



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



## **HEALTH AND DEVELOPMENT**

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*Our planet, our health*



## NEWS

### HIV/AIDS AROUND THE WORLD

Globally, sub-Saharan Africa is by far the region hardest hit by the HIV epidemic. Gradual progress is being made, yet the epidemic continues to rage, in part because while antiretroviral medicines suppress the virus, they cannot cure it, and an effective HIV vaccine is not on the immediate horizon. The only truly effective response, therefore, is prevention.

TABLE 1 / REGIONAL HIV AND AIDS STATISTICS AND FEATURES (2018)

### Regional HIV and AIDS statistics and features

	Adults and children living with HIV	Adults and children newly infected with HIV	Adult and child deaths due to AIDS
<b>Eastern and southern Africa</b>	<b>20.6 million</b> [18.2 million–23.2 million]	<b>800 000</b> [620 000–1.0 million]	<b>310 000</b> [230 000–400 000]
<b>Western and central Africa</b>	<b>5.0 million</b> [4.0 million–6.3 million]	<b>280 000</b> [180 000–420 000]	<b>160 000</b> [110 000–230 000]
<b>Middle East and North Africa</b>	<b>240 000</b> [160 000–390 000]	<b>20 000</b> [8500–40 000]	<b>8400</b> [4800–14 000]
<b>Asia and the Pacific</b>	<b>5.9 million</b> [5.1 million–7.1 million]	<b>310 000</b> [270 000–380 000]	<b>200 000</b> [160 000–290 000]
<b>Latin America</b>	<b>1.9 million</b> [1.6 million–2.4 million]	<b>100 000</b> [79 000–130 000]	<b>35 000</b> [25 000–46 000]
<b>Caribbean</b>	<b>340 000</b> [290 000–390 000]	<b>16 000</b> [11 000–24 000]	<b>6700</b> [5100–9100]
<b>Eastern Europe and central Asia</b>	<b>1.7 million</b> [1.5 million–1.9 million]	<b>150 000</b> [140 000–160 000]	<b>38 000</b> [28 000–48 000]
<b>Western and central Europe and North America</b>	<b>2.2 million</b> [1.9 million–2.4 million]	<b>68 000</b> [58 000–77 000]	<b>13 000</b> [9400–16 000]
<b>TOTAL</b>	<b>37.9 million</b> [32.7 million–44.0 million]	<b>1.7 million</b> [1.4 million–2.3 million]	<b>770 000</b> [570 000–1.1 million]

The ranges around the estimates in this table define the boundaries within which the actual numbers lie, based on the best available information.

Source: UNAIDS, 2019

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Cover

### Our planet, our health

The climate's impact on ecosystems affects human health as well as much else, and it is often the most vulnerable communities that are hit the hardest.



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## DIALOGUE

### TAKING CARE OF THE PLANET

The changing climate is alarming for CUAMM both as individuals and as an organization, especially given that the hardest hit are already so vulnerable. Africa faces dire risks. This puts CUAMM – committed, as always, to working alongside the neediest communities as effectively as possible – face to face with issues of an ethical and professional nature as well as in terms of our civic responsibility.

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

According to the World Bank, the average individual living in sub-Saharan Africa produces around 0.8 metric tons of CO<sub>2</sub> per year versus the approximately 6.4 of the average European and 16.5 of the average American. Yet according to reports from the Intergovernmental Panel on Climate Change (IPCC), it is the African continent that will be hit hardest by the most severe consequences of climate change, with consequences including water shortages, falling agricultural and food productivity, the worsening of chronic malnutrition and infectious diseases such as malaria, and decreasing GDP. And in terms of the phenomenon's impact on public health, it is children who will be the worst affected, as pointed out in the 2019 report of *The Lancet Countdown on health and climate change: ensuring that the health of a child born today is not defined by a changing climate*. **We at CUAMM are direct witnesses to these changes and with this edition of *Health and Development* our goal is to draw our readers' attention to the real-life impact of climate change – situations we experience firsthand, including drought in Angola, cyclones in Mozambique and the chronic nature of armed conflict in many of Africa's most fragile states.** The climate is changing and this is of great concern to CUAMM both as individuals and as an organization. It is a crisis that raises ethical issues, as **Pope Francis** underscored in his encyclical *Laudato Si*. Indeed, in a recent address to the International Association of Penal Law, he spoke of veritable “**ecocides**” – situations involving “the massive contamination of air, land and water resources, the large-scale destruction of flora and fauna, and any action capable of producing an ecological disaster or destroying an ecosystem”, or, in more technical terms, “the loss, damage or destruction of the ecosystems of a given territory, so that its utilization by inhabitants has been or can be seen as severely compromised”. On the other side are those who deny the very existence of climate change, or at least dismiss its gravity. Yet it is incontrovertible that the situation we now find ourselves in is primarily due to the economic and political decisions and actions of human beings. We are now faced with a personal, collective and intergenerational responsibility to change this state of affairs, and in order to do so, we need to acknowledge the connections and interdependencies between our lives in the Italian and Western context and those on the African continent.

This “*awareness of interdependence and linkages*” is precisely “*the way to face up to our responsibilities in a constructive manner, allowing us – for better or worse – to weigh up each of our actions, including from a moral standpoint. From generation to generation, the attention or lack thereof given to the environment by individuals – managers and politicians, teachers and researchers, ordinary citizens and workers, activists and those working to change the status quo – will gradually add up, giving rise to a culture either of safeguarding or neglect and waste*”<sup>1</sup>

It is critical, therefore, to work to promote a culture of environmental protection and solidarity. CUAMM will tackle the issue of climate change the same way we've always tackled issues: by keeping abreast of the matter, studying the data through a critical lens, stimulating dialogue and debate and – most importantly – carrying on with our work in and alongside communities in Africa where the need is greatest. We did so in 2019 in Mozambique during the terrible period of Cyclone Idai and in its aftermath, responding to the emergency on the ground as we continued to ensure the daily health services required by local communities (see p. 8). In drought-struck Angola (see p. 14) we continue our work on malnutrition treatment programs at Chiulo Hospital, with growing numbers of admissions. We also support the World Health Organization (WHO) in a nationwide emergency response program there, helping to supervise and train personnel and provide materials in five nutritional units (Chiulo, Xangongo, Curoca, Ondjiva and Nhamacunde) in Cunene Province. This is what CUAMM has always done and what we will continue to do, ever mindful of how indifference and inaction intensify already-existing problems of injustice and inequity.

#### SOURCES:

<sup>1</sup> <https://www.aggiornamentisociali.it/articoli/peccato-ecologico-un-appello-alla-responsabilita/>

<sup>2</sup> <https://www.unenvironment.org/regions/africa/regional-initiatives/responding-climate-change>

<sup>3</sup> The 2019 report of The Lancet Countdown on health and climate

change: ensuring that the health of a child born today is not defined by a changing climate. [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(19\)32596-6/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(19)32596-6/fulltext)

<sup>4</sup> [http://www.vatican.va/content/francesco/it/speeches/2019/november/documents/papa-francesco\\_20191115\\_diritto-penale.html](http://www.vatican.va/content/francesco/it/speeches/2019/november/documents/papa-francesco_20191115_diritto-penale.html)



## DIALOGUE

# HIV/AIDS IN AFRICA: THE PRICE BEING PAID BY YOUNG WOMEN

Progress is being made on HIV/AIDS, but not for young women. In South Africa there are almost twice as many HIV-affected females as males. The gender gap is even wider in younger population groups, where HIV incidence is four times higher among young women than their male counterparts. It is an unacceptable situation whose causes include poverty, the status of women and, most of all, the violence to which they are subjected.

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

The most recent World HIV/AIDS Day, held on 1 December 2019, provided an opportunity to learn about the latest international and national epidemiological data for the infectious syndrome. Overall, there has been gradual improvement (see the UNAIDS Report 2019;<sup>1</sup>) both in terms of new HIV infections – which peaked at over 3 million towards the end of the 1990s and then began to fall, with 1.7 million new cases in 2018 – and in terms of AIDS-related mortality, which peaked at 1.5 million deaths in 2005, then dropped by about half, to 770,000 deaths, in 2018. Global HIV/AIDS prevalence, i.e. the number of people living with the infection, is on the rise: there are nearly 38 million such individuals, including both new cases of infection and “older” ones where HIV-infected patients survive and in most cases continue to live in good health conditions thanks to antiretroviral therapy.

Italian HIV data provided by Epicentro<sup>2</sup> show that in 2018, 2,847 new HIV-infection diagnoses were reported, equivalent to 4.7 new cases per 100,000 residents, and thus a decrease from the 2017 figure. Among the Italian regions with more than 1.5 million inhabitants, the highest such incidences were recorded in Lazio, Tuscany and Liguria. 85.6% of those who learned they were HIV-positive in 2018 were male. The median age was 39 for males and 38 for females, with the highest HIV incidences being found in individuals aged 25-29 years and 30-39 years. Most new HIV diagnoses were attributable to unprotected sexual intercourse, which accounted for 80.2% of all the reports. Moreover, more than half of the individuals with newly-diagnosed HIV were diagnosed at an advanced stage of illness. Advanced-stage HIV diagnoses are common in Europe (see ECDC data;<sup>3</sup>), particularly among women in their forties. In 2018, 60% of women diagnosed with HIV were aged from 30 to 49, and 92% of them had been infected through heterosexual transmission.

Globally, sub-Saharan Africa remains the world's hardest-hit region in terms of HIV infection (see the **table** on the inside cover of the magazine). Progress is gradually being made, but the epidemic continues to rage, in part because while antiretroviral medicines suppress the virus, they cannot cure it, and an effective HIV vaccine is not on the immediate horizon. The only truly effective response, therefore, is prevention.

The world's hardest-hit country in terms of HIV/AIDS is South Africa. Out of a total 56 million inhabitants, 7.7 million live with the infection. The situation has undoubtedly improved over time: in 2018, there were 240,000 new infections (compared to 390,000 in 2010) and 71,000 deaths (half the 2010 figure). The number of patients being treated with antiretroviral therapy rose from 900,000 in 2010 to over 5 million in 2018. Among the over-14 population, there are almost twice as many HIV-affected young women (4.7 million) as men (2.8 million). The gender gap is wider in the youngest population groups, where HIV incidence is four times higher among young women than their male counterparts. It is an unacceptable situation whose causes include poverty, the status of girls and women and, most of all, the violence to which they are subjected, including being forced to have unprotected sex. The UNAIDS report tells us that in South Africa, 30% of women between the ages of 15 and 49 report having been subjected to physical or sexual violence from their partner over the last year. Similar percentages were recorded in the Democratic Republic of the Congo, Tanzania and Uganda, while the numbers were just slightly lower (20-25%) in Ethiopia, Kenya, Mozambique, Malawi, Namibia, Rwanda, Zambia and Zimbabwe.

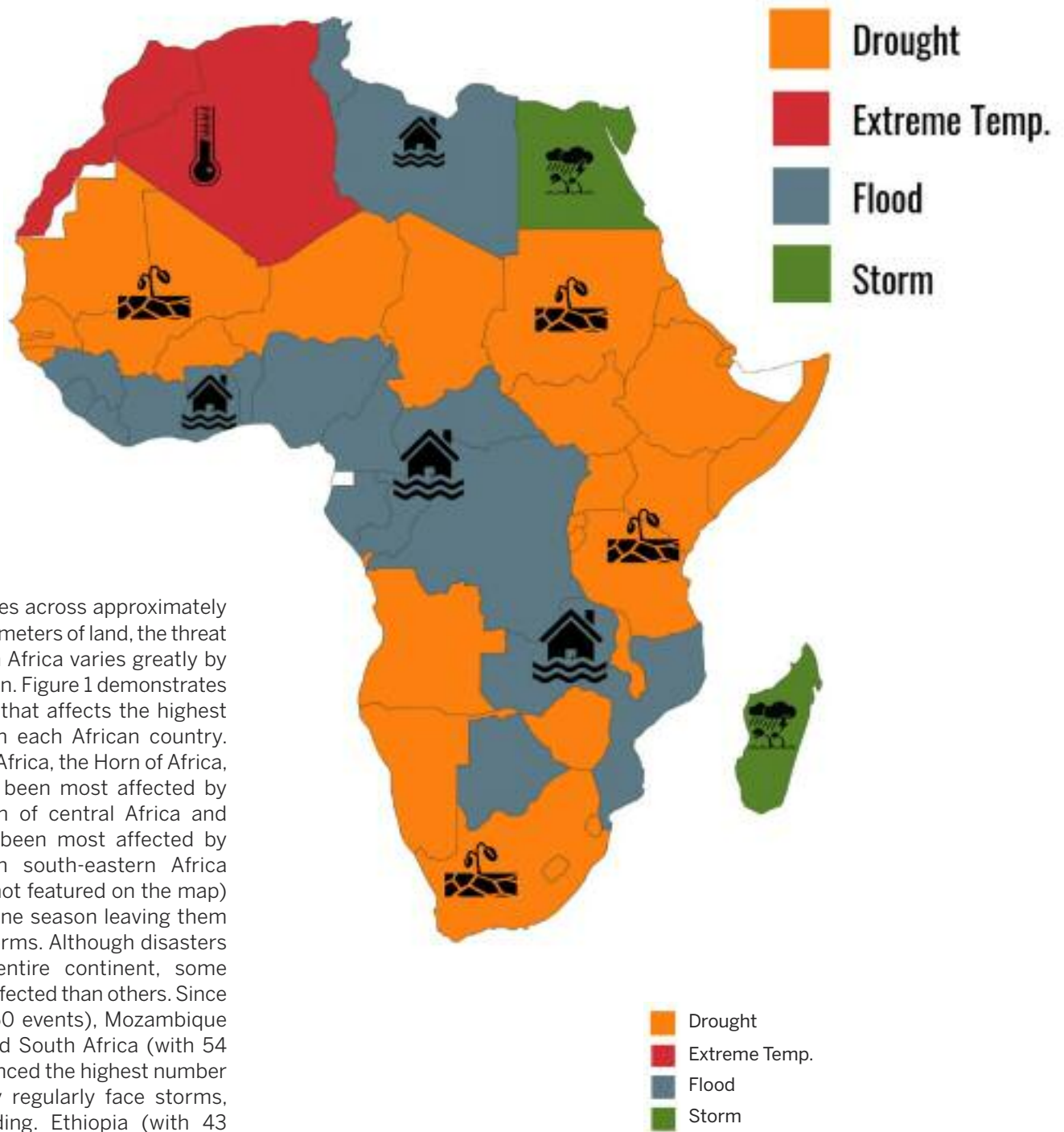
### NOTES

<sup>1</sup> UNAIDS Data 2019.

<sup>2</sup> <https://www.epicentro.iss.it/aids/epidemiologia-italia>

<sup>3</sup> <https://www.ecdc.europa.eu/en/news-events/world-aids-day-2019-taking-closer-look-hiv-women-europe>

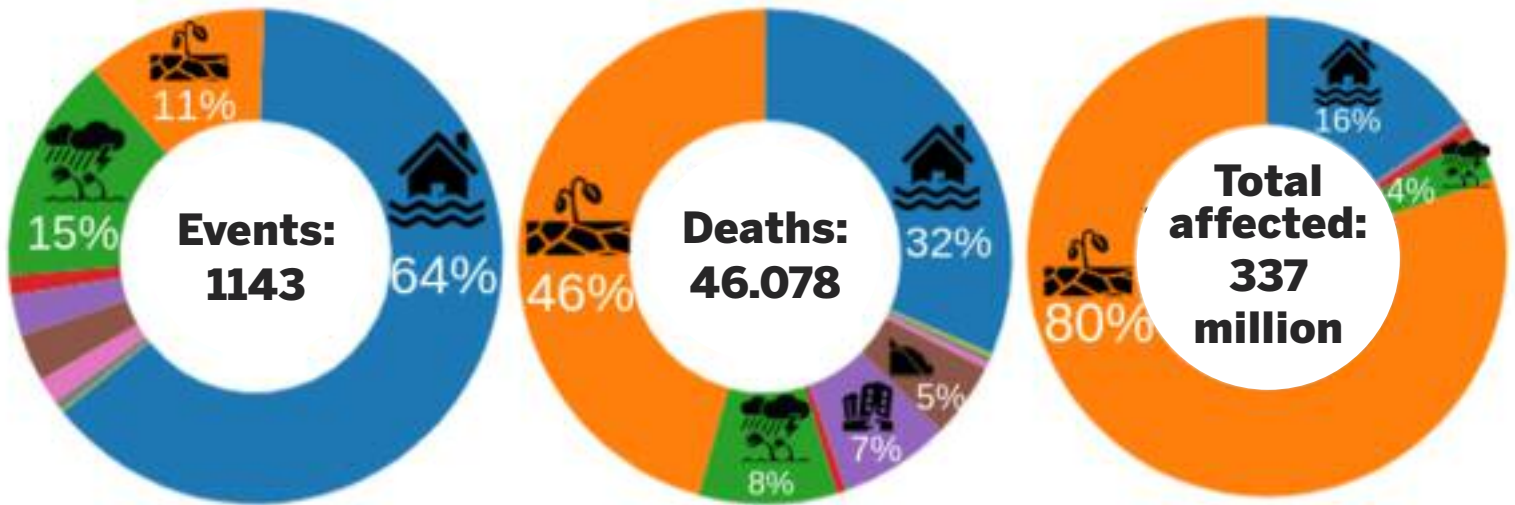
**FIGURE 1: DISASTER TYPE AFFECTING HIGHEST NUMBER OF PEOPLE BY COUNTRY (2000-2019)**



With over 50 countries across approximately 30 million square kilometers of land, the threat of natural hazards in Africa varies greatly by geography and season. Figure 1 demonstrates the type of disaster that affects the highest number of people in each African country. Regions of southern Africa, the Horn of Africa, and the Sahel have been most affected by drought, while much of central Africa and western Africa has been most affected by floods. Countries in south-eastern Africa (some of which are not featured on the map) face an annual cyclone season leaving them most affected by storms. Although disasters occur across the entire continent, some countries are more affected than others. Since 2000, Kenya (with 60 events), Mozambique (with 55 events), and South Africa (with 54 events) have experienced the highest number of disasters as they regularly face storms, droughts, and flooding. Ethiopia (with 43 events) also falls into the top 10.

*All figures last updated 4 September 2019 and taken from "EM-DAT: The OFDA/CRED International Disaster Database"; with analysis & writing by Nima Yaghmaei.*

**FIGURE 2: SHARE BY DISASTER TYPE (2000-2019)**



- Flood
- Drought
- Storm
- Extreme Temp.
- Earthquake
- Landslide
- Wildfire
- Volcanic activity
- Mass Movement

As seen in Figure 2, floods and droughts were the most prevalent and impactful type of disasters on the African continent. From 2000 to 2019, floods were responsible for 64% of disaster events, followed by storms at 15%. Unlike other continents, such as Asia, earthquakes and volcanoes are not prominent types of disasters. So far in this century, droughts have been the deadliest disaster type, followed by floods.

In terms of people affected, droughts make up by far the largest share of disasters in Africa. This figure may be attributed to various climatic and geographic features, as well as the reliance on rain-fed agriculture by a large portion of the population in low resource rural areas. The most impactful drought events so far this century by number of people affected were the 2003 and 2004 South African droughts (15 million & 12.6 million people affected respectively), the 2015 Ethiopian drought (10.2 million people affected), and the 2009 Niger drought (7.9 million people affected).



## THE CLIMATE CRISIS IN AFRICA

An interview with Professor Carlo Carraro contextualizes the current state of the climate and the environment and its impact on our health. From Italy to Africa, the consequences affect all of us and only a change of course aimed at curbing greenhouse gas emissions and incentivizing the use of renewable energies will restore some balance. Digital innovation could also play a role.

CHIARA DI BENEDETTO INTERVIEWS CARLO CARRARO / IPCC NETWORK - INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE

*"Climate change is here. Thirty years ago we referred to it as an issue for the future. But now it must be considered one of the most significant threats to our socio-economic systems, ranging from the cities we live in to our economic activities. Both our planet and well-being are under threat. The global cost of the problem in 2017 is estimated to be around 190 billion dollars".* This is an excerpt from the *Trasformazioni* blog<sup>1</sup>, written by Carlo Carraro, President of the European Association of Environmental and Resource Economists (EAERE), as well as Full Professor of Environmental Economics at Venice's Ca' Foscari University, where he held the role of Rector until 2014. Since 2015, he has also served (for the second consecutive time) as Vice-President of the Intergovernmental Panel on Climate Change (IPCC), the international organization he joined in 1995 and which won a Nobel Peace Prize in 2007.

**o What do you mean when you say that our well-being is at risk? What sort of damages are you referring to? Are they of an economic nature alone or is there also documented evidence of the impact on human health?**

The interplay between climate, environment and health is apparent all over the world, but the consequences of the climate crisis are more critical in developing countries. Think, for example, of the scarcity of water resources as a result of droughts, as witnessed recently in Angola or in the area near Lake Tanganyika in East Africa: if there's no water, crops are endangered, agriculture is no longer sustainable, and nutritional deficiencies of various degrees of severity arise. Illnesses also spread more rapidly in such settings.

Then there are the indirect damages, that is to say those that arise from environmental catastrophes, which clearly take a toll on public health, especially that of the most vulnerable populations. One example is tornadoes and floods, which devastate entire regions and leave their inhabitants in a state of deprivation and/or further worsen their living conditions through food shortages and so forth.

Finally, another often overlooked effect is the consequence of greenhouse gas emissions, which are strongly linked with urban pollution. In Italy there are some 89,000 deaths every year from pollution-related cardiovascular and pulmonary diseases. In Europe overall, the number of such deaths – deaths which could

be prevented – rises to 320,000. The data is unequivocal: between 1880, the year in which temperatures began to be measured reliably, and today, the average temperature of Earth has risen by about one degree, with significant differences depending on latitude. At the North Pole, for example, the temperature increase has been as high as 4.5 degrees over the last century. At the same time, greenhouse gas emissions have increased, by as much as an estimated 80% over the last fifty years. Despite numerous warnings issued by the scientific community and the commitments formally undertaken by governments, nothing has been done yet to alter the course of this ongoing climate drift.

**o It has been estimated that about 50% of carbon dioxide emissions is produced by the world's richest ten percent, while the poorest half of the global population – some 3.5 billion people – generates just 10% of the total emissions which may be attributable to individual consumption<sup>2</sup>. The highest price is paid by the most vulnerable countries, which lack the means to react. What exactly does this mean?**

The people living in more fragile countries are more fragile themselves: these parts of the earth are more vulnerable in both physical and social terms. They lack economic opportunities, and consequently also means with which to defend themselves. And these populations rely primarily on agriculture: for example, the agricultural sector makes up 70% of the gross national product in sub-Saharan Africa, compared to only 8% in Italy. And it is the first sector to be endangered when climate disasters take place.

Against such a backdrop, it becomes critical to steer a new course, and the responsibility for doing so will fall primarily upon countries with a higher development index. How can the world population grow to 10 billion by 2050 and still achieve decent living conditions? Energy will be indispensable, and the only ethically and scientifically valid path forward that I can see is to produce energy that will not further exacerbate the climate crisis already underway. In practice, these are the steps that could be taken:

- irrigation, water diversification and investments in micro-precision agriculture;



- production systems powered by solar energy;
- the use of smartphones to schedule production; and
- demand-driven facilities so as to consume energy only when required, thus avoiding waste.

But today, large-scale “clean” power facilities are still scarce. We must do much more in that area, making investments in technological innovation especially in developing countries.

- o **As we speak, Madrid is hosting COP25, the United Nations Climate Change Conference, which brings together almost 200 representatives from governments, citizen communities and international organizations to discuss climate change-related damages and pinpoint possible solutions. What is Italy’s response to all of this? And Africa’s?**

In practice, Italy has yet to respond: it has done very little thus far to encourage the use of renewable energies. It was only because of the economic crisis that energy consumption fell in 2013 and 2014, but that was more of an interim effect due to saving-oriented behaviors than a reflection of people’s awareness about the issue. On 28 November of this year, the European Parliament declared a global climate and environmental emergency. I hope that Italy will heed this message and follow up with specific actions.

As for Africa, it should turn to solar and other renewable energy sources, but doing so will necessitate community-level change. A first step could be the conversion of coal-fired ovens into electric ones.

- o **Over the past year, Doctors with Africa CUAMM witnessed firsthand some extremely severe weather events: tropical Cyclone Idai in Mozambique, the drought in Angola, and the floods in Sierra Leone. What do you think CUAMM could and should do to play a concrete role in environmental and climate matters?**

Doctors with Africa CUAMM carries out ex post interventions to help counteract the damage that unexpected climate events inflict on land and people, and to ensure healthcare, guaranteeing support and taking the most appropriate actions depending on the specific nature of the weather event. CUAMM already plays a fundamental role in this sense because it supplies health services to local communities in an ongoing manner. But organizations like CUAMM, which has such deep roots in the territory, can also carry out prevention activities to raise awareness among local populations about climate change.

Doing so “from below” could be an important driving force for change, spurring people to adopt inexpensive technological solutions to save energy, for instance. Let’s take as an example the use of coal-fired ovens in sub-Saharan African villages: the pollution they cause is often an agent of pulmonary diseases. Using simple electric ovens powered by solar energy would signal an important change of course, and have an impact on both the environment and people. Indeed, we are going to have to work simultaneously in two separate directions: on the one hand, politicians must grasp the gravity of the climate emergency and take steps to limit pollution and promote clean energy sources; and on the other, citizens must play their own role through simple daily actions, mindful that our planet’s health is *our* health as well.

## NOTES

<sup>1</sup> [www.carlocarraro.org](http://www.carlocarraro.org)

<sup>2</sup> Oxfam Report: “Extreme Carbon Inequality” (2015)



## CYCLONE IDAI IN MOZAMBIQUE: A COMMUNITY RESPONSE

Cyclone Idai had a dire impact on the city of Beira, devastating people's homes and agricultural production. CUAMM was able to coordinate an effective disaster response together with a network of community groups; already assistance providers to the population prior to the disaster, they expanded their role in its aftermath to facilitate emergency communication and reporting.

TEXT BY / ANDREA ATZORI / DOCTORS WITH AFRICA CUAMM

On the night between 14 and 15 March 2019, tropical Cyclone Idai struck the city of Beira, capital of Sofala Province in central Mozambique, with horrific consequences for the local population of about 600,000. Some 239,682 homes were destroyed or severely damaged, and approximately 142,327 displaced people were housed at disaster accommodation centers.

In the initial stages of the crisis four main forms of direct damage were identified:

- 1)** Destruction and interruption of the water supply in addition to massive damage to sanitation facilities, with the lack of clean water putting the population at risk of contracting water-borne diseases including cholera;
- 2)** Destruction of homes and loss of personal property and non-food items as well as further material damages, putting the population at risk of indefinite displacement and even greater personal insecurity, especially with regard to the most vulnerable population groups such as women and children;
- 3)** Damages to health facilities including loss of supplies and other materials. According to local authorities, at least 24 health units were impacted in the Sofala, Manica, Zambezia and Inhambane Provinces, suspending health services for patients with acute, chronic and/or other conditions necessitating medium- to long-term care (e.g. tuberculosis and HIV);
- 4)** Damage to agricultural production both in the short term, with crop losses and food shortages in local markets, and medium- to long-term, with damage to the agricultural substrate and potential damage for upcoming harvests.

### THE HUMANITARIAN AND COMMUNITY-LEVEL RESPONSE

An international humanitarian response was launched in the immediate aftermath of the cyclone, with materials and emergency teams being sent in from all over the world through the only entry point available, Beira Airport. As material and human resources continued to accumulate, it became critical to find the most efficient ways to reach and distribute the aid to cyclone-affected communities. In the initial phase of the crisis, people

remained trapped in their (often damaged) homes or in accommodation camps and centers. Thus Doctors with Africa CUAMM's activities focused on reactivating three community groups: Kuplumussana, Anandjira and Associação Geração Saudavel (AGS).

Themselves impacted by the cyclone, these groups had previously worked with CUAMM to implement a program for the education, counseling, testing and support of HIV patients. Their in-depth familiarity with Beira and ability to reach people and identify the worst situations made them ideal partnering networks with which to respond to the local population's needs as quickly and efficiently as possible.

We therefore decided to "reactivate" the three community groups by securing their offices and providing them with basic livelihood necessities and communication means. Within 48 hours, working together with local health authorities and the national humanitarian response unit, came the development of an intensive training course on WASH (water, sanitation and hygiene), nutrition, water purification and psychosocial support for minors and their families. Each activist was then given a kit containing posters, data-collection materials, disposable items and so forth, as well as a coordinator-supervised work plan.

### AN EXTRA(ORDINARY) SERVICE THAT MADE IT POSSIBLE TO GUARANTEE THE ORDINARY AS WELL

This intervention made it possible to get 143 activists – 32 from Kuplumussana, 70 from Anandjira and 41 from AGS – to local communities in Beira in the immediate aftermath of the cyclone, individuals who then not only ensured the delivery of HIV services to affected individuals, but also went house to house and into camps and centers to identify those worst affected by the cyclone. They carried out prevention work, identifying cases of cholera, at-risk minors and families with immediate needs and providing basic humanitarian kits. A few days later, we used the same scheme in the rural districts of Dondo and Nhamatanda, training 94 activists and sending them to the field. From the moment the cyclone hit on through June 2019, these activists were able to reach 45,874 families in the city of Beira,



## BUILDING MORE RESILIENT COMMUNITIES

Improving infrastructure, roads and residences, but also investing in human resources to help communities prepare for increasingly harsh environmental disasters and learn how to face emergency situations. Creating synergies between the two is the only way to ensure effective responses to such crises. Some reflections on Cyclone Idai in Mozambique.

TEXT BY / ANDREA ATZORI / DOCTORS WITH AFRICA CUAMM

On 14 March 2019 Cyclone Idai pummeled Mozambique with torrential rains and maximum sustained winds of 195 km/h, causing floods and landslides and demolishing crops, roads and the lives and the lives of over a thousand people. The worst-affected city was Beira, where approximately 80% of public and private health facilities and homes were destroyed.

Accustomed to heavy rains, the city's residents initially took Idai for just another storm during cyclone season. Unfortunately this was not the case. Here are some of the reasons why:

- The rise in average temperatures led to a massive accumulation of condensed water vapor in storm clouds, bringing a year's worth of lashing rain in a matter of days;
- The drought that had affected the region for several years left parched soil unable to absorb rainwater, which exacerbated the flooding and its consequences;
- The already rising sea level heightened the risk of flooding, hampering the discharge into the sea of the urban water network and bringing the water back to land to flood coastal and port areas.

Mozambique's long coastline is highly susceptible to flooding, especially by the Indian Ocean. The dire impact of Cyclone Idai on Beira underscored the fragility of its infrastructure; studying it will make it possible to come up with actions to build a more

resilient city. Roads will need to be built higher to avoid flooding, and homes reinforced to withstand the power of cyclones (their roofs in particular, 80% of which were blown off or destroyed by Idai). Schools and other public facilities will need to be built on raised surfaces so as to not be immediately deluged in the event of floods, thus making them suitable to double as disaster shelters. An alert system will need to be developed and civil protection units equipped to handle emergencies. Although such steps may be new to Mozambique, they have already been taken in countries like Bangladesh.

Key investments must also be made in human resources. While the cyclone brought massive damages, it also saw intense civic mobilization. Volunteer teams got busy saving lives and cleaning roads, most medical personnel got back to work straight away, and community activists played a critical role in providing relief and preventing potential epidemics. Thus investments in infrastructure must clearly go hand in hand with those in human resources (or better yet in the *training* of the latter, e.g. teachers, nurses, police officers, firefighters and so forth) to enable them to be ready for climate disasters and to know how to respond immediately and effectively. Raising climate disaster awareness among individuals will also strengthen the broader community's resilience to them.

14,375 families in the Dondo district and 8,071 families in the Nhamatanda district, delivering a speedy response to their basic needs as well as mitigating the impact of the cyclone-related suspension of health services on patients who had been receiving treatment for HIV and related co-infections.

### RESILIENT COMMUNITY NETWORKS

Our intervention in Beira shows how community networks in Africa, many of which already play roles in carrying out programs

(nutrition, HIV activism, etc.) for local populations, can also prove a critical resource in crises, with the use of human and material resources already "on the ground" to build resilient communities able to withstand disaster-related damages.

The ability of the three community groups (Kuplumussana, Anandjira and AGS) to respond effectively to the crisis generated by Cyclone Idai underscores the utility of leveraging such networks to provide regular material stocks and, most importantly, make available training courses and programs (vocational and otherwise) without creating vertical structures that can be very costly to create and maintain.



**CHIULO HOSPITAL, 2019**

A mother feeds her child at the Chiulo Hospital in Cunene Province, Angola. In recent years CUAMM has focused its efforts in Chiulo on safeguarding the health of mothers, infants and children, particularly in terms of nutrition, through the *Mothers and Children First: The First 1,000 Days* program. 303 children with acute and severe malnutrition were admitted to Chiulo Hospital in 2019 versus 194 in 2018; the increased number of such patients was partly a result of the prolonged drought that has brought the region to its knees.







## EXPERIENCES FROM THE FIELD

# THE MULTIPLE FACTORS OF FRAGILITY IN SOUTH SUDAN

South Sudan is Africa's youngest nation and among the world's poorest, most fragile countries. Only by delving into the intricate system of political, institutional, economic, and environmental factors can we reconstruct the chain of causes that have led to this situation. Doctors with Africa CUAMM's intervention in Panyijar County has taken place within this dense interweave of factors of fragility.

TEXT BY / MARIO ZANGRANDO / DOCTORS WITH AFRICA CUAMM

New infrastructure, growing GDP, and an increasing number of graduates – Africa is growing but broad swaths of poverty and extreme imbalance remain. CUAMM prioritizes its intervention in "fragile states", i.e. countries that are struggling hard to escape conditions of total humanitarian emergency and return to the path of development<sup>1</sup>. South Sudan is one of these countries. Independent since 2011, this is the youngest country in Africa and one of the poorest in the world, a situation exacerbated by a conflict that started in December 2013 that appears to have started to retreat only at the end of 2018. Only by delving into the intricate system of political, institutional, economic, and environmental factors can we understand how South Sudan became so fragile and vulnerable to humanitarian catastrophe.

### POLITICAL AND INSTITUTIONAL FACTORS

After a short period of peace and stability, an armed conflict broke out in South Sudan in December 2013 between forces loyal to President Salva Kiir Mayardit and those loyal to Vice President Riek Machar for control over the government and the oil-rich federal states of Jongley, Unity, and Upper Nile. In 2015, a presidential decree dissolved the original 10 federal states and created 28 new ones, further fragmenting the already weak institutional framework and exacerbating the power struggles between the state's center and periphery. The failure of numerous attempts at peace has led to an increase in violence and insecurity. The worsening of this situation has led to massive population movements. In February 2017, a state of famine was declared, marking the gravity of the ongoing humanitarian crisis. In July 2017, around 6 million people (50% of the total population) were living in a state of constant food insecurity; there were 1.9 million internally displaced persons, and another 2 million were people who fled the country, mainly to Uganda, Sudan, and Ethiopia. In September 2018, a new peace agreement was reached that to be fully implemented requires forming a government of national unity that includes Riek Machar, the main opponent of President

### NOTE

<sup>1</sup> Doctors with Africa CUAMM Strategic Plan 2016–2030.

Salva Kiir Mayardit. The forming of this government was scheduled for November 12, 2019, but the deadline for completing it was extended by 100 days.

### SOCIAL AND ECONOMIC FACTORS

Since December 2013, South Sudan's macroeconomic situation has collapsed. According to the World Bank, South Sudan's GDP shrank by 11% between 2016 and 2017 and oil production plummeted. Growing defense and security spending was covered by deficit spending, printing more money, inflation (480% in 2016 and 155% from July 2016 to June 2017), and devaluation of the local currency. Combined public expenditure on health and education is around 6%, compared to 40% for defense. Basic education and health services have been maintained at minimum levels only through international aid and humanitarian agencies, though with great variability among the 28 federal states, leaving some communities with no or almost no assistance.

### FACTORS RELATED TO CLIMATE CHANGE

95% of the inhabitants of South Sudan rely on agriculture, fishing, and forest resources for their livelihoods, all sensitive to climate change. Because of South Sudan's geographical features, floods and droughts have been part of regular life for generations. A lesser-known fact is that South Sudan is among the 5 most vulnerable countries in the climate change vulnerability index. Recent studies suggest that global warming here will be 2.5 times higher than the global average with more frequent extreme weather events, higher temperatures, increases in the frequency and severity of droughts and floods and changing seasons, which are already well underway and negatively affect the entire food supply chain, from production to market prices. Recent analyses have shown that conflicts are more likely in regions of South Sudan where floods and droughts occur. Though there is still widespread local knowledge of drought- and flood-resistant crops, many people consider the current conditions out of control and see themselves as unable to cope with them.

## INTERVENTION IN A CONTEXT OF MULTIPLE STATES OF FRAGILITY: PANYIJAR COUNTY

Doctors with Africa CUAMM has been active in South Sudan since 2006, and it currently operates in 12 counties, 5 hospitals, and 150 health facilities, serving a population of almost 1.4 million people and employing about 1,500 local workers. In 2017, during the most acute phase of the emergency that culminated with the declaration of a state of famine in Unity State, CUAMM decided to intervene in one of the most-affected counties, Panyijar (with about 100,000 residents and displaced persons). Considered a safe area, protected from fighting as its geography makes it difficult to reach, the county has been affected by a major flow of displaced persons. The area is marshy and made up of a myriad of small islands, where there are many makeshift settlements, spread far apart and only reachable by boat or amphibious vehicles. This type of environment provided a relatively safe haven for fleeing populations but made it difficult to provide and access supplies and services of any kind, including humanitarian aid.

CUAMM's intervention in the county has focused on three areas: support to the main health facility in the area, the Nyal Health Center, supplying it with medical materials and medicines, and generally improving operations. The second line of action was to set up four first-aid posts in four remote villages, chosen with the local authorities. The third action was establishing a mobile team to provide the most isolated communities access to basic health care, prevention, diagnosis, and treatment for the most common diseases.

Though operating in this area has led to considerable logistical, institutional, and security difficulties, all three lines of action have been successful. The results: over 15 months, 30,625 patients (7,713 of whom were under 5) were visited by doctors. The main cause of morbidity in children was malaria, followed by diarrhea and respiratory infections. At the Nyal Health Center and in the

licensed health centers, 941 pregnant women were given access to at least one antenatal visit and, since March 2018, the mobile team has given routine vaccinations to children up to the age of 2.426 doses of tuberculosis vaccine were administered, 332 doses of polio vaccine, 358 doses of diphtheria, whooping cough and tetanus vaccine, and 330 doses of measles vaccine. Vaccinations were combined with antenatal visits for general consultation open to pregnant women and children up to two; 249 women of childbearing age and 199 pregnant women had access to tetanus vaccination. Nutrition status screening was introduced as part of the examination and vaccination service, as well as being implemented on a mass level, benefiting 11,190 children under 5. Although the outposts set up in the area were not intended to function as delivery rooms, their staff and mobile team attended 562 women giving birth.

## CONCLUSION

South Sudan's fragility is the result of multiple factors. Current conditions in the country are the result of a combination of increasing political instability, economic crisis, and increased exposure to extreme climate events. Restoring peace and security, rebuilding macroeconomic stability and mitigating the effects of climate change are still the main challenges facing the country. Responding with a medium-term health intervention to an acute humanitarian crisis like the one triggered in 2017 in the state of Unity has been a very ambitious undertaking for CUAMM. The data above show that, despite the great difficulties of the context and its multiple points of fragility, we have succeeded in strengthening and, to some extent, building different levels of the health system in Panyijar County to respond to both basic health needs and the emergency. It should be noted that these are the first health data ever collected in this area of South Sudan.

## BIBLIOGRAPHY AND REFERENCES

- 1 Doctors with Africa CUAMM Strategic Plan 2016–2030
- 2 FFP Fund For Peace, *Fragile States Index* available at this link (consulted on 03/12/2019): <https://fundforpeace.org/what-we-do/fragile-and-conflict-affected-states/>
- 3 Giovanni Putoto, *Environmental Vulnerability: South Sudan's Endgame*, published online by ISPI Istituto per gli Studi di Politica Internazionale on March 23, 2018: <https://www.ispionline.it/it/pubblicazione/environmental-vulnerability-south-sudans-endgame-19956>
- 4 Verisk Maplecroft, *Climate Change Vulnerability Index 2018* (consulted on 12/3/2019), <https://www.maplecroft.com/risk-indices/climate-change-vulnerability-index/>

- 5 Mario Zangrando, Giovanni Putoto, *Una questione di fragilità*, Sistema salute, V.63, N.2, April-June 2019, pp. 172-182
- 6 Mario Zangrando, Giovanni Putoto, *Gli interventi di Medici con l'Africa Cuamm nei contesti umanitari: una questione di fragilità*, in "A sud del Mediterraneo – L'accoglienza oltre i confini del mare," documents for start of the university course in International Cooperation for Development 2018/2019, edited by Emilio Mola, pp. 83–95
- 7 Chiara Scanagatta, *South Sudan: war, drought and economic crisis*, Health and Development 2016, 73: 17
- 8 Sivio Donà, Davide Pocchiesia, *Fragile health in fragile states*, Health and Development 2013, 68: 18



## EXPERIENCES FROM THE FIELD

# CLIMATE CRISIS AND POVERTY IN ANGOLA

The consequences of drought in Angola are seen in health parameters, an increase in acute malnutrition, in the societal situation – many schools have closed due to the lack of water – and the resulting instability in the country. A global perspective on the country's situation, starting from the severe drought afflicting it.

TEXT BY / MATTIA FATTORINI / DOCTORS WITH AFRICA CUAMM

### EL NIÑO AND ITS INCREASING INTENSITY

The main culprit of the severe drought afflicting several countries in southern Africa has a name: ENSO, standing for *El Niño-Southern Oscillation*, or just *El Niño*. The name refers to the Baby Jesus because it usually happens during the Christmas season. It is mainly a climate event that creates an anomalous increase in water temperature in the Eastern and Central-South Pacific. This warming, which happens on average every five years, is responsible for both floods and drought, the latter usually thousands of kilometers away from the Pacific area.

Though *El Niño* episodes have happened for many thousands of years, and there have been at least thirty of them since 1900<sup>1,2</sup>, the scientific world is essentially unanimous that global warming in recent decades has made a major contribution to increasing its frequency, duration, and intensity<sup>3</sup>.

### ANGOLA: DROUGHT, MALNUTRITION, SCHOOL DROPOUTS

Angola is unquestionably one of the countries hardest hit by this drought, especially its southern provinces. The data provided by UNICEF depict a grave situation<sup>4</sup>: In the first eight months of 2019, rainfall in southern Angola was practically non-existent (less than 50 mm). An estimated 421,000 people total are experiencing food insecurity (at crisis or full emergency levels) due to the effects of the lack of water for agriculture and livestock. These people are spread over the provinces of Huila, Cunene, and Namibe. This number is expected to increase to over 560,000 by February 2020. In these provinces, huge livestock losses (almost 900,000 animals) and practically non-existent harvests are leading to an increase in severe acute malnutrition in children, which UNICEF estimates at over 5%.

One little-considered consequence of the drought that has a definite negative impact on the social fabric is that of school dropouts. In some districts of the affected provinces, the percentage of school dropouts is almost 35%. In the Municipality of Curoca (Cunene), in June 2019, none of the thirteen schools were open because of a lack of water. In Cunene Province as well, where Doctors with Africa CUAMM started working in the 2000s, supporting the work of the Hospital of the Catholic Mission of

Chiulo and the health programs of the Municipality of Ombadja, there are extremely negative reports about the drought's consequences on the education of children and youth: The Provincial Directorate for Education estimates that 614 out of 887 primary schools are affected by the drought, for a total of about 150,000 students prevented from regular access to school programs.

### THE RELATIONSHIP BETWEEN THE CLIMATE CRISIS AND POVERTY

The effects of the lack of water further aggravate the difficult health and socio-economic situation in the Province of Cunene, already in a very severe situation. In 2018, UNICEF published a multidimensional analysis of poverty in Angola for the 0–17 age group<sup>2</sup>. This document breaks down the concept of poverty to study it in its parts that can be measured, such as nutritional status, access to drinking water, the possibility of being adequately vaccinated, and so forth. According to this analysis, in at least 13 of the 18 Angolan provinces, 80% of children and young people between 0 and 17 years old can be described as “deprived,” that is, unable to satisfy at least three of the indicators considered by UNICEF. Generally, higher percentages are seen in provinces where the population resides mostly in rural areas in contrast to urbanized settings. The worst numbers, with 92.8% of the children and young people considered “deprived,” was recorded in Cunene Province.

These figures are set in a socio-economic crisis that has affected Angola since 2014, mainly due to the drastic drop in international oil prices, the main Angolan export. The health sector is among those having to cope with the economic difficulties of the crisis. Whereas Angolan public spending on health quadrupled between 2000 and 2013, in 2014 and 2015, it recorded annual decreases of 19% and 39%, respectively. The percentage of GDP spent on health dropped from 2.6% in 2013 to 1.5% in 2015. It has been calculated that in Angola per capita spending on health in 2014 (\$179) was much lower than the average per capita spending in other lower/middle-income countries (\$265). Furthermore, though the 388 billion kwanzas allocated by the government for health care is a higher number than that in 2014 (316 billion), because of the very high rates of inflation, it would actually correspond to the 2014 prices, just





## CUAMM'S ACTION IN ANGOLA

Working on the ground in Angola since 1997 to improve maternal and child health, CUAMM intervened in Cunene Province during the drought emergency, providing continued support to Chiulo Hospital in the areas of pediatrics and nutrition as well as helping WHO with a national emergency response program.

TEXT BY / DONATA DALLA RIVA / DOCTORS WITH AFRICA CUAMM

### COMMITMENT TO COMBATING INFECTIOUS DISEASES

CUAMM has been active in Angola since 1997 with emergency health interventions starting during its civil war.

CUAMM currently operates in Angola in maternal and child health, supporting programs to combat and prevent infectious diseases (tuberculosis and HIV/AIDS) recently launched a program to support managing chronic diseases (hypertension and diabetes).

In the field of infectious diseases, CUAMM supports the National Tuberculosis Control Program (TB) with a pilot project of C-DOTS (Community-based directly observed treatment) of TB

in 6 municipalities of 5 provinces. The program involves over 200 community agents trained and equipped to combat the spread of the disease. Another tuberculosis-related project supports two specialized facilities in Luanda (DAT and Santatorio), started in 2018 to boost diagnostic quality and starting digitalizing health records.

### MANAGING CHRONIC DISEASES

In 2016, an innovative project was launched in Luanda to diagnose diabetes and hypertension related to positive TB cases.



147 billion kwanzas. This is all in the face of the growth of the Angolan population by about 13% (3.4 million people) in the same period 2014–2018<sup>3</sup>.

### FORECASTS FOR 2020

According to the forecasts of the *Annual Southern Africa Regional Climate Outlook Forum*, from January to March 2020

in Angola, an amount of precipitation considered “normal” or “above average” is expected. However, for the south-western areas of the country, rainfall is still expected to be “below average” for the period<sup>1</sup>. Further efforts will be needed from the Angolan Government and local organizations to alleviate the situation of the affected populations by implementing effective actions in the short term (such as water supply by tanks) and in the long term (an adequate water distribution network and programs to improve the efficiency of agriculture and livestock farming).

### REFERENCES

<sup>1</sup> UN Children's Fund. *UNICEF Angola Humanitarian Situation Report July to September, Quarter 3 2019*, <https://reliefweb.int/report/angola/unicef-angola-humanitarian-situation-report-july-september-quarter-3-2019>

<sup>2</sup> Instituto Nacional de Estatística and UN Children's Fund. *Childhood in Angola – A Multidimensional Analysis of Child Poverty, 2018*, <https://www.unicef.org/esa/sites/unicef.org/esa/files/2019-01/UNICEF-Angola-2018-A-Multidimensional-Analysis-of-Child-Poverty.pdf>

<sup>3</sup> UN Children's Fund. *Orçamento Gerl do Estado 2018. Saúde e sobrevivência da criança, 2018*.

<sup>4</sup> CUAMM data for the activities at the Chiulo Hospital\_ 2019 projections.

<sup>5</sup> *Annual Report of Doctors with Africa CUAMM 2018*, <https://www.mediciconlafrica.org/annual-report-2018/>

CUAMM has since continued with other projects aimed at ongoing activities for screening, providing information, and preventing diabetes in 6 health centers in the Province of Luanda. In the Cunene area, CUAMM has been supporting the Diocesan Hospital of Chiulo since 2000 to protect the health of mothers and newborn babies and children under 5, with special attention to nutrition (the First 1,000 Days for Mothers and Children program).

Chiulo Hospital is the only health facility that can manage comprehensive obstetric emergencies (C-EmONC) for an area of about 306,550 people (61,300 children under 5 and 15,330 pregnant women). During 2019, the Chiulo Hospital, which has 234 beds, provided 2,940 antenatal visits, 1,422 deliveries, and treated 303 children suffering from acute and severe malnutrition.

CUAMM gives special support to pediatrics and malnutrition and the area of gynecology/obstetrics through specialist personnel that work alongside Angolan personnel. It invests in training to be able to ensure dedicated nursing staff, provides needed equipment and materials to improve the quality of care, and supports access to care for the community. It does so by helping the hospital to reduce co-payments for mothers and children to access care, building and managing facilities dedicated to at-risk pregnant women waiting to give birth ("casas de espera") to ease timely access to emergency obstetric services offered at the hospital and giving nutritional kits to pregnant women staying at the "casas de espera" and to the mothers/caregivers of malnourished children to improve treatment follow-through.

In the hospital's community, CUAMM organizes public health events (*brigada moveis*) to provide women and children without access to health facilities antenatal visits, basic vaccinations, education/training for mothers, and malnutrition screening. CUAMM also supports district health authorities in supervising and ensuring the quality of services at the peripheral centers in its area.

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### **DROUGHT EMERGENCY IN CUNENE**

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During the drought emergency in Cunene, CUAMM is providing continuity to the support to pediatrics and malnutrition at the Chiulo Hospital with increasing numbers of admissions, and providing nutritional screening to pregnant women and children in the hospital's area. It supports WHO in a national emergency response program by supervising, training, and supplying lacking material to nutritional units (Chiulo, Xangongo, Curoca, Ondjiva, and Nhamacunde) in Cunene Province. The Chiulo Hospital is still the unit that admits the most children suffering from acute and severe malnutrition; 303 malnourished children were admitted to the hospital in 2019<sup>4</sup>, a high number compared to the 194 admitted in 2018<sup>5</sup>, but still too few for the need. There are an estimated 3,400 children suffering from acute and severe malnutrition in the area of the Chiulo Hospital<sup>1</sup>.



## TAKING A CLOSER LOOK

# CONFLICT AND CLIMATE: A RISK FACTOR FOR AFRICA?

A June 2019 article published in *Nature* examines the relationship between armed conflict and climate change. Risk factors including increasingly scarce natural resources, lack of security, and low state governance capabilities will worsen the already challenging conditions faced by the most vulnerable communities. To counteract the fallout, global, political and individual action will be critical.

TEXT BY / GIOVANNI PUTOTO / DOCTORS WITH AFRICA CUAMM

An explicit linear relationship between climate change and the risk of armed conflict has not yet been established; thus far, causal linkages or an unambiguous association between the two phenomena, including in terms of inter-African conflicts, have also not been ascertained.

Even so, under some circumstances climate-induced changes can undoubtedly exacerbate risk factors for armed conflict, thereby leading to new outbreaks and/or worsening existing situations. For example, water scarcity and droughts, as well as other extreme weather phenomena including hurricanes and floods, can negatively impact food security, particularly that of the most vulnerable families and communities. And the increasing scarcity of natural resources such as forests and grazing land can spur unbridled local competition which, in the absence of appropriate governing mechanisms, may in turn trigger uncontrollable effects in terms of domestic migration, social unrest and worsening public health; we have already seen the latter phenomenon in Somalia and Nigeria (1).

With their histories of violence and chronic poverty, the most fragile African nations are the most susceptible to such situations. The Climate Vulnerability Index (CVI), which assesses the climate change vulnerability of communities, shows that all but one of the world's ten most vulnerable states are in Africa, including South Sudan, the Central African Republic, Sierra Leone and the Democratic Republic of Congo<sup>2</sup>.

As a recent article in *Time* points out, the climate vulnerability of these countries goes hand in hand with some of the world's highest population growth rates, a combination that could further fuel existing phenomena such as mass migrations and refugee crises<sup>2</sup>. By 2050 the number of people living in the most at-risk country, the Central African Republic, is projected to grow 77%, with more than 600,000 people already displaced since 2013 and some 3 million in need of humanitarian assistance.

A valuable summary study by a panel of experts and published in *Nature* magazine<sup>3</sup> provides an assessment of the relationship between climate and conflict. The experts agree that while climate affects armed conflict in vulnerable settings, others drivers including lack of security, low state capabilities and social and economic inequality are significantly more influential. They also suggest that unless appropriate measures are taken, climate change will likely amplify the risk of armed conflict in the future, estimating a 13% probability in the event of a global mean temperature increase of 2 degrees Celsius above preindustrial levels and a 26% probability in the event of an increase of 4 degrees Celsius.

The impact of climate change is certain to grow, with consequences that are difficult to predict but clearly significant enough that we should not underestimate the challenges that lie ahead.

What can be done, then, to lower the risk of conflict? Possible interventions should take place on two separate but parallel planes. At the global level we need to work to reduce inequalities and promote peace processes by strengthening local institutions, consolidating education and healthcare welfare networks, developing social and economic capabilities on the ground and, last but not least, preventing and mitigating the environmental impact of climate change. At an individual and local level, we need to actively commit to a serious, concrete climate change agenda. Indeed, according to the World Bank, while the average inhabitant of sub-Saharan Africa produces around 0.8 metric tons of CO<sub>2</sub> a year, the average European produces 6.4 and average U.S. citizen 16.5. We must do better.

### REFERENCES

<sup>1</sup> Jean-François Maystadt, Olivier Ecker, *Extreme Weather and Civil War: Does Drought Fuel Conflict in Somalia through Livestock Price Shocks?*, *American Journal of Agricultural Economics*, Volume 96, Issue 4, July 2014, Pages 1157-1182.

<sup>2</sup> Ciara Nugent, *The 10 Countries Most Vulnerable to Climate Change*

*Will Experience Population Booms in the Coming Decades*, *TIME* July 11, 2019. <https://time.com/5621885/climate-change-population-growth/>

<sup>3</sup> Mach K.J., Kraan C.M., Adger W.N. et al., *Climate as a risk factor for armed conflict*. *Nature* 571, 193–197 (2019) doi:10.1038/s41586-019-1300-6.



## REVIEW

# CONTEMPLATING GLOBAL HEALTH ANEW

A new book that ponders and moves beyond the common conception of health as something merely "reparative", encouraging readers to explore the myriad linkages between it and the wider world: climate, environment, economy, competing interests. Only by taking a global approach will we be able to build and take responsibility for a new world.

TEXT BY / CHIARA DI BENEDETTO / DOCTORS WITH AFRICA CUAMM

Published by CELID, this new book entitled *Un nuovo mo(n)do per fare salute*<sup>1</sup> includes pieces by various authors, all members of the *Rete Sostenibilità e Salute* [Sustainability and Health Network] that was founded in 2014 with the issue of the Bologna Charter for Sustainability and Health. The network numbers 27 diverse organizations including Bologna's *Centro di Salute Internazionale e Interculturale (CSI)* [International and Intercultural Health Center], *Medicina Democratica* [Democratic Medicine], Slow Food, *Movimento per la Descrescita Felice* [Movement for Happy Degrowth] and *FederSpecializzandi*. Their shared goal is to deliberate anew our understanding of health in order to consciously (re)build both it and, hopefully, a new world.

Edited by Jean-Louis Aillon, Matteo Bessone and Chiara Bodini, the nearly 200-page book alternates voices and vantage points from which to observe and deliberate in a critical and informed manner our conception of health, delving into the intrinsic, ever-evolving linkages and interactions between it and other spheres, including environment, economy, society, and the socioeconomic strata of communities, or "social gradients". Too often left up to individuals, health is shown to be something of deep *collective* importance, a matter for which we all bear responsibility.

Although this may seem obvious to some, we need only look at our everyday lives to see that it is clearly not how things currently work. The book offers an unsparing look at the disturbing facts on the ground. Just 8% of the world's population breathe air that complies with WHO air quality guidelines (WHO 2016 data). A quarter of adult diseases, and around one third of those affecting under-5 children, are attributable to preventable environmental causes. WHO estimates that every year some 13 million deaths occur due to the latter, 7 million of which are attributable to air pollution. There are also marked life expectancy gaps based on socioeconomic background: an unskilled worker in Turin can expect to live five years less than a manager, a gap that widens to 13 years in Glasgow and a shocking 25 in São Paulo.



Given the enormity of these inequalities, it is clear that the responsibility for health cannot be foisted on individuals alone. The experts here eloquently discuss how governmental responsibilities, commercial interests, and the endless push for economic growth in a finite world must all be part of the equation.

Much more than a mere essay or critical assessment of health systems, then, what the authors offer here is a meditation of a primarily cultural nature: a suggestion that we seek to move beyond the common "reparative" conception of health as something to think about only when it is impaired and needs "fixing". Urging us to put aside this passive vision and rid ourselves of the idea that health is something "done" only in health centers, clinics and hospitals, the authors stress how critical the notion of *global* health is and show us how it is "built" through people's everyday

choices. For if the ecosystem we live in is not well, how can we be well as individuals?

This is even more true today, in the so-called Anthropocene, where the impact of human activities on our planet's ecosystems has become increasingly momentous, necessitating urgent measures to change course. Climate change is set to be the biggest global health threat of the 21st century, according to an article published in *The Lancet* (Costello et al. 2009), while the World Health Organization estimates that it will cause 250,000 additional deaths every year between 2020 and 2050.

From Michael Marmot to Pierre Bourdieu, from Franco Basaglia to Gianni Tognoni, the book features numerous references and quotes that enable readers to take a sort of cultural voyage inside "the health system", and provides us with new tools for thinking about how we conceive and relate to the notion of health, both underscoring its global dimension and affirming the necessity of individual action. Because, like every other common good, health belongs to each and every one of us.

Translator's note: The title involves a play on words that is difficult to translate into English, but approximates *A New Way of "Doing" Health for A New World*

## HELPING CREATE A WELL-INFORMED AND ACTIVE CITIZEN NETWORK

Educating people on active civic engagement is one of the tools available to us for raising their awareness about the enormous challenges that lie ahead and fostering a sense of respect and responsibility toward the planet. CUAMM is especially committed to developing the public's understanding of global health issues and training people to become driving forces for change.

TEXT BY / CHIARA CAVAGNA AND CHIARA DI BENEDETTO / DOCTORS WITH AFRICA CUAMM

The end of a year involves many things – last but not least, balance sheets and accounts. So it is only appropriate that we take a look at what we managed to achieve with our “*Educating for civic engagement and global health*” project, part of an *Agenzia Italiana per la cooperazione allo sviluppo (AICS)* [Italian Agency for Cooperation Development] program, which we carried out for nearly two years throughout Italy, from Trento in the north to Sicily in the south, raising community awareness about, and taking action on, major global health issues. But first a brief preamble, although it may seem superfluous to some of our readers: why does an organization like CUAMM, whose heart and activities are centered on Africa, spend time and effort on Italy-based activities as well? The answer can be found in the very concept of global health, or, if you prefer, in the visual metaphor known as “the butterfly effect”, i.e. the notion that the flapping of a butterfly’s wings on one side of the world can generate a tornado on the other. For that is how we see things through a global health lens: if we fail to foster critical awareness about the weightiest challenges facing our shared planet, there will be negative consequences for all, with the heaviest burden falling on communities in the world’s most vulnerable nations. Take the example of cyclones and floods, where the first to be hit are those who already live in the most precarious conditions, mainly in developing countries, in homes located in the riskiest areas and not built to withstand such events. Our reasoning becomes even more clear when one considers that it is those of us in the global North who are responsible for the largest quantity of greenhouse gas emissions in the atmosphere, yet those in the global South who will be hardest hit by their impact. This is precisely the reason that we brought the “*Educating for civic engagement and global health*” project to communities throughout Italy, with a special focus on youth and the implementation of an array of activities so as to reach out even to those who might feel detached from such issues. Our priority objective: to create cultural linkages between seemingly distant parts of the world, offering people a notion of their own small, yet immensely important, piece of responsibility in terms of their actions. One of our main areas of activity involved partnering with universities, something that CUAMM has been doing for nearly a decade. Twenty-eight courses pertaining to global health were held in 22 Italian universities, often

following direct requests by students keen to bridge the “training gap” that is unfortunately still widespread when it comes to these issues. Among the main topics dealt with were the relationship between health and climate, health and the environment, and the ever-more important role played by international health cooperation actors; at times students took part in specific follow-up initiatives. For example, urban regeneration activities were undertaken in Palermo, where art and culture were used to help heal wounds and create new spaces for dialogue in critical areas of the city. The “Heroic Imagination Project”, a peer-to-peer laboratory program coordinated by the Pedro Arrupe Institute, was also carried out in Palermo; here, a kind of “territorial solidarity” was cultivated to create a form of mutual support through use of the limited resources and skills available – no small thing nowadays. In Trento, young people prepared and staged a “participatory” play, with the help of university students and months of work in a theatrical workshop to ponder the notion of global health and then give a performance based on their own vision of it. It was an inspiring and unorthodox approach that saw one group of young people crafting the theatrical contents and another offering them support and feedback. But that’s not all. Three publications focusing on the environment and health and edited by *ISDE Italia – Medici per l’Ambiente* [Doctors for the Environment] were issued. The Italian Climate Network carried out awareness-raising activities to teach people about the impact of climate change on human health. And Trento’s *Centro di Cooperazione Internazionale (CCI)* [Center for International Development Cooperation] worked to promote global health and cooperation. Finally, there was the flagship part of the project, a radio series curated by CUAMM in cooperation with Radio24 and entitled “*Terra in vista. L’Africa spiegata a mio figlio*” [Land in sight: Explaining Africa to my child]. In five episodes hosted by Federico Taddia (now also available as podcasts), the program looked at Africa through macro-themes including climate change, distances – not just physical, but also cultural, social, and economic – and the differences between urban and rural settings, alternating firsthand accounts by experts and those on the ground every day, including doctors from CUAMM, with reports by Radio24 journalists, to build a panoramic vision of Africa through a global health lens<sup>1</sup>.

### NOTE

<sup>1</sup> <https://www.radio24.ilsole24ore.com/programmi/terra-africa>



# 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 **more than 69** 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, Ethiopia, Mozambique, Sierra Leone, South Sudan, Tanzania and Uganda with:

- **More than 70 major development projects** and approximately one hundred smaller related initiatives. Through this work we provide support to:
  - 23 hospitals;
  - 80 local districts (with activities focused on public health, maternal and infant health care, the fight against AIDS, tuberculosis, malaria and training);
  - 1,114 health facilities;
  - 3 nursing schools (in Lui, South Sudan; Matany, Uganda and Wolisso, Ethiopia);
  - 1 university (in Beira, Mozambique);
- **2,915 health workers**, including 331 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](http://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.

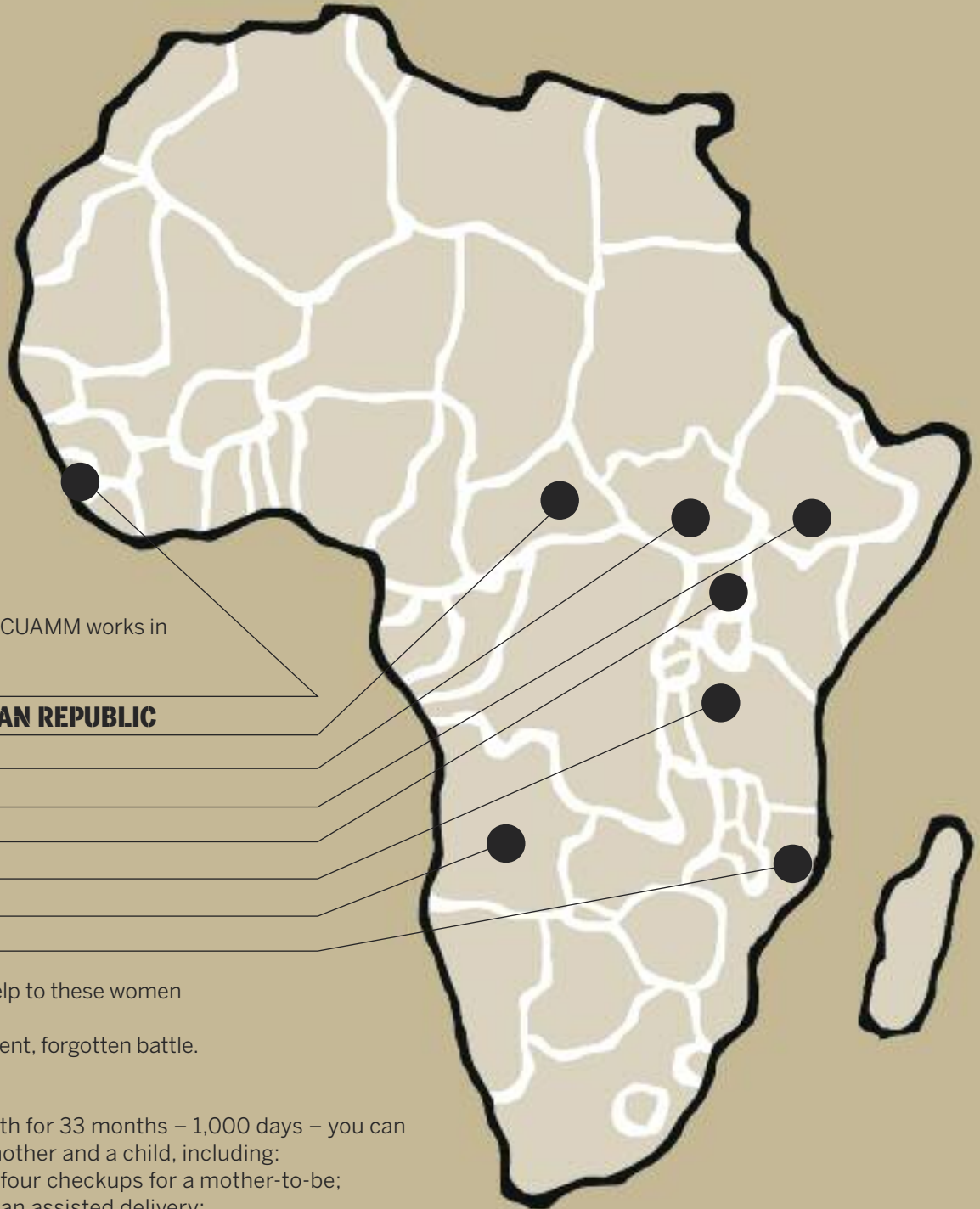
In **Health and Development** you will find studies, research and other articles which are unique to the Italian editorial world. Our publication needs the support of every reader and friend of Doctors with Africa CUAMM.



## 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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