, the research community and the general public are offered a geo-anthropological view of the pandemic situation in Africa and its possible developments. Although the COVID-19 pandemic develops more slowly than in other geographical areas, it is unfortunately a reality in Africa as well. It should be noted, however, that to date the Continent's response to the emergency has been overall positive. Some countries have acted early, well before a single case was reported, by applying restrictions and isolation.

The young age of the population and possible cross-immunity to other viruses probably played an important role in the low spread of the virus. The 'familiarity' that many countries have with contagious diseases and epidemics has also undoubtedly played a crucial role. Recall, for example, that the COVID-19 pandemic arrived just as the Democratic Republic of Congo was facing its biggest phase of the Ebola epidemic. Neighbouring states were already on high alert, so screening travellers for COVID-19 was added to the existing screening for Ebola. Other West African states, also working against Ebola, had already experimented with measures to prevent COVID-19, including, in addition to screening, isolation, tracking and monitoring. In summary, Africa appears to have been affected differently by the COVID-19 pandemic to date, but this may change in the near future. According to Salim S. Abdool Karim, a South African epidemiologist and infectious diseases specialist, some factors may play a role. Habit could play a role and make people decide to stop respecting social distances and wearing personal protective equipment as they did at the beginning of the pandemic. In a short report, the BBC shows how it is enough to cross Africa's largest city, Lagos in Nigeria, without seeing a single mask. For this reason, the WHO has introduced a social media campaign in Africa 'Mask Up Not Down' to try and tackle this problem, aiming to raise awareness among 40 million young people by the end of the year. Another factor is likely to be the vaccine, both in relation to its validity in African populations and its supply. The rush for vaccine by richer countries and the funding gap for supply in Africa could mean that many Africans will not be vaccinated, with the risk of being affected by the virus at a later stage, notwithstanding the serious fragility of health structures in African countries. It is therefore important that Africa is not saved for last, as has happened in the past with many other issues.

The socio-economic impact of the COVID-19 crisis is tangible and is exacerbating already extremely vulnerable situations. Containment measures, border closures and social distancing have had devastating consequences on tourism and incomes. There is a need to consider multi-sectoral policy and programmatic solutions to address the expanding needs of African communities.

Predicting the possible developments of the epidemic in Africa is complex because it does not seem sufficient to focus only on the aspects directly related to the disease and its spread, regardless of the health, social and economic context of individual countries.

However, Africa could turn the current COVID-19 pandemic into an opportunity to translate policy recommendations on productive transformation, to create economies resilient to external shocks and to achieve sustainable development. This would, as Gilbert (2020) points out, also improve domestic resource mobilisation and reduce the continent's dependence on external financial flows.

As advocated in Agenda 2063¹⁰, African governance should mobilise sufficient domestic resources for health to enable health systems to meet health services that

¹⁰ The Agenda 2063 is a strategic framework for the socio-economic transformation of the African continent over the next 50 years. The Agenda builds on present and past initiatives, such as NEPAD (Africa Development Partnership) and the Nigerian Treaties of Lagos and Abuja of ECOWAS and AEC, and on the foundations of the African Union, which provided the overarching aspirations for "an integrated, prosperous and peaceful Africa, led by its own

include the elimination of high-burden diseases and the prevention and management of epidemics.

Politically, a 'ceasefire' with rebels and armed groups would be desirable to ensure that there are no distractions in efforts to contain the pandemic.

COVID-19 adds, in some already fragile countries, other current challenges such as endemic conflict and violence due to terrorism, political instability and/or climate change.

With specific reference to this serious new pandemic, African countries must quickly implement screening to ensure early diagnosis of infection and prevent contact with healthy populations; be precise and timely in transferring health data to national and international organisations responsible for disease control and prevention; and promote transparent and clear data sharing to inform citizens and limit the spread of falsified information.

Finally, it should not be underestimated that this pandemic is accompanied by a huge spread of incorrect and unreliable information, making it difficult for people to find safe and accurate information. To help combat this problem, UNESCO, in collaboration with the Innovation for Policy Foundation (i4Policy, 2020), is launching an online campaign to make official and validated information on COVID-19 available free of charge and in local African languages.

In Africa, an effective response to the pandemic depends on success in urban and rural communities through robust control campaigns, contact tracing, and good, widespread communication strategies.

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citizens and representing a dynamic force in the international arena". The seven aspirations, derived through a consultative process with the 'African citizen', are: A prosperous Africa, based on inclusive growth and sustainable development. An integrated, politically united continent, based on the ideals of Pan-Africanism and the vision of the African Renaissance. An Africa of good governance, democracy, respect for human rights, justice and the rule of law. A peaceful and secure Africa. An Africa with a strong cultural identity, common heritage, values and ethics. An Africa whose development is people-driven, relying on the potential offered by people, especially women and youth, and the care of children. An Africa as a strong, united, resilient and influential global actor and partner. The African citizen is therefore the target of the Agenda, which in fifty years has set out to totally change the Africa of today, overcoming the radical fragmentation of the Continent. For more information, please see: <https://au.int/agenda2063/overview>.

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