DOCTORS WITH AFRICA
CUAMM

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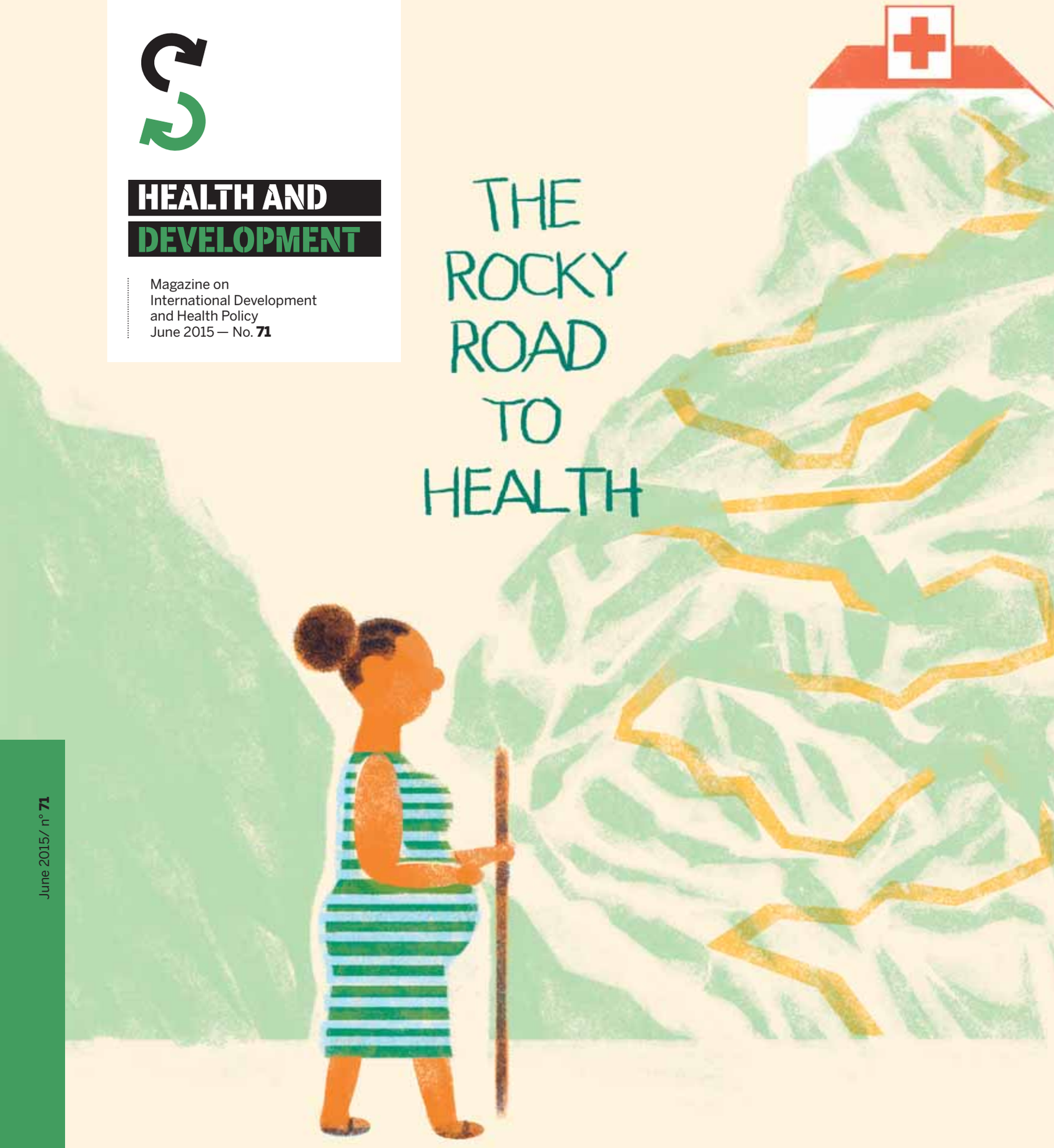
THE ROCKY ROAD TO HEALTH

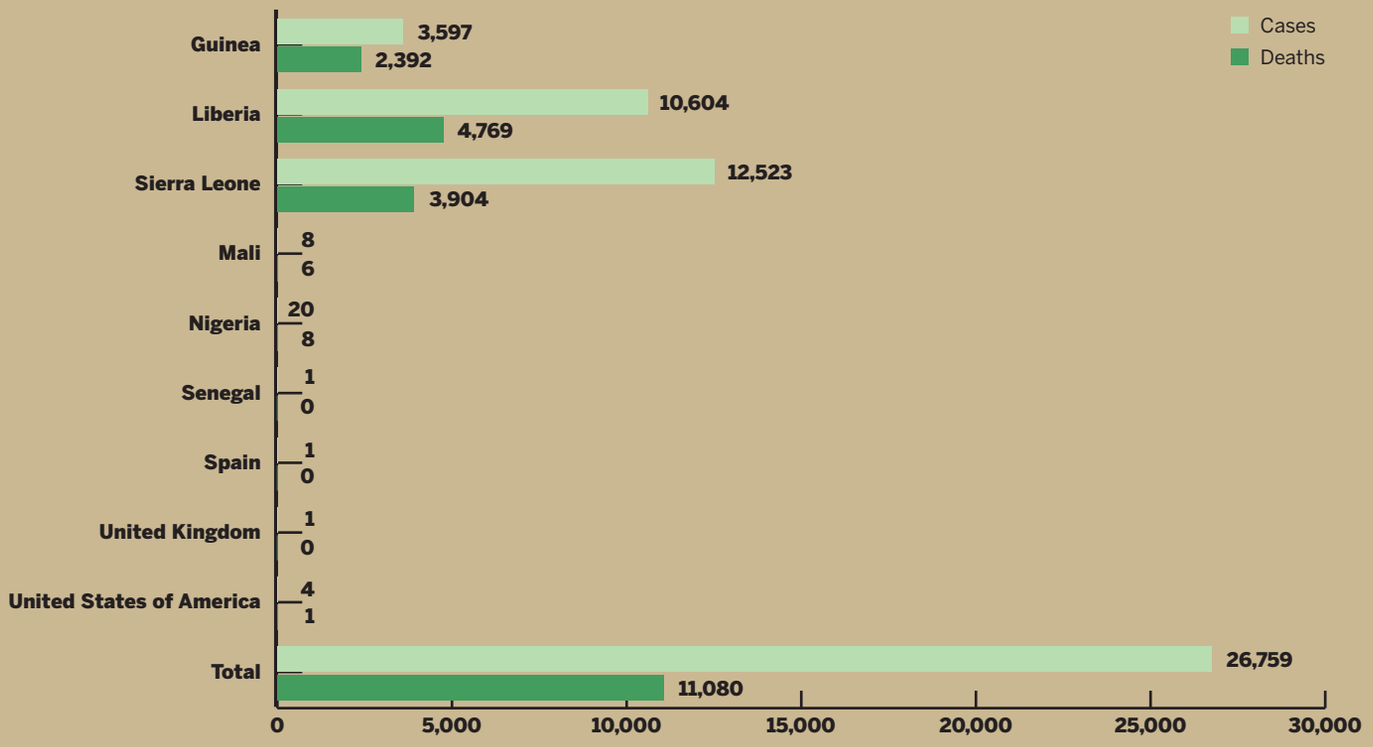


NEWS

Ebola news

The Ebola epidemic is petering out. Over the past several weeks no more cases have been recorded in Liberia. However, according to recent WHO updates 10 cases were reported in Guinea and 14 in Sierra Leone in the week to 14 june 2015. See the Figure for the overall situation in terms of confirmed cases of and deaths from the virus.

FIGURE / CASES AND DEATHS - DATA UP TO 10 MAY



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TRANSLATION

Sara Copeland Benjamin

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Cover illustration by Lorenzo Gritti.
The road to health is often a rocky one, especially in Sub-Saharan countries, where the obstacles are not only of a physical, but also an economic, social and cultural, nature. Doctors with Africa CUAMM continues to fight to ensure that it will become less arduous over time.

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DIALOGUE

TO STAY OR NOT TO STAY?

When you are confronted with Ebola your role goes beyond that of a mere public health expert; you need to make difficult ethical decisions as well. Stay in the field or repatriate? Continue to provide aid to those in need, tackling the crisis head-on, or protect your staff? The choices made by Doctors with Africa CUAMM underscore our very *raison d'être*: a commitment to remain on call where we are most needed.

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

It was spring 2014 when the global Ebola epidemic struck Sierra Leone and the areas where Doctors with Africa CUAMM was active. The country was already very fragile, still scarred by the civil war that in the early 1990s wreaked havoc on its people and social stability. The basic health indicators say it all: maternal and infant mortality rates are the highest in the world, with 1,100 maternal deaths per 10,000 live births and 182 under-five deaths per 1,000 live births respectively.

And then Ebola arrived and the potential for a global epidemic became clear immediately, as the virus was transmitted easily through contact with the body fluids of an infected person, including sweat and maternal milk. As a health care organization that had been active in Sierra Leone since 2012 we found ourselves caught up by the crisis. What was to be done?

Many health and humanitarian relief organizations operating alongside us, aware that their staff faced a real risk of contagion, decided to repatriate them. Was it fair to put the lives of one's staff at risk? On the other hand, as an organization whose mission is to bring health care to the neediest in Africa, we felt a duty to continue helping the community in the District of Pujehun. Didn't those who had contracted Ebola have the right to be cared for too?

This was not a mere question of health care strategy. We were faced with a dilemma involving both ethics and public health.

There was another important consideration as well: it wasn't only Ebola that needed to be dealt with. Alongside the suspected and confirmed cases of infection from the virus, life in the villages would carry on: mothers would need help delivering their babies, children would be born, people would continue to fall ill and need care. And who would be there to help them? Despite the complexity it entailed, Doctors with Africa CUAMM decided to remain in Sierra Leone, staying faithful to the commitment to "build" health day by day. Not wishing either to be self-congratulatory or to judge the decisions of others, we would simply like to note how our organization found itself compelled to bring together what are normally two distinct and separate spheres, one involving management and professional skills, the second morality and human souls. And the decision was not only about *whether* to remain in the field, but also *how* to do so. How could we organize the system to best tackle this new and highly risky situation? By keeping the hospital open and functioning, or closing it to focus on Ebola? How should we treat patients suspected of having contracted Ebola, and how should we treat the "normal" ones? The hospital continued to function regularly, and the maternal and infant health unit to guarantee primary care services for mothers and children. At the same time, we set up isolation centers for suspected cases of Ebola, keeping them well away and secured from the rest of the hospital.

We intensified our community health activities, raising awareness even in the most remote villages. People needed to understand that Ebola had not come as some sort of divine punishment, and this required us to work our way through a complex web of traditional beliefs and ancestral culture. Our main focus was on providing information about symptoms, behaviors and the precautions to be taken should there be a suspected case of Ebola. In order to halt the spread of the epidemic, 250 contact tracers received training and then got to work tracing and isolating those who had had contact with infected individuals. Some 25 to 50 contacts were traced for each of the latter, with around one thousand people being quarantined. If the community was to regain its health, nobody could be overlooked.

In addition, medical and health personnel were given in-depth training on the necessary protective measures to be taken. As international health cooperation workers, we have always felt a strong duty to protect those who choose to work alongside us serving the most vulnerable. In 2014 there were 31 confirmed cases of Ebola and 24 Ebola-caused deaths in the District of Pujehun. None of the doctors, nurses or midwives working with Doctors with Africa CUAMM contracted the virus, a sign that safety protocols were correctly adopted and implemented. And in January 2015 the District of Pujehun was declared Ebola-free, the first district in the country to be given the all-clear. As Giovanni Putoto and Damiano Pizzol explain in their article in this edition of *Health and Development*, maternal and infant health care services continued to be provided effectively in the district during the months in which the epidemic raged; in contrast to what occurred elsewhere in the country, the local population continued to have access to health care. For us this was the most important outcome, for it means that we were able to provide continuity of care to the community without losing any of what we'd built together up to that point: not just the hospital, but also the culture of health and of trust in health workers. And it reminds us that being there – staying – means just that: maintaining a daily presence that goes beyond times of crisis.

DIALOGUE

GLOBAL HEALTH, PROFESSIONAL TRAINING, UNIVERSITIES

The training of health professionals needs to be reformed in order to achieve two fundamental outcomes: transformative learning and interdependence in education. Universities are still unable to meet the new challenges born of the global changes: we need to work on the education of professionals that can become "change agents".

TEXT BY / GAVINO MACIOCCO / DEPARTMENT OF PUBLIC HEALTH, UNIVERSITY OF FLORENCE

In 2010 the medical journal *The Lancet* set up a Commission with the aim of examining the state of professional health education worldwide and providing recommendations for the future[i]. "By the beginning of the 21st century", the Commission wrote in its report, "all is not well". Major inequities in health persist both within and between countries, highlighting our collective failure to share remarkable medical advances equitably. At the same time we are faced with fresh challenges: new infections and environmental and behavioral risks, combined with rapid demographic and epidemiological transitions, are a threat to everyone's health. Health systems everywhere are struggling to keep pace with it all and becoming increasingly complex and costly, placing an ever heavier burden on health workers. Yet professional education programs worldwide seems oblivious to all this: university curricula are "fragmented, outdated and static", producing "ill-equipped graduates". "The problems", the report continues, "are systemic": there is a "mismatch of competencies to patient and population needs"; a failure to promote teamwork; unfair gender stratification; a focus on technical problems that fails to take into account the broader context, and on single episodes rather than continuous care; a leaning towards hospital care at the expense of primary care, and towards quantity rather than quality, with little interest in improving the performance of health systems. "Laudable efforts to address these deficiencies have mostly floundered, partly because of the so-called tribalism of the professions – i.e., the tendency of the various professions to act in isolation from or even in competition with each other," the report's authors state.

Unable to meet the new challenges born of the global changes that have taken place in recent decades, universities continue to churn out health workers who are inadequately prepared to respond to the needs of populations, swelling the ranks of an "army" of professionals who are increasingly defenseless against the lure of commercial medicine.

According to *The Lancet's* report, the training of health professionals needs to be reformed in order to achieve two fundamental outcomes: transformative learning and interdependence in education. Transformative learning is the highest of three different levels of learning. The simplest level is informative learning, which provides knowledge and skills to students and produces "experts". The next level is formative learning, which is about conveying values to students; its purpose is to produce "professionals". Transformative learning requires one more step to be taken; its task is to help develop leadership and transform professionals into "change agents". Transformative learning requires three fundamental shifts: from the memorization of facts to critical reasoning that is able to guide research, analysis, assessment and the synthesis of information for decision-making; from seeking professional credentials to achieving competencies that can be used in teamwork and within health systems; from a non-critical educational model to a creative one that uses global resources to address local priorities. The report continues: "Interdependence is a key element in a systems approach because it underscores the ways in which various components interact with each other", without necessarily being equal to one another. The hoped-for outcome of interdependence in education involves three shifts: from education that is no longer isolated but instead harmonized within health systems; from self-sufficient institutions to global networks, alliances and consortia; and from "inward-looking" institutional concerns to global flows of educational content, teaching resources and innovations.

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i Frenk J. et al., *Health professionals for a new century: transforming education to strengthen health systems in an interdipendent world*, *The Lancet* 2010, vol. 376, n. 9756, pp. 1923-58.

Leggi anche il documento della RIISG: *Ripensare la formazione medica* http://www.saluteinternazionale.info/2015/04/ripensare-la-formazione-medica/

FAR FROM THE MILLENNIUM GOALS IN AFRICA

On 27 May 2015 the three UN agencies dealing with nutrition and agriculture (Fao, Ifad and Wpf) published the State of Food Insecurity in the World report. 795 million people suffer from hunger worldwide, 233 million living in Africa. Within the continent there are regional differences depending on various factors, such as political instability, war, natural disasters, which may bring about insufficient economic growth and increase poverty, the first cause of hunger. The African countries that have to face nutritional crises are 24, twice as many as in 1990; the highest percentage of malnutrition in the world is observed in the Sub-Saharan region, where it affects around one in every four people (23,2%).

NICOLA BERTI

FORUM

FROM THE LECTURE HALL TO THE FIELD

The Wolisso Project – a "youth for youth" project that gives Italian medical students the opportunity to work alongside CUAMM's doctors on health care projects in Ethiopia and Tanzania – will celebrate its tenth anniversary this year. A decade of training "in the field", where professional and human experiences go hand in hand...

TEXT BY / CLARISSA DE NARDI AND ALESSIA BIASOTTO / ITALIAN MEDICAL STUDENTS' ASSOCIATION (SISM)

STUDENTS IN GLOBAL HEALTH

It all began ten years ago, in 2005, when a group of students from the Udine chapter of the Italian Medical Students' Association (SISM) started up the Wolisso Project, offering medical students throughout Italy the opportunity to familiarize themselves with the principles of global health and international health cooperation through direct field experience, by way of a month-long internship in sub-Saharan Africa.

The project is made possible thanks to a partnership between SISM and Doctors with Africa CUAMM, the Padua-based NGO that decided to welcome these highly motivated and energetic young people to its hospital, the St. Luke Hospital in Wolisso, Ethiopia, in order to help them enhance their university training and gain a fresh perspective on health by experiencing it in developing countries with limited resources.

In an increasingly globalized world, it is crucial to devote time and energy to training and teaching global health to those who provide health care to the world's citizens today and those who will do so in the future. Only in recent years, however, have some Italian universities begun to consider the idea of including specific courses on global health in the medical curriculum, thanks in part to urging by SISM, CUAMM and RIISG, the Italian Network for Global Health Teaching.

TEN YEARS OF THE WOLISSO PROJECT

Following its 2005 launch, the Wolisso Project continued to grow and to attract increasing numbers of students, to the point where it became necessary to involve a second destination: Tosamaganga, in Tanzania. Four students from SISM are welcomed to the Wolisso and Tosamaganga guesthouses every month, and by now more than 180 Italian students have undertaken internships in Africa altogether.

Interning for a month in a hospital where CUAMM operates is one of the most valuable experiences a young doctor in training can undergo. It makes it possible for her or him to experience firsthand the daily difficulties typical of health care systems in developing countries, direct experience that allows the intern to begin to grasp the complexity of international development cooperation, where daily activities and interventions in the wards of local hospitals and the surrounding area are undergirded by careful planning.

As they move around hospital wards and help with the activities carried out in other health care structures, including remote ones such as health centers, students not only work alongside CUAMM's doctors but also come into contact with local health professionals including doctors, nurses and midwives. This enables them to broaden their academic horizons both from a professional standpoint and a human one, gaining familiarity with an entirely different approach to health care – one that focuses not just on individuals but the entire community, by providing prevention and vaccination programs and support to health care structures throughout the area. Doing so requires not only overcoming initial wariness and resistance, but maintaining a constantly receptive attitude towards communities and villages, making use of the skills of trained local personnel and anthropologists in order to engage local people. This makes it possible to be "on hand" even in those areas that are so distant – both geographically and culturally speaking – that often they are left to fend for themselves.

During the month they spend in Africa, students learn firsthand how health is actually part of a complex overall system where the economy, society and the environment are inextricably interlinked. In such a setting, the causes of illness are not mere infections or a question of biochemistry; poverty and the lack of access to education and adequate means for survival play a key role in the way people think about health and sickness, how they cope with the latter and how they perceive medical treatment.

As they carry out their internships students hone a range of new skills, becoming more adaptable and increasingly receptive to learning and sharing. Leaving behind the security of an Italian hospital and the means available to it allows them to revive and strengthen their skills in symptomatology and clinical work, their ability to observe patients and to take a medical history – situations where one must consider every aspect of a patient's daily life and make the most effective use of resources in order to come up with a diagnosis and, most importantly, a treatment plan that is both effective and practicable.

THE WOLISSO PROJECT IN ITALY

The Wolisso Project does not limit itself to offering hands-on training in Africa. It also works to raise awareness in Italy about the right

to health care and improves its delivery in the CUAMM hospitals that host SISM students.

Thanks to synergic activities among its 37 local branches, SISM organizes seminars, conferences and other awareness-raising initiatives throughout Italy. In 2011, based on a proposal by Wolisso Project staff, the Association launched a course in "Frontier Symptomatology" that can be made available independently by each of its local branches, through two or more seminars held by CUAMM doctor-trainers with field experience. The objective is to focus on clinical methodology using an approach different from the standard Italian one, concentrating on the techniques and tools available to hospitals in developing countries, where there is a lack of technical and economic resources for instrumental and laboratory diagnosis.

SISM also undertakes fundraising campaigns in order to launch new health care projects in the hospitals with which the Wolisso Project collaborates. Of the many projects carried out over the last ten years, two are ongoing. The first, called "Tosamaganga Ultrasound", began with the donation of an ultrasound machine to the Tosamaganga Hospital and continues today with training courses for local personnel on how to use the machine; the aim is to improve diagnosis and follow-up in the areas of internal medicine and gynecology. The second project, whose aim is to improve the quality of health care in Wolisso, covers the cost of a course of study for anesthetic technicians who commit themselves to working for the hospital for at least four years after earning their diplomas. The objective here is to help overcome the dearth of anesthetic technicians caused by the overall brain drain phenomenon in Africa, whereby large numbers of health care workers migrate to countries offering better working conditions and contracts.

STORIES FROM WOLISSO AND TOSAMAGANGA

In April 2015 a new blog ("Guestbook: SISM on the other side of the world") was launched as a way to convey the wealth of experiences, impressions and encounters of the medical students who take part in the Wolisso Project. A kind of diary, the blog gives voice to everyone who spends time in Wolisso and Tosamaganga, recording their precious experiences and sharing them with those who haven't had the opportunity to go there themselves. Please come along with us; visit our blog at www.mediciconlafrica.org/blog.

LA ISLA

Learning about human rights through play is possible. The Italian Medical Students' Association (SISM) carried out La Isla, a project for raising awareness about universal rights.

TEXT BY / SAMANTHA PEGORARO AND BENEDETTA ROSSI / ITALIAN MEDICAL STUDENTS' ASSOCIATION (SISM)

The aim of the *La Isla* project is to use non-formal teaching methods to educate children about the key themes of the Universal Declaration of Human Rights. Conceived in 2013 by members of the Italian Medical Students' Association (SISM), the project is aimed specifically at fourth-graders (9- to 10-year-olds) and has the objective of raising their awareness about universal rights so as to help shape the future generation of citizens.

In order to familiarize children with the contents of the Universal Declaration of Human Rights, we look at some of its main Articles (those concerning the rights to freedom, medical care, education, freedom of expression and more) using game activities to help them experience what it feels like to be denied specific rights, experiences that become the driving focus of follow-up group discussions. As the children listen to a story told by the educators, they find themselves "shipwrecked" on an island in the middle of nowhere, *La Isla*, where everything has to be re-invented from scratch. The idea is to get them thinking about inequality and its consequences in an interactive manner, and to propose a new way of envisioning and respecting the importance of basic human rights. The educational game activities were devised by SISM following careful review by educationists from the University of Verona and the University of Milan-Bicocca.

Launched last year for the first time in three Italian cities – Brescia, Genoa and Turin – the project received very positive feedback from all those who took part in it, children as well as educators and teachers. The plan now is to extend the project to other cities; groups of students have contacted Amnesty International with a view to creating networks and helping produce future generations of citizens, members of an increasingly multicultural, diverse and – hopefully – more just society.

FORUM

TUBERCULOSIS 2015: BURDEN, CHALLENGES AND THE NEW "END TB STRATEGY"

The World Health Assembly adopted its new global tuberculosis strategy, the "End TB Strategy", in 2014. It aims to eliminate the disease worldwide thanks to the intervention of governments, the involvement of civil society, respect for human rights, ethics and equity, and adaptation of the strategy to specific country contexts.

TEXT BY / ALBERTO MATTEELLI, GIULIANO GARAGIONI, MATTEO ZIGNOL, MARIO RAVIGLIONE / WORLD HEALTH ORGANIZATION, GLOBAL TUBERCULOSIS PROGRAMME

TUBERCULOSIS: EPIDEMIOLOGICAL DATA

Tuberculosis (TB) is one of the world's most deadly infectious diseases. The World Health Organization (WHO) estimates that in 2013 nine million people fell ill with the disease and another 1.5 million died from it. First launched in 1994, the WHO's global strategy in the fight against TB helped to save 37 million lives between 2000 and 2013. But there is still plenty more to be done; too many people continue to die of a disease that is both preventable and curable.

In 2013 more than half (56%) of the estimated 9 million cases of TB occurred in Asia. India and China accounted for 24% and 11% of total cases, respectively. 29% of total cases occurred in the African Region, which also had the highest rates of new cases and deaths relative to population.

The burden of the disease is high not just among men but also women (of whom more than 500,000 died as a result of TB in 2013) and children (of whom more than 80,000 died of the disease in the same year).

Important progress has been made in containing the epidemic. The overall objective – part of the Millennium Development Goals (MDGs) – of halting and beginning to reverse TB incidence by 2015 has been achieved; over the last decade TB incidence fell at an average rate of about 1.5% per year. TB mortality and prevalence rates have fallen even more dramatically since 1990, by an estimated 45% and 41% respectively.

The data on TB detection and treatment is more contentious. In 2013 the number of new TB cases notified by national healthcare systems was 6.1 million, i.e. only 64% of the estimated 9 million cases estimated. This data suggests that about 3 million cases were either not diagnosed or were diagnosed (for example, in the private sector) but not notified; looking for such "missing cases" is certainly a current priority. At 86% in 2012, the global treatment success rate is high; however, this rate is below average in some areas, such as the European Region, where in 2012 only 76% of patients were cured.

One of the most important current challenges is multidrug-resistant TB (MDR-TB), some 480,000 cases of which are estimated to have developed in 2013. Another serious concern has to do with the emergence of extensively drug resistant strains (XDR-TB); it is estimated that 9% of patients with MDR-TB have XDR-TB.

If all notified TB patients had been tested for drug resistance in 2013, some 300,000 cases of MDR-TB could have been detected; instead, just 136,000 – 45% of estimated cases – were notified. Although there has been a good deal of progress in terms of the diagnosis of MDR-TB (only 17% of estimated cases were diagnosed in 2009), there is still much to be done. In 2013 only 58% of the 4.9 million pulmonary TB patients notified globally were bacteriologically confirmed. The availability of a rapid and sensitive test (Xpert MTB/RIF) for detecting resistance to rifampicin offers significant opportunities in this sense.

Paradoxically, progress made in terms of diagnosing the disease has exacerbated the criticalities in treating its multidrug-resistant forms: only 97,000 patients diagnosed in 2013 were started on MDR-TB treatment and 39,000 were put on waiting lists, a gap that widened between 2012 and 2013. The most recent data available show that the global success rate of MDR-TB treatment is just 48%. The reasons for this include health system weaknesses in the countries worst hit by the epidemic and limited access to second-line drugs.

The five priority actions currently being called for in the fight against MDR-TB are: 1) appropriate treatment for cases of drug-susceptible TB, in order to prevent the onset of resistant strains; 2) expanded access to rapid diagnostic tests for resistance; 3) immediate access to second-line regimens for treating drug-resistant cases; 4) prevention of disease transmission by MDR-TB patients; 5) additional financial resources.

An estimated 1.1 million (13%) of the 9 million people who developed TB in 2013 were HIV-positive. The number of deaths attributed to HIV-associated TB is still very high: 360,000, 80% of which in Africa. Cutting down on these unacceptably high numbers will require urgent interventions at various levels. First of all, all patients diagnosed with TB should be tested for HIV; in 2013 only 48% of overall TB patients knew their HIV status (although the percentage was higher in some regions; in Africa, for example, 76% of TB patients were aware of their HIV status). Antiretroviral therapy should always be provided alongside antituberculosis drug therapy; however, globally this is the case only for 70% of TB patients known to be HIV-positive. Much more must be done in terms of prevention, including providing treatment for latent TB infection in people living with HIV: only 14 of the 41 high TB/HIV burden countries have adopted this strategy.

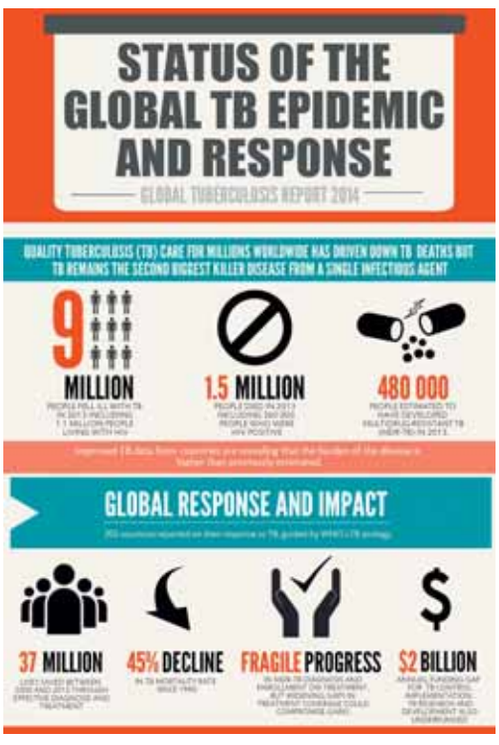
According to WHO, the lack of adequate funding for TB interventions at a global level is a critical issue: there is a US$ 2 billion gap

between the resources required for the fight against TB – some US$ 8 billion per year – and those that are currently available. These figures exclude the resources required for research, required primarily to develop new vaccines and drugs and a rapid diagnostic bedside test, which are estimated at about US$ 2 billion per year. It is difficult to understand the reasons for this lack of sufficient resources, given that among the various possible health care interventions, investing in TB treatment has been shown repeatedly – including in the official processes for developing the new sustainable development goals – to be highly cost-effective.

END TB: A NEW STRATEGY FOR A WORLD WITHOUT TUBERCULOSIS

In 2014 the World Health Assembly adopted its new global tuberculosis strategy, the "End TB Strategy".
Underpinned by a vision of "a world without tuberculosis", the strategy aims to eliminate the disease worldwide based on four key principles concerning the role of government, the involvement of civil society, respect for human rights, ethics and equity, and adaptation of the strategy to specific country contexts. It is based on three main pillars that outline the key interventions that need to be made. The first pillar calls for a patient-centered approach focused on high-quality early diagnosis, treatment and prevention of TB. Among its components are diagnosis and treatment both of TB (including MDR-TB) and of HIV infection, screening, management of co-morbidities (including HIV infection) and administration of the BCG vaccination to newborns.

FIGURE / GLOBAL TB REPORT 2014 - WHO



The second pillar calls for the adoption of TB-sensitive and TB-attentive health policies that are buttressed by strong health and social systems. Specifically, it highlights the need for adequate financial resources to be committed for TB care and prevention, the engagement of communities, civil society organizations and the private sector, the use of efficient notification systems and the appropriate use and quality of medicines. Also of central importance are universal health coverage and social protection mechanisms, to ensure that TB-affected individuals and families can gain access to TB treatment and prevention without facing catastrophic costs and impoverishment.
The third and final pillar calls for intensified research, both basic and operational, to ensure the development of innovations and make them rapidly available and widely accessible.
According to the WHO's estimates, adopting and implementing the End TB Strategy on a global scale would lead to a much faster decline in the TB incidence rate, with a 90% reduction in the number of new cases of TB and a 95% reduction in deaths from TB by 2035. At the same time, TB patients and their families would no longer run the risk of facing catastrophic costs due to the illness.

FIGURE / END TB STRATEGY - WHO

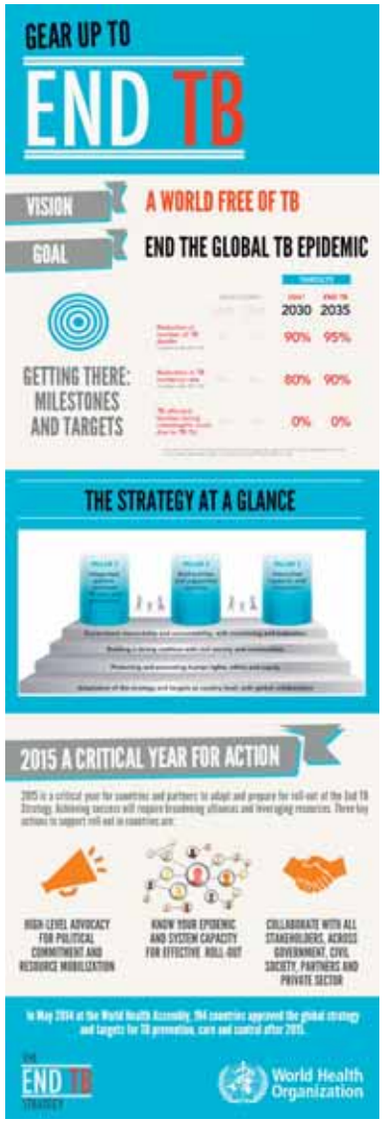
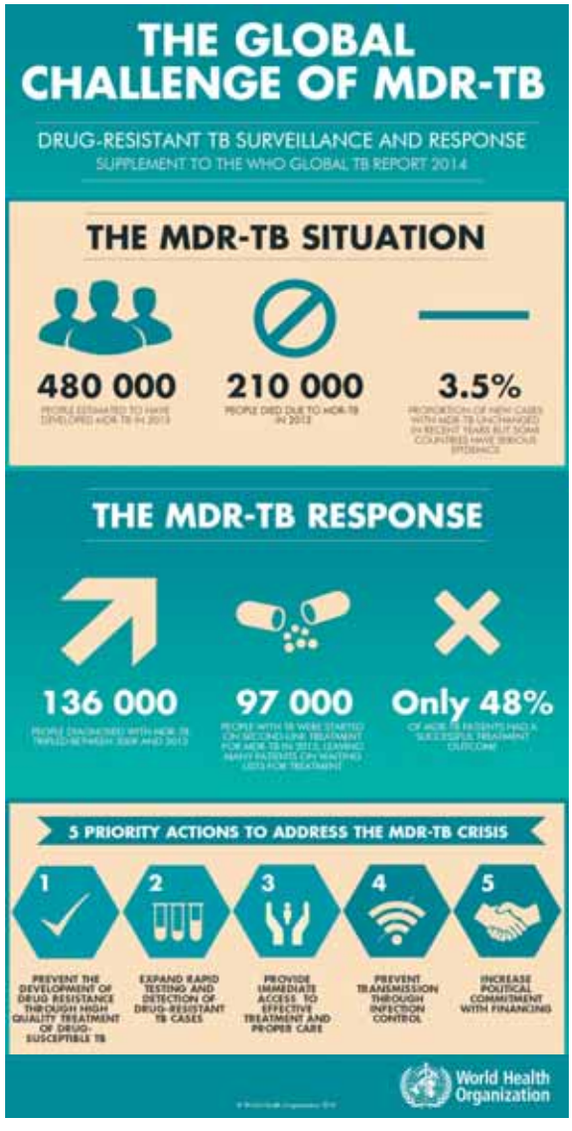


FIGURE / GLOBAL TB REPORT 2014 - WHO



THE FIRST EBOLA-FREE DISTRICT IN SIERRA LEONE

Since 9 January 2015, Pujehun District, where Doctors with Africa CUAMM operates, has been declared the first Ebola-free district in Sierra Leone. «Just say "Pujehun" in Sierra Leone now and people will smile at you» states Don Dante Carraro, Director of CUAMM. «People say "The first" and sometimes they greet you by raising their hand and making the "V" sign. Keeping the hospital open and making it safe was certainly the right choice and the results are good». However, the operators continue to stay alert. CUAMM has chosen to keep Kpanga and Zimmi centers open, despite the Ebola-free, thus contributing to keep the situation under control from the psychological point of view as well: from January to March 2015, the centers hosted eight suspected cases, which turned out to be negative at the tests.

NICOLA BERTI

EXPERIENCES FROM THE FIELD

THE RISE IN THE USE OF CESAREAN SECTIONS

Despite repeated statements from the World Health Organization (WHO) regarding the potential risks of Cesarean sections performed in unsuitable conditions, there is a growing trend worldwide for women to undergo the procedure. A pilot study carried out in two of Doctors with Africa CUAMM's hospitals has collected data on Cesarean section deliveries over a six-month period and analyzed them according to the Robson classification.

TEXT BY / FRANCESCA TOGNON / UNIVERSITY OF PADUA
GIOVANNI PUTOTO / DOCTORS WITH AFRICA CUAMM

THE CESAREAN SECTION PHENOMENON

Cesarean sections are the most commonly performed obstetric interventions today. Although they are sometimes necessary as a life-saving procedure for pregnant women and their infants in the case of complications, in recent years the intervention has been performed on a growing number of women without there being any medical justification[1-2].

There are multiple reasons for the rising numbers of such deliveries. These include clinical factors such as advanced maternal age or multiple birth deliveries following treatment for infertility as well as other motivations such as frequent maternal requests for the intervention, medical and legal issues, a broadening of the indications for performing Cesarean deliveries and a decrease in normal vaginal delivery skills[3]. In some areas the rate of Cesarean sections in private hospitals is four times higher than that in public health structures[4], underscoring the impact of the laws of the market as well.

The phenomenon is being seen not only in the so-called industrial countries but also in developing ones. Assisted delivery coverage at the population level is still quite low in the latter, with an often under-average Cesarean section rate (for example, according to the World Health Organization coverage in Tanzania was around 4.5% in 2010). However, if we consider assisted deliveries in reference hospitals in these areas the rate of Cesarean sections is very high – a sign that women who have assisted deliveries are also highly likely to undergo the surgical intervention[5].

The most significant impact of the rise in Cesarean sections is on maternal and child health. Indeed, despite the belief of some that improvements in surgical techniques and post-operative assistance have made Cesarean sections risk-free, maternal mortality and postpartum complications are unquestionably higher than in the case of vaginal deliveries[6].

A study carried out in Latin America[7] has shown that women undergoing Cesarean sections, both by choice and intrapartum, and independently of demographic or clinical characteristics, had double the risk of serious complications (including death, hysterectomy, transfusions and need for intensive care) and an up to five times greater risk of post-partum infections compared with those having vaginal deliveries. There also seem to be negative implications with respect to future pregnancies, with an increased risk of placenta previa or placenta accreta[6].

Another consequence of the increased use of Cesarean sections is the impact of the cost of the intervention, which is markedly higher than that of vaginal delivery. When performed in the absence of medical need, especially in lower-income countries, Cesareans involve an inopportune use of resources, with consequent negative implications for health care equity and accessibility[8].

INTERNATIONAL RECOMMENDATIONS

The WHO has defined Cesarean sections as a marker of access to emergency obstetric care.[9] Numerous studies have in fact demonstrated an inverse correlation between the Cesarean section rate and maternal and infant mortality in low-income countries where access to obstetric treatment and services is limited[8]. Nevertheless, as far back as 1985 the WHO suggested that there was no clinical justification for any region to have Cesarean section rates higher than 10-15%[10].

Until recently, the lack of an accepted and standardized classification system for monitoring and comparing Cesarean section rates has made it impossible to study the phenomenon in a systematic manner. For this reason, in April 2015 the WHO proposed that the Robson classification system be adopted as a global standard for comparing Cesarean section rates in different settings[11].

TABLE 1 / CLINICAL RISK CATEGORIES

CLASS 1	NULLIPAROUS WOMEN WITH A SINGLE CEPHALIC PREGNANCY, ≥ 37 WEEKS' GESTATION, SPONTANEOUS LABOR.
CLASS 2	NULLIPAROUS WOMEN WITH A SINGLE CEPHALIC PREGNANCY, ≥ 37 WEEKS' GESTATION, INDUCED LABOR OR CESAREAN SECTION BEFORE LABOR.
CLASS 3	MULTIPAROUS WOMEN WITH A SINGLE CEPHALIC PREGNANCY, ≥ 37 WEEKS' GESTATION, NO PREVIOUS CESAREAN SECTION, SPONTANEOUS LABOR.
CLASS 4	MULTIPAROUS WOMEN WITH A SINGLE CEPHALIC PREGNANCY, ≥ 37 WEEKS' GESTATION, NO PREVIOUS CESAREAN SECTION, INDUCED LABOR OR CESAREAN SECTION BEFORE LABOR.
CLASS 5	MULTIPAROUS WOMEN WITH A SINGLE CEPHALIC PREGNANCY, ≥ 37 WEEKS' GESTATION, PREVIOUS CESAREAN SECTION.
CLASS 6	NULLIPAROUS WOMEN WITH A SINGLE BREECH PREGNANCY.
CLASS 7	MULTIPAROUS WOMEN WITH A SINGLE BREECH PREGNANCY.
CLASS 8	WOMEN WITH MULTIPLE PREGNANCIES.
CLASS 9	WOMEN WITH A SINGLE PREGNANCY, ABNORMAL LIES.
CLASS 10	WOMEN WITH A SINGLE CEPHALIC PREGNANCY, <37 WEEKS' GESTATION.

Defined as the Ten Group Classification System (TGCS), the system was proposed by Robson and colleagues in 2001. Unlike earlier such systems, it is based on objective criteria and makes it possible to define ten different classes of women based on four parameters: pregnancy characteristics (singleton/twin and type of fetal presentation), obstetric anamnesis (nulliparous/multiparous, with or without uterine scarring), period of gestation and type of labor (spontaneous/induced); see **Table 1**.
This classification system makes it possible to compare the results of a single healthcare facility at different times, or those of different healthcare facilities or geographical areas[2].

THE PILOT STUDY IN TWO AFRICAN HOSPITALS

Having noted the increased use of Cesarean sections as well as the great variability of Cesarean section rates in the hospitals where it works, Doctors with Africa CUAMM decided to make an in-depth examination of the phenomenon, assessing its causes and possible areas of intervention. Accordingly we carried out a pilot study in 2014 in two different facilities: the St. Luke Hospital in Wolisso, Ethiopia, and the St. John of the Cross Hospital in Tosamaganga, Tanzania, with the aim of assessing differences in the management of deliveries in different settings using the Robson classification.
The Robson index proved to be a valid tool even in middle- and lower-income countries, thanks to the ease of the data collection, which involved variables that were easy to access even in low-resource settings.
We analyzed 1,247 deliveries in the Tosamaganga hospital in the period running from 1 January to 30 June 2014 and compared them with 1,273 deliveries in Wolisso in the period running from 7 June to 30 October 2014. Every delivery performed in the hospitals was included in the study; the variables necessary for inclusion in the Robson classes were recorded in every case; and every expecting mother was assigned to a specific group.
The overall Cesarean section rate for the deliveries analyzed was very different in the two hospitals: the surgical intervention was performed in Wolisso in 239 cases (18.8% of total deliveries) and in Tosamaganga in 444 cases (35.6% of deliveries).
Our study revealed that certain differences could be noted already based on the classification of the pregnant women into groups: while there were similar percentages of Class I patients (nulliparous women with cephalic pregnancies) in the two facilities, there was a higher percentage of women who had already undergone a Cesarean section (Class V) among the multiparous women (Classes III, IV and V) in Tanzania (15.3%) compared with the same population in Ethiopia (7.1%). This difference could indicate that management practices for complicated deliveries in recent years already show the impact of the rise in the number of women who have already had Cesarean sections.
If we then go on to analyze the Cesarean section rate among the most numerous classes in both facilities, we can see how the intervention is carried out more frequently in the Tosamaganga hospital in all three of the best-represented classes. In particular, it becomes clear how widespread the practice of performing Cesarean sections on women who have already had them is in Tanzania (83.8% of cases).
The literature had already revealed this trend in a Tanzanian hospital (12), in a study that showed how Class 5, which includes women with a previous Cesarean section, was the category that increased most between 2000 and 2011, contributing significantly to the high Cesarean section rate.

CONSIDERATIONS

Our pilot study made it possible to demonstrate in an objective manner that the rise in Cesarean section rates is occurring not only in better-off countries, and that it has become critical to assess the appropriateness of this surgical intervention in middle- and lower-income settings as well. The Robson classification system proved to be a valid tool for studying the phenomenon, one that is both easy to use and to interpret[13].
However, this index alone does not provide sufficient information regarding the appropriateness of Cesarean sections, as it fails to take into consideration, for example, data regarding possible complications, the possible reasons for the intervention and the outcome for the mother and infant.
Having highlighted the phenomenon, Doctors with Africa CUAMM is now carrying out a multicenter study that will complement the Robson classification with a collection of further variables, in order to describe in a more complete manner the context and use of the surgical intervention. These further analyses will be helpful in clarifying the reasons for the inappropriate use of Cesarean sections, and pinpointing possible ways to change the situation to follow good practice and ensure quality services to parturient women.

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EXPERIENCES FROM THE FIELD

TACKLING MALNUTRITION ON THE GROUND IN TANZANIA

Doctors with Africa CUAMM began implementing a two-year-long community health program aimed at strengthening relations between health centers and communities. The main objective of the project is reducing mortality associated with conditions of severe acute malnutrition in the Iringa and Njombe Regions, in Tanzania.

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As part of the project to combat severe acute malnutrition (SAM) in Tanzania (*Program for ensuring care and support of severely malnourished children in Irigna and Njombe*"), the non-governmental organization Doctors with Africa CUAMM, in cooperation with local authorities and UNICEF, has developed a set of ad hoc tools to enable the community health worker network there to collect data on the nutritional status of children under the age of five and, if necessary*, to refer them to the nearest health centers.

Facilitated by CUAMM's long-time experience in Tanzania's Southern Highlands, a field analysis was carried out revealing that on the whole, health structures in the Iringa and Njombe Regions have no systems in place for managing cases of acute chronic malnutrition. Indeed, in its examination of the unexpected process of health personnel subdivision promoted by the country's Ministry of Health, and the interconnection between health structures and local communities, the analysis brought to light the fact that there is a complete failure of management overall, with repercussions not only in terms of child mortality but also for the physical and mental development of future generations. The analysis of health coverage for cases of SAM, in fact, revealed the inadequacy of services: prior to the project's realization, less than 10% of hospital and health centers had dedicated treatment units.

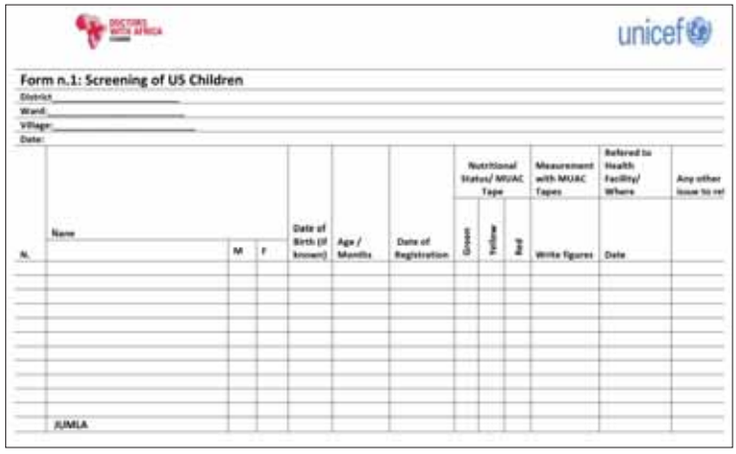
Based on these findings, Doctors with Africa CUAMM began implementing a two-year-long community health program (January 2014 through December 2015) aimed at strengthening relations between health centers and communities. Starting from its main objective – to help reduce mortality associated with conditions of SAM in the Iringa and Njombe Regions – the program identified three priority outcomes: 1) to improve treatment access and coverage in 9 hospitals, 25 health centers and 13 dispensaries located in the two regions; 2) to ensure treatment for at least 3,500 children with SAM in the two-year period of the program; and 3) to guarantee program performance based on the recommended guidelines (80% cure rate and less than 5% child mortality)[1].

In addition, in order to consolidate patient management services, the program has involved the implementation of five separate training, management and reporting policies to help improve the professional skills of 103 health workers and the technical abilities of 350 community health workers (CHW), to help train operational staff in the dispensaries (150 health workers), and to improve the chain management of therapeutic nutritional supplies** as well as performance reporting and monitoring for the Integrated Management of Acute Malnutrition (IMAM) program[2].

Accordingly, in July 2014 Doctors with Africa CUAMM introduced a training course in the Njombe and Ludewa Districts (Njombe Region). Its primary focus was on how to use the MUAC (Mid-Upper Arm Circumference) tape to measure that part of a patient's body in order to determine his or her nutritional status, and to fill out three forms especially designed by CUAMM in cooperation with local authorities, thereby making possible the general screening and, if necessary, follow-up, of all patients examined, particularly those with SAM or moderate acute malnutrition (MAM), and the referral (by way of a letter addressed to health and hospital centers) of those with serious health conditions related to their acute malnutrition[3].

Moreover, given the problems that can arise in complex settings such as that of rural Tanzania (lack of support from communities and/or village leaders, logistic problems related to the layout of the land, data collection problems), a series of quarterly meet-

TABLE 1 / A PATIENT SCREENING FORM (TRANSLATED FROM THE ORIGINAL DOCUMENT IN SWAHILI)



Form n.1: Screening of U5 Children

District:
Ward:
Village:
Date:

Nr.	Name	M	F	Date of Birth (if known)	Age / Months	Date of Registration	Nutritional Status/ MUAC Tape: Green	Yellow	Red	Measurement with MUAC Tapes: Write figures	Referred to Health Facility/ Where: Date	Any other issue to re
	JUMLA											

TABLE 2 / TOTAL NUMBER OF PATIENTS EXAMINED AND PERCENTAGES OF MAM/SAM***

DISTRICT	CHILDREN EXAMINED	CHILDREN WITH BETWEEN 60% AND 80% MAM	CHILDREN WITH UNDER 60% SAM	PERCENTAGE OF CHILDREN WITH BETWEEN 60% AND 80% MAM	PERCENTAGE OF CHILDREN WITH UNDER 60% SAM
NJOMBE TOWN COUNCIL	927	175	10	19.1	1.1
NJOMBE DISTRICT COUNCIL	1927	103	6	5.34	0.3
LUDEWA DISTRICT COUNCIL	6.270	248	36	4	0.6

TABLE 3 / CASES OF MAM/SAM FOUND IN VILLAGES WHERE FOLLOW-UP WAS CARRIED OUT (SEPTEMBER-DECEMBER 2014)****

WARD	VILLAGE	CHILDREN WITH BETWEEN 60% AND 80% MAM	CHILDREN WITH UNDER 60% SAM	REFERRAL TO A HEALTH FACILITY	DEATHS
KIFANYA	LWANGU	58	6	2	-
KIFANYA	LWANGU	78	4	0	-
KIFANYA	LWANGU	14	2	-	1
KIFANYA	LIWENGI	4	1	-	0
IKONDO	IKONDO	48	2	0	-
IKUNA	IKUNA	4	3	-	-
IKONDO	IKONDO	11	3	0	1
IKUNA	IKUNA	36	0	0	0
MAWENGI	MAWENGI	9	4	0	-
MAWENGI	LUPANDE	10	4	0	-
MAWENGI	MAWENGI	6	2	2	2

ings was fixed between CHWs and a facilitating team made up of CUAMM staff and local health workers such as nutritionists and community development officers in order to facilitate the work of the CHWs. Between 25 September and 10 October 2014, we conducted an initial supervision of the work of these social and community workers in 11 villages in the district of Njombe Town Council, 11 villages in Njombe District Council and 28 villages in Ludewa District Council[4].

The first quarterly meeting enabled us to get a clear picture of the problem of child malnutrition within the regional setting of Njombe, and to identify the most critical areas: the villages of Lwangu, Liwengi, Ikondo, Ikuna, Mawengi, Lupande, Mkomang' ombe, Ligumbilo, Shaurimoyo and Lupanga[5]). One of the main problems had to do with the quality of the data collection. In fact, the quarterly meetings were also useful in helping to understand whether the CHWs, given their low level of education, were using the tools provided at the end of the training course in an appropriate manner. Some of them found it particularly difficult to use the MUAC tape or correctly list the data they'd collected on the appropriate form. This affected the reliability and effectiveness of the fieldwork and delayed the taking of an accurate census of under-5 children living in the areas involved in the program. Supporting CHWs with ongoing training and monitoring is thus essential in order to improve the service.

The complex relationship with local authorities, who do not always ensure the support needed to achieve the main goals of the project, also needs to be taken into consideration. In particular, several problems related to patient referral arose. Even while in most cases the CHWs, having identified those patients in very poor health, expressly required families to refer their children to the nearest health centers, this was not always done. Household decisions were influenced by socioeconomic factors: for example, some families, despite being aware of the gravity of the situation, could not afford the travel and received no support from village authorities. Thus this initial analysis highlights how essential it is that intersectoral relationships (authorities and communities) be bolstered, giving added value to CUAMM's work and fostering the advancement of the region itself. In examining the types of interventions and policies involved in the nutrition program, it becomes clear that the cooperative aspect of the relationship between CUAMM and the local community continues to be a very significant factor, one that plays an essential role in helping to achieve and consolidate program goals. Promoting activities that involve close cooperation with community workers and local authorities is an excellent way to ensure that health cooperation programs are truly effective.

Finally, the problems that arose brought to light a second factor essential to ensuring the effectiveness of community-based work, and therefore also improved living conditions for the inhabitants of the area involved: time. Particularly given the expansion of the scope of the project, which in 2015 began to involve hospitals, health centers and villages in the Kilolo and

Mufindi Districts in the Iringa Region and the Makete District in the Njombe Region, the time factor seems of fundamental importance if we want to achieve the project's stated objectives in these areas as well. In coming months, therefore, Doctors with Africa CUAMM will discuss the possibility of continuing the project beyond 2015, in the hope of consolidating results over a longer time period. Being able to develop projects over the long term is in fact a fundamental condition for guaranteeing well-structured programs that bring significant and positive change to specific areas. Only in this way can community work be consolidated, leading to the real advancement of the communities involved.

NOTES

***** Children identified as being severely acutely malnourished following screening with use of the Mid-Upper Arm Circumference (MUAC) tape are directed to a health facility with the know-how to treat malnutrition and its complications. Community health workers give a letter to the individual accompanying the child to ensure that the facility will have immediate access to key patient information (who she/he is, where she/he comes from and MUAC tape measurements).
****** Chain managing therapeutic nutritional supplies involves an attempt to define a logistics system capable of appraising the need for and procuring and distributing therapeutic tools and supplies (F75 and F100 therapeutic milk products, ready-to-use therapeutic food (RUTF), ReSoMal, boards for measuring patient height, scales, MUAC tapes and monitoring materials) in order to effectively treat patients suffering from acute malnutrition.
******* Table 2 illustrates the absolute number of under-5-year-old children traced door to door by CHWs and screened using MUAC in three different districts of the Njombe Region. Children examined were divided into two categories. Those with between 60 and 80% weight–for-age were recorded as patients with moderate acute malnutrition (MAM), while those weighing less than 60% were recorded as patients with severe acute malnutrition (SAM).
******** Table 3 illustrates the absolute number of under-5-year-old children with moderate to severe malnutrition in the villages involved in the initial follow-up. Following the first quarterly meeting, CUAMM identified those villages with particularly complex situations in order to determine their underlying causes as well as to verify the reliability of data collected by CHWs. This helped confirm how complex these particular areas can be, underscoring how few patients had been appropriately referred to the nearest health centers. Economic difficulties and lack of support from village leaders were found to be among the principal causes of the problem. Moreover, although the project has had positive results in terms of identifying those children who are acutely malnourished, much still needs to be done in order to gain an accurate picture of those subject to the intervention and their possible referral. Some data are still not available. Upcoming quarterly meetings will also make it possible to get a better grasp of the statistics.

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TAKING A CLOSER LOOK

HEALTH SERVICES IN THE TIME OF EBOLA

The worst may be behind us. The number of confirmed cases of Ebola in Sierra Leone has fallen sharply. As it waits to get past the fateful 42nd day in order to be declared Ebola-free, the country is facing up to both the direct and indirect effects of the epidemic. Pujehun District, where Doctors with Africa CUAMM operates, was declared Ebola-free on January 7, 2015.

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The latest WHO report provides the following figures with regard to the former: 12,523 recorded cases; 3,904 deaths, including those of 221 health workers; and 654 health system employees who have quit their jobs[1]. As for the epidemic's impact on health services, a national survey carried out by UNICEF at the peak of the crisis between August and December 2014 found an average 20% drop in birth deliveries in health centers, a figure that reached 40% in the hardest-hit areas; a 30% drop in the number of children treated for malaria; a 7% to 28% drop in child vaccinations; and a 3% drop in outpatient treatment of severe malnutrition[2]. Pujehun District, where Doctors with Africa CUAMM operates, was declared Ebola-free on January 7, 2015– the first district in the country to be given the all-clear. Overall, 31 confirmed cas-es of Ebola and 24 Ebola-caused deaths were recorded there. Based on a preliminary epidemiologi-cal study being carried out in cooperation with the Kessler Foundation (Trento)[3], we were able to calculate the basic reproduction rate (R0) of the Ebola epidemic in the district: 1.8, with a peak of 3.4 in the initial phase[4]. The rate has now fallen below zero, halting the spread of the disease eighty days after the onset of infection. Containment actions proved effective, in particular the setting up of three isolation centers, the tracing of 1,222 contacts and the safe burial of bodies, with an average of about 60 funerals per week. It is likely that other non-health-related factors played a role as well, including but not limited to low population density and natural barriers such as the Moa River. It is noteworthy that there was no decline in this district in the use of health services, particularly with regard to birth deliveries in health centers (80% coverage) and emergency obstetric care, compared to the pre-Ebola period. The community maintained its trust in local leaders and in hospital care, which continued to be provided despite the risks.

What does the future hold? Sierra Leone's health system has demonstrated how vulnerable it is to external shocks, a situation exacerbated by the delays of international agencies (WHO) and aid. The country's Health Ministry aims to reactivate basic services during an early recovery phase that is now already underway and which will end at the end of 2016, followed by a recovery phase. En-suring that preventive measures (e.g. water, hospital-acquired infection control, patient triage, the availability of protective gear) are systematically put into effect and basic services rebooted is a breathless, hectic race against time. For the time being it appears that the key problems of the coun-try's health system are not being tackled at the root: the policy of free care for women and children is not working, due in part to corruption[5]; there is a shortage of doctors specialized in secondary care[6] and an overall indifference towards the hospital system, with only a tiny number of centers capable of delivering effective emergency obstetric care[7]. And paradoxically the challenge of ma-ternal and infant mortality remains as a backdrop: despite its extensive health network and child and maternal health care coverage rates that are above the African average[8-9], Sierra Leone's infant and maternal mortality rates are still the highest in the world.

NOTES

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REPORT

COUNTDOWN TO 2015 AND BEYOND

Countdown to 2015 and beyond in order to fulfill the health agenda for women and children. Despite gradually accelerated progress towards the goal of reducing maternal mortality rates, half of the countries surveyed still have high maternal mortality rates, with extremely high ratesin 16 countries, all of them in Sub-Saharan Africa.

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As the deadline for achieving the Millennium Development Goals (MDGs) approaches, and on occasion of the launch of the new Sustainable Development Goals (SDGs), a group of experts participating in the Countdown to 2015 initiative[1] recently published a study in *The Lancet* on the progress that has been achieved thus far in terms of maternal and child health in 75 countries around the world. The article is based on data from the group's most recent report (2014)[2] and outlines the overall situation with respect to the targets for reducing the child mortality rate by two-thirds (MDG 4) and the maternal mortality rate by three-quarters (MDG 5) for each of the 75 Countdown countries. The recommendations put forward for the post-MDG future[3] are also based on an assessment of the trends that have emerged with regard to *non*-achieved goals, i.e. the "unfinished business" of maternal, newborn and child survival.

Less than half of the countries surveyed by Countdown have achieved the child mortality reduction target (MDG 4) and only a small percentage have achieved a significant reduction in maternal mortality (MDG 5). In fact, even while child mortality has dropped considerably (from 12.6 million deaths in 1990 to 6.6 million in 2012), some 18,000 children continue to die every day of preventable infectious diseases. Moreover, progress in reducing neonatal mortality has been extremely slow even in places where child mortality has fallen significantly, contributing significantly to under-5 deaths; newborn deaths account for a median of 39% of the latter in Countdown countries. Despite gradually accelerated progress towards the goal of reducing maternal mortality rates, especially in the 2000-2013 period (with an annual rate of reduction of 5.5% or higher in 11 countries), half of the countries surveyed still have high maternal mortality rates (from 300 to 499 maternal deaths per 100,000 live births), with extremely high rates (500 or more maternal deaths per 100.000 live births) in 16 countries, all of them in Sub-Saharan Africa. Most of these deaths occur during the intrapartum and immediate postpartum period from preventable causes such as hemorrhage, hypertension and infections; abortions performed in unsafe conditions are also among the leading causes of maternal mortality. The most important coverage gaps are in family planning, neonatal care, management of childhood diseases (malaria, pneumonia and diarrhea) and measures to combat malnutrition. Given that nearly half of all deaths of children (about 3 million each year) are attributable to undernutrition, the latter should be a critical part of the new "sustainable" development agenda. While in a first group of interventions (the first antenatal visit and three main vaccinations for children) coverage was at or greater than 80%, in a second such group (intermittent preventive treatment of malaria for pregnant women, the use of insecticide-treated mosquito nets and antimalarial therapy) coverage was still far from 100%, even while there was some important progress. Finally, for family planning, the presence of a skilled attendant at birth, exclusive breastfeeding in the first 6 months of life and the treatment of pneumonia and diarrhea, coverage rates were inadequate and had not increased significantly since 2000. An analysis of coverage data classified by socioeconomic bracket made it possible to outline equity profiles for each type of intervention and for different countries, demonstrating that major disparities persist in the coverage of interventions depending on the wealth quintile to which one belongs, with average differences of 60% and often more than 80% between the richest and poorest[4].

In a comparison of the health systems and policies of the countries surveyed, the authors demonstrate that one of the main factors undermining improvements in maternal and child health is a severe shortage of skilled health personnel. In fact only 7 out of the 56 countries surveyed meet the minimum threshold of 23 skilled health professionals (doctors, nurses and midwives) per 10,000 people.

For this reason Countdown to 2015 calls on the international community to "keep its foot on the accelerator" with regard to health care coverage, particularly in terms of family planning, neonatal care, the management of childhood diseases and measures to combat malnutrition, thereby improving coverage equity. To improve accountability globally, the group also recommends adoption of a monitoring system based on available initial data and on the real ability of countries to collect data, which involves not just routine/institutional data collection but also analyses at the community level (i.e., household surveys), thus making it possible to outline equity profiles.

NOTES

1 Countdown to 2015 (CD) is an independent, multidisciplinary collaboration involving experts from academia, government, international agencies and non-governmental organizations. Established in 2005 with the aim of monitoring child health indicators in 60 countries, it currently carries out biannual surveys of indicators for reproductive, maternal, newborn and child health in the 75 countries where more than 95% of all maternal and child deaths occur.

2 http://www.countdown2015mnch.org

3 Countdown to 2015 and beyond: fulfilling the health agenda for women and children, Lancet 2015, 385:466-76

4 In Somalia, Chad, Yemen, Nigeria, Afghanistan and Ethiopia more than half of all women and children in the poorest quintile of the population receive only two or fewer life-saving health interventions.

GLOBAL HEALTH, SOCIAL DETERMINANTS AND INEQUALITIES

It isn't easy to navigate one's way through the complex mass of concepts and data pertaining to global health. Yet this recently book by Gavino Maciocco and Francesca Santomauro*, published by Carocci Faber in 2014, is noteworthy for its unusual clarity and depth on the topic.

TEXT BY / GIOVANNI PUTOTO / DOCTORS WITH AFRICA CUAMM

It guides readers through an in-depth exploration of global health in seven chapters, each starting off with an empirical case that serves as a broad backdrop.

The first chapter, which focuses on the social determinants of health, tackles the topic of the "causes of the causes" of diseases, opening with a discussion of Rudolf Virchow's social medicine. It then moves on to examine hypotheses and solid scientific evidence with regard to inequalities in health and health care. The chapter concludes with a call to doctors to alter perspectives, systems and health education models so as to move beyond the biomedical paradigm.

The second chapter looks at the relationship between globalization and health. Starting with the global disease AIDS, it traces the evolution of global health policies from Alma Ata to the Millennium Development Goals, analyzing the approaches and contradictions of the key international players, and concludes with a reflection on future challenges such as the Sustainable Development Goals, universal health coverage and tackling global violence against women.

The third chapter of the book deals with the evolution of international health systems. The first analysis concerns the important – and regressive – changes in the UK national health care system. Next comes a fascinating exploration of several other areas around the world, from the crisis of health welfare (for example in Spain) to public forms of universal health coverage (the United States) and other forms of effective, yet low-cost, health care systems (Bangladesh and Cuba).

The fourth chapter focuses on immigration, both with respect to health and otherwise, while the fifth looks into the critical issue of chronic diseases. Worldwide, but especially in lower-income countries, there is a growing epidemic of chronic diseases including obesity, hypertension and diabetes. Supported by numerous studies, the theory is that chronic diseases and the multimorbidity that attends them also bring a serious risk of hidden and growing inequalities. The way in which primary health care is currently structured makes it impossible to meet the needs for care and prevention of chronically ill patients. The situation in low-income countries is particularly alarming, due to the growing role played by chronic diseases (diabetes, multidrug-resistant tuberculosis and others) in pushing households into severe chronic poverty. The challenge everywhere is to promote prevention, including its organized forms such as the proactive approach of the Chronic Care Model ,which focuses on risk factors, especially poor nutrition and smoking, in an attempt to avert disease in the first place.

The sixth chapter revolves around the impact on global health of climate change, a worldwide threat linked to models of development, production and social organization. It explores the indirect and direct effects of climate change (such as flooding and cyclones) on health, focusing on Bangladesh as an example of good practice with regard to strategies for preventing and mitigating humanitarian catastrophes.

The book's final chapter looks at international health cooperation, starting off with the case of Mothers and Children First, the maternal and child health care program that Doctors with Africa CUAMM is carrying out in four countries in Sub-Saharan Africa with a triple focus on equity, coverage and quality. It reviews the various phases of international health cooperation and the ideological approaches that have influenced it over time, up through the vertical programs that had such negative consequences at the beginning of the new century. The chapter wraps up by providing the principles for effective cooperation put forth by OECD, as well as a range of best practices.

Through its examination of global health the book helps readers understand the multifaceted and complex nature of society itself, underscoring the impact that political, economic and social choices can have on health as well as the need for all parties involved to be cognizant of this and to act in a responsible manner. Once again doctors – and health workers in general – are reminded of their own fundamental role in this context.

NOTES

* Doctors with Africa CUAMM would like to thank Gavino Maciocco and Francesca Santomauro for their decision to donate the proceeds from sales of this book in support of our organization's activities in Sub-Saharan Africa.

DOCTORS WITH AFRICA CUAMM

Established in 1950, Doctors with Africa CUAMM was the first NGO in the healthcare field to receive recognition in Italy (pursuant to the Cooperation law of 1972) and is the largest Italian organization for the promotion and safeguard of the health of the African populations.
It implements long-term development projects, intervening with the same approach in emergency situations, with a view to ensuring quality services that are accessible to all.

HISTORY

In its **60** years' history:
- **1,522** people have departed to work on projects: 411 of these departed on more than one occasion. The total number of departures was therefore 2,418;
- **4,758** years of service have been carried out, with a mean of 3 years per expatriate person;
- **1,034** students have been accommodated at the college;
- **481** doctors have departed from the Veneto region in almost 63 years;
- **216** hospitals have been served;
- **41** countries have benefited from intervention;
- **157** key programmes have been carried out in cooperation with the Italian Foreign Ministry and various international agencies.

IN AFRICA

Today we are in Angola, Ethiopia, Mozambique, Sierra Leone, Southern Sudan, Tanzania, Uganda with:
- **168 providers**: 111 doctors, 18 paramedics, 28 administrative and logistics staff
- **38 key** cooperation projects and about a hundred minor support interventions, through which the organization assists:
  - 17 hospitals
  - 26 districts (for public healthcare activities, mother-child care, training and in the fight against AIDS, tuberculosis and malaria)
  - 5 nursing schools
  - 2 universities (in Mozambique and Ethiopia).

IN EUROPE

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

NOTICE TO READERS

Support and take part in 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 91 H 05018 12101 000000107890 at the Banca Popolare Etica Padua
- **Credit card** call 0039.049.8751279
- **Online** www.mediciconlafrica.org

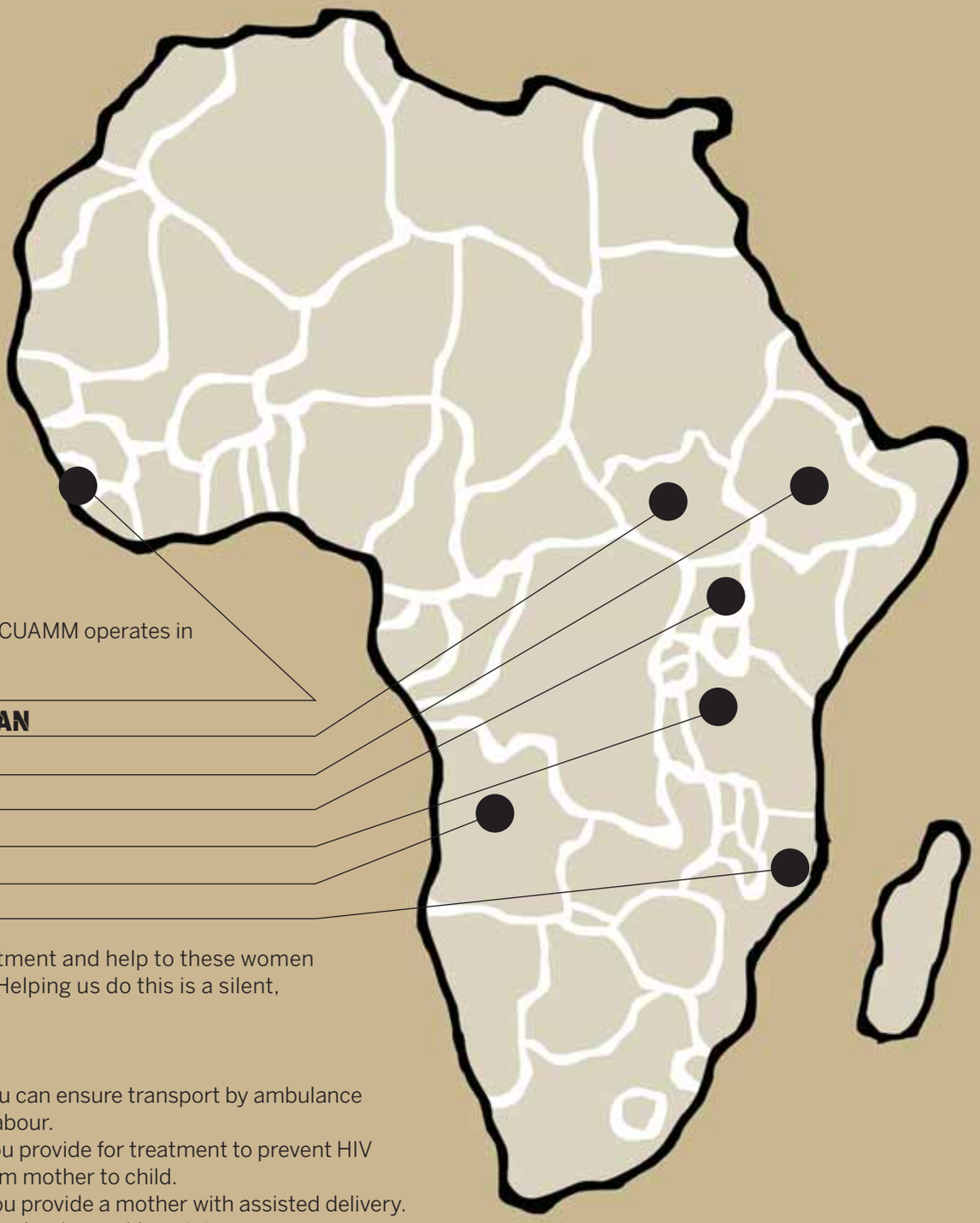
Doctors with Africa CUAMM is a not-for-profit NGO. All donations are therefore tax deductible. They can be indicated for this purpose in the annual tax return statement, attaching the receipt for the donation made.

HEALTH AND DEVELOPMENT offers studies, research work and documentation which are unique to the Italian editorial world. Our publication needs the support of all readers and friends of Doctors with Africa CUAMM.

NEEDY AFRICA

EVERY YEAR IN SUB-SAHARAN AFRICA:

- 4.5 million children die before reaching five years of age, for preventable diseases that can be treated at low cost;
- 1.2 million newborn children die in the first month of life through lack of treatment;
- 265 thousand women die from pregnancy- and delivery-related problems.



Doctors with Africa CUAMM operates in

SIERRA LEONE
SOUTHERN SUDAN
ETHIOPIA
UGANDA
TANZANIA
ANGOLA
MOZAMBIQUE

where it offers treatment and help to these women and their children. Helping us do this is a silent, forgotten war.

- With 15 euros you can ensure transport by ambulance for a woman in labour.
- With 25 euros you provide for treatment to prevent HIV transmission from mother to child.
- With 40 euros you provide a mother with assisted delivery.
- With 80 euros you fund a week's training course for a midwife.

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