



DOCTORS  
WITH AFRICA  
CUAMM



## HEALTH AND DEVELOPMENT

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*Health in the farthest  
reaches of the world*



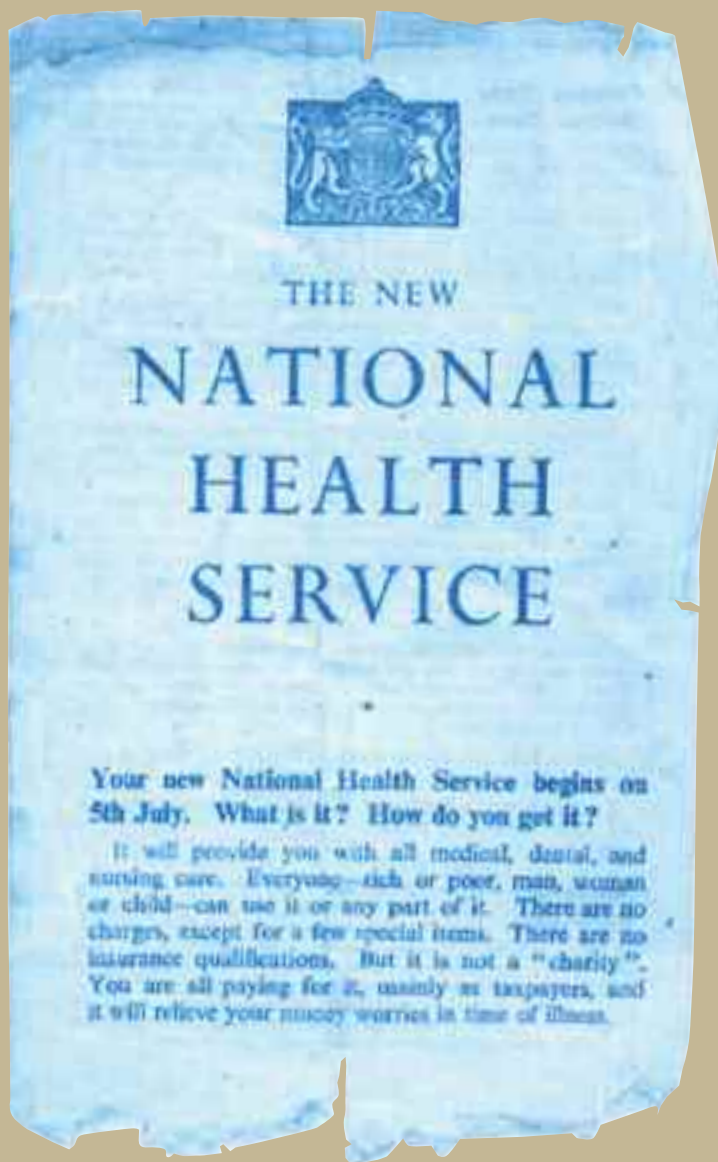


## NEWS

### Health care cuts

Health care is cut so we can cut taxes so we can boost consumption and the economy — this is the logic we keep on hearing. But what if the truth is the opposite? What if families save the money instead of buying things out of fear for unexpected health care expenses? Consider the first universal health system in the world, the British NHS. It was founded for this very reason, to relieve ill people from money concerns: “You are all paying for it, mainly as taxpayers, and it will relieve your money worries in time of illness” (Ministry of Health, 5th July 1948)

FIGURE / THE LEAFLET DISTRIBUTED BY THE BRITISH GOVERNMENT ON THE DAY OF THE LAUNCH OF THE NATIONAL HEALTH SERVICE, JULY 5, 1948.



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Miriam Hurley

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Cover illustration by Lorenzo Gritti.

*Mothers and Children First*, at the far reaches of the world too. This is where Doctors with Africa CUAMM works to make sure pregnancy and birth are safe, improving health services in peripheral centers and hospitals alike and developing an increasingly efficient transportation network.



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## DIALOGUE

### ACROSS THE BORDERS: OUR HOME

This is the name of the annual meeting next November 21 in Verona for Doctors with Africa Cuamm to meet with our supporters, partners, stakeholders, volunteers, and friends. The day will be a chance to share results and plans and give an accounting of what we achieved through our Mothers and Children First program.

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

We might say that the *border* is a distinctive feature of our identity. We bring our action beyond those boundaries that might make us afraid, where the paved road ends and the red, dusty road begins, where we lose Western points of reference, and encounter a *different* world. We often find ourselves crossing physical boundaries, such as that of the Moa River in Sierra Leone, which separated an area afflicted by Ebola from other areas still free from it. We do not stop when faced with political boundaries, such as in the Civil War that — this very November — has been undermining the roots of development in South Sudan. Every day we cross that boundary line between “known,” safe places to go into unstable areas, where health facilities are scarce or nonexistent, where mothers still need to learn the importance of giving birth in health centers to protect themselves and their families, and where the line separating disease and treatment is still all too tenuous.

We at Doctors with Africa CUAMM work across these borders, this is where we bring our health care and health education projects. We understand that the people of Africa need more than just medicine — they also need accurate information and the spread of knowledge. In this year alone, there have been 13 operational studies exploring limits and barriers to care for mothers and children in the countries where we work, and they have shown that the main obstacles to seeking care are cultural, as well as geographic and economic.

On November 21 in Verona we will give an accounting of all this and more, telling about our work “on the borderline.” Several of the articles in this issue discuss and explain data and recent results from the *Mothers and Children First* program, seeking to give a full accounting of our work to our supporters. This is certainly not the first time that we are talking about accountability; throughout the years, this value has become a cornerstone for our NGO’s work, meaning reliability and transparency for those who support what we do. Accountability is also a tool for monitoring and evaluating ourselves, which then encourages us to strive for increasingly effective organization and goal reaching. In 2013, with the Link2007 network, of which we are a member, we published a charter of accountability principles for NGOs, which we continue to use as a model<sup>1</sup>. The importance that we give accountability is also evinced in the involvement of partners alongside us who focus on evaluating projects and achieving set strategic goals. I am thinking particularly of the work of the Kessler Foundation, which studied the work of Doctors with Africa CUAMM in the difficult months of Ebola, to understand the strategies adopted, and assess their impact and efficacy in order to highlight their value. Despite the extreme emergency, the hospital and health centers run by CUAMM in the Pujehun district stayed open and continued to provide basic health services.

Some of our African partners are with us to give an accounting of our constant, reliable presence in these far reaches of the world. Two of these partners will be in Verona — Abu Bakar Fofanah, Minister of Health of Sierra Leone, and Kesete-birhan Admasu, Ethiopian Minister of Health — to talk about the daily journey we are making towards equitable, quality health care, joining technical skills, cultures, and institutional frameworks, including ones that may vary dramatically.

We will continue in this vein with our new Strategic Plan that our NGO is developing for the coming years. Alongside the objectives that will continue to pursue for accessible, equitable and quality health care, accountability will continue to be a cornerstone, a best practice of transparency and monitoring work processes targeted at the concrete action that CUAMM has never failed to provide. It is only by being aware of our strengths, as well as our limitations, that we can look ahead and truly reach across these physical and social borders, where Doctors with Africa CUAMM works with dedication to bring health care.

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<sup>1</sup> Link2007, *Accountability: un comune percorso nella cooperazione allo sviluppo*, [www.link2007.org](http://www.link2007.org)



## DIALOGUE

# HEALTH CARE IN ITALY: WIDENING GAPS IN COVERAGE

While universal health care coverage is becoming one of the main objectives in the development of countries worldwide, Italy — along with a few other countries such as Greece and Spain — is moving backwards on the level of effective coverage. At the heart of the situation are cuts to the national health care fund and the attack on human capital in public health.

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

“Long waiting lists in public health care and the prohibitive costs of private care are the reasons why nearly one in two families goes without care. In 41.7% of households, at least one person in a given year had to go without a health care service. Italians also pay over 500 Euro per person at their own expense each year, and in the last year, 32.6% of Italians paid for health care services under the table.” The source is a study by Censis that was cited in online news outlets<sup>1</sup>, but quickly vanished from newspapers, news shows and talk shows. Universal health care is under attack, but it is kept hidden. It has victims, but we must not speak of them<sup>2</sup>.

Thus, while universal health care coverage is becoming one of the main objectives in the development of countries worldwide<sup>3</sup>, Italy — along with a few other countries such as Greece and Spain — is moving backwards on the level of effective coverage. There are two main factors at the core of this backwards movement. The first of these is **cuts to the national health care budget**, which has gone from €112.5 billion in 2011 to €110 billion at present; it has been announced that public funding of health care will rise by €1 billion in 2016, but it will effectively go down by €0.5 billion, in relationship to rising costs, conservatively estimated at €1.5 billion for new basic care standards, contract renewals, the vaccination plan, and innovative medicines. The second factor is **the attack on human capital in national health care**: spending cuts on employees (cut by over €1.5 billion between 2010 and 2014) combined with numerous restrictions imposed by health care providers are undermining health services in all regions of Italy, raising the average age of employees and demotivating the bedrock resource of any system for protecting health; points of concern are the increasingly intensive use of the workforce, with back-breaking shifts, widespread job insecurity, the use of temporary workers, and penalizations affecting salaries and careers, all of which have prompted reprimands from the EU and the European Court of Justice<sup>4</sup>.

Universal health care is under attack in Italy, paving the way for the invasion of private interests, both of health care providers and insurance companies. But, unlike the situation in England and Spain, in Italy, the attack has not taken a transparent political and legislative path.

This is a well-known strategy, of which Noam Chomsky gave an apt description: “That’s the standard technique of privatization: defund, make sure things don’t work, people get angry, you hand it over to private capital.”<sup>5</sup>

One of the ways to hand over national health to private capital is to build hospitals with project financing, better known as a “private financing initiative” (PFI). This system — implemented in some regions of Italy, including Veneto and Tuscany — was introduced in the UK by the Thatcher government in the 90s and was a precursor to the privatization of health care thereafter. A recent analysis of the situation of the 101 British hospitals built with PFI shows that these contracts are not beneficial to the national health care system and that they endanger patient care. At the very least, they ought to be renegotiated. [*We have shown that current NHS PFI contracts are not good value and are endangering patient care. The need for renegotiation is openly discussed by the PFI industry. The ministries involved in PFI should take a leaf from the Ministry of Defence, which routinely reopens contracts when they do not deliver value for money. The current situation which privileges investor returns at the expense of public health care and services cannot be allowed to continue*]<sup>6</sup>.

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<sup>2</sup> [http://www.repubblica.it/salute/2015/10/20/news/sanita\\_censis\\_il\\_41\\_2\\_delle\\_famiglie\\_rinuncia\\_alle\\_cure\\_-125502711/](http://www.repubblica.it/salute/2015/10/20/news/sanita_censis_il_41_2_delle_famiglie_rinuncia_alle_cure_-125502711/)

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<sup>5</sup> <http://noam-chomsky.tumblr.com/post/86488640601/thats-the-standard-technique-of-privatization>

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### **A HOME TO WAIT FOR COMING MOTHERHOOD**

Anticipating a birth is about excitement, hope, and intense emotions. But for women who live far away from care, in places where distances are vast because of the lack of transportation and very poor road conditions, the wait can become dangerous and painful. Some of them have to walk 7 to 8 hours by foot to get to the hospital to give birth. Since 2014, Doctors with Africa CUAMM has been managing a *casa de espera* in Chiulo, a place where soon-to-be mothers can come several weeks before giving birth to receive care and attention, thereby avoiding many medical and obstetrical complications. Last year 976 women were hosted in the home, and from January to September 2015, there have already been 661.







## SISM'S TEN YEARS WITH AFRICA AND CUAMM

This year marks the tenth anniversary of the Wolisso Project, a project created for and by students bringing nearly fifty Italian medicine students to Ethiopia or Tanzania each year to spend a month volunteering with Cuamm. Let's hear about the goals and motivations that keep this project going strong ten years after its start.

MARIA LUISA RALLI INTERVIEWS CLARISSA DE NARDI / SISM, SEGRETARIATO ITALIANO STUDENTI DI MEDICINA

Clarissa is a 23-year-old medical student at the University of Udine and coordinator of the Wolisso Project. She's in charge of a project that brings international cooperation to the university and gives students a chance to spend a month in Africa at a "Doctors with Africa – CUAMM" hospital.

In April 2005, SISM's Udine center launched projects with St. Luke Catholic Hospital in Ethiopia to improve both the health of the population and the local health care system. That year, five young trailblazers flew from Udine to Ethiopia looking for a way to enrich their academic medical training by gaining hands-on experience in a developing country.

Shortly thereafter the Wolisso Project was founded, drawing students seeking a challenge on the other side of the world who wanted to learn how medicine is practiced in countries with limited resources.

In keeping with the principles of cooperation, one of the objectives that the five founders included in the Wolisso Project is to develop projects that support the health care services offered in CUAMM's health centers to make a positive impact on the health of the population. Ultimately, the goal is to repay the hospitality of CUAMM and the two African hospitals involved, proposing and funding scientific projects of practical value both for CUAMM and the local populations. Clarissa helps us learn what the project is all about.

### HOW MANY PROJECTS HAVE BEEN STARTED OVER THE LAST TEN YEARS, AND WHAT ARE THEY?

The Wolisso Project has launched seven projects, most of which target Wolisso, where we've been working the longest. The first project launched was "Safe Birth" (2006), which aims to reinforce preventative prenatal and postnatal services and the monitoring of women with at-risk pregnancies. In 2007 we launched "Nurse Training," which seeks to fund training courses for nurses, with the general goal of increasing the number of nurses in the country. In 2008, the Wolisso Project provided prosthetics for four amputee patients and corrected deformities in another four patients through the "Walk Again" project.

In 2009, SISM sponsored a malnourished child in Wolisso so that he could be rehabilitated in the hospital. That same year, the project "Ultrasound" began, later splitting into "Wolisso Ultrasound"

(2009) and "Tosamaganga Ultrasound" (2011, when the Tanzanian center was opened). These projects donated an ultrasound machine to each hospital and organized courses to train local staff to use them. Lastly, in 2013, we trained an anesthesia technician in Wolisso.

### WHICH PROJECTS ARE ONGOING RIGHT NOW?

Two projects are currently ongoing: "Tosamaganga Ultrasound" and "Scholarship for an Anesthesia Technician" in Wolisso. "Tosamaganga Ultrasound," for example, began in 2011 when we donated a portable ultrasound machine to St. John of the Cross Hospital in Tosamaganga.

The project was created in response to a shortage of diagnostic methods used in Tosamaganga, and the ultrasound machine was the instrument determined to have the most sustainable clinical impact, considering costs and benefits. The students on the staff were in charge of organizing two internal medical courses held by professionals in 2011 and 2012, respectively. In recent weeks, we've been planning a third and final training course in gynecology, followed by a final analysis of the database of all the tests conducted since 2011.

This database had been created specifically to monitor the usefulness and impact of the project on the clinical services at St. John of the Cross.

### ON DECEMBER 5TH, YOU'LL CELEBRATE THE TENTH ANNIVERSARY OF THE WOLISSO PROJECT IN UDINE. WHAT'S IN THE WORKS FOR THIS TRULY SPECIAL DAY?

We've decided to celebrate the tenth anniversary of the Wolisso Project at the project's annual meeting. It's going to be a meeting with a particular feel, because our aim that day will be to look at the project as a whole, and share with the participants the excitement and passion that have driven the project over the last ten years.

December 5th will be a chance to evaluate the past, the work we've done and the goals we've achieved in a decade. It will also be an opportunity to recognize the future potential of the project,





## SCHOLARSHIP

The scholarship for an anesthesia technician is among the projects that the young people of SISM planned and funded with the goal of training an expert with skills that can improve health services.

TEXT BY / MARIA LUISA RALLI, ANDREA BERTI, SOLE FONTANELLA,  
ELENA CAPELLI / SISM, ITALIAN MEDICAL STUDENTS' ASSOCIATION

As students, we are especially aware of the issue of education and the chance to contribute to someone's education is very exciting for us.

At St. Luke Catholic Hospital, which hosts the Wolisso project in Ethiopia, there is a chronic shortage of adequately trained health care personnel. SISM is decided to combat this phenomenon, by training a nurse from Harar and funding his or her studies to become an anesthesia technician.

The project finances a professional course at the University of Harar, and also provides economic support to the nurse's family members as during the training, he or she will have to focus on his studies and give up having an income.

The nurse will gain education and be able to develop professional skills the level that he or she will be able to apply throughout his or her career. But the project's true beneficiaries will be the hospital's future patients, who will be ensured quality care for at least four years. The project requires that the nurse, after having completed the training, work for the hospital for four years, with the goal of countering with phenomenon of "brain drain" affecting both the Global North and the Global South. In places such as Africa, brain drain is particularly damaging.

As the WHO world health report shows, there is a huge imbalance in sub-Saharan Africa between the workforce and needs in health services. An area that has 24% of illnesses has only 3% of the workforce in health care and uses less than 1% of global health spending.

Though perhaps we at SISM can't completely reverse the direction of this problem, we are proud to do our small part.

which still has a lot to give to students, to international cooperation and to Africa.

### WHAT DID YOUR ROLE AS COORDINATOR OF THE WOLISSO PROJECT MEAN TO YOU, CLARISSA, AND WHAT DO YOU THINK ITS FUTURE PROSPECTS ARE?

After two years, and with just a few days left in my role as coordinator, I can now take stock of this intense experience. Having introduced me to SISM, to CUAMM, and more generally to the world of international cooperation in healthcare, the Wolisso Project has led me to reflect deeply on the kind of doctor and person I want to be. In addition to the knowledge and skills I feel I've acquired — both in and outside of medicine — it's the enthusiasm and passion for medicine and volunteering that I treasure at the end of these two years. Having followed this project closely and learned about it in depth,

I continue to believe in it with more understanding than when I first heard about it. There's great potential in this amazing cooperation between SISM and CUAMM, and it can work to improve scientific projects and involve growing numbers of students throughout Italy, in addition to expanding the range of sites. And I have a dream in mind: to see this project go past the borders of Italy and open its doors to students in the IFMSA, too. As someone dear to me once said, you can make the impossible happen: you just have to believe in it.



## WORLD HEALTH GYMS

In the tracks of the international conversation and several local experiences, RIISG has launched an internal discussion about learning in places outside of the university, with the goal of enriching teaching about (global) health with practical experiences that take place in important local contexts, bringing young people face-to-face with the new challenges of practicing medicine.

FOR RIISG / RICCARDO CASADEI<sup>1</sup>, CHIARA CAVAGNA<sup>2</sup>, FEDERICO LANDUCCI<sup>3</sup>, MILO LIBRIO<sup>4</sup>, GIULIA NIZZOLI<sup>3</sup>, MARIANNA PARISOTTO<sup>4</sup>, FRANCESCA ZANNI<sup>5</sup>

### THE ITALIAN NETWORK FOR GLOBAL HEALTH TEACHING (RIISG) AND EDUCATION AS UNIVERSITY EXTENSION

Today, we are well aware the processes of health and illness should be sought in the socio-economic, political, legal and environmental dimensions in which the individuals and communities live and interact. This makes it more necessary than ever that medical practice (and beyond) can recognize and analyze the interconnections between processes of health and illness and political and social processes effected by globalization<sup>1</sup>.

RIISG has long been a place for dialogue and innovation in health education, which requires an interdisciplinary, multi-method approach rooted in human and natural sciences. Starting with the fact that health and illness are constructed in social and political processes, thinking about health education has led the network to question both the contents and teaching methods of health curriculum, as well as the educational settings themselves.

Nationally and internationally, we see more and more examples of education that take place outside of the university classroom, happening in everyday settings, where social dynamics are lived and learned through direct involvement with people<sup>2</sup>.

In 2013, the WHO published guidelines for medical education, criticizing the imbalance in health care curricula between ultra-specialized clinical disciplines and teaching focused on promoting local health and care<sup>3</sup>.

A 2010 Lancet report on the education of health care professions stated that a pillar of changing health education should be transformative learning, meaning a type of learning that seeks to train people who know how to interact critically, ethically and proactively with the local context and community<sup>4</sup>. The report included a special focus to a pedagogical approach common in Brazil, called “university extension.” This educational strategy entails a transformative practice that aims to create a space within the community in which activities and processes of mutual assistance and learning *extend* from one social context to the other, blurring the boundaries between local area, university and services<sup>5</sup>.

### SPACES FOR THINKING AND “ACTING” HEALTH: THE “GYMS”<sup>6</sup>

In the tracks of the international conversation and several local experiences, RIISG has launched an internal discussion about learning in places outside of the university, with the goal of enriching teaching about (global) health with practical experiences that take place in important local contexts.

This process originated from the need to develop education that strives to introduce a new way of thinking and “acting” health that can prepare professionals who know how to interpret a community’s health needs, and can design suitable empowerment strategies through a participatory approach in the local area. Furthermore, thinking about a training approach of this type also helps meet the needs of students to find practical fields in global health teaching.

Within RIISG, this discussion led to a joint definition of “Global Health Gym”<sup>6</sup>:

*“We use the term ‘Global Health Gyms’ to mean all educational moments that take place outside of the university classroom, which let us deepen our knowledge of our context, of the social processes that determine the state of health and illness and the resources in local communities. These are intended as practical experiences that can actively involve students in the educational process and concerning Global Health issues, by becoming aware of social, economic and individual mechanisms that affect the health of individuals and the community. The experiences/gyms often happen in specific local contexts, spaces that provide examples for understanding global phenomena that act on macro and micro levels. The learning that happens within the community is not only about acquiring information; it involves the entire person and his or her relationships, including communication, understanding, technical skills, emotions, values and reflections on daily practice.”*

### A MAP OF GOOD PRACTICES

The network has launched a mapping project to collect examples already in effect in Italy that meet this definition. The gyms documented thus far are published on the website [educationglobal-health.eu](http://educationglobal-health.eu) in the section “World health gyms”<sup>7</sup>. One example of



## RETHINKING MEDICAL EDUCATION

Medical education needs to undergo some major changes. RIISG (Italian Network for Global Health Education) has started a discussion which will involve also national representatives of Health.

TEXT BY / GIULIA CIVITELLI, RIISG / ITALIAN NETWORK FOR GLOBAL HEALTH EDUCATION AND SAMANTHA PEGORARO, RIISG AND SISM / ITALIAN MEDICAL STUDENTS ASSOCIATION

It is a well-known fact that medical education needs to undergo some major changes. RIISG (Italian Network for Global Health Education) has expressed the modes and principles that it hopes would support such a process in a document published to become part of the discussion launched by organizations like FNOMCeO (National Federation of Orders of Doctors and Dentists) and Permanent Conference of Chairs of the Board on the Degree Course in Medicine and Surgery. "Rethinking medical education" aims to be a manifesto of RIISG's position. The RIISG network was founded in 2010 joining several groups, including scientific societies, academic institutions, NGO organizations, associations of students, and individuals, sharing a common vision about spreading in Italy a paradigm on global health in keeping with international trend, that started from the United Kingdom and has involved the university system in general, and, significantly, the world of health professionals.

Thus far, supporters of the RIISG document include FNOM-CeO and SIPeM (Italian Society of Medical Education). RIISG also drew on the 1970s perspective of critical medicine, which suggests an approach whose most tangible expression is seen in the paradigm of "global health." It emphasizes the need to bring medicine, as an ethical practice, back to the individual in his or her entirety and to bring students' attention to inequalities and social and economic processes underpinning the concept of health. For medicine that can reconsider the role of ultra-specialization and rethink the relationship with other realms of knowledge, raise awareness about social responsibility and teach to recognize and avoid conflicts of interest. For medicine that needs to be rethought, in method and content alike. To keep the conversation going. Read the document: [www.educationglobalhealth.eu](http://www.educationglobalhealth.eu)

these that we can definitely consider a good practice is the now well-established "Laboratorio di Mondialità", a SISM project, which every year invites its members to discuss issues regarding global health issues and nonconventional education. Another example is the project by the University of Rome La Sapienza in collaboration with the Centro Astalli, which gives an opportunity to a group of students of medicine, social services and nursing to directly experience the situation of asylum-seekers and refugees, encountering and learning about the reality of forced migrants and local and national reception systems.

Ranging from corporation to global health education, traineeships in prisons, and assistance to homeless people, the map collects the most significant examples in different realms, sharing the common denominator of understanding and practicing health outside of the clinical paradigm to which today's medical profession has grown accustomed.

As RIISG, we plan to continue building the map and expanding it with new examples that suggest an approach of transformative learning in community settings. We ask all of you who are involved in, or know about "global health gyms," to tell us about them by email (to [globalhealth@cuamm.org](mailto:globalhealth@cuamm.org) or [casadei.ric@gmail.com](mailto:casadei.ric@gmail.com)) to launch a dialogue about what this educational approach produces.

The mapping process can thereby become a process of relationship between the members of RIISG and everyone interested in learning more about the results, limitations, methods and everything related to the educational processes that seek an innovative approach to public health issues, in a perspective of global health as a total view of the person, the community and the local setting.

<sup>1</sup> Experimentnal Center for Health Education and Health Promotion (CESPES), University of Perugia

<sup>2</sup> Doctors with Africa CUAMM

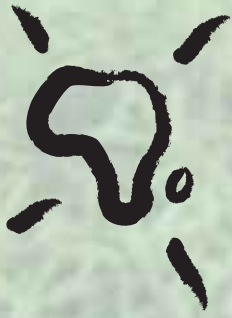
<sup>3</sup> Italian Medical Students' Association - SISM

<sup>4</sup> Prometeo Group, Bologna

<sup>5</sup> Research Center on International and Intercultural Health (CSI), University of Bologna

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### THE LONG ROAD TO LIFE

A kilometer in Africa is "slower" than a kilometer in Europe, even with the same transportation means. It makes it hard to consider a truly universal unit of measure, when covering 15 km can take an hour and a half with a Jeep. Traveling muddy roads full of potholes, an African mother takes decidedly longer to get to the hospital than a European mother. And even more so if there is no ambulance available and these kilometers are covered by foot or bicycle.

To address these problems and ensure the right to health for everyone, Doctors with Africa CUAMM, as part of its "Mothers and Children First" program, is implementing a system of referrals, i.e. a transportation system to send women to the right health centers. This has led to 4,500 ambulance rides supporting mothers in Angola, Ethiopia, Tanzania, and Uganda.







## EXPERIENCES FROM THE FIELD

# EBOLA AND ITS IMPACT ON THE HEALTH SYSTEM IN PUJEHUN

In 2014, the Ebola epidemic brought Sierra Leone to its knees. In the Pujehun district, where Cuamm is active, measures were adopted to contain the virus and to provide basic health services, which succeeded in avoiding an excessively negative effect on the health of the population, particularly mothers and children. Here is a description of the strategies adopted.

TEXT BY / GIULIA SEGAFREDO / DOCTORS WITH AFRICA CUAMM

### THE PUJEHUN DISTRICT AND THE EBOLA EPIDEMIC

Doctors with Africa CUAMM has been active in Sierra Leone since 2012, where it faced the greatest Ebola epidemic in recorded history starting May 2014<sup>1,2</sup>. Just recently, on November 7, 2015, the country was declared Ebola-free, a victory for the local population and for everyone who served in the fight against the virus. What worked in managing the emergency? What decisions were at the foundation of CUAMM's choice to stay in the area, keeping basic health services active? And what impact did Ebola have on the public's use of health services?

CUAMM is active in the district of Pujehun in Sierra Leone's southernmost province. With a population of about 335,000, the district is one of the areas with the lowest population density in Sierra Leone. Most people live in villages with fewer than 2,000 inhabitants. The local health system consists of a district governmental hospital with 87 beds, and 74 peripheral health centers. The Ebola epidemic in Pujehun started in July 2014 (the first country affected was Guinea in March of the same year). The epidemic affected a very isolated region, two closely connected areas, Zimmi (a rural city) and Dumagbe (a village). On January 10, 2015, this was the first district to be declared Ebola-free by local health authorities.

### EPIDEMIC CONTAINMENT AND INTERVENTION ASSESSMENT

It became immediately clear that we needed to actively contain the epidemic; the main strategies adopted were: i) early isolation of suspected cases, ii) contract tracing, i.e. identifying and isolating anyone who had come in contact with an infected person, and iii) training for health professionals.

Now that the emergency is over, we would like to stop and assess the experience and the strategies adopted, which proved particularly effective both in containing Ebola and in assuring the continuity at CUAMM's primary care centers during that month the emergency as well. Assessment started with some basic questions, considering both the epidemic management in the continuum of care in the field of maternal and child health.

- Ebola's chain of transmission in the district: how and through whom did infection occur?

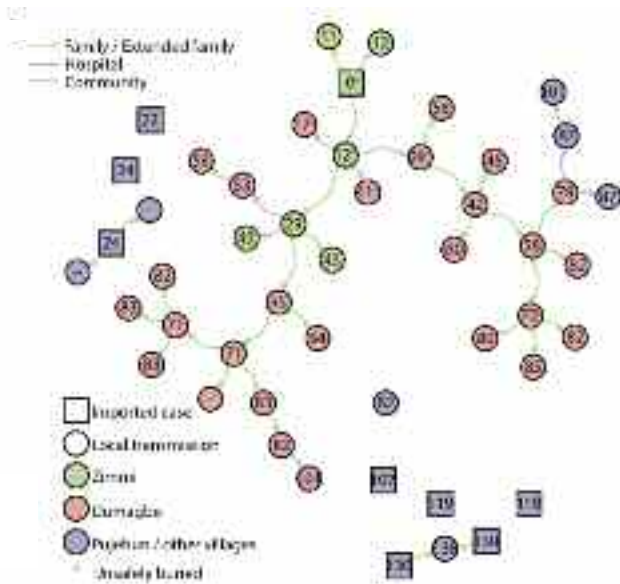
- The effectiveness of transmission containment: did the measures have a positive outcome?
- The maintenance of basic health services: what impact did the Ebola epidemic have on the use of maternal and child health services in the hospital and the peripheral health centers?

To answer the first two questions, working with the Bruno Kessler Foundation of Trento, we launched a study that included both epidemiological surveys and mathematical models to evaluate infection dynamics. We i) reconstructed the chain of the virus's transmission in the district (getting data on the main paths of transmission of infection and on the distribution of the basic reproductive number); ii) estimated the key time frames of the epidemic's spread (incubation period, time from onset of symptoms to hospitalization); iii) estimated the impact of all intervention measures (the probability of hospitalization for Ebola cases, the likelihood of unsafe burials, the percentage of cases detected); iv) calibrated a detailed mathematical model of virus transmission, combining all of the above information, to estimate the impact of all considered interventions implemented in the district of Pujehun. This let us clarify factors of success based on local containment of the outbreak and to provide quantitative input for the future management of an Ebola epidemic from its inception. To answer the third question, data was collected from the district's health databases (*health management information*, HIMS); Specifically, we analyzed: the number of admissions to the pediatric ward, the number of admissions in the gynecology department in the number of hospital births in the 2013–2014 period to assess any difference between the year in which the epidemic occurred (2014) the previous year.

### EFFICACY OF EPIDEMIC CONTAINMENT MEASURES

In the July – November 2014 period, in the Pujehun district, 49 cases of Ebola were recorded, 31 of which were confirmed and 18 of which "possible." In 61.2% of the cases the patients were women, and the average age was 31.7 years (fll 19.9), and the percentage of death was 85.7%. Of these patients 90% were hospitalized, the average incubation time was 9.6 days (fll 6.3), the time from onset of symptoms to hospitalization was 4.5 days (fll 2.6), the average time from hospitalization to death was 3.1 days (fll 3.1), the average hospitalization time was 5.8 (fll 6.3).

**FIGURE 1 /** TRANSMISSION CHAIN OF THE 2014 EVD OUTBREAK IN THE PUJEHUN DISTRICT, SIERRA LEONE. NUMBERS REPRESENT THE DAY OF DEATH/DISCHARGE AFTER THE FIRST CASE (TIME 0).



The number of patients infected per each Ebola patient varied from 0 to 4. 65% of patients did not infect anyone. 75% cases of transmission occurred in family settings and 18% at a community level (between friends). 8% (3/39) of infections involved health professionals. A "sensitivity analysis" highlighted how the change in the period of time from the onset of symptoms to hospitalization was crucial to increasing the likelihood of eliminating the disease, as well as in improving contract tracing (**Figure 1**).

The percentage of non-hospitalized cases was 11.2%. In 71.4% of cases, the deceased were buried the same day with a safety pro-

cedure; in 11.9% of cases, the safety procedure was not followed, but they were in the epidemic's early stage. The number of patients hospitalized was never less than 10. The number of contact tracers who worked on identifying cases was about 250 with an average of 11.5 cases/month in July, rising to 25 cases per month in September. Generally at least 43% of patients infected at home were identified through contact tracing.

Assuming that case isolation was the only intervention implemented (90% chance of hospitalization and 4 days from the onset of symptoms to hospitalization), we noted that the likelihood of eradicating Ebola would rise from 38.2% (95% CI: 36.0 - 40.3) to 73.6% (95% CI: 72.3 - 74.9) increasing the number of hospital beds available from 1 to 20. The time lapsed between the onset of symptoms to hospitalization also had a major impact on likelihood of disease elimination (**Figure 2**).

### IMPACT OF THE EPIDEMIC ON THE USE OF MATERNAL AND CHILD SERVICES

During the epidemic, none of the health facilities were closed; in fact, between 2013 and 2014 there was a general growth of 6.5% in the number of births in the district: 9,657 in 2013, 10,285 in 2014. The percentage of hospital births rose from 70% to 73% despite the epidemic. There was a slight decrease in number of hospital admissions in the Pediatrics department (424 in 2013, 312 in 2014), but the difference was not statistically significant<sup>3</sup>.

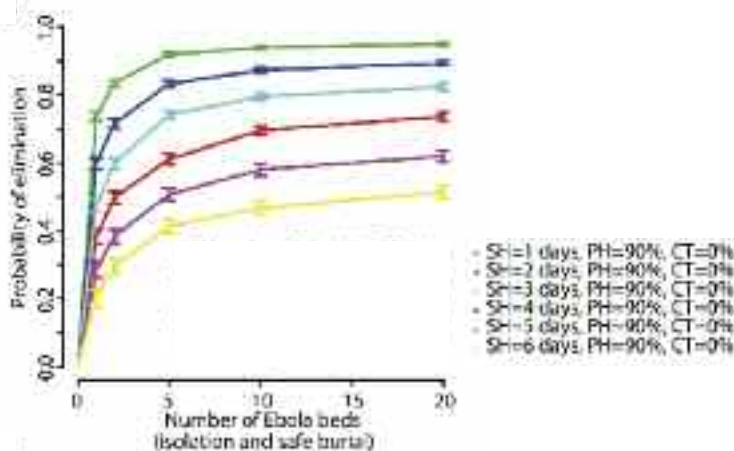
### LESSONS LEARNED

The data we presented makes it clear that the two key aspects for containing and eliminating the epidemic are the number of available beds and the process of identifying and isolating cases through contact tracing. These two aspects depend heavily on the health care system's preparation to respond to emergencies and the population's awareness, which plays a key role in applying health policies. The direct involvement of the community and strengthening of local leadership played an essential role, both for containing the epidemic and for maintaining maternal and child services.

Our analysis also showed how the speed of implementing containment actions is of fundamental importance. As a rule, speed and aggressiveness in implementing containment actions are the two fundamental aspects per preventing the national and international spread of future Ebola epidemics.

For a fragile health system such as that in Sierra Leone, the indirect consequences of the epidemic could have been worse than the epidemic itself. However, we could verify that access to maternal/child health services was not affected by that epidemic. This positive outcome can undoubtedly be attributed to clear leadership that showed itself proactive in managing emergency, and once again in the community's preparation and awareness.

**FIGURE 2 /** PROBABILITY OF DISEASE ELIMINATION IN THE PUJEHUN DISTRICT BY ASSUMING ISOLATION OF CASES AND BY VARYING THE NUMBER OF EBOLA BEDS AND THE AVERAGE TIME FROM SYMPTOM ONSET TO HOSPITALIZATION (SH) IN THE ABSENCE OF OTHER INTERVENTIONS (E.G. SAFE BURIALS FOR UNHOSPITALIZED CASES AND CONTACT TRACING). PROBABILITY OF HOSPITALIZATION SET TO PH=90%.



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## EXPERIENCES FROM THE FIELD

# MOTHERS AND CHILDREN FIRST: OUTCOMES AND BEST PRACTICES

We are nearing the end of the fourth year of the program Mothers and Children First in four African countries. The program of integrated planning, in which the joint efforts of public and private actors, and the union operational research, community education and providing health services, has been achieving tangible results that meet the needs of the project areas. Let's take a look at where we are now, and where we want to go.

TEXT BY / CHIARA DI BENEDETTO, DONATA DALLA RIVA, GIOVANNI PUTOTO / DOCTORS WITH AFRICA CUAMM

### FOUR YEARS WITH MOTHERS AND CHILDREN

There have been 236,661 prenatal visits made, 102,147 assisted deliveries, 4,597 ambulance trips, 478 health professionals trained on the importance of care. These are the absolute numbers of four years of *Mothers and Children First*, Doctors with Africa CUAMM's program for maternal, fetal and neonatal health. There are four countries of action, Ethiopia, Tanzania, Angola and Uganda, and four years elapsed from the beginning of the project, four main hospitals, and 24 peripheral health centers where we are active, and about 1,300,000 people involved.

The program, supported by the foundations Cariparo, Cariverona, Cariplo, Compagnia San Paolo, and other financial supporters, is achieving tangible results through integrated planning, which involves public and private actors and plans evidence-based actions. Operational research, community education and providing health services are parts of a single program, working in unison to bring into focus the specific local needs of the people and respond to particular shortcomings.

In keeping with the Millennium Development Goals, over the past four years, the program has helped improve the health of the local population in the project areas, reducing mortality and morbidity of mothers and children (goals four and five) and strengthening the health system through approaches that, four years ago, Doctors with Africa CUAMM could perhaps not have imagined in this form. The strategy adopted in the program focused on the contextual implementation of actions on the level of health supply and demand. In terms of supply, we acted by increasing health services provided and improving their quality; in terms of demand, we focused on strengthening the local system, meaning the network of communication and transportation to let the public quickly reach places of care, and implementing innovative mechanisms to incentivize access and use the services by the local population (for example, transportation vouchers, baby kits for mothers nearing labor, and awareness campaigns and health education).

### THE ROLE OF PERIPHERAL HEALTH CENTERS

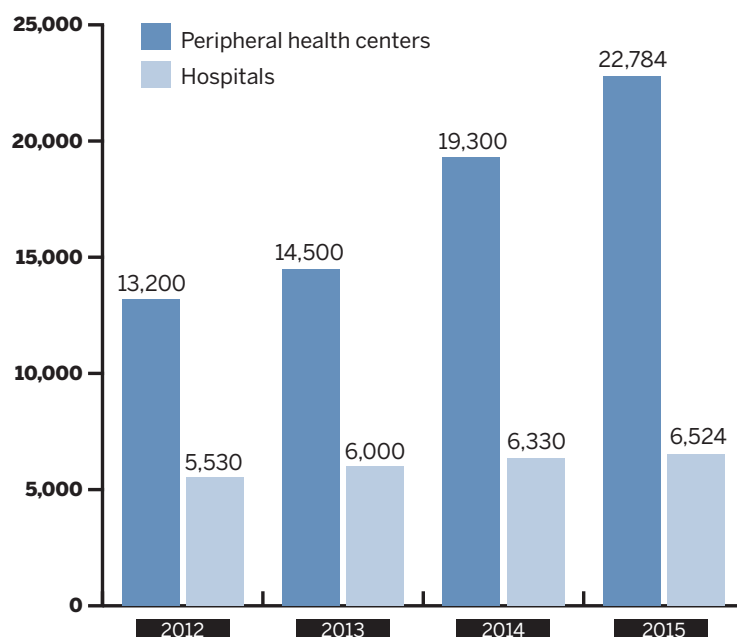
One fact stands out over all others in the program's four-year report: the births assisted at the health facilities rose from 13,200

in 2012 to 22,784 in 2015. Although the number of hospital births increased as well (from 5,530 in 2012 to 6,524 in 2015), the increase in the peripheral centers was much greater, shedding light on the key result of the growth of the health system as a network. This very clear outcome is related to the specific features of the area of action.

The majority of the population lives in peripheral areas, and we can consider it a positive sign of the program's progress that local people recognize the health center as the first point of access for childbirth assistance. This is a reinforcement of the value of the "chain" of primary care on which CUAMM has been working, making birth centers the first place to go for uncomplicated births. Qualified health centers (BEmOC) and the hospital (CEmOC) are involved in cases of obstetric and neonatal complications of growing complexity (**Figure 1**).

By the end of the five-year period of Mothers and Children First, every qualified health center (Bemoc) should ensure the seven "basic" functions of care for obstetric emergencies: parenteral antibiotics, parenteral oxytocin, removing any retained material, removal of placenta, neonatal resuscitation, anti-convulsants,

FIGURE 1 / ASSISTED DELIVERIES 2012 - 2015





**TABLE 1 / HOW INCENTIVES (BABY-KIT AND TRANSPORT VOUCHER) STIMULATE DEMAND FOR HEALTH SERVICES, BEFORE AND AFTER ANALYSIS**

BEFORE VS AFTER ANALYSIS		BABY KIT		TRANSPORT VOUCHER	
		2013	2014	2013	2014
ASSISTED DELIVERY	N	506	838	228	902
	COVERAGE	31%	51%	13%	53%
1ST ANTENATAL VISIT	N	822	990	466	850
	COVERAGE	49%	59%	27%	49%
4TH ANTENATAL VISIT	N	300	574	135	825
	COVERAGE	18%	34%	8%	47%
POSTNATAL VISIT	N	29	369	7	557
	COVERAGE	2%	23%	0%	33%

and assisted vaginal delivery. Compared to previous years, we have already seen an increase in services offered. In the initial survey (2011), none of the 22 peripheral health centers proved able to provide all seven basic obstetric emergency services. The survey was repeated during the third year (2014) and showed that 20% (five out of 24) of the centers were now able to provide the entire set of basic emergency services, another 20% (five out of 24) could provide five of the seven life-saving services. And, in the three-year period, 80% of the centers improved the number of services provided for basic obstetric emergency response.

**KNOWLEDGE-ATTITUDES-PRACTICES:  
A SOCIOLOGICAL APPROACH TO COMMUNITY**

Faced with low demand for health services, the need arose to investigate the reasons for this and fully understand what factors drive the local population to choose not to seek treatment and care. A study conducted in Ethiopia, with data collected in 2013 (baseline) and in 2015 (end line) had some unexpected results. Among the reasons for not seeking health services, four of the five main causes are cultural, based on misconceptions and misinformation (for example, the idea that there is no need to give birth in hospitals, that birth is not perceived as urgent, and more comfort with childbirth at home).

There are economic reasons but they are less significant than the others (1.2% of the total). Distance and lack of transportation had a large effect, but thanks to the action planned after the first survey, this has been almost halved, from 25.3% in 2013 to 13.5% in 2015.

Based on the results of the first survey (2013), we were able to construct a specific action plan for the target country, and Doctors with Africa CUAMM invested in raising awareness and information in local communities, understanding that this was the only way to generate change in attitude among women in the mid-term regarding care and treatment services. One of the measures implemented immediately to respond to the serious cultural obstacle of “lack of understanding of the urgency of

childbirth” was the decision to invest in building “expectant mother homes,” a reception place for women close to giving birth, to avoid risks related to the final phase of pregnancy and to resolve any problems related to transportation when labor had already started.

Findings showed that in Ethiopia, as well as in other countries where CUAMM is active, a more efficient referral system is needed that can promptly and appropriately refer obstetric emergencies. The introduction of an ambulance service transported 111 patients from the villages to the Wolisso Hospital from January to April 2015, coming to the aid of 37% of women with obstetric emergencies. The cost effectiveness of the intervention is calculated as: 14\$ cost per year of life saved (or gained). This cost is well above the settled WHO standard of “ high cost effective” (30\$ per year life gained).

**BABY KITS AND TRANSPORTATION VOUCHERS:  
INCENTIVES FOR HEALTH SERVICE DEMAND**

As we have discussed elsewhere, acting on the health service demand side is fundamental in low-resource and low-education settings<sup>3</sup>. The two interventions implemented in Uganda in the Oyam district (500 maternal deaths / 100,000 live births) demonstrate how offering incentives stimulates demand for services. First, there are the transportation vouchers, given to pregnant women for transportation by motorcycle or bicycle to health centers for childbirth; they are given to every woman after the 30th week of pregnancy who comes to that health center for a check-up. The second intervention involves providing a baby kit, including soap, a half kilogram of sugar, fabric, and a plastic basin, also given to pregnant women who come to the health center for checkups.

We measured the effect of these incentives on the use of health services, both antenatal and postnatal visits. And we compared the cost/effectiveness ratio using WHO suggestions. The results show that the transportation vouchers had a clear effect on women’s demand for care and health services, with a 40% increased in demand for assisted childbirth (13% in 2013

before the incentive was introduced, 53% in 2014 with the introduction of the incentive) and increasing rates of coverage both for prenatal and postnatal visits (**Table 1**).

The baby kit also led to increased demand for health services, though in slightly lower percentages (from 31% in 2013 to 51% in 2014 in the case of demand for assisted childbirth and an average increase of 15 percentage points for pre-and postnatal checkups).

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### TOWARDS THE PROGRAM'S FIFTH YEAR

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In the program's last year, it will be essential to reach the target of 125,000 assisted birth and to collect data for evaluating the program results.

The initial surveys will be done again, having delineated **coverage** (how many services are available and where), **quality** of maternal, fetal and neonatal services at the four hospitals (how the services are provided) and **equality** (the social economic profiles of the women accessing the childbirth and neonatal services) to compare them with the initial surveys in order to assess the results achieved.

In the last year we will also be working to complete and publish the results the surveys investigating the mechanisms of the health system's operation, such as childbirth incentives (transportation vouchers compared to baby kits); the efficacy of ambulance transportation and expectant mother homes, in promoting assisted childbirth; the streamlining of birth points through the use of GIS (in Tanzania); clinical surveys on the appropriate use of Cesarean sections, and assistance to asphyxial and hypothermic newborns. The cost-effectiveness of these measures will also be estimated, when possible, as has already been partly done. This last point will help us to continue to stimulate local partners, health authorities and donors on the issue of the interventions' sustainability.

With a view to continuing these interventions, the results will also be evaluated as part of strengthening the public-private partnership (local governments and private not-for-profit hospitals) which was one of the primary strategies of the project in all four countries.

Assessing the program results will also let us identify weak points, ongoing gaps and strategies for achieving more effective (and cost-effective) results in which to base upcoming actions with an eye to meeting Sustainable Development Goals (SDGs – 2030).

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## TAKING A CLOSER LOOK

# OPERATIONAL RESEARCH FOR QUALITY COOPERATION

What role does research in the field play for an NGO? How can the research component be combined with operational action? Doctors with Africa CUAMM invests in research as a strategic priority for study and action, in perfect keeping with an international context that rewards those who know how to combine knowledge and practice.

TEXT BY / CHIARA DI BENEDETTO / DOCTORS WITH AFRICA CUAMM

The work is not only in the field, based on concrete actions and ideas; it is also research, analysis, and study to support African health systems. NGOs have been paying growing attention to research as a foundation of their strategic plans, complementary to work in the field and actually boosting increasingly targeted, effective actions, able to provide specific accountability for their work. The international situation is also clear, showing how there is growing awareness that strengthening research capacity in developing countries is one of the prerequisites for reaching sustainable development goals after 2015. Doing research here means investing in an individual and institutional development process, acquiring high-level skills, and forging networks of an ever-widening community of actors<sup>1</sup>.

Doctors with Africa CUAMM is in full accord with this perspective and makes operational research a major part of its strategic approach, with the goal of deeply knowing the contexts where it works, adopting a critical method of the work it does and identifying good practices based on scientific evidence<sup>2</sup>. While research lets us define our actions more effectively, we should also remember that in some cases research can highlight problem points “from above,” such as inadequate policies, government priorities that do not meet local needs, and therefore it do not let cooperation act effectively. For example, this happened in the survey that led us to detect the fact that there were too many birth centers in Tanzania, which led to a low-quality, fragmented health service. In cases like this, the role of the NGO shifts to the level of advocacy, in an attempt to make the voice of the people heard to change policies.

In 2015 alone, Doctors with Africa CUAMM's extensive research work led to eight articles published in international journals, including the *International Journal of Gynecology and Obstetrics*, *Lancet*, *PLOS One*, and *Reproductive Health Journal*. The main topics related to maternal, fetal and neonatal health, analyzing innovative cases that have shown interesting potential improvement for the health system; one of these is a study on the cost-effectiveness of the use of an ambulance in four districts of Ethiopia, and the use of incentives as a tool for stimulating health service demand. Naturally, Ebola was a point of research interest; the study of the impact of Ebola in the district of Pujehun in Sierra Leone investigated the processes implemented during the epidemic to understand the model that allowed CUAMM to continue providing basic health services even during the emergency<sup>3</sup>.

This is the path that Doctors with Africa CUAMM has chosen, aware that working in settings of the poverty of studies and analyses, studies on locally important issues become a priority, working closely with the community, health professionals and African research and development institutions<sup>4</sup>. This is the only way for decision-making processes and political choices to be based on quality evidence and respond to the reality of problems of people and systems. In the words of Anacleto Dal Lago, the first CUAMM doctor in Africa from 1955 to 1970, and the organization's forefather, “Research in the field is part of wider research, which aims to define new cooperation models and actions”.

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## REPORT

# CHANGES TO LATIN AMERICAN'S HEALTH SYSTEMS

At a particular point in the history of the changing political and social context, it became possible to dramatically reform health systems to move in the direction of universal health coverage, founded on the principles of equity, solidarity, and collective action to combat social inequalities.

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

Starting in the late 1980s, many countries in Latin America introduced reforms in the social and health sector to fight poverty, reduce social economic inequalities and improve public health. The *Lancet*<sup>1</sup> analyzed the situation in ten countries – Argentina, Brazil, Chile, Colombia, Costa Rica, Cuba, Mexico, Peru, Uruguay and Venezuela – from a historical/political perspective and more narrowly health perspective.

The connection between the two aspects is self-evident; at a point in the history of the changing political and social context, became possible to dramatically reform health systems to move in the direction of universal health coverage, founded on the principles of equality, solidarity, and collective action to combat social inequalities.

There is no question that in the Latin American countries studied in the *Lancet* paper, health reforms led to social inclusion, citizen empowerment and health equality; they affirm the right to health and achieved universal health coverage almost everywhere. Civil society played a paramount role in ensuring the right to health and protecting citizen rights. In the majority of countries studied, these reforms were driven by a desire for social justice, equality and the defense of civil rights in countries that had gone through bloody and oppressive military dictatorships. In some countries, such as Mexico, the reforms were driven by that demographic and epidemiological shifts and the need to overcome an intolerable segregation in health care.

The reforms were also made possible by sustained economic growth in the early 2000s, which made it possible, using measures such as conditional cash transfers, for about 60 million people to get out of poverty, increase health spending, expand insurance coverage, and increase access to health services for the low income population.

This all led to improved public health and increased financial protection in the case of illness.

According to the *Lancet* paper, notwithstanding the advances, the Latin American countries have six major challenges to face:

- Latin America is still one of the parts of the world with the greatest social inequalities. It estimated that in 2011, 177 million people were below the poverty line, and about 70 million of these in extreme poverty. The situation threatens achieving universal health care and the countries' very democratic stability. This all tells us that the reform agenda is far from complete, and that major efforts are still needed to combat inequalities in the determinants of health and in health outcomes.
- The second challenge concerns the organization of health services. With the exception of Cuba, Costa Rica and Brazil, Latin America health systems are still overly fragmented. The goal should be to unite the many insurance forms in a single general insurance (as has been done in Turkey). Other problematic issues are the intrusiveness of the private sector, needing better regulation, and the low quality of public services.
- The third challenge pertains to financing equity as the out-of-pocket component is still too high.
- The fourth challenge concerns the capacity of health policies to adequately address demographic and epidemiological shifts. Latin American countries are facing a triple burden of disease: a) still high level of infant and maternal mortality; b) infectious diseases such as malaria, dengue, and tuberculosis; and c) the rapid rise of chronic illnesses.
- The fifth challenge pertains to rapid urbanization and the need to address the concentration of enormous health and social needs. It is estimated that in 2025, six of the 30 most populous cities in the world will be in Latin America: Bogota, Buenos Aires, Lima, Mexico City and Rio de Janeiro.
- The sixth challenge concerns the sustainability of these health systems maintaining universal health coverage. The global economic crisis that started in 2008 did not leave Latin America unscathed. This crisis can be overcome by continuing to invest in health, as historical and recent experiences show that investing in health promotes economic growth.

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## THIS YEAR: SETTING OUR SIGHTS ON MALARIA

Artemisinin is a new group of antimalarials that quickly kill malarial parasites at an early stage of development, a fact that explains their unprecedented strength. The Chinese scientist who discovered it won the Nobel Prize.

TEXT BY / GIOVANNI PUTOTO / DOCTORS WITH AFRICA CUAMM

The 2015 Nobel Prize in Medicine was awarded to three scientists, among them Youyou Tu, a woman who has been a leader of the Academy of Traditional Chinese Medicine for thirty years. Her research led to the discovery of artemisinin, or *Qinghaosu*, a drug which has significantly reduced the mortality rate of patients affected by malaria, a disease caused by a parasite spread by mosquitoes that results in fever and — in the worst cases — even brain damage or death. The discovery has saved millions of lives in Africa, South Asia, and South America. Over 3.4 billion people in the world's poorest areas risk contracting malaria, and deaths from the disease in 2013 were estimated at 584,000, of which 90% were in Africa, and most of whom were children under the age of five. Artemisinin is a new group of antimalarials that quickly kill the disease's parasites at an early stage of their development, a fact that explains their unprecedented strength. Today it is used worldwide, and in combined treatments, it reduces the mortality rate by over 20% overall and by 30% in children; in Africa alone, that means more than 100,000 lives saved every year.

In the past ten years, the fight against malaria in Africa has made considerable inroads on other fronts, too. Between 2000 and 2013, its incidence dropped by 34% and its prevalence by 26%; the mortality rate in children under five fell 57%. These results were achieved by expanding the coverage of effective, integrated actions supporting at-risk populations. Examples include providing access to mosquito nets treated with insecticide: 3% in 2004, 49% in 2013, for a total of 427 million nets distributed between 2012 and 2014; the growing use of rapid diagnosis tests (319 million in 2013, compared to 46 million in 2008) and treatments based on combinations of artemisinin (from 11 million treatments in 2005 to 392 million in 2013), which are gradually replacing the presumptive diagnosis of malaria. These significant results hold a great deal of promise. Other actions have proven more difficult to implement in terms of effective coverage. Notable among these: preventative intermittent treatment, given that 15 million women — out of 35 million eligible women in 2013 — who did not receive even a single dose of antimalarials during pregnancy; campaigns for spraying with insecticides such as DDT, covering only 7% of

at-risk populations in Africa; and only six countries out of sixteen adopted preventative antimalarial treatment for children under five in their healthcare policies. These prevention and treatment measures used together have enabled us to reach Target C of Millennium Development Goal 6, which aimed to halt and reverse the incidence of the malaria epidemic by 2015. In terms of progress by country, 64 countries have succeeded in reducing the incidence of malaria, and some 55 of them have reduced it by 75%, in keeping with the *Roll Back Malaria* program and the resolutions passed by the World Health Assembly.

What is the outlook for the future? Now that the inspiring, but unrealistic, goal of eradicating malaria has faded, healthcare policies and programs are turning to controlling the disease. The target set in the new agenda of sustainable development goals aims to reduce the incidence and mortality rate of malaria by 90% by the year 2030. To achieve this target, there are still many challenges to be tackled, the most insidious of which is treatment resistance. Cases of resistance to combinations of artemisinin have now been reported and documented in several Southeast Asian countries. The danger that this resistance might spread to Africa is real, as it has been well documented for other antimalarial agents in the past. Drug resistance is also spurred by inappropriate prescriptions and use of antimalarial medications. Another point of concern is our incomplete knowledge of how the disease evolves epidemiologically. Sporadic epidemics of malaria tend to arise in countries and areas that have achieved a good level of control, when epidemics strike older children and adults due to lowered immune defenses.

Investing in innovation remains crucial. Although limited in terms of effectiveness (30% of effective protection in infants and children from five to 17 months after four doses), the vaccine RTS,S/AS01 will soon be tested in three to five pilot studies involving one million children. In 2015, a final decision will be made as to whether it can be implemented on a large scale. New medicines or combinations of existing medicines are being studied, and new epidemiological analysis tools, such as GIS mapping and the use of mathematical models, also appear promising.

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# 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.

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## HISTORY

In its **64** years' history:

- **1,569** people have departed to work on projects: 422 of these departed on more than one occasion.
- **1,053** students have been accommodated at the college;
- **163** key programmes have been carried out in cooperation with the Italian Foreign Ministry and various international agencies;
- **217** hospitals have been served;
- **41** countries have benefited from intervention;
- **5,021** years of service have been provided, with an average of 3 years per expatriated person.

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## IN AFRICA

Doctors with Africa CUAMM is currently operating in Angola, Ethiopia, Mozambique, Sierra Leone, South Sudan, Tanzania and Uganda through:

- **42 key** cooperation projects and around one hundred micro support actions, through which the organization supports:
  - 16 Hospitals;
  - 34 Districts (for public health activities, mother-child care, fight against AIDS, tuberculosis and malaria, training);
  - 3 Nursing schools;
  - 2 Universities (in Mozambique and Ethiopia).
- **180** International professionals:
  - 125 Doctors;
  - 12 Health Workers;
  - 3 Nursing schools;
  - 23 Admin Workers;
  - 7 Logisticians.

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## 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.

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- **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
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## 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.





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