



**MEDICI
CON L'AFRICA**
CUAMM
Doctors with Africa



HEALTH AND DEVELOPMENT

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*Global – and
vulnerable*





NEWS

Who is most likely to get sick and die from Covid-19?

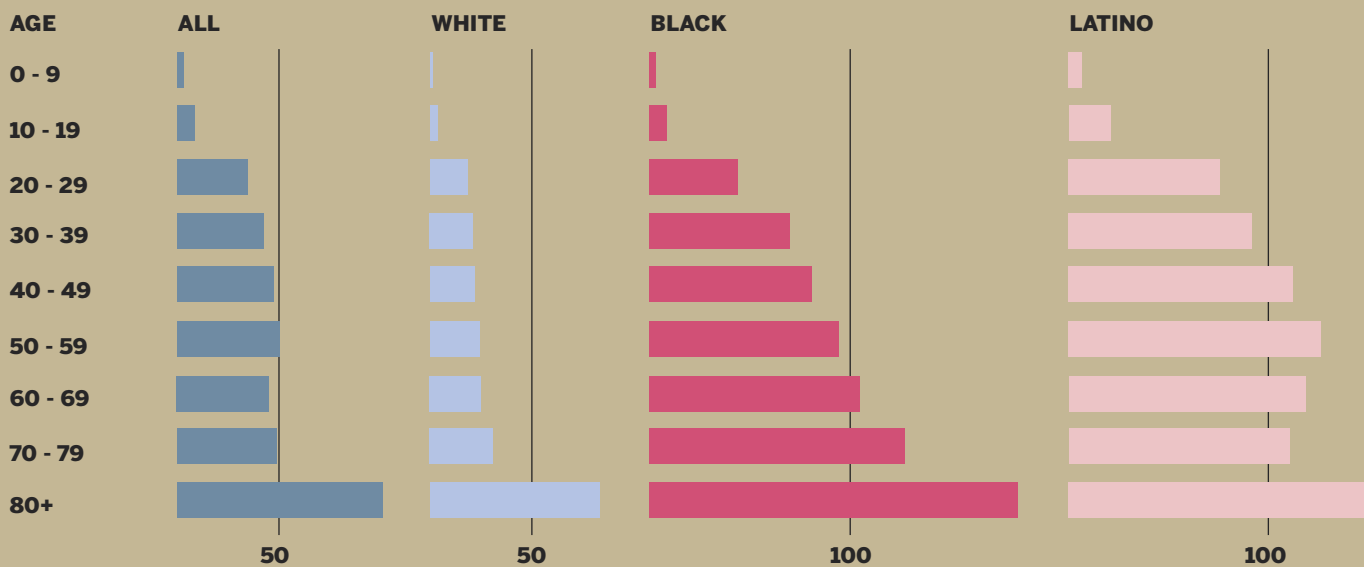
In the United States, Black and Latino people are three times as likely to become infected with Covid-19 as white people, and nearly twice as likely as them to die from it.

Source: <https://www.nytimes.com/interactive/2020/07/05/us/coronavirus-latino-african-americans-cdc-data.html>

The current pandemic is underscoring how social disparities and systemic racism are key drivers of health inequity.

Source: <https://www.saluteinternazionale.info/2020/07/etnia-reddito-e-covid-19/>

FIGURE 1 / CORONAVIRUS CASES PER 10,000 PEOPLE, BY AGE AND RACE



Source: Centers for Disease Control and Prevention.
Note: Data is through May 28.

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TRANSLATION

Sara Copeland Benjamin

With the support of



Cover

Global – and vulnerable

The pandemic that is ravaging our planet is helping people everywhere to grasp the true meaning of global health.



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DIALOGUE

OUR VULNERABILITY TO THE “GLOBAL” VIRUS

Covid-19 has underscored the importance of global health for the entire world, highlighting not only how such viruses spread through human movement and interactions, but also the links between health and other aspects of our lives such as the economy, jobs and the environment. It is clear that we are now all at risk, our lives made precarious by this daunting new disease.

TEXT BY / DON DANTE CARRARO / DIRECTOR OF DOCTORS WITH AFRICA CUAMM

As of today, 25 June 2020, there have been 9,296,202 confirmed cases of Covid-19 globally, and 479,133 deaths. The hardest-hit regions in terms of infection rates are the Americas and Europe: the United States tops the list with 2,329,463 cases, followed by Brazil with 1,145,906¹. And Italy is not far behind: given the country's much smaller size, the case number is surprisingly high: 239,410, with incidences varying greatly from region to region; Lombardy, in the north, has been the hardest-hit². Covid-19 has also reached Africa, with confirmed cases in all 54 of its nations, although case counts there are still relatively low, with the only significant spikes being seen in South Africa and the coastal Maghreb³. But this in no way means that Africa is "safe" from the virus: the reliability of case data remains problematic, and even while the numbers have been less dire than expected, the impact of lockdowns on such a fragile continent is taking a heavy toll on its economies and people's survival, as Rino Scuccato and Giovanni Putoto describe in this issue of our magazine. The usual global health "maps" seem to have been turned upside down⁴, with the lives of people in normally "safe" parts of the world now also at risk, their eyes opened to how tenuous and labile the borders between themselves and their counterparts in the global South are. Indeed, people are truly starting to grasp the circular and global dimension of our lives that has made it possible for a virus to travel so easily from one corner of the planet to another, following the paths taken by the world's economies, travelers and other human beings and exposing everybody to this disease. It has also become clear that our ability to treat the disease depends on the tools available to us: perhaps for the first time in recent memory, we too in Italy have experienced the fear of not necessarily being able to receive proper care, due to the insufficient availability of hospital beds, staff and equipment. People being unwell yet unable to access treatment is precisely what we've witnessed daily over the past seventy years in "our" beloved Africa, where we work to eliminate the cultural, physical and economic barriers that keep people from getting to health facilities and receiving care. Now this same sense of powerlessness is being experienced in many other spots around the world. The interconnections between health and other life dimensions – including, of course, the economy – are evident. The consequences of this disease, and of lockdowns, are far more negative for those who possess few means and lack safety nets to help them go on. It underscores once more how, on any latitude of our globe, it is the most vulnerable who bear the heaviest burden. Covid-19 has shown yet again how in terms of both morbidity and mortality, diseases hit hardest those already living precariously in terms of health and income, those on society's margins⁵; and how over the long term, the most severe repercussions of underdevelopment will impact the poorest communities, such as those found in so many parts of Africa, the worst⁶. In a nutshell, the pandemic has laid bare how disease intensifies social inequities. Let's start from this reading, then, looking at facts and interconnections through the conceptual lens that goes by the name "global health", i.e. something that affects us all – in Africa, in Italy, around the globe. To do so means to understand health not only as a clinical matter, but also in its cultural and ethical dimensions, as something that must be concretely cultivated and practiced both today and in the future. It means viewing the present, and the global dimension of our lives, with sensitivity, solidarity and an awareness of our limits, as we open our eyes (and, I hope, also hearts) to what Covid-19 is telling us: that we are all tied together by a single thread. I'd like to wrap up my editorial for this issue, which features important pieces by authors both from Italy and elsewhere, by expressing my gratitude towards everyone who has fought on the front line in recent months: the nurses and doctors working exhausting shifts in every region of Italy, and the development workers who opted to stay on in Africa despite their own vulnerability to the virus, in order to continue to serve needy communities and ensure the right to health everywhere.

REFERENCES

¹ WHO Coronavirus Disease (COVID-19) Dashboard (<https://covid19.who.int/>), data retrieved on 25 June 2020

² The infection/population ratio in Italy is around 0.398%; in Lombardy it has reached 0.933%. Data: <https://www.epicentro.iss.it/coronavirus/bollettino> e Elaborazione Sole 24 Ore https://lab24.ilsole24ore.com/coronavirus/#box_4

³ WHO - Africa Dashboard data (<https://www.afro.who.int/health-topics/coronavirus-covid-19>)

⁴ Cash R., Patel V., *Has COVID-19 subverted global health?*, in *The Lancet*, 5 May 2020, [https://doi.org/10.1016/S0140-6736\(20\)31089-8](https://doi.org/10.1016/S0140-6736(20)31089-8)

⁵ <https://24plus.ilsole24ore.com/art/cosi-coronavirus-fa-esplodere-disuguaglianze-sociali-italia-ADsrL2I>

⁶ <https://blogs.worldbank.org/opendata/impact-covid-19-coronavirus-global-poverty-why-sub-saharan-africa-might-be-region-hardest>



DIALOGUE

NO MORE “BUSINESS AS USUAL”

The Covid-19 pandemic has underscored the importance of primary health care and its local availability and delivery in order to meet the needs of communities as effectively as possible. In their absence there are adverse consequences not only for those who are sick, but also for the doctors who care for them.

TEXT BY / GAVINO MACIOCCO / DEPARTMENT OF EXPERIMENTAL AND CLINICAL MEDICINE, UNIVERSITY OF FLORENCE

The current pandemic has revealed the most flawed and inefficient aspects of Italy's health care and support system, most notably local health services as a whole, from public sanitation to primary health care to family medicine. The lack of a local “filter” to identify infected individuals, their household members and other close contacts – the very ABC of public health – treating them at home whenever possible and sending them to hospitals only when necessary, generated confusion in the population and panic among patients, caused hospitals to collapse and, in certain areas – including the provinces of Bergamo and Brescia – led to some of the world's highest Covid-19 mortality rates.

The most glaring failings within local health care systems were seen, in fact, in the Lombardy region, as described by Milena Gabanelli and Milena Ravizza in the *Corriere della Sera* on 15 April 2020: “Over the years the general and district practitioners network, which plays a crucial role in detecting a patient's symptoms at the onset and preventing them from degenerating, has been dismantled. The last fifty days have seen a steady stream of reports in Lombardy about patients arriving at hospitals in already desperate conditions. For weeks now, family doctors have been left on their own, with some risking their lives – and many dying – to take care of their patients, and others leaving the ill to fend for themselves, advising them to take Tachipirina (an Italian brand name for paracetamol), per the suggestion of virologists, and stay at home.” “If we hadn't made such drastic cuts to healthcare spending”, another *Corriere della Sera* article asserted on 4 May 2020, “we would not have been forced to take measures that have put us at risk of as-yet-unknown economic, political and social consequences. Had we had the resources that Germany, for example, has, we could have avoided shutting everything down for so long, and letting people die due to insufficient space, staffing and equipment”¹.

“The first to bring up the issue of the neglect of local health care systems were our colleagues from Codogno, who were left on their own for the first two weeks of the viral storm, and paid the price in terms of lost lives.” Thus begins a damning letter issued and signed by sixty Lombardy-based family doctors to denounce the region's health policies. “The attempt to introduce a logic of competition to local health systems – for example, pitting primary care and hospital care against one another in terms of which would manage chronic patients – has laid bare the limits of the quasi-market and hospital-centered care management. Attesting to the fact that regional policies have been guided by this quasi-market “philosophy” are a series of decisions reflecting a general disregard for primary health care, for example, the failure to activate associative forms of general medicine and the abandonment of local health systems with the closure of district facilities.

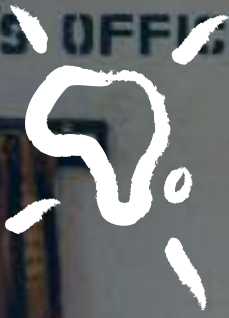
In the entire history of medicine, it is difficult to find policy choices that have had such catastrophic effects on the health of a population. It took an exceptional event – a pandemic like this one – to so rapidly expose their momentous impact, dramatically underscoring the point that no country can do without a solid primary health care system, as reiterated by a recently-published OECD report entitled “Realizing the Potential of Primary Health Care”. The report asserts that OECD health systems faced major challenges even before the Covid-19 pandemic, due to aging populations, the spread of chronic diseases and people's growing expectations with regard to health services. “The rapid spread of Covid-19” – it states – has “added complexity to these challenges, given both the surge in demand for treatment of the acutely ill and the need to continue to deliver preventive care and manage chronic patients. In this context, primary health care plays a key role for health systems to deliver more and better services.”

“Remembering means pondering, with seriousness and exactitude, over what has failed to work, systemic shortcomings, and errors that must not be repeated”. These are the words spoken by Italy's President, Sergio Mattarella, on Sunday, 28 June 2020, at Bergamo's monumental cemetery. “Remembering,” he added, “means first of all remembering those we have lost, but also becoming fully cognizant of what has happened, and not giving into the temptation of putting these terrible months out of mind to return to business as usual”.

NOTES

¹ <https://salutedirittofondamentale.it/silenzio-degli-innocenti/#note>

CTORS OFFICE



SIERRA LEONE

In Sierra Leone, Covid-19 has brought both direct consequences – one maternal death – and indirect ones. Among the latter are a 60% drop in prenatal visits and a 40% drop in assisted deliveries, as well as the temporary closure of the Princess Christian Maternity Hospital in the country's capital, Freetown.







FORUM

ONE PLANET, ONE HEALTH

Like Ebola, Marburg and many other disease epidemics, Covid-19 is highlighting the close interconnections between the health of the environment, animals and humans, and its protection: a cultural paradigm known as "One Health". We talked with David Quammen, the author of *Spillover*, about what is going on in the world today and what role international organizations such as ours can play.

ANDREA ATZORI AND CHIARA DI BENEDETTO INTERVIEW DAVID QUAMMEN

One of the words and concepts Covid-19 has brought with it is "spillover". Until recently unfamiliar to laypeople, the term is now well known, and signifies a virus's "jump", or transmission, from one species to another, from one host to another, for example from a bat to human beings, as presumably happened in the case of the current coronavirus. It is also the name of a popular book written by David Quammen, the U.S. science writer, and published in Italy in 2014 by Adelphi. The book describes in a detailed yet compelling manner the linkages between the animal and human worlds, the environment and viruses, providing readers with an in-depth understanding of the equilibriums necessary for both individual and collective health. The book – one of whose best-known quotes hypothesized a future pandemic that would likely "come out of a rainforest or a market in southern China" – made a convincing case for the idea that "spillover" viruses are nature's inevitable response to human beings' assault on the environment and ecosystems. The author wrote this back in 2012.

Today, as the pandemic rages on, we decided to talk with David Quammen about global health, Africa, and the role that international organizations such as CUAMM can and must play.

o Now more than ever, political and operational choices should be driven by the so-called "One Health" paradigm, a collaborative, interdisciplinary approach towards the environment, the human ecosystem and the animal ecosystem. But this is not always the case. What isn't working, and why is it likely that we will be faced with more and more zoonotic epidemics in the near future?

Most people don't realize that the world is filled with viruses that we've never seen and know nothing about. Every kind of animal, every species of animal, every species of plant, every kind of fungus, every bacteria — they [all] have their *own* viruses. Most people don't realize that viruses are natural. There are millions of kinds of viruses living out there in the natural world, and most of them are no threat whatsoever to human health. But if one in a thousand is, you still have many, many viruses that could be dangerous to humans. We humans have always come in contact with the natural world, we've always hunted wild animals, hunted and gathered, so that's not new, but now there are 7.8 billion of us on this planet. We are smart, we are hungry, we are powerful, we have

technology that allows us to disrupt the natural world and take out resources, take out animals, take out timber, take out minerals. So we are doing that on a scale vastly greater than ever before and as we do that, we come into contact with wild animals, we capture them, we kill them, sometimes we catch them live and transport them to markets, even in other countries, and we expose ourselves to their viruses. The viruses don't seek us out, the animals don't seek us out; *we go to them*, we disrupt them, we invite their viruses to take a chance on becoming human viruses. So they fall into us, and some of them happen to be able to replicate in humans and transmit from human to human: that's a "winner" virus, and we have a "spillover".

o Many more viruses are believed to originate in animals – not just swine or bird flu, but also Nile fever, HIV, Marburg and Ebola – than is generally thought. In 2005, CUAMM tackled a Marburg epidemic in Angola, where we lost one of our pediatricians, and in 2014, an Ebola outbreak in Sierra Leone. But our organization stayed on, working to identify, trace and treat suspected cases as well as to keep basic health services going, in order to avoid total collapse in those countries. In your opinion, what can be done by an organization like CUAMM, whose focus is on strengthening health systems?

That's hugely important what you are doing in those sub-Saharan countries; those are places with a desperate need of assistance in terms of resources and expertise to strengthen their health systems. You deal with that emergency situation and you do your very best to control it before it becomes an epidemic throughout the country. So that's important - to help them strengthen their local and national health systems in order to respond to spillovers, and respond to outbreaks and control them before they become epidemics, like Ebola in West Africa in 2014. That could have been stopped; every other Ebola outbreak had been stopped. Why in West Africa did it get away? Because the virus was different? No. Because transmission was different? I doubt it. It got away because those three countries had suffered two decades of civil war and they had crippled healthcare systems. And they didn't have enough support of the kind that you at CUAMM give. I think the other thing that's important when we come out of this pandemic is for countries of the world to realize

that what we need is internationally-coordinated surveillance and fast responses to protect against outbreaks becoming epidemics. And that means a linkage between organizations like CUAMM and national agencies and organizations in other countries, other non-profit, independent organizations, the World Health Organization, in a better and more empowered form so that when there is an outbreak, twenty people in a village in South Sudan are suffering from a “mystery fever” that is not malaria, that is “not anything we’ve seen”, that it will be recognized as a new virus. We need fast surveillance so that everybody knows about it, and the virus can be isolated, it can be sequenced, the sequence goes around the world. Platforms, vaccines to be quickly developed and adapted, in order to stop these things before they turn into a big forest fire across the world.

- o **Cuamm devotes most of its time and effort to Africa, but we also work at the international level to promote the notion of global health as a cultural framework, collaborating with Italian and European universities and offering training on global health to medical students and young doctors. What role will global health play now that everyone has seen how a small virus from Wuhan can go on to infect the entire world? And what kind of changes should be made now?**

That “One Health” concept is not a program or a specific action, it’s a philosophy, a way of thinking. There is no human health on one side and animal health on the other; it’s *one* health, because you don’t have human health if your interaction with wild animals exposes you to more diseases. In this globalized world we all are neighbors: if people in China are dying of a new virus, the rest of the world can’t say “Well, we’re gonna close our airports against China, because it will get here. So we can’t solve this problem one country at a time, we can only solve this problem together. This is global health.

- o **In the midst of the current crisis caused by the SARS-CoV-2 virus, discussions are taking place about the approaches that could be implemented in the face of possible viral threats: a reactive approach, where the very first signs activate measures to contain a possible epidemic, or a surveillance/detection approach, a kind of “atlas of viruses”, as the Global Virome Project describes it, to get to know the enemy “before it emerges”. Which of the two approaches will prove more effective and, even more importantly, more viable? In fact, the differences between countries in the global South and global North mean that they have very different possibilities and opportunities.**

About a month ago Dennis Carroll, who led the Global Virome Project, talked to me about the importance of viral discovery. He wouldn’t call it surveillance; he would call it viral discovery, going out sampling animals in diverse ecosystems all over the world to find out what viruses are there, identifying, characterizing as many as possible and then seeing which ones are potentially dangerous to humans, for instance, that have the capacity to enter cells through the ACE2 receptors in the respiratory track like this virus does. On the other hand, there is a very different school of thought that is embodied by a very fine evolutionary virologist named Edward C. Holmes (University of Sydney, Australia). Holmes and colleagues say that just learning about what viruses are out there is not the most effective way to spend resources. He argues for surveillance, and what he means by surveillance is not viral discovery, but reaction as soon as there’s a spillover. An alarm bell starts to ring all over the world resources flow in that direction, supporting the national health agency to contain that outbreak in that village or in that cluster of villages. So those are two opposing ideas, but they are both propounded by people that I respect very much, and I’m not expert enough to say that one is completely right and one is completely wrong. They are opposing views, and it will be an interesting discussion, as it proceeds, to say which of these approaches should be the highest priority and receive the most resources. There’s a strong intellectual argument, I think, for each of them, and those two people have made those arguments in review papers and journal papers among other places, so I’ll be watching that conversation.

- o **CUAMM works in the field in countries with semi-nomadic and nomadic populations, such as Ethiopia and South Sudan, as well as in others. These populations live with animals, but up until now the “One Health” approach has never received adequate resources. We hope that this new awareness may bring changes in the future.**

The health of those herds is strictly connected with the health of their people, because herds can be intermediate hosts for viruses. I went to Ivory Coast with a scientific team that was testing out a hypothesis that Ebola came from small bats, a little insectivorous bat. We collected lots of those bats and we took blood samples without finding Ebola. But there was the story about one little boy in a village, and he seemed to be the index case. He got sick, and then his mother and his aunt and his grandmother and his caregiver, they all died. That was the beginning, but there was just one spillover, probably to that little boy from one animal. After that you have twenty-seven thousand people infected by Ebola and eleven thousand people dead. All from one interaction. That’s why our relationship with wild animals and with the environment is so important.



FORUM

LEAVE NO ONE BEHIND

A world-famous economist, University Professor and Director of the Center for Sustainable Development at Columbia University, Jeffrey Sachs has always focused on economics and sustainable development, with special attention to the topic of global health. We spoke with him about the current pandemic, including its impact on sub-Saharan Africa.

ANDREA ATZORI INTERVIEWS JEFFREY D. SACHS / COLUMBIA UNIVERSITY

Jeffrey Sachs, Columbia University professor and United Nations advisor, is an economist who explores the delicate equilibrium between economic development and sustainability, ever mindful of the profound differences between the global North and South and the multitude of interconnections among societies, people and disciplines. Here, eschewing the false dichotomy between health and the economy, he gives CUAMM his reading of the current public health emergency.

- o **From the beginning of the pandemic, a dichotomy has often been drawn between health and the economy, with some insisting upon the need to prioritize safeguarding public health even at the expense of economic circuits, and others who maintain that lockdowns hurt people even more in economic terms than health-wise. Is it possible to strike a balance between the two?**

There is no tradeoff. To save the economy it is necessary to end the epidemic. A shutdown might be useful for a few weeks to lower the number of cases, but the real way to stop the epidemic in the longer term is through public health measures. These include wearing face masks, keeping physical distance, stopping large gatherings, protecting group living (care centers, prisons, hostels), promoting safe working conditions, and the testing, isolating and tracing of infectious cases. The latter approach aims to isolate all infectious individuals so that they do not infect other people; it is accomplished by watching for symptoms, contacting people who have been in close contact with known infected cases, and isolating those who test positive or who are suspected of being infected. By combining all of these public health measures, it is possible to open up the

economy to a significant extent without reigniting a massive epidemic.

- o **The number of Covid-19 infections in Africa has been relatively limited thus far. However, the measures being adopted there seem to take little account of societal differences: in the sub-Saharan countries where CUAMM is active, many are dependent on subsistence economies, which makes lockdowns impracticable. What role should international organizations and NGOs like ours play in settings like this?**

The key role of international organizations and NGOs should be to support the rapid scaling-up of the public health measures listed above. We need to help every African country and every community to contain the virus through community health workers, testing and tracing, free distribution of face masks and sanitizers, online applications, safe workplace practices, and other related means. NGOs can also offer social support to households and communities hard hit by the loss of incomes (for example, a loss of jobs or a decline in remittance flows).

- o **Which model of sustainable development can be envisaged ensuring that developing countries can benefit?**

The core principle of the Sustainable Development Goals, and of fighting the epidemic, should be "Leave no one behind." It is easy to forget, or even to endanger, the poor, the elderly, the indigenous, the minority, or other vulnerable groups. We must look after everybody in the fight against the virus, and in the achievement of sustainable development.



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.

TEXT BY / RINO SCUCCATO / NEUROLOGIST WITH YEARS OF EXPERIENCE IN AFRICA

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

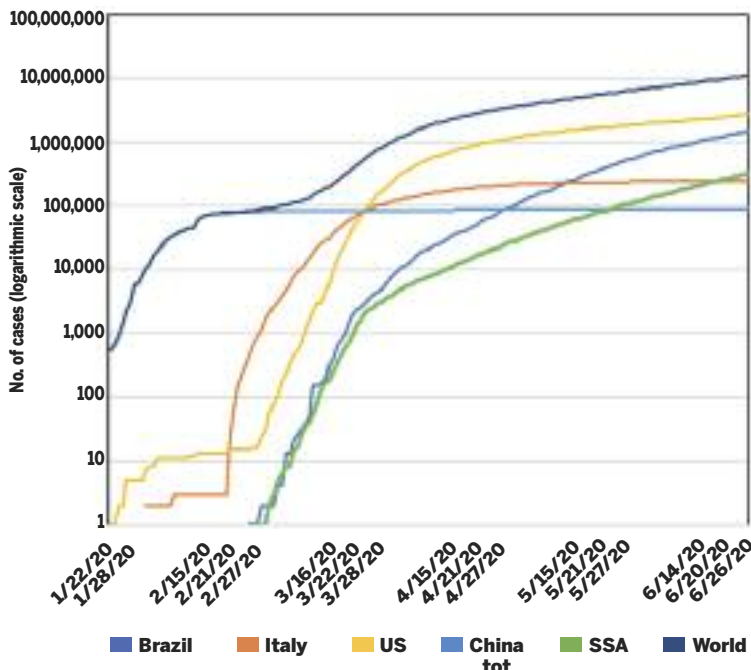


FIGURE 2 / MORTALITY TREND IN SSA AND OTHER REGIONS

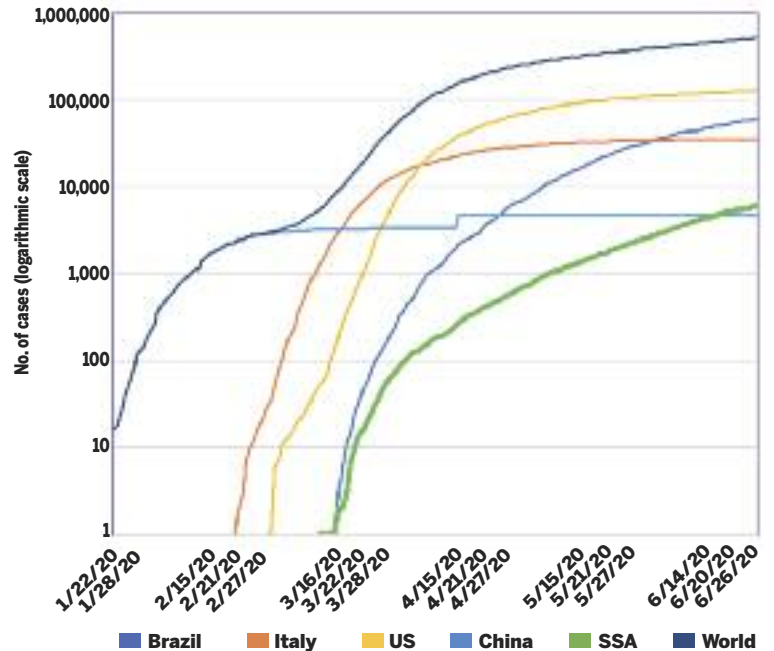
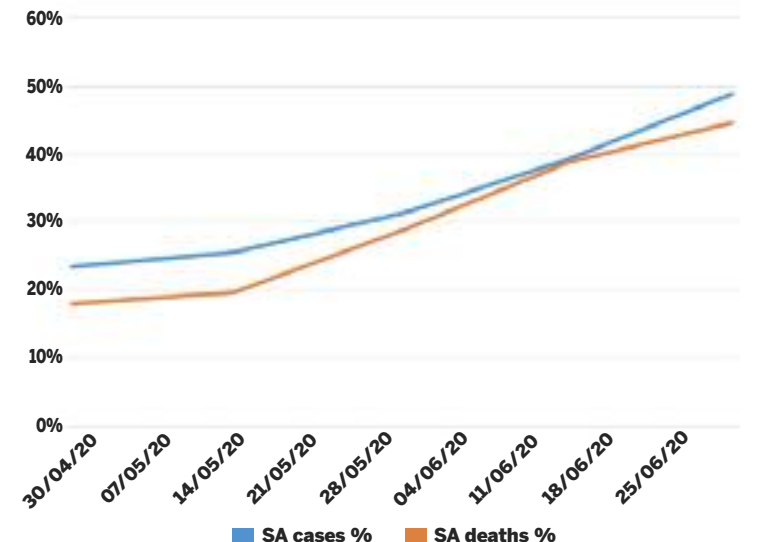


FIGURE 3 / CASE AND MORTALITY PERCENTAGES IN SOUTH AFRICA OUT OF SSA'S TOTAL CASE AND MORTALITY PERCENTAGES



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

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.

- Many thanks to Sandro Colombo and Antonello Fadda for creating the figures upon which this article is based.

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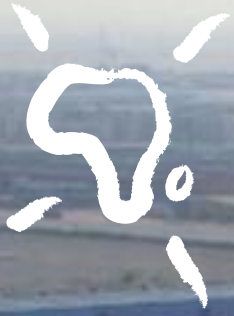
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THE ROLE OF THE HUMANITARIAN SUPPLY CHAIN

As highlighted by the Covid-19 pandemic, the supply chain for medical and other humanitarian materials and devices becomes critically important when complex emergencies strike. That's why international hubs handling logistics can be key partners for many actors, including those – like CUJMM – that work in the field.







EXPERIENCES FROM THE FIELD

RESILIENT HEALTH SYSTEMS TO OVERCOME CRISES

The current Covid-19 crisis in Africa is unfolding differently than it has in Europe, yet its secondary effects are just as dire. In order to handle this and other such crises – events that are nothing new for the continent – it will be vitally important to formulate an approach to emergencies that can be integrated into long-term health system development plans.

TEXT BY / GIOVANNI PUTOTO / DOCTORS WITH AFRICA CUAMM

THE DIRECT AND INDIRECT IMPACTS OF COVID-19

Covid-19 in Africa is unlike earlier epidemics there. There are numerous differences compared with the way the disease has spread in the West: firstly in terms of timing, as the virus began to affect Africa only after sweeping through China and Europe, and secondly in epidemiological terms, since – at least for now, and despite the undercount of the true number of cases – the degree of infectiousness and severity seen on other continents has not yet been seen in Africa. The pandemic in Africa is also different from a political perspective, as it has spurred the continent's 54 nations to adopt a heterogeneous range of containment measures, with unpredictable repercussions for public order, including riots, and for the overall stability of societies and governmental institutions.

The pandemic's secondary effects are clearly cause for concern. One of the most worrisome is people's reduced access to and use of primary health services. A typical risk during emergencies, especially epidemics, is for essential prevention and treatment services to be neglected, suspended, deferred or even halted altogether, with the morbidity and (preventable) mortality burden from common diseases ending up generating more damage and victims than the outbreak itself. Covid-19 is expected to lead to the deaths of around 1.5 million under-5 children due to missed vaccinations and interruptions in treatments for common diseases such as malaria, pneumonia and diarrhea, as well as some 60,000 maternal deaths due to untreated complications. There are already signs of deteriorating health conditions in diabetics and patients with chronic infectious diseases like tuberculosis and HIV/AIDS, due to problems both in terms of access to services (patient-led) and failures due, for example, to drug supply disruptions (system-led). And this is occurring against a backdrop of recession and inflation, rising food insecurity (with 250 million more people estimated to be at risk of hunger) and extreme poverty (with 120 million more expected to be pushed into poverty). We risk a very real and very grim scenario involving rising social inequalities and major setbacks in the progress made vis-à-vis the health-related Millennium Development Goals.

LESSONS LEARNED FROM EBOLA

How can crises like these be managed? It is helpful to think back to 2014, during the Ebola outbreak in Sierra Leone. Pujehun Dis-

trict, where CUAMM was active, with its 360,000 inhabitants, single hospital and 75 health centers, was the first district to be declared Ebola-free by the authorities. Forty-nine cases of the disease were identified and isolated as the entire health network continued to operate, offering both routine services for mothers and children and emergency ones (hospitalizations, C-sections, etc.). Prenatal checkups, deliveries and obstetric emergency care continued to be provided, with the number of some services in terms of coverage and absolute terms actually *rising* compared with the pre-Ebola situation, in contrast with a 23% drop in the national average. How did the district health system hold up? Or, using the current buzzword, why did it prove so "resilient", so able to absorb the shock of the outbreak and to adapt and transform itself to it?

Here are some of the key underlying factors:

- *Good governance*: The district's health authorities proved able to respond to the outbreak quickly and to coordinate activities effectively;
- *Management of local staff*: Staff were asked to handle a wide range of tasks, from protection to training to supervision to off-hour shift incentives, single issues that, focused on collectively, helped to allay the fear of infection, assuage anger about the death of three co-workers, and keep strikes and protests to a minimum;
- *Implementation of hygienic and personal protection measures in the hospital and the peripheral health center network*: The systematic use of "low-tech" practices such as hand-washing with sodium hypochlorite, the correct management of hospital waste, use of the limited number of personal protection items, and other such measures enabled people to understand the benefits of all of these practices and measures even during non-crisis periods;
- *Community engagement*: An effective campaign carried out by local leaders, indigenous associations, and the media helped frightened, wary community members to understand the dangers they were facing and to adapt necessary new behaviors (such as "Don't touch me" social distancing, hand-washing, the suspension of traditional funeral rites, cooperation with contact-tracing, etc.), thereby also maintaining their trust in local health facilities and workers;
- *Data management and operational research*: Managing the data on the use of routine health services (maternal and child care, TB, HIV/AIDS, etc.) was of vital importance. With



IN MOZAMBIQUE

A three-pronged approach to the fight against Covid-19: working with institutions and decision-makers; giving ongoing assistance to communities; raising awareness and providing information.

TEXT BY / GIOVANNA DE MENEGHI AND EDOARDO OCCA / DOCTORS WITH AFRICA CUAMM

The first case of Covid-19 in Mozambique was found on 22 March 2020. Since then, CUAMM has worked at multiple levels to support the population as it works to respond in an effective manner to the outbreak. At the institutional level, CUAMM is collaborating with local health organizations and is part of the network of technical groups of the Ministry of Health for Epidemiological Surveillance and Case Management, as well as of that for Community Health and Advocacy. In this capacity we have taken part in formulating nationwide strategies, operational flow charts, guidelines and tools.

At the community level, CUAMM has adapted its interventions to guarantee the safety of both its own staff and the local population, at the same time ensuring the continuity of services. Providing information to communities and raising awareness in both urban and rural areas have been vitally important activities, made possible thanks to an extensive network of around 500 local activists. Their support has also made it possible to carry out preventive activities at health points as well as in local markets and youth centers. Radio ads, videos and songs have been produced in a range of dialects, and messages have been broadcast from loudspeakers mounted on cars to reach those living in the most remote areas. CUAMM has also worked with village health committees to identify and refer suspected cases of infection, establishing valuable partnerships, including one with local religious authorities, who allowed us to use their minaret loudspeakers to disseminate virus-prevention messages.

In terms of our health interventions, in addition to providing training to community activists on the prevention of Covid-19 infection, we developed a procurement plan for the purchase of personal protective equipment (PPE) for CUAMM staff, as well as for the hospital and health centers that we work with. We also purchased ten hospital tents, each with an eight-bed capacity, which will be set up outside several key health centers, to be selected together with local health authorities; they will be used for pre-triage activities.

Currently (22 June 2020) the situation in Mozambique is thus: the cities of Nampula and Pemba have been declared locations with community transmission. CUAMM is working to help contain the outbreaks, supporting the epidemiological surveillance activities carried out by health authorities in the Provinces where we are active; shortly we will begin organizing community-based surveillance activities.

the support of the Bruno Kessler Foundation in Trento we were able to reconstruct the chain of infection starting from the index case, to measure transmission times and the basic reproduction number (R0), and to assess the effectiveness of outbreak containment measures (isolation and contact-tracing). Our operational research (five published works), carried out with local and international partners, enabled us to test ideas, check out hunches, and answer questions from different perspectives – epidemiological, organizational and policy-wise;

- *Organizational innovation:* It gradually became clear that in the aftermath of the outbreak it would be necessary to review intervention strategies and to help pregnant women with complications and children with complex cases to access hospital services by way of an innovative call system for ambulance and motorcycle transport. Once the emergency phase was over, this organizational model spurred the setting-up of a national emergency/urgency system that now offers around-the-clock service in all 14 districts of Sierra Leone, thanks to a fleet of 90 ambulances.

Although it was a very trying time, our experience with Ebola left us with many ideas and lessons learned, both human and professional, bequeathing CUAMM with a valuable framework vis-à-vis the strengthening of health systems in Africa, as our work in other countries shows. Yet that valuable experience is still not enough.

EMERGENCY AND DEVELOPMENT: AN INTEGRATED APPROACH

We need to go further, galvanized by the lessons of the Covid-19 pandemic. Africa is constantly being hit by emergencies: 2019 alone saw 21,600 episodes of armed conflict, 96 infectious disease outbreaks and 89 natural disasters. Many of these took place in so-called “fragile” nations, where both the poverty and the health situation are extreme. One such example is Capo Delgado Province, in northern Mozambique, currently enduring terrorist attacks, broad-based insecurity, population flight, and outbreaks of Covid-19, measles and cholera.

It is both shortsighted and counterproductive for local and international actors to take either an “either/or” approach (i.e., emergency *or* development) or a purely reactive one (i.e., intervening only after an emergency). The traditional conceptual parameters that draw dividing lines between emergency, rehabilitation and development, or line them up one after the other, are outdated and impracticable. Things need to change and evolve.

Strengthening a health care system and making it resilient, if we can consider this one of the current pandemic’s potential lessons, must involve taking on and embracing every dimension of an emergency and attendant shocks: from the ex-ante readying of the system (something that is dangerously lacking today) through management of the initial phase of the crisis and the broad-based consequences thereafter, up through the recovery and learning phase.



This is the lens through which Doctors with Africa CUAMM's Covid-19-related interventions should be viewed. We have signed new agreements with the United Nations Humanitarian Response Depot (UNHRD); thanks to this partnership, CUAMM will now not only have access to warehouses in Brindisi, Dubai and Accra to stock our own materials and facilitate the logistics of dispatching them to the field, but will also be able to obtain basic necessities (tents, personal protective equipment and so on) using more efficient procurement procedures endorsed by the Directorate-General for European Civil Protection and Humanitarian Aid Operations (ECHO). Another important step is our agreement with the World Food Program which, thanks to its network of humanitarian flights, enables CUAMM staff to travel inside Africa despite the suspension of commercial flights. These agreements will remain operative even after the Covid-19 crisis comes to an end. In the field, our goal is to secure the 23 hospitals where we are active and to train their staff, especially in infection prevention and control (IPC); to support community awareness-raising activities; to ensure the continuity of primary health services to the greatest extent possible; and, finally, to provide the country's ministries with technical assistance for the development of guidelines, protocols and flowcharts. We have also launched new lines of research.

Given the challenges that Covid-19 and other potential crises will continue to bring to us and the African communities we work with, these are important steps towards increased transparency and efficiency.

Things have rarely been as uncertain, and possible options as unclear, as they are today, so a great deal of humility and a healthy dose of realism are called for. But the challenge must be met head on; the core of our profession, CUAMM's very calling, is to be at our African partners' sides so they will not have to face this umpteenth challenge unaided.

IN SOUTH SUDAN

In South Sudan, whose human development index value positions it at 187 out of 189 countries and territories, the Covid-19 pandemic is “a crisis on top of a crisis”.

TEXT BY / CHIARA SCANAGATTA / DOCTORS WITH AFRICA CUAMM

As of 21 June 2020, the number of confirmed cases had reached 1,892, although given the limited number of tests administered (10,038) the actual figure is likely higher. With a dearth of specialized medical and personal protective equipment, qualified staff, and the infrastructure necessary to ensure adequate hygiene standards, the country's health system is unable to provide the services needed or to prevent health facilities from becoming the centers of new outbreaks. Due to the population's failure to adhere to necessary preventive behaviors and the growing social stigma associated with the disease, it is impracticable to ask those with asymptomatic or mild cases of the disease to manage their illness at home. Routine health service supply and demand are also at risk; concerns about this new disease coupled with reduced mobility and limited financial resources are negatively affecting access to and use of non-Covid-19-related services. The principal pandemic response center in South Sudan is Rumbek State Hospital, where infection prevention and control measures such as waste management, hand-washing and toilet use have all been bolstered. Hospital staff have been trained on Covid-19 identification and prevention, and supplied with basic protective materials. A 15/20-bed-capacity isolation area has been set up and equipped with oxygen concentrators, pulse oximeters and Continuous Positive Airway Pressure (CPAP) machines, and a triage system adopted; everyone who arrives for outpatient services is checked at the hospital's entrance. In the first 40 days, 10,723 individuals were examined; 886 of them were then assessed more thoroughly, and 663 went on to have a checkup with a doctor. Four of the latter were tested for the virus, with the swabs being sent to Juba. Since no community isolation and control system was yet in place, the patients were kept in isolation inside the hospital while waiting for their results. In a month's time, nine such cases (5 confirmed and 4 suspected) were found. The next step will be to certify the hospital's laboratory to do its own testing using the GeneXpert system that has recently been enabled for Covid-19 testing and is already being used in the HIV/TB division. CUAMM also supports the Covid-19 response strategy through non-clinical activities such as community awareness-raising via radio broadcast and the training of staff in primary health facilities, both public and private, and of village health workers. Finally, the data gathered during screening and in the isolation unit are valuable sources of information for health authorities as they seek to get an idea of the local situation of the pandemic in order to address it as effectively as possible.

COVID-19 AT WOLISSO HOSPITAL, ETHIOPIA

Once again we are seeing one of the most critical secondary effects of health crises like the current pandemic: a drop in outpatient visits and hospitalizations. However, use of assisted deliveries and other emergency services continues more or less unabated. Here’s what the situation looks like in Wolisso, Ethiopia.

TEXT BY / FABIO MANENTI / DOCTORS WITH AFRICA CUAMM

The first confirmed case of Covid-19 in Ethiopia was recorded on 14 March 2020. The virus then spread quite slowly, for a total of 1,063 cases by the end of May. Starting in June, though, the number began to climb rapidly, reaching 5,575 on 25 June. Ethiopia was quick to put in place containment measures such as the closure of schools and restrictions on travel between regions. Thus far no confirmed cases have been found in the Wolisso area; on 13 March a 27-year-old woman was hospitalized with Covid-19-like symptoms, but she recovered and tested negative. Since then, all patients have been screened upon entering the hospital, their temperatures taken and questions asked about possible contacts, and those with possible cases of Covid-19 are isolated in a separate facility outside. Concerns about possible spread of the disease to the Wolisso area initially led to a steep decrease in both outpatient visits and hospitalizations. The average 315 outpatient visits/day in the first

13 days of March fell to an average 205/day through 31 March, then dropped further, to an average 119/day, from 1 to 22 April, i.e., a 62% drop between the first and last period. Even so, as the figure shows, the trend started to turn around in early April, with the numbers slowly climbing back up. In terms of hospitalizations, there was a 44% drop from 1 to 13 March and from 1 to 22 April, while the drop was much smaller vis-à-vis deliveries, which fell from an average of 12.8 per day to 11.9 per day in the same two time periods. Overall, comparing the first five months of 2019 with the same period in 2020, we found a 13% drop in outpatient visits and 7% in hospitalizations. While apprehension about the virus and restrictions on people's movement in Ethiopia led to a significant drop in the number of outpatient visits, at least in that first month, essential and urgent services such as deliveries were not seriously affected.

FIGURE 1 / OUTPATIENT VISIT TREND, 1 MARCH - 22 APRIL

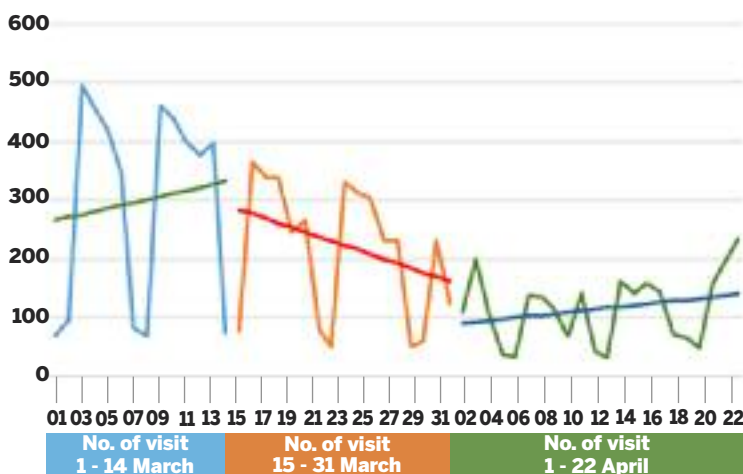
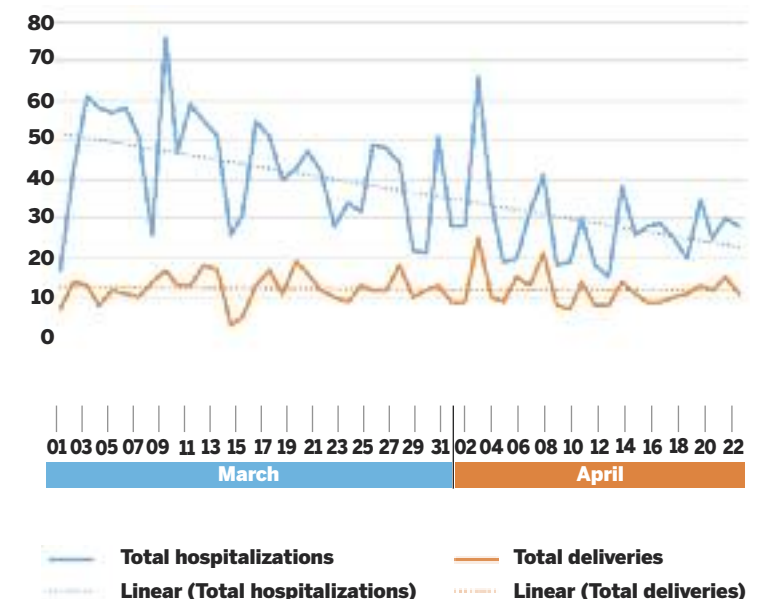


FIGURE 2 / TOTAL HOSPITALIZATION AND DELIVERY TREND, 1 MARCH - 22 APRIL



— Total hospitalizations — Total deliveries
 Linear (Total hospitalizations) Linear (Total deliveries)



REVIEW

THE VALUE OF FIELD TRAINING WITH CUAMM

We conducted a retrospective study in partnership with the University of Padua to assess the outcome for medical students and residents of CUAMM's training opportunities in Africa. The findings? Plenty of satisfaction and growth, both professional and personal, including greater empathy and understanding of social inequalities.

TEXT BY / CHIARA DI BENEDETTO / DOCTORS WITH AFRICA CUAMM

It was 2005 when, together with CUAMM, the Italian Medical Students' Association (SISM) laid the groundwork for the Wolisso Project: an opportunity to undertake a month-long internship in Africa to experience up close how international health cooperation works. The Junior Project Officer (JPO) program, a period of training for medical students officially recognized by universities as an integral part of their residencies, had already been launched in 2002. Together, these two field opportunities have helped prepare students to become the doctors of the future, taking part in CUAMM's daily work alongside its African partners while also undergoing crucial outside-the-classroom training thanks to synergic partnerships with universities.

CUAMM has always been proud of these programs, fine-tuning them over time as the number of participants began to rise: by 2006 three students were leaving for Wolisso yearly, while by 2018 the figure had grown tenfold, with destinations including both Wolisso and Tosamaganga. Given the programs' growing appeal to medical students and residents, we decided to carry out a retrospective analysis to assess the impact of both on those who have taken part in them. Indeed, interning in an African country can change an individual's approach to the medical profession not just in the short term, but also the medium-to-long term. We wanted to know what past participants might have in common today.

In partnership with the University of Padua's Statistics Division we formulated two questionnaires – one for Wolisso Project participants and the other for JPOs – and asked everyone who had ever participated in either program to fill one out. Of the 257 possible respondents in the former case, 55%, or 141 students from 30 Italian universities, did so, while of the 183 possible JPO respondents, 79%, or 144 students from 32 universities from every Italian region, did. The current age of respondents ranged from 29 to 50.

Here's what we found: despite differences in age and type of training, as well as in the durations of the internships and training periods (1 month for students or young graduates with the Wolisso Project, and from 6 to 12 months as JPO residents), many reported similar sentiments about their experiences. There was a widespread sense of satisfaction: 95% of Wolisso Project participants and 94% of JPOs said they would gladly go back for a re-do. Participants of both programs confirmed the importance of their experiences in both professional and personal terms, with 90% reporting having gained in terms not only of their humanity – learning to view patients first and foremost as human beings and only second in terms of their health

issues – but also their resilience. A large number of respondents felt they'd become more courageous and empathetic; many also reported having learned to cooperate better, and to feel greater respect for others and more patience with, and trust in, themselves.

TABLE / DID YOUR EXPERIENCE AS A JPO CHANGE HOW YOU WORK AS A HEALTH PROFESSIONAL?

	Decreased	Unchanged	Increased	No.
Ability to organize and carry out work independently	0%	22%	78%	144
Confidence/trust in oneself	2%	19%	78%	144
Empathy (ability to understand patients)	0%	34%	66%	144
Patience	5%	38%	57%	144
Courage (ability to make decisions and take responsibility for their outcome)	0%	25%	75%	144
Resilience (finding positive aspects even in the worst circumstances)	0%	24%	76%	144
Respect for others	0%	51%	49%	144
Team cooperation (ability to work with others)	0%	47%	53%	144

As might be expected, following their time in Africa respondents also became more attentive to the matter of health inequalities, with both medical students and residents measuring their concern at 8 or above on a 1 to 10 scale. Neither the respondents' destinations nor the years in which they went seemed to bear any influence on these perceptions.

These first-hand responses show the long-lasting positive impact that training for just a few months in an African setting can have, offering a window onto the extraordinary qualities we have all witnessed – and so appreciated – in doctors working in Covid-19 wards during the current public health crisis, and underscoring the synergic blend of professional know-how, social vision and empathy that is required to serve in that capacity in an optimal manner.

FIGURE / DEGREE OF INTEREST IN THE ISSUE OF HEALTH INEQUITY



THE ROLE OF SUPPLY CHAINS IN EMERGENCY RESPONSE

Global logistics will play an increasingly important role in the response to future complex emergencies. We asked Giuseppe Saba, logistics expert and CEO of International Humanitarian City, for deeper insight into the issue that Covid-19 has brought to the world's attention.

TEXT BY / GIUSEPPE SABA / INTERNATIONAL HUMANITARIAN CITY

A HUMANITARIAN HUB FOR EMERGENCIES

Based in Dubai, in the United Arab Emirates, at a crossroads between Asia and Europe within reach by air of most of the world's population, is International Humanitarian City (IHC), an emergency response group. IHC focuses on preparedness and the pre-positioning of everything that could be necessary in the event of a disaster or an emergency, but also on the training of young people just starting out in the humanitarian field, and innovation, often in partnership with companies that have fresh ideas about what "aid" might entail today. Less an organization than a humanitarian "hub", IHC partners closely with the other bases that make up the United Nations Humanitarian Response Depot (UNHRD) network, in Brindisi, Italy; Accra, Ghana; Kuala Lumpur, Malaysia; Las Palmas de Gran Canaria, Spain; and Panama City, Panama. Some 460 individuals work there; they come from U.N. agencies including the World Health Organization (WHO), the U.N. Population Fund (UNFPA) and the U.N. Office for the Coordination of Humanitarian Affairs (OCHA), and other international and governmental organizations. There are also commercial companies that produce humanitarian and logistics-related products. A "society" of technology specialists and producers of relief equipment and supplies, IHC has become a pivotal player in emergency management and response at a time when such events are ever more frequent, especially in the global South.

THE COLLAPSE OF THE GLOBAL SUPPLY CHAIN CAUSED BY COVID-19

When Covid-19 made itself known to humans in January 2020, demand for protective materials, diagnostics and patient treatment equipment surged, and while the stocks of WHO and UNHRD were large enough to handle the first wave of outbreaks, they were not sufficient for the pandemic that followed. The demand was so overwhelming that no one entity could have produced enough to meet it. Complicating matters further was the fact that a huge part of relief supplies are produced in Southeast Asia – China, India, Malaysia and Pakistan – where production already struggles to meet domestic demand. This gave rise to an intense competition among the hardest-hit countries to secure

supplies, initially in Europe, then across the Atlantic and other countries around the world. Wealthy nations battled against others with more limited financial resources, and as demand for protective equipment soared, so did its price.

In fact, it was not only production that collapsed, but the entire supply chain, i.e. the transport, warehousing, and dispatch of goods to countries in need, in line with predefined plans, and their distribution to end users. A drastic reduction in the number of passenger flights led to lesser availability for transporting supplies in the holds of aircraft, meaning that they have had to be transferred to cargo planes and some aircraft reconfigured into combi planes in order to transport them. This is the situation that the humanitarian community has had to face, and continues to face even now. And the cost of transport, like that of production, has also rocketed upwards. Once again, the gap between developed and low-resource countries is manifest, with the former able to speed up transport operations using flag carriers and military planes, which in times of Covid-19 means being able to treat the sick faster.

IHC: RESPONSE AND INNOVATION

While it is true that the pandemic caught us out with insufficient and non-optimally prepared stocks, it is also true that the IHC community was in the midst of planning a range of actions for the three-year period running from 2020 to 2022 that dovetailed with the demand that began to surge with Covid-19. The plan involves optimizing IHC's existing spaces to increase storage capacity in our warehouses (making room for another 22,000 pallets), in-house assembly of the personalized kits normally used during health projects and emergency interventions, and expanding IHC's cold chain areas for the storage of drugs and vaccines. Already underway, the plan has been accelerated due to the new pandemic; as is often the case during times of emergency, innovation is rushing forward.

IHC has successfully adapted its emergency response expertise to an unexpected scenario, serving also as a key partner to NGOs like CUAMM, which are being called upon ever more frequently by the field in Africa to help communities handle not only their everyday health needs, but also emergencies.



DOCTORS WITH AFRICA CUAMM

Founded in 1950, Doctors with Africa CUAMM was the first non-governmental organization focused on healthcare to be recognized by the Italian government. It is now the country's leading organization working to protect and improve the health of vulnerable communities in Sub-Saharan Africa.

CUAMM implements long-term development projects, working to ensure people's access to quality health care even in emergency situations.

HISTORY

In our **70** years of existence

- **170** programs have been carried out;
- **2,000** individuals have worked on our projects;
- **43** countries have partnered with our organization;
- **232** hospitals have been assisted;
- **1,053** students have lodged at CUAMM's university college, including 688 Italians and 280 citizens from 34 other countries;
- **4,973** years of service have been provided, with each CUAMM worker serving for an average of three years.

SNAPSHOT

Doctors with Africa CUAMM is currently active in Angola, Central African Republic, Ethiopia, Mozambique, Sierra Leone, South Sudan, Tanzania and Uganda with:

- **151 major development projects** and approximately one hundred smaller related initiatives. Through this work we provide support to:
 - 23 hospitals;
 - 127 local districts (with activities focused on public health, maternal and infant health care, the fight against AIDS, tuberculosis, malaria and training);
 - 855 health facilities;
 - 3 nursing schools (in Lui, South Sudan; Matany, Uganda and Wolisso, Ethiopia);
 - 1 university (in Beira, Mozambique);
- **4,777 health workers**, including 434 from Europe and abroad.

IN EUROPE

Doctors with Africa CUAMM has long been active in Europe as well, carrying out projects to raise awareness and educate people on issues of international health cooperation and equity. In particular, CUAMM works with universities, institutions and other NGOs to bring about a society – both in Italy and in Europe – that understands the value of health as both a fundamental human right and an essential component for human development.

PLEASE SUPPORT OUR WORK

Be part of our commitment to Africa in one of the following ways:

- **Post office current account** no. 17101353 under the name of Doctors with Africa CUAMM
- **Bank transfer** IBAN IT 32 C 05018 12101 000011078904 at Banca Popolare Etica, Padua
- **Credit card** call +39-049-8751279
- **Online** www.mediciconlafrica.org

Doctors with Africa CUAMM is a not-for-profit NGO; donations made to our organization are tax-deductible. You may indicate your own in your annual tax return statement, attaching the receipt.

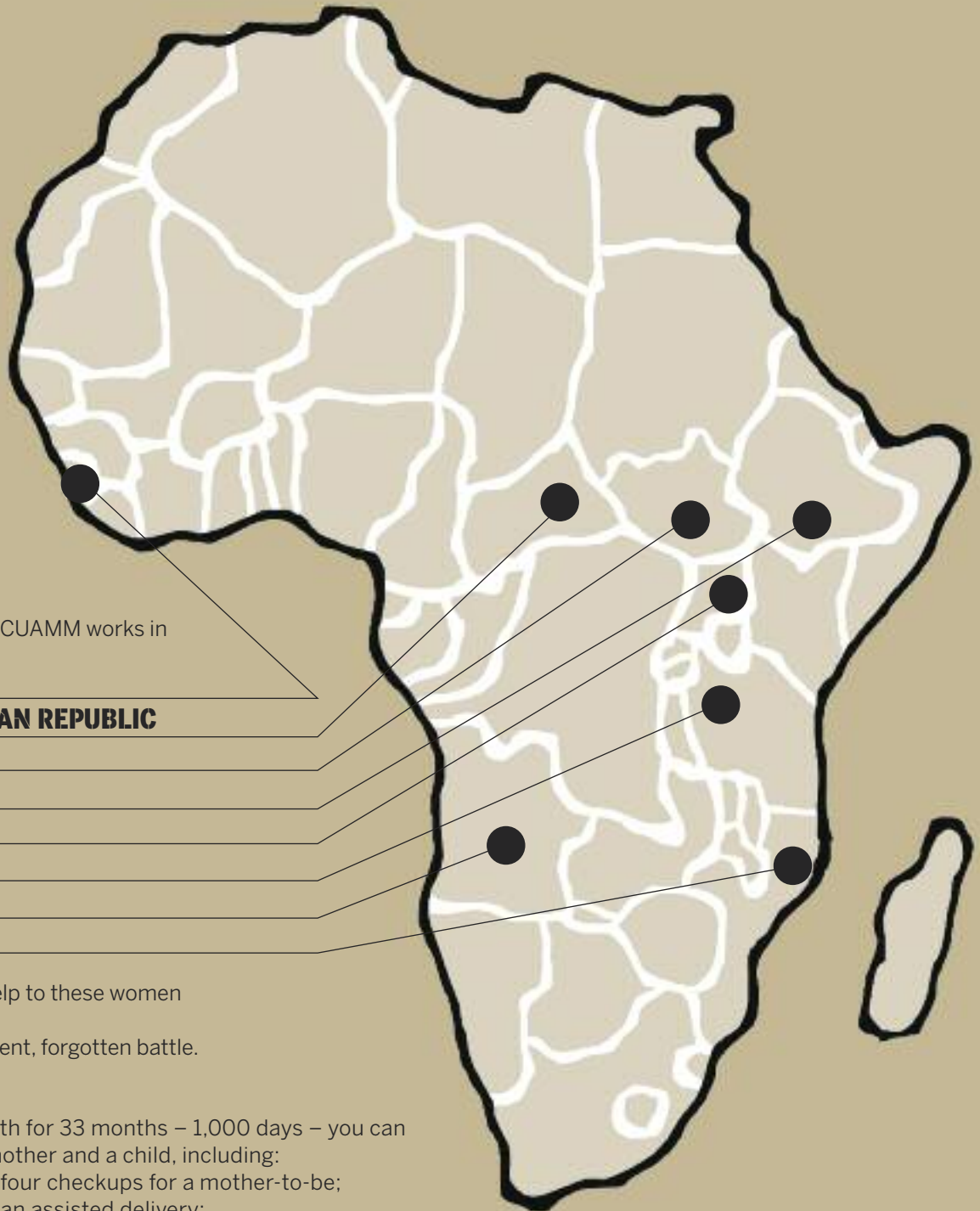
In **Health and Development** you will find studies, research and other articles which are unique to the Italian editorial world. Our publication needs the support of every reader and friend of Doctors with Africa CUAMM.



AFRICA IN NEED

EVERY YEAR IN SUB-SAHARAN AFRICA:

- 4.5 million children under the age of 5 die from preventable diseases that could be treated inexpensively;
- 1.2 million infants die in their first month of life due to lack of treatment;
- 265 thousand women die from pregnancy- or childbirth-related complications.



Doctors with Africa CUAMM works in

SIERRA LEONE

CENTRAL AFRICAN REPUBLIC

SOUTH SUDAN

ETHIOPIA

UGANDA

TANZANIA

ANGOLA

MOZAMBIQUE

to bring care and help to these women and their children.
Help us fight this silent, forgotten battle.

With just €6 a month for 33 months – 1,000 days – you can ensure care for a mother and a child, including:

- € 50 to provide four checkups for a mother-to-be;
- € 40 to provide an assisted delivery;
- € 30 to support a mother and her baby during the breastfeeding phase;
- € 80 to provide vaccinations and growth checkups during the weaning process.



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**“In this globalized world we all are neighbors.
So we can’t solve problems one country at a time, we
can only solve them together. This is global health.”**