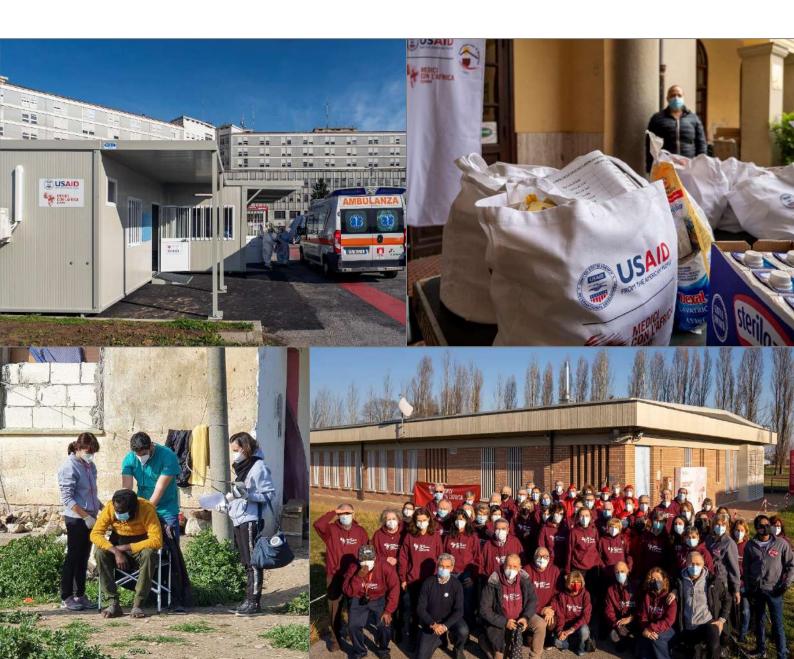




Italian Response to COVID-19 (IRC19):

Improving Governance and Community Preparedness for a Resilient Society



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1. Introduction

On December 31, 2019, the WHO was alerted to a cluster of pneumonia patients in the city of Wuhan, Hubei Province of China. One week later, on January 7, 2020, Chinese authorities confirmed that they had identified a new coronavirus as the cause of the pneumonia, which was named COVID-19. After the virus spread to more than 116 countries, on March 11, 2020, the WHO declared the global outbreak a pandemic. As of April 30, 2020, 3.209.984 cases had been reported in 186 countries. After entering Italy, COVID-19 spread fast. On March 9, 2020, the Italian government declared a state of emergency, imposing a national quarantine in response to the virus's rapid spread.

The SARS-CoV-2 outbreak and the related COVID-19 pandemic have been the worst public health challenge in recent Italian history, placing extraordinary pressures on the country's healthcare and long-term care systems. Indeed, Italy was one of the countries most affected in terms of the number of people infected and dead during the first COVID-19 pandemic wave. Overall, in the first six months of 2020, 11.1% excess mortality was observed in Italy and an almost 50% excess in Lombardia, the most affected region. Other regions particularly affected were Emilia Romagna, Veneto and Piemonte.

The characteristics of the Italian healthcare system did not ease the task of tackling the pandemic as it was fragmented, decentralized, lacking human resources and inflexible in its capacity and financial structures. Moreover, healthcare facilities had outdated or no action plans to deal with emergencies and lacked materials and personnel. So to deal with this additional challenge, the country had to deploy an array of instruments to contain and mitigate the epidemic, including case detection and contact-tracing, isolation and quarantine, physical distancing and mobility restrictions and a massive expansion of healthcare infrastructure and equipment for the treatment and vaccination of the population.

After the third wave of the pandemic, which concerned primarily hospitals and health facilities for the direct treatment of patients affected by COVID-19, the Italian national vaccination campaign was launched. To this end, the priority for the containment of the pandemic shifted to facilitating the vaccine administration and equipping facilities that would provide support in this sense.

In this scenario, CUAMM was required to face the pandemic both in Africa and in Italy as it received several requests for support from health professionals who had previously collaborated with the organization on projects in Africa and who currently work in Italy. It is part of CUAMM's approach to address the needs and attend to the requests of the localities and governments rather than intervening top-down. In fact, even before the creation of the Italian Response to COVID-19 project (IRC19), CUAMM had already started to intervene in Italy by donating oxygen concentrators and personal protective equipment (PPE) to some healthcare facilities.

Afterwards, while the first COVID-19 wave was worsening, CUAMM took the opportunity to create the





IRC19 project in partnership with the United States Agency for International Development (USAID) to support the national efforts in facing the pandemic. This was an exceptional circumstance since the organization traditionally focuses its work on underdeveloped contexts in Africa, where CUAMM and USAID are longtime partners. This time, in light of the emergency happening globally and particularly in Italy, CUAMM and USAID strengthened their relationship, working together to provide a timely response while improving the resilience of Italian society.

Based on the changing needs identified throughout the pandemic development, the IRC19 was designed around four major intervention areas:

- Improvement of hospitals, residential and territorial health facilities, and staff training;
- Global health education;
- Support for vulnerable communities; and
- Community outreach through CUAMM's support groups.

Altogether, the collective efforts made by the government, the healthcare system personnel and the population in partnership with the third sector and private sector were essential to overcome the COVID-19 emergency; and the importance of emergency preparedness at all appropriate levels to better deal with future crises became clear.





2. Improvement of hospitals, residential and local health facilities

CUAMM has been working in health facilities in Africa since 1950 with the goal, among the others, of improving the health systems and preventing pandemic outbreaks. The COVID-19 pandemic outlined that we are all bound to the same destiny and CUAMM was able to use the African experience collected during the past years at the service of its own country during the emergency. The health facilities involved in the project were hospitals, residential, community hospitals, nursing homes and vaccination centers. The variety of health facilities that took part in the project was a sign of the widespread need that the pandemic created in the health sector.

To provide wider support, CUAMM not only collaborated with the regional authorities during the phase of identification of needs and mapping of facilities, but also conducted the need assessments directly with the health facilities managers and staff. This approach enabled the beneficiaries to feel part of the project, expressing their needs and making the interventions effective and particularly useful. CUAMM, respecting the different contexts, both structural and cultural, was able to contribute to the emergency response in Italy, providing support according to the specific needs of each area. As the COVID-19 pandemic was evolving, also the needs of the health facilities changed throughout the project and this is reflected in the different interventions carried out during the project implementation, ranging from the rehabilitation of patients visits areas to prefabricated buildings for triage to the management of a vaccination center.

Although the project activities were implemented in different kinds and levels of health facilities, it is possible to identify two main drivers that are the basis of the interventions made and that unites the project in all the regions involved.

A. Interventions for the positive/negative flow-management for patients and staff safety:

The first driver for the design of the interventions was the management of the flows of patients, residents, visitors, and health care workers entering and leaving the facilities and the prevention of the spread and contamination of the virus through the creation of a safer environment. This was possible thanks to the improvement and re-organization of the entry-exit routes of the structures and departments, the purchase of specific furnishings, and the purchase of materials such as lockers for changing rooms and dispensers of hand gel and soap, implementation of automated doors, and identification of spaces to carry out on-site or remote activities.

The facilities that interested by this type of intervention were the Cremona Hospital (Cremona), the Carate-Brianza Hospital (Carate), the Brescia Pediatric Hospital (Brescia), the Arcevia, Chiaravalle and Cingoli Rural Hospitals and Nursing Homes (Ancona and Macerata), the Ancona Field Hospital (Ancona), the Castelfranco Veneto Hospital (Treviso), the Verona Hospital (Verona), the Padova Hospital (Padova), the Parma Hospital (Parma), the Rubano Vaccination Center (Rubano) and the National Cancer Institute "Fondazione G. Pascale" (Napoli).





B. Interventions for the humanization of care:

The humanization of care during the pandemic was the second fundamental driver that most of the health facilities involved in the project took into account when the intervention design was drafted. The main problem outlined by the patients affected by COVID-19 was the isolation for many days and the separation from families and loved ones. In response to this problem, a series of interventions were designed to allow patients to feel psychologically better and receive safe affection and support during isolation.

These kinds of interventions benefited not only patients and their families but also the health care staff, as the improvement of the well-being of the patients and residents had a positive impact on the staff's performance. The facilities interested by this type of intervention were the Mangiagalli Hospital (Milan), the San Leopoldo Mandic Hospital (Lecco), Ledro and Vallarsa Nursing Homes (Trento), the community of San Patrignano (Rimini) and the Sant'Antonio Abate Nursing Home (Belluno).

In the next section, the interventions cited above are explained in detail, organized by region, with information on the technical aspects and on the motivation behind and the inauguration ceremonies organized.





ITALIAN RESPONSE TO COVID19 (IRC19): IMPROVING GOVERNANCE AND COMMUNITY PREPAREDNESS FOR A RESILIENT SOCIETY









2.1. Lombardia

2.1.1. Cremona Hospital

The area around the city of Cremona was one of the most affected during the first outbreak of COVID-19 in the Lombardia region. CUAMM and the hospital representatives designed a triage unit made of prefabricated materials to support the response to the first phase of COVID-19. The new space, located at the entrance of the Hospital, was designed to substitute the tent that was used in the first weeks of the pandemic outbreak.

The triage unit aims to reduce the risk of intra hospital infection among the patients as it is composed of a waiting room, bathrooms and a space dedicated to the acceptance of all the patients that need to enter in the Emergency Room (ER). The triage unit had, and still has, the purpose of creating a space where the hospital staff can treat all the non-urgent cases before they enter the ER, evaluating the symptoms and dividing the suspects of COVID-19 from the others and lightening the workload inside the ER.



Cremona Hospital external triage unit

On October 29, 2020 the triage unit was inaugurated at the first health facility involved in the IRC19 project. The reveal of the plate installed on the entrance wall was a moment of great emotion for all the hospital staff, coming from a rough year, seeing signs of tangible and valuable help, and for the CUAMM project staff as the work done towards the objective of helping the healthcare system to face COVID-19 was materializing.

The event allowed the CUAMM team to strengthen the network and build new relations with the local stakeholders while respecting the guidelines anti COVID-19. There was a wide representation of local authorities among the invited participants: The Prefect and the Counselor of Cremona, a representative of the Municipal Council, the General Director of the ASST of Cremona and the new Director of the Emergency Department. By the side of Doctors with Africa CUAMM, the Director Don Dante Carraro and the Chief of Party of IRC19 project Andrea Atzori. The local press and media were also present, giving visibility to the work that CUAMM did in the region with the support of USAID, which was positively featured in local papers and television programs.









 $Cremona\ Hospital\ external\ triage\ unit$





2.1.2. Carate Brianza Hospital

As the new pandemic wave was causing a rise in COVID-19 cases in the Lombardia region, the Hospital of Carate Brianza came with a request of materials to CUAMM to organize the space and the entrance and exit paths, helping them ease the load of their ER and also prevent infections among patients waiting to be screened and to have their symptoms evaluated by the hospital staff.

Between December 2020 and January 2021 8 gazebos with closing sides were delivered, to be also used on rainy and cold days as an external path to perform a first screening of the patients outside the ER. These structures improved the overcrowding problem of the ER and improved the space organization and management in a sensible way. Along with the gazebos, 30 liquid sanitizer dispensers were distributed throughout the hospital to guarantee the hygiene standards in the new flow paths designed thanks to IRC19 intervention.

The CUAMM team adapted the interventions in the hospitals involved in the IRC19 project based on their needs and the pandemic phases. The Carate Brianza Hospital is an excellent example of the adaptation of the project to the evolving health situation in Italy. At first, the main problem found by the hospital was the workload of the ER, being necessary to screen the patients outside. After several months, due to the increasing number of infections, the problem became how to humanize the space inside the ER, even if overcrowded.



Gazebos at the Carate Brianza Hospital ER entrance

Following the changing needs of the hospital, the CUAMM team provided 11 new radiolucent stretchers that have the double function of allowing patients to remain lying down while in the waiting room and allowing the performance of radiographic examinations without the need to move the patient from the stretcher, avoiding the shared use of space and materials by different patients and lowering the risk of infection. Finally, the hospital was also equipped with movable dividers to ensure more privacy and smarter use of the spaces in the ER.

The inauguration and field visit for the CUAMM team to assess the use and place of the material took place on March 10, 2021. CUAMM officially handed over the material to the hospital staff on this occasion, and a brief ceremony took place respecting the COVID-19 guidelines. Representing the hospital were Marco Trivelli, General Director of ASST Brianza; Ezio Goggi, Medical Director of the Hospital Unit ASST Brianza and Davide Moro, Medical Director of the hospital; while representing CUAMM were Andrea Atzori, Chief of Party, and Veronica Censi, Project Manager.







Radiolucent stretcher



Liquid sanitizer dispenser



Carate Brianza Hospital's representatives, IRC19 Chief of Party and Project Manager at the inauguration ceremony





2.1.3. Mangiagalli Milano Hospital

From march 2020, during the 1st outbreak of the COVID-19 pandemic, the Mangiagalli Hospital was chosen as a referral hub for COVID-19 patients within the maternity hospital network of the Lombardia region. During

that time, a specific area with 18 beds for patients, expandable to 32 beds if needed, was set for pregnant women affected by COVID-19. Out of these 18 beds, 12 were dedicated to sub-intensive treatments and divided in 6 rooms with 2 beds each. The main problem referred by the Mangiagalli Hospital to CUAMM was that these women suffered from isolation in such a delicate moment of pregnancy and the health care staff was at great risk of infection if being in constant contact with them.



Mangiagalli Milano Hospital

CUAMM examined the project submitted by the hospital in the framework of IRC19 and decided to attend to the request. A telemedicine intervention was designed along with the hospital representative so that mothers could be adequately assisted by the health staff and at the same time decrease the risk of infection and avoid isolation by providing tablets through which the mothers were able to see their children in the NICU and nursery. With these tools, the hospital staff reduced the direct contact with the patients while guaranteeing close monitoring of their needs and cure. At the same time, the cures were humanized as mothers could see their children in such delicate moments. The equipment was delivered by CUAMM for several months, starting from the beginning of the intervention. But the inauguration at the hospital took place on December 3, 2021, with a delay regarding the actual delivery date of the materials to comply with the rules and isolation procedure to prevent the infection of the hospital.



Inauguration of the intervention at Mangiagalli Milano Hospital





2.1.4. Brescia Pediatric Hospital

In November 2020, the Brescia Pediatric Hospital asked CUAMM for support to face the emergency of COVID-19 through the project IRC19. From late 2020 COVID-19 cases started to rise also among the youngest population, who were less affected in the first wave. In this context, the hospital asked for help preparing for the massive arrival of new cases.

The interventions outlined by the CUAMM team introduced modifications to the ER's triage system. A new rule for the in and out flow of the young patients was created to guarantee the safety of not affected patients and health care workers. Visible horizontal and vertical signs for entrance and exit flows were installed and movable partitions were purchased to create a safe pedestrian corridor inside the ER.

Furthermore, a roofed pedestrian path was built outside the ER to prevent the possible overcrowding effects of a new wave of cases. The adjustments improved the in and out flow of the young patients and their parents from the ER, protecting the not affected patients and healthcare workers from the risk of infection that an overcrowded ER can have.

On September 24, 2021, the Chief of Party Andrea Atzori performed a field visit to assess the conclusion of the intervention and inaugurate the plate installed at the ER entrance, which displays the fundamental contribution of USAID to the project implementation.



Entrance and exit paths of the Brescia Pediatric Hospital ER





2.1.5. "San Leopoldo Mandic" Hospital – Merate

When designing the interventions, the CUAMM team experienced the necessity, assessed by health representatives, of a change in the hospital practices used until the pandemic from the logistical-organizational

and clinical-assistance points of view. The intervention implemented in the Hospital of Lecco was another confirmation of this. The hospital presented the need to organize the flow and management of patients in the maternal ward, guaranteeing proximal care to mothers and newborns, avoiding inappropriate and unjustified separations and preventing infections.

As part of a reorganization of flows and spaces and intending to preserve the humanization of care, it was, therefore, useful to have a warming bed for late-preterm newborns to guarantee the practice of rooming-in with the mother, maintaining thermal homeostasis. Furthermore, 10 touchless hydro alcoholic gel dispensers were delivered to support the correct implementation of the hygiene protocols.



Warming bed for late-preterm newborns

An inauguration ceremony did not occur due to the limitation in the access to the healthcare facility for infection prevention reasons. Therefore, to assess the end of the intervention with the purchase and delivery of the materials approved, two separate donation letters were sent from the hospital representatives to CUAMM in April and June 2021.



Touchless hydro alcoholic gel dispenser





2.2. Trentino Alto-Adige

2.2.1. Ledro Nursing Home

Among the interventions designed by CUAMM in collaboration with health representatives, there are those in nursing homes. The elderly population was the most affected by COVID-19 in terms of physical illness and isolation. And for the elderly residents of the nursing homes, the need to isolate and the separation from their families and loved ones had a significant effect on their mental and physical well-being. The CUAMM team, following a request from the staff and assessing the situation, decided to intervene in the Ledro Nursing Home in the region of Trentino Alto-Adige.



A resident of Ledro Nursing Home receiving a visit within the new structure

The humanization of cure during COVID-19 was one of the main drivers that pushed CUAMM to pursue these interventions, aiming to ease the psychological load that the pandemic had and still has both for residents and their families. The intervention consisted of a prefabricated wooden house placed next to the main structure. This new space, divided inside with a Plexiglas and having a separate entrance for the visitors, allowed families and friends to visit the residents, especially during the cold season, respecting the need for separation but still being able to talk and see each other without the risk of infection.

On the 20th of September 2020, the inauguration of the Ledro Nursing Home's new structure took place. The Director of CUAMM, Don Dante Carraro, was present to represent the organization. The inauguration ceremony was touching for both sides, the nursing home staff and the CUAMM team, since the help provided with such a small addition was very important for the residents.



Inauguration of the wooden structure at Ledro Nursing Home





2.2.2. Vallarsa Nursing Home

The intervention designed for the nursing home in Vallarsa had for the CUAMM team and the health representatives of the structure the same aim as the one done in the Ledro Nursing Home: humanizing the cure and creating safe spaces to face the isolation and separation problems that COVID-19 created. The difference between the interventions in the nursing homes of Ledro and Vallarsa is that the latter was broader.

The main problem faced at the Vallarsa Nursing Home was the lack of a changing place for the health care staff that, coming from outside, were obliged to change themselves and sanitize all the material entering the nursing home to avoid any possibility of carrying the infection within the structure.

A wooden structure was built to have an enclosed and covered space where the staff could change in suitable conditions. This new structure ensured an adequate separation and management of the



Inauguration of the wooden structure at Vallarsa Nursing Home

dirty/clean materials, improving the safety of the health care workers and residents. Moreover, an automated door was installed in the entrance from the garden to the basement, allowing the health care personnel to have a separate entry into the nursing home different from the one used by administrative staff, better managing the risk of infections. Finally, a space in the nursing home was selected for visits. This space was furnished and closed with glazed windows to make it usable during autumn and winter.

The project designed by CUAMM and the nursing home staff aimed to benefit residents, staff and family members. While the residents had their well-being improved, the staff could perform their work in the best possible way. The inauguration of the intervention in the Vallarsa Nursing Home took place on September 20, 2020. The residents' and workers' reception of the CUAMM team was very touching. They genuinely demonstrated how much CUAMM's and USAID's concern for their little village in the province of Trento was appreciated, with kind words and thanks for the excellent and professional work done.







 $The \ automated \ door \ used \ as \ a \ separate \ entry \ for \ personnel$



Inauguration ceremony at the Vallarsa Nursing Home





2.3. Veneto

2.3.1. Castelfranco Veneto Hospital, Verona Hospital and Padova Hospital

Along with the Lombardia region, the Veneto region was one of the most affected by COVID-19 infections in Italy. The healthcare facilities in these regions are mostly well equipped and responded well and efficiently to the first outbreak of the pandemic. However, the problems were common to all the regions since the emergency didn't last only a few weeks but extended during the years. This fact deeply changed the flow management of patients inside and outside the hospital.

As for the intervention in the Veneto region, the three hospitals refer to a single public administrative organization named Azienda Zero. The representatives of the organization managing the three hospitals came to the CUAMM with the request to create a space in which the critical patients with severe COVID-19 infections could be treated and, at the same time, contain the infections by locating this space outside the hospital wards.





Biocontainment tents

Azienda Zero found a solution in using biocontainment tents that ensure microbiological isolation from the surrounding environment. These structures are suitable for accommodating patients suffering from infectious diseases transmissible by air and through contact with biological fluids. 2 tents were set up at the Padova Hospital, 2 at the Castelfranco Veneto Hospital and 1 at the Verona Hospital.

The intervention benefited both patients and health care workers. For the first category, the main benefit was the possibility of remaining in a continuously ventilated and filtered environment, which avoided the accumulation of viruses, bacteria and, in this specific case, the concentration of oxygen. For the health staff, the advantage was working safely by managing instruments from the outside of the room, limiting their exposure to the infection only to the necessary minimum moments of direct intervention on the patient.

Due to the peculiarity of the intervention, the CUAMM team agreed with Azienda Zero not to organize an inauguration ceremony to protect the privacy of patients using the tents and avoid unnecessary field visits to overcrowded hospitals. The CUAMM team only supervised the installation of the tent at the Verona Hospital to understand the benefits of the intervention and to collect the comments of the health staff using it, who were all satisfied and relieved to be able to offer a safer possibility of cure to the patients coming to the hospital.





2.3.2. Sant'Antonio Abate Nursing Home – Alano di Piave

CUAMM consistently implemented the interventions directed to the health facilities based on the needs presented by the representatives relative to the pandemic evolution. The intervention made in the nursing home of Alano di Piave is an example of how the CUAMM team was receptive to the requests and was always ready to move quickly, following the urgent needs to be assessed during the emergency.

The Sant'Antonio Abate Nursing Home requested support for an efficient reorganization of spaces to guarantee the contact among residents and relatives in the perspective of the humanization of care. As stated before, the elderly population suffered from physical consequences of the infection from COVID-19 and, foremost, from psychological implications of the necessary isolation and lockdowns of the facilities.

As a project intervention to address this issue, CUAMM supported the reorganization of an external and pre-existing Sant'Antonio Abate Nursing Home





Inauguration ceremony of the restructured gazebo at

gazebo with a lighting and heating system to allow the residents to perform outside activities during the cold season and meet with relatives, respecting the safety measures and lowering the risk of infection.

The gazebo has been used since March 2021, when safe spaces to reunite families with residents while respecting the COVID-19 protocols were highly needed. However, the inauguration took place only on July 17, 2021 to respect the distance and isolation protocols of the nursing home. Besides the CUAMM team and the nursing home staff, several residents were also present at the ceremony. They shared touching stories about how they faced the lockdown period and how having a space to reunite with their families completely changed their approach to the pandemic.



Residents of Sant'Antonio Abate Nursing Home at the inauguration ceremony





2.3.3. Rubano Vaccination Center

After the third wave of the pandemic in Italy that primarily concerned the treatment of patients affected by COVID-19 by hospitals and healthcare facilities, the national vaccination campaign was launched. To this end, the priority for the containment of the pandemic shifted to facilitating the vaccine administration and equipping facilities that would provide support in this sense. For this reason, CUAMM chose to adapt and open a vaccination center as a further initiative carried out in the Italian territory to prevent and mitigate the effects of the pandemic. The vaccination hub opened on June 12, 2021, in collaboration with the ULSS6 Health Authority of the Veneto Region, with which CUAMM signed a Memorandum of Understanding (MoU).

The vaccination center was built at the former School of the Rubano Minor Seminary, located in the town of Rubano (province of Padova). The structure is a single block on the ground floor with separate entrances and exits, easy access and wide outdoor and indoor spaces. These qualities were fundamental for it to become a vaccination center.



Location of the Rubano Vaccination Center



Entrance and exit paths of the Rubano Vaccination Center



School building converted into the vaccination center



School building converted into the vaccination center





Several spaces were created inside the building. Some were dedicated exclusively to the health care personnel to prepare vaccines and organize the center (dilution room, computer room, and warehouse); others were open to the public for vaccination. The area open to the public was equipped with:

- 1 triage area;
- 1 waiting room;
- 3 outpatient clinics with 6 vaccination stations;
- 1 critical area for emergency cases;
- 1 post-vaccination waiting room; and
- 1 multifunctional space.

Making full use of its local network, CUAMM launched an appeal to recruit 190 health and non-health workers to volunteer and ensure the vaccination service every day. Volunteers were divided into 2 groups with different objectives: a group with a health curriculum (doctors, nurses and midwives) and a group with other specializations. To manage the activities of the Rubano Vaccination Center, the volunteers followed a short training period in the weeks preceding the opening of the vaccination center to the public.

The group of health care professionals (of about 96 people) followed a more complex training course that consisted of 3 parts:

- A theoretical training session in collaboration with the Veneto Region (held on the Zoom Meetings platform) to learn the correct vaccination procedure;
- A practical session at the dedicated vaccination pavilion of Padova's Fair (Fiera di Padova) to learn the dilution process for vaccines; and
- A session to learn how to use the IT system.

The training course was approximately 9 hours long.

The group of non-health volunteers (of about 93 people) attended a single training session (both theoretical and practical) that consisted of visiting the vaccination center, learning all the roles involved in the hub and learning how to use the IT system for uploading the data of vaccinated patients. The training course was approximately 4 hours long.

The courses were held in complete safety and compliance with the anti-COVID-19 regulations in Italy. During the course, participants were divided into small groups to access the different rooms of the Rubano Vaccination Center and learn how to use the tools correctly. All volunteers appreciated the opportunity to follow a training course and actively participated with questions and suggestions.





In July, new doctors and nurses joined the group of volunteers. They did not need to attend the training course because they already had experience administering vaccines gained at the pavilion of Padova's Fair (Fiera di Padova).













Training sessions for the volunteers of Rubano Vaccination Center





The staff at the center had 3 categories: managerial staff, health care personnel, and support volunteers. The managerial staff was composed of a medical director and a director of operations who were supported by the volunteers in the daily tasks and needs of the center. The health care personnel comprised 1 supervising doctor and groups of 3 health care workers (doctor and nurses) per vaccination station. The volunteer support staff was employed in at least 6 volunteers per shift, for which a shift leader was identified each time. Thanks to this internal organization, 1 vaccination was performed every 6 minutes on average.













CUAMM's health care staff at Rubano Vaccination Center





Administering vaccines and vaccine boosters was the main activity of the Rubano Vaccination Center, thanks to the commitment of many volunteers who gave over 27,000 hours of their free time for eight months to serve the center and the population of Padova.

Their intervention was precious for the organization of the center. On the one hand, the health care staff (doctors and nurses) were responsible for preparing the vaccination doses every day, analyzing the patients, carrying out the vaccination and managing the subsequent recall. On the other hand, the help of non-health staff was essential to manage the flow of patients in and out of the center, check bookings, control waiting rooms and manage the administrative side of the vaccination lines.

The Rubano Vaccination center concluded its activities on March 18, 2022. The vaccination service operated from Monday to Sunday for 234 days (including 12-hour shifts), carrying out over 48,000 vaccinations, including first, second and third doses.

CUAMM Vaccination Center Data from June 2021 to March 2022			
Vaccine doses administered	48.580		
Opening days	235		
Opening hours	1.812		
Total hours donated by the volunteers	27.180		

The vaccination center represented a new challenge for Doctors with Africa CUAMM in Italy that immediately turned into a wonderful experience shared by all the volunteers, who had the opportunity to meet new colleagues and friends, to share worries about the pandemic together with the confidence that the vaccination campaign was the right way to get out of the COVID-19 emergency.

"I breathed a good atmosphere. I saw people of all backgrounds and ages coming together for collective welfare. I had fun, I felt useful, I felt I could do something to help the population and fight against this pandemic. I believe that the sense of unity we have experienced over these months is a very beautiful energy, a positive response to these difficult times." - Elena Mozzo, a volunteer doctor at the center.

"All of us accepted this challenge with enthusiasm. During these months I worked together with old friends and met new ones. I feel proud. I found the spirit with which I have been a doctor for over 50 years." - Sergio Saia, a volunteer doctor at the center.

"We will remember the commitment, the dedication, the satisfaction of having done something very useful together in very difficult times for all of us." - Francesco Tessari, a volunteer at the center.

















CUAMM's health staff at Rubano Vaccination Center





2.4. Emilia Romagna

2.4.1. Community of San Patrignano

The Community of San Patrignano has about 1.000 residents involved in rehabilitation programs and a medical center for patients in treatment for HIV and AIDS. During the first lockdown, between March and May 2020, the community limited contact with the outside world, avoiding COVID-19 infections among the residents and staff. However, in order to achieve this goal, the community staff had to postpone new admissions, cancel family and friends visits and reduce the psychological therapies that needed external health care professionals to be physically present.



A guest of the Community of San Patrignano having an online meeting with a relative

To help the residents already involved in delicate programs in which contact with the outside world is fundamental for a good recovery, the community representatives presented to the CUAMM team a project. After assessing the community needs, the CUAMM team decided to implement the intervention to guarantee the humanization of cure during the pandemic. The Community of San Patrignano, in agreement with the CUAMM team, introduced multimedia technologies, equipment and spaces to avoid physical presence and respect as much as possible the social distance rules while continuing to carry out some essential activities for the community.

The project implemented in the community included 6 specific interventions:

- A space near the reception office was equipped with a multimedia unit to conduct interviews with people with addiction problems who asked to undertake a program in the community;
- A space in the Community Medical Center was equipped with a multimedia unit to carry out psychotherapeutic sessions with professionals not included in the internal staff of the structure.
- A space in the residential facility was equipped with a multimedia unit for AIDS patients to carry out specialist consultations remotely, in connection with the clinics of local hospitals;
- A space near the switchboard was equipped with a multimedia unit to allow the contact of community guests and their families;
- The Wi-Fi coverage system of the Community Medical Center was amplified to allow guests of the residential facility for terminally ill AIDS patients to stay in touch with their families; and
- The reorganization and arrangement of the spaces in the Community Study Center were made to install 4 multimedia units necessary for the online learning of minors hosted in the community.





Due to the rising COVID-19 cases in Italy, the in-person inauguration of the interventions was postponed. Nevertheless, the community thanked CUAMM and USAID and sent pictures of the materials delivered, showing how in such a short time from their arrival, there had already been improvements and positive outcomes for the community members and staff. The inauguration took place only on the February 17, 2021, benefitting from the presence of Mimma Spinelli, the mayor of Coriano, the city where the community is located; Alessandro Rodino Dal Pozzo and Antonio Boschini, respectively, President and Therapeutic Director of the community; and, as CUAMM representatives Veronica Censi, Project Manager, and Andrea Iannetti.





Inauguration ceremony of CUAMM'intervention in the Community of San Patrignano





2.4.2. Children's Hospital "Pietro Barilla" – Parma

The Pediatric Hospital "Pietro Barilla" of Parma is a very important hub for children's referrals in the Emilia-Romagna region. During the highest peaks of the COVID-19 pandemic, the health representatives of the facility contacted the CUAMM team raising several issues related to the difficulties in the management of young patients, lack of separate spaces and the rise of intra-hospital infections. As seen in other health facilities throughout the project, the primary need was to organize entrance and exit paths, waiting rooms and spaces to guarantee the safety of the patients and health care workers, lowering the risk of infection and at the same time easing the workload of the staff in the ER.



Glass wall and door installed to separate patients

The CUAMM team and the hospital's health care staff designed a project to create

3 different pathways that would divide the pediatric patients into 3 main groups: COVID-19 patients, patients with COVID-19 symptoms, and patients with no COVID-19 symptoms. This division facilitated the flow of patients, avoiding dangerous gatherings and allowing the work of the health care staff involved to run smoothly. In addition to the new organization of space, the ventilation system was upgraded to ensure proper ventilation of the environment, safeguarding children, their families and the health care staff working in the ER. This intervention was carried out for several months since the COVID-19 infections and referrals to the ER did not allow the completion of the work due to the overcrowding.

As the fourth wave of COVID-19 approached with a massive number of children infected, the intervention was concluded, and patients and health care staff benefited from the spaces' new organization. Even if the intervention at the hospital was concluded in 2021, due to the COVID-19 pandemic situation and the fragility of recovered patients, the inauguration event took place only on March 24, 2022. A press conference was organized to present the results of the intervention done by CUAMM with USAID funding and demonstrate gratitude towards the team and the donor for the huge and tangible help given in such difficult times.





Inauguration ceremony at Children's Hospital "Pietro Barilla"





2.5. Marche

2.5.1. Arcevia, Chiaravalle and Cingoli Rural Hospitals and Nursing Homes

One of the lessons learned from the COVID-19 pandemic was that it is mandatory to have a prepared and competent staff. Still, it is also essential to manage the safety of the patients, particularly in the most remote facilities. The nursing homes in Arcevia, Chiaravalle and Cingoli, remote villages in the Marche region, are a clear example of this. These three facilities accommodate 55 residents in post-acute hospitalization or intermediate care. Given the fragility of the residents, the facilities had a fundamental role in protecting residents and staff from the infection.



Sanitizer gel dispenser

The health representatives contacted CUAMM presenting a detailed project for the three facilities, focused on small interventions that could make a difference in protecting all the people related to the nursing homes. The CUAMM team, after a field visit, decided that the intervention was in line with the project's aim.

The intervention in the Arcevia Rural Hospital and Nursing Home focused on improving the space division and entry and exit paths, with attention to sanitation and keeping in mind the importance of allowing the residents to have visits in the safest way possible to avoid infection. An existing room in the nursing home was modified and dedicated to storing special waste and dirt. Another room with special furniture was set up for conducting visits. Furthermore, the entry and exit routes were improved, and washable chairs, storage cabinets and sanitizer gel dispensers were distributed.

The intervention implemented in the Chiaravalle Rural Hospital and Nursing Home was focused, as in Arcevia, on allowing residents to have visits safely while avoiding the high risk of infection; and allowing health staff to feel safe and protected while working in the facility. The Wi-Fi network was improved, and 4 computers were purchased to organize video calls during the highest peaks of the pandemic, allowing the residents to keep in contact with their families. And to enhance the safety of the staff, lockers with dirty/clean compartments were purchased for the changing rooms and 4 wash points were created inside the nursing home.

The main driver of the intervention in the Cingoli Rural Hospital and Nursing Home was keeping the residents safe without depriving them of the social and ludic moments that are fundamental for their recovery and well-being. Having this in mind, the CUAMM team agreed to provide IT materials and improve the Wi-Fi connection to allow video calls among residents and families during the most severe lockdowns. For the health staff's safety, lockers with dirty/clean compartments were provided and 4 wash points were installed. CUAMM also provided the facility with washable toys for occupational therapies for patients suffering from cognitive impairments.





The CUAMM team did a field visit on the 11th of December 2020 to assess the purchase and installation of the material in the rural hospitals and nursing homes. The team was satisfied that such small interventions immensely helped to improve the conditions of the people living in these rural areas. At the time of the field visit, and after almost one year of pandemic, the nursing homes beneficiaries of the intervention registered zero cases of COVID-19 among their residents. This remarkable achievement was possible also thanks to the implementation of the project IRC19 funded by USAID.



Inauguration ceremonies at Arcevia, Chiaravalle and Cingoli Rural Hospitals and Nursing Homes





2.5.2. Ancona Field Hospital - ARES-Italia Emergency Medical Team

CUAMM was contacted by the representatives of the ARES association at the end of 2020, almost one year after the start of the pandemic. ARES has an emergency field hospital that consists of 14 interconnected and modular pneumatic tents; it can assist 150 patients within 24 hours. This movable hospital was made to intervene in emergencies outside Italy. But as the pandemic started, the association decided to put the structure to use in the Marche region, dividing it into several substructures to support all the possible hospitals in the area (for a total of 10 hospital structures) with the function of pre-triage and hospitalization activities.

With the IRC19 intervention, the CUAMM team was able to strengthen the capabilities of the field hospital and the efficiency of the response. IT equipment was purchased to computerize forms and streamline documents production and filling. The intervention also aimed to optimize the space inside the 14 tents to have room to keep the necessary sanitary tools, eliminating unnecessary containers and allowing the heating of infusion liquids and drugs. Specifically, the pre-packaged ice packs that occupied a large space inside the tents were no longer used after refrigerator thermometers that monitored the temperature to store drugs were acquired. Other accessories like chairs, tables and clocks were installed, allowing a more efficient reorganization of spaces and a greater fluidity of activities.

The material was delivered on the 16th of March 2021, optimizing the spaces on time to intervene during the pandemic waves. A ceremony did not take place in respect of the COVID-19 restrictions in force at the time.



Materials donated to Ancona Field Hospital



Ancona Field Hospital





2.6. Campania

2.6.1. National Cancer Institute "Fondazione G. Pascale" - Napoli

The National Cancer Institute "Fondazione G. Pascale", located in Naples, is specialized in the cure and hospitalization of cancer affected patients throughout the various stages of the illness. During the COVID-19 outbreak, the health staff faced a very rough time trying to keep the patients, already in severe and fragile conditions, safe from infections.

A significant part of the effort to keep COVID-19 infection risk outside the hospital was concentrated in the triage of the various buildings. Health staff was assigned to measure temperature, check the proper use of face masks and advise visitors and people entering the facility to sanitize hands and shoes. As the health representatives of the hospital explained to the CUAMM team during the first need assessment made, this organization of human resources caused problems because nurses and doctors that should have been working in the wards were needed for the entrance triage in rotations.

Due to this problem outlined by the health representatives at the hospital, CUAMM's intervention in this facility consisted of purchasing technological tools for sanitation and autonomous access registration to improve the ingress and egress of health facilities for the preliminary identification of suspected COVID-19 cases. The equipment provided, named the Prothom machine, uses PASS technology, which consists of a sanitization procedure that in a few seconds verifies that all those who enter a closed environment have complied with the safety measures in place.

It also allows the management of the maximum number of people that can be present inside an environment while monitoring the number of people accessing the hospital. Specifically, the machines sanitize the user's shoes with UV light, measure the user's temperature, check that the person is correctly wearing a mask and sanitize their hands. The device also has software that checks the user's vaccination certificate. CUAMM installed 11 of the Prothom machines in the facility. For each machine installed, a path with instructions was created to instruct on the use of the device.

The purchase and installation of the machines ended in September 2021, but the inauguration ceremony with the CUAMM team and health representatives could only take place on April 21, 2022 due to the restrictions imposed by the hospital in admitting outside visitors for risk of infection. At the inauguration ceremony, along with health staff and presidents of the facility, the CUAMM team and director and the General Consul of the USA in Naples were present and unveiled the plate, remembering the effort of USAID in funding such a significant intervention through the IRC19 project.









 ${\it Inauguration ceremony of the intervention at the National Cancer Institute~``Fondazione~G.~Pascale''}$





2.7. Analysis of the health facilities interventions

Although the interventions were of different nature and concerned diverse healthcare facilities, it is possible to identify three common areas that unite the project in all the regions involved:

- Interventions for patients and staff safety, including the training of health care workers with the realization of two training courses called JUST IN TIME and FIT4CARE;
- Interventions for the flow management of patients and health care workers; and
- Interventions for the humanization of care.

The interventions aimed to guarantee the safety of health care workers and patients included the creation of specific prefabricated buildings, the purchase of furniture, the renovation of existing structures and the design of new spaces and warehouses for the storage of PPE, the installation of wash points and the training of health professionals. The involvement of different healthcare facilities made it possible to tackle one of the major problems felt at the beginning of the pandemic: the safety of staff and patients in big hospitals and small structures.

During the summer of 2021, CUAMM had the opportunity to evaluate the health facilities involved in the IRC19 project, identifying the major needs perceived at the beginning of the pandemic and the interventions implemented by the IRC19 project. This assessment was possible thanks to the study conducted by Dr Emanuela Parotto¹. She conducted a cross-sectional survey using a 32-item questionnaire among 14 healthcare facilities from five Italian regions involved in the IRC19 project (Lombardia, Trentino Alto-Adige, Veneto, Emilia-Romagna and Marche). Not all 19 project facilities were involved in the study because of the intervention types².

The main needs identified by the health facilities interviewed regarded:

- The training of health care workers (100%);
- The safety of health care workers (93%);
- The implementation of digitalization (93%);
- The well-being of health care workers (86%); and
- The safety of patients (86%).

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¹ Emanuela Parotto is a medical doctor specialized in internal medicine, anesthesia and intensive care. During the 2020-2021 period, she did a Master's Degree Course in Global Health at the University of Milano, in the Department of Pathophysiology and Transplantation. In her thesis "Mapping Italian Healthcare facilities response to COVID-19 pandemic: Lessons learned from the *Italian Response to COVID-19* (IRC19) project", she evaluated the interventions made in the healthcare facilities involved in the IRC19 project. She is also a trainer in the JUST IN TIME course.

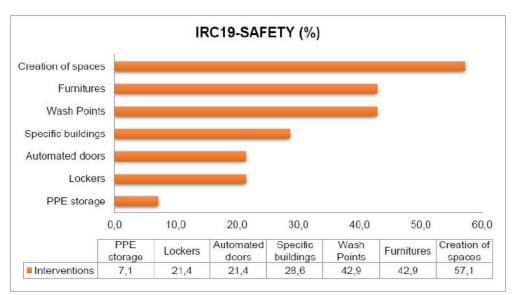
² Dr. Parotto's final thesis was submitted to the International Journal of Environmental Research and Public Health as a research study in July 2022.





The IRC19 interventions at the 14 structures were firstly aimed to guarantee the safety of health care workers and patients and included:

- Purchase of digital instruments (64%);
- Reorganization of existing structures with the creation of new spaces (57%);
- Implementation or improvement of the Wi-Fi network (50%);
- Purchase of furniture (43%);
- Installation of wash points (43%);
- Purchase of specific furniture (36%);
- Purchase of prefabricated buildings (36%);
- Creation of specific structures (29%);
- Installation of automated doors (21%);
- Purchase of lockers for health care workers (21%);
- Creation or reorganization of entry/exit routes (21%); and
- Creation of warehouses for the storage of personal protective equipment (7%).



IRC-19 interventions to ensure safety of health care workers and patients

These interventions required a short time to be carried out and a limited budget. However, although they can be counted among the small interventions within a bigger plan aimed at reorganizing Italian health care facilities, they had a remarkable positive impact in dealing with the pandemic emergency in the initial stages.





3. Global health and education

Doctors with Africa CUAMM sees health care training as an essential pillar of protecting the right to health and promoting the development of an ethical society. The continuous and rapid changes that affect the health field require a joint effort to support and guide professionals in learning to cope with these changes and foster the development of an advanced provision of health services through a global health approach. That is why CUAMM promotes training activities for health professionals, university students and civil society to improve their preparation and capacity to face new challenges in the health field.

3.1. Global health training activities for the next generations

Focusing on enriching the academic knowledge of the next generations of health emergency responders with hands-on experiences from 70 years in the field in Africa, CUAMM organized specific online training sessions on pandemic prevention and preparedness.

To organize and promote global health training, CUAMM leveraged its solid network of national associations, namely:

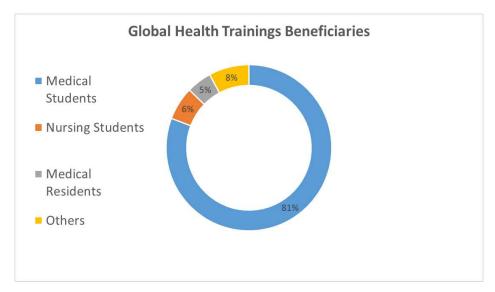
- SISM, the Italian Association of Medicine Students, which is active in 39 local offices all over Italy (Ancona, Bari, Bologna, Brescia, Campobasso, Catania, Catanzaro, Chieti, Ferrara, Firenze, Foggia, Genova, L'Aquila, Messina, Milano, Milano Hunimed, Modena, Monza, Napoli Federico II, Napoli Vanvitelli, Novara, Padova, Palermo, Parma, Pavia, Perugia, Pisa, Roma La Sapienza, Roma Sant'Andrea, Roma TOR Vergata, Roma UCSC, Salerno, Sassari, Siena, Torino, Trieste, Udine, Varese, Verona). The association has 10.000 members.
- **Nursing schools** based in the Regions of Lombardia, Piemonte and Veneto.
- **FederSpecializzandi** and **SIGM**, the Italian Secretariat for Young Doctors, are the two most important organizations of residents. FederSpecializzandi counts with more than 900 members all over the country, and SIGM is very active in the field of education and scientific research.

Doctors with Africa CUAMM has been working with the associations mentioned above since 2007, running important projects at the national and European levels. Moreover, **CRUI** (the Conference of Italian University Rectors) has a special agreement with CUAMM to encourage training on global health issues among the Italian specialization schools.

Throughout the project, from June 2020 to January 2022, CUAMM organized **60 training sessions** reaching **5616 people**, of which:







The key topics covered were:

- Primary Health Care and COVID-19. New scenarios for a new healthcare system.
- The role of an international health NGO in a global pandemic.
- COVID-19 emergency in Africa.
- Education in Italy and Africa since 1950. How to train students and future health professionals for a global response.
- International health cooperation, global health and COVID-19.
- The impact of anthropology on medicine.
- Determinants of health.
- Enhancing preparedness for arbovirus infections with a "One Health Approach".
- Managing epidemics: Malaria.
- Climate changes, health and epidemics.
- Immigration and COVID-19.
- Training on international cooperation: From theory to practice.
- Global bioethics: The case of COVID-19 and Africa.
- Border crossing semiotics in neonatal and pediatric care.
- Young researchers in low-income countries: Implementation research and data collection.
- CUAMM's approach to humanitarian emergencies.
- One year after COVID-19 breakout: What was done and what we need to do now.
- Semeiotic frontier Infectious diseases.
- Anti COVID-19 vaccination plan in Africa: A global emergency requires a global response.
- COVID-19: Therapies and treatments.







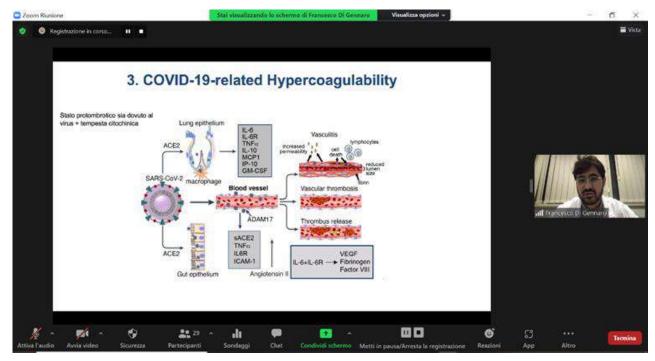
Training session on international cooperation: From theory to practice



Training session on climate changes, health and epidemics







Training session on COVID-19: Therapies and treatments

Within the training, a worth mentioning initiative was "I mercoledì della salute globale" (Wednesdays of global health), which was a series of 14 seminars carried out every Wednesday from September 2020 to December 2021 on the ZOOM Meetings platform to discuss themes related to global health with professionals of public health, cooperation, anthropology, climate change and health systems. The meetings were aimed at medical students but open to all.

All these training sessions were an opportunity for Doctors with Africa CUAMM to strengthen its partnership with local student associations and increase global health competencies for medicine students, nursing students and residents all over the country. Furthermore, due to the context of a global pandemic in which the IRC19 project took place, CUAMM had the chance to share experiences and good practices learned through decades of fieldwork in Africa with the next generation of health care professionals.

Finally, through all these training activities, CUAMM reinforced the importance of the "One Health Approach", which is an approach to designing and implementing programs, policies, legislation and research in which multiple sectors communicate and work together to create joint responses to health threats and achieve better public health outcomes.





3.2. Training programs

Providing adequate training to health care professionals has proved even more urgent with the outbreak of the COVID-19 pandemic. For over a year, they struggled with the sanitary emergency without the necessary knowledge to deal with it, particularly during the first waves of the pandemic. Doctors with Africa CUAMM wanted to offer its expertise in support of Italian health personnel, allowing all professionals to spend time to themselves through training courses. Specifically, the courses offered within the IRC19 project were designed to be a concrete help in guaranteeing health care professionals with moments of personal training to learn and deepen topics related to Disaster Medicine and Public Health (JUST IN TIME training). Moreover, managing stress and taking care of one's physical and psychological well-being could help doctors, nurses and social health workers to face this historical moment we are living through (FIT4CARE training).

From March 2021 to April 2022, CUAMM trained 1.759 people, organizing 45 JUST IN TIME and 75 FIT4CARE training courses. This includes health professionals with different specializations (doctors, nurses, socio-health workers, physiotherapists, laboratory technicians) and people who don't have a health background but also played a key role in reducing the negative consequences caused by the COVID-19 pandemic (e.g. Civil defense volunteers, CUAMM Vaccination Center volunteers and social workers caring for homeless people).

JUST IN TIME and FIT4CARE courses were offered at the 19 facilities involved in the IRC19 project and to beneficiaries who were not part of the health facilities involved in the project, introducing CUAMM to new Italian healthcare contexts. From March 2021 to April 2022, CUAMM organized the training courses in 13 Italian regions reaching diverse stakeholders:

- Hospitals
- Public and private health facilities
- Health associations
- Para-healthcare associations (e.g. Regional civil defense)
- Universities
- Social cooperatives.

The Italian regions involved in the training are:

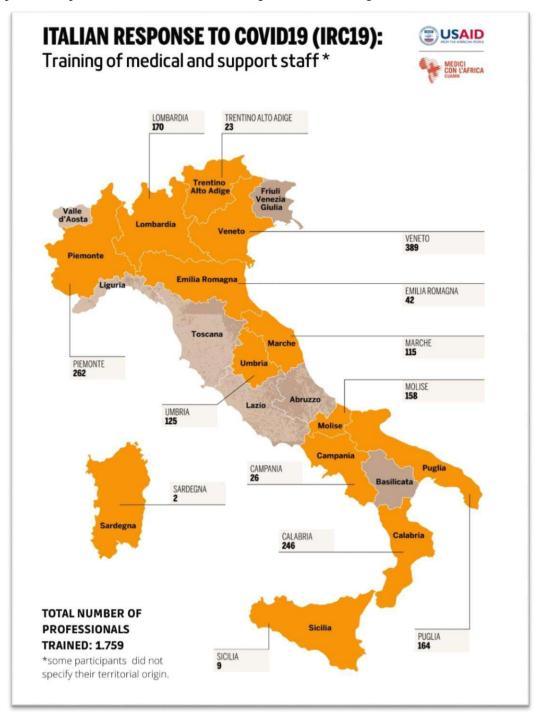
- Calabria
- Campania
- Emilia Romagna
- Lombardia
- Marche
- Molise
- Piemonte





- Puglia
- Sardegna
- Sicilia
- Trentino Alto Adige
- Umbria
- Veneto

In the map below is possible to visualize in which regions CUAMM organized IRC19 courses:







3.2.1. JUST IN TIME training course

Doctors with Africa CUAMM, together with the Center for Research and Training in Disaster Medicine, Humanitarian Aid and Global Health (CRIMEDIM) of the University of Eastern Piemonte, implemented a training course for health care workers in November 2020 to strengthen their skills and competencies so to safely work in any healthcare facility and prehospital services during the pandemic.

The JUST IN TIME program offered primarily non-clinical training, focused on managing emergencies in health facilities and the organization of work in emergency contexts, such as patient path, increasing acceptance capacity, and the procedure for putting on and removing personal protective equipment.

The main targets of this training program were:

- To equip health care workers with basic competencies in disaster medicine;
- To strengthen IPC skills; and
- To boost health care workers' readiness for the COVID-19 pandemic.

The main structure of the course was the following:

Part 1 - Training of trainers: health care professionals with a strong motivation to teach and train their peers were selected by CUAMM. CRIMEDIM was in charge of the training curriculum (recorded video lectures, webinars, meetings).

Part 2 - Training performed at hospital and health facilities level: the trainers held courses for health care professionals across Italy.

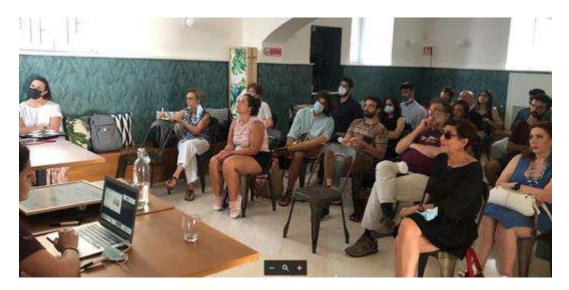
JUST IN TIME training took place in 2 phases:

- 1. Distance learning phase on a Moodle platform: This was a distance learning and self-training phase consisting of 6 modules. Each module included a video presentation of the topic and some in-depth texts, which participants had to view and read before the second phase.
- **2.** Face-to-face learning phase: Due to the COVID-19 pandemic, phase 2 was also organized online on the Zoom Meetings platform. The trainer(s) explained and deepened the modules viewed previously on the Moodle platform during this phase. The online course was divided into 3 sessions (therefore 3 meetings) lasting approximately 2 hours 30 minutes each.

Only in June 2021, CUAMM organized the JUST IN TIME course face-to-face in Bari (Puglia region). We were able to organize a class in presence because the number of participants was reduced (20 people) to comply with the COVID-19 regulations in force in Italy. All the participants were health professionals, and they were also vaccinated. in Italy.









JUST IN TIME training sessions in presence





The training curriculum is shown in the chart below. The lectures, learning and reference materials and the contact information of the lecturers were available for the attendees all the time on the course platform.

Module	Learning objectives
Introduction to public health emergencies and disasters (Classroom lecture, 30 min.)	To understand definitions and characteristics of public health emergencies and disasters To know key epidemiological principles and terminology of emergency interventions To be familiar with the principles of emergency preparedness and disaster risk management
Introduction to COVID-19 policy, procedures and protocols (Classroom lecture, 90 min.)	 To understand how COVID-19 is transmitted To recognize the signs and symptoms of COVID-19 To understand the epidemiology and case definitions of COVID-19 To know ways to protect oneself and one's colleagues, patients and family from COVID-19 To be familiar with the main actors for COVID-19 coordination mechanisms in Italy and its regions To know the safety and security protocols in place at the health facility To know the policy and procedures in place at the health facility To follow all disinfection, waste management and cleaning protocols at the health facility To comply with the health facility policies and practices with respect to code of conduct, health and safety, equal opportunity and other relevant policies and procedures
Introduction to full PPE and donning and doffing PPE (Practical session, 60 min.)	To be familiar with all parts of PPE To understand the need to wear PPE To know how to don PPE and practice doing so To know how to doff PPE and practice doing so To understand the decontamination process
Principles of disaster medicine and public health emergencies (Discussion-based exercise, 30 min.)	To understand the concepts of hospital surge capacity in terms of staff, stuff (i.e. PPE, pharmaceuticals, ventilators, beds, oxygen and other supplies), and structure (i.e. the physical structure and the management infrastructure), and the importance of allocation scarce resources To recognize the value of triage and the difficulties in dealing with the ethical challenges of distributing limited medical resources
Experiences from the field (Classroom discussion, 30 min.)	• To know the 2015 Ebola outbreak and the 2019 Idai Cyclone in Mozambique

Training of trainers

As mentioned before, the JUST IN TIME training took place with the training of the future trainers of the course for health care professionals. The attendees received 6 pre-recorded lectures by CRIMEDIM trainers that, in total, lasted 8 hours.

After having granted the possibility to the participants to study the learning materials in-depth, the CRIMEDIM Faculty arranged 3 web-based encounters to deepen the knowledge of each specific module and give a chance



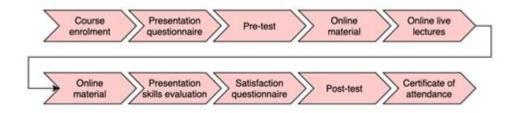


to the attendees to raise questions and interact with each other. In addition, during the last live meeting, a CRIMEDIM psychologist who specialized in education delivered a 2-hour workshop on soft skills to conduct future training.

Simulation sessions were organized at the end of the 3 online meetings. The simulations didn't include an assessment, but they were intended to help the new trainers learn how to use the ZOOM platform, create personalized content, and speak to a virtual class. During the simulations of about 15 minutes per person, the new trainers had to briefly explain one of the topics presented during the JUST IN TIME course.

The participants had to complete an anonymous satisfaction questionnaire and do the post-test to conclude the course. Participants who successfully completed the course obtained a digital certificate of attendance.

The learning path of the course is shown below:



In February 2021, we formed the first class of new trainers of 25 attendees, who then started to be the trainers of the course for health workers.

Most of the professionals receiving training were female (63%), and the mean age of attendees was 40 years old. Also, most of the participants had a medical background (medical studies or nursing).

The attendees were professionals from various healthcare institutions (family medicine practices, non-university and university hospitals, retirement homes, and community-based facilities).

In April 2021, we trained a second class of JUST IN TIME trainers of 16 attendees.

In the second class of trainers, the demographics of the attendees were the same: 63% of them were females, and the mean age was 40 years old. This time, however, most of the attendees had a medical background (medical studies with different specializations or nursing).

Training to health professionals in Italy

From March 2021 to April 2022, we organized the JUST IN TIME training for professionals of hospitals, health care facilities, health and para-health associations and universities in Italy.

The training took place in two phases: a distance learning phase using the Moodle platform and a face-to-face learning phase.



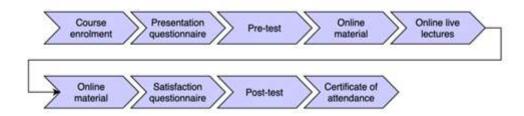


In the first phase, the attendees received 6 pre-recorded lectures for a total of 8 hours of training on the Moodle platform implemented and managed by CRIMEDIM staff. Each module included a video presentation of the topic and some in-depth texts, which participants must view and read before the second phase.

The second phase was organized online on the Zoom Meetings platform. During online meetings, the trainer(s) explained and deepened the modules viewed independently on the Moodle platform. The online course was divided into 3 sessions lasting approximately 2 hours and 30 minutes each. In total, the JUST IN TIME training course lasted 15 hours and 30 minutes.

The attendees had to complete an anonymous satisfaction questionnaire and finally do a post-test to conclude the course. Participants who successfully completed the course obtained a digital certificate of attendance.

The general structure of the course is shown in the following figure:



The goal was to provide health care professionals with a common background in terms of skills and aptitude to:

- 1. Work effectively and safely within health facilities during the COVID-19 pandemic;
- 2. Understand the functioning and operational and procedural standards in place at their workplace;
- 3. Safely wear and remove Personal Protective Equipment (PPE); and
- 4. Understand the essential principles of disaster medicine and public health applied to the COVID-19 pandemic.

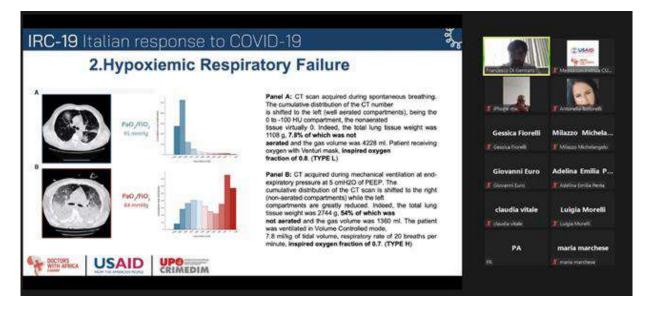
Some of the JUST IN TIME courses were organized exclusively for volunteers of the CUAMM Vaccination Center in Rubano. In that case, participants were trained both on the original curriculum of the JUST IN TIME course and on the theoretical and practical management of the vaccination center. This additional training was carried out with online sessions for the theoretical part and face-to-face sessions for the practical part. Most of these sessions took place in June 2021, while refresh training sessions were organized in November 2021 and March 2022.

















Some online sessions of the JUST IN TIME course

From March 2021 to April 2022, CUAMM organized 45 JUST IN TIME courses for 765 people.

As shown in the graphs below, most of the JUST IN TIME course attendees were women (65%), reflecting the fact that the majority of the medical staff in Italy are women³.

Most of the attendees belong to the age group of 30-65 years old (77%), followed by the age group of 18-29 years old (17%) and over the age of 65 (6%). This data confirms that the primary workforce in health facilities is composed by people of the middle age group⁴.

The course was attended mostly by nurses who work in hospitals and nursing homes (26%), followed by doctors (25%) and other health professionals and volunteers (30%). In the minority, we can find social health workers, medical residents and midwives.

In addition, over 200 students attended the JUST IN TIME course during April and May 2021. The trained students came from all Italian regions. They attend medical degree courses and belong to the SISM, the Italian Secretariat for Medical Students.

The JUST IN TIME course was very appreciated by young people as many of the topics explained during the course were not yet addressed at the universities, despite their importance. Hence, the students had the opportunity to learn new concepts related to disaster medicine thanks to the JUST IN TIME course.

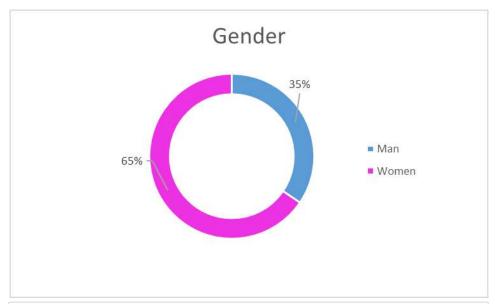
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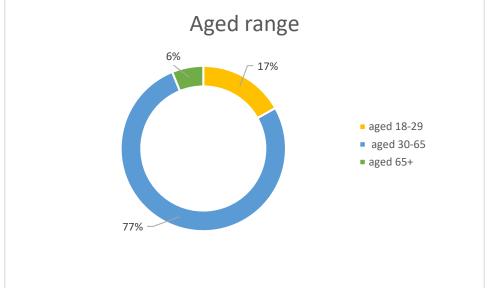
³ According to the Italian Ministry of Health (2019).

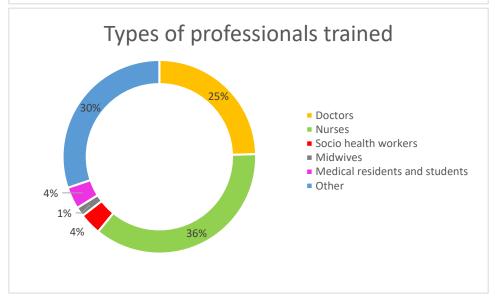
⁴ According to the Italian Ministry of Health (2019). https://www.salute.gov.it/imgs/C_17_pubblicazioni_1816_allegato.pdf















3.2.2. FIT4CARE training course

CUAMM implemented the FIT4CARE⁵ training course in March 2021, a digital training package that aims to increase the well-being of nurses and health care professionals, improving their current working conditions.

These target public carry out a tiring job from a physical and mental point of view, and working conditions became more and more challenging and stressful during the COVID-19 pandemic.

The course was designed and implemented in collaboration with experts, specifically 2 osteopaths and personal trainers, a psychologist and a nutrition biologist. These professionals contributed to constructing the videos and participating in the final live lessons.

The training of this course took place in 2 phases:

- 1) Distance learning phase: This was a self-training phase that consisted of videos dedicated to the themes of physical preparation, stretching, nutrition, psychology and breathing techniques. The videos aimed to provide operators with simple tools to improve their psychological and physical health in the work and personal context. Attendees had to view these videos before phase 2 as they were preparatory to the online session with the experts. The videos remained available for the attendees also after the online session.
- 2) Online live session phase on the ZOOM Meetings platform: The session was held on a single day lasting approximately 2 hours and 30 minutes, with a trainer who deepened the theoretical aspects of the topics covered in the videos and proposed additional practical and simple exercises.

The training curriculum is shown in the chart below:

MODULE	LEARNING OBJECTIVES	
Video 1 – Introduction CUAMM and USAID present FIT4CARE, a series of videos the well-being of health care professionals, essential for resilient healthcare system.		
Video 2 – Total body	Health care workers are subjected to long shifts, almost always performing dynamic activities while standing for most of the time, with heavy loads and few rest moments.	
workout	For that reason, in this video there are exercises that aim to strengthen the muscles most under stress, making them stronger and more energetic. - Warm-up exercises Force circuit.	
Video 3 – Back relief and strengthen Healthcare workers are subjected to various physical and psycho stresses. The long hours standing and handling loads and patients heavy burden on the spine, causing long-term pain and problems.		

⁵ CUAMM had the support of the Presidency of the Council of Ministers of Italy to carry out the FIT4CARE course.





	To prevent these problems, in this video, 3 circuits of exercises for strengthening and protecting the back are proposed: - Circuit before the turn. - Circuit during the shift. - Circuit after the turn.		
Vila A Nutrition	It is important to follow a healthy diet during the day to not be fatigued during the work shift. Health workers have very long shifts, which usually include at least 1 of the main meals. If there is no time to eat an adequate meal, one of the immediate negative effects is the sense of fatigue in the following hours.		
Video 4 – Nutrition	With Dr. Alessia Grullo, nutrition biologist, some suggestions are given on how to face a working day from the point of view of nutrition.		
	- Nutrient balance.		
	- Hydration.		
	- Meal and snack ideas.		
	The work of health care workers and nurses is already highly stressful. The need to use PPE materials because of COVID-19 led to increased work-related stress and psychological and physical negative consequences.		
Video 5 – Psychological well-	With Dr. Martina Costamagna, clinical psychologist and neuroscientist, are identified:		
being	- The major stress factors.		
	- How to recognize them.		
	- The methods of intervention.		
	- The 3 types of anxiety (green, yellow, and red) and how to overcome them.		
Video 6 – Breathing	Through breathing, we can manage stress and anxiety and supply our muscles with oxygen; the importance of breathing is therefore immediate. For healthcare professionals, this utterly natural act is made more difficult by using PPE.		
	In this video, the following are made available: - Some practical advice. Reacthing techniques		
	- Breathing techniques.		

FIT4CARE was designed for health professionals, but we soon realized how helpful this course could be for all those who deal with stressful moments every day, especially at work. Personal well-being is essential but often not given sufficient attention.

The course, therefore, was also directed to residents and students of health faculties who are preparing to enter the world of work and to all those who are active in health and para-health associations (e.g. Civil defense, the CUAMM vaccination Center volunteers and social workers, etc.).





On the other hand, about 30 administrative employees of the CREDEM Bank⁶ attended the FIT4CARE course in October and November 2021. They are not health professionals but were very interested in the course topics.

You can read below the online lesson schedule conducted live by the trainers:

Module	Description	Duration
INTRODUCTION	Meaning of FIT4CARE; The importance of caring for one's own well-being; The lights that go on in the body and the roads to personal well-being.	15'
EXERCISE	Benefits of exercising; Supporting the body; Muscle tone and mass; Balance and posture; Example of a training to activate the main muscles.	25'
EXERCISE PRACTICE	Balance and core strengthening exercises.	10'
COLUMN HYGIENE	Anatomy of the spine; Functions and biomechanics of the spine; Major diseases; Causes and risk factors; Benefits of proper spinal hygiene.	20'
COLUMN HYGENE PRACTICE	Exercises for mobilizing the spine while seated.	10'
NUTRITION	Concept of diet; Macronutrients and micronutrients; The importance of water; Examples of proper nutrition.	25'
PSYCHOLOGICAL SUPPORT	Anxiety and how to recognize it; the different types of anxiety and their methods of approach; Insomnia and useful tips for managing it; Diaphragmatic breathing and other activating or deactivating techniques.	10'
BREATHING PRACTICE	Activating and deactivating diaphragmatic breathing; Progressive Jacobson relaxation; Orienteering and grounding.	25'
CONCLUSIONS		10'

⁶ CREDEM Bank is a credit institution based in the Reggio Emilia province. The bank has been listed in the index of the Milano Stock Exchange since 1997.





For this reason, we organized special FIT4CARE classes dedicated to a non-health care audience. It was a very popular experiment which emphasized the importance of taking care of oneself. CUAMM was also able to organize a few face-to-face classes with FIT4CARE in March 2022. These sessions were highly appreciated both by the trainers, who were comfortable speaking to an audience and by the participants, who could easily interact with the trainers and practice the exercises comfortably.

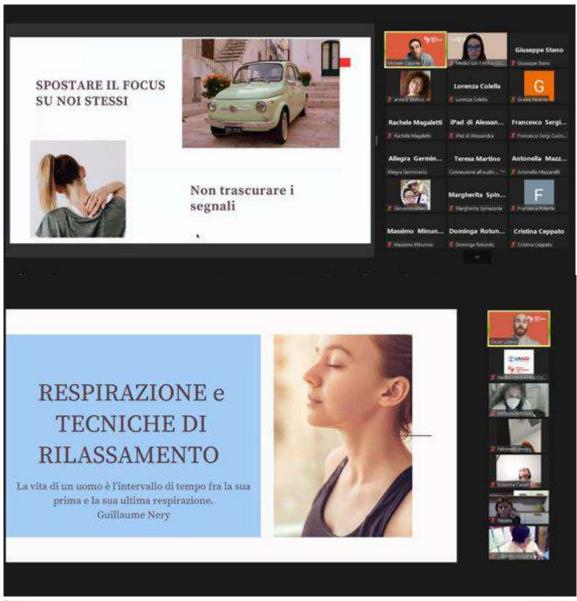


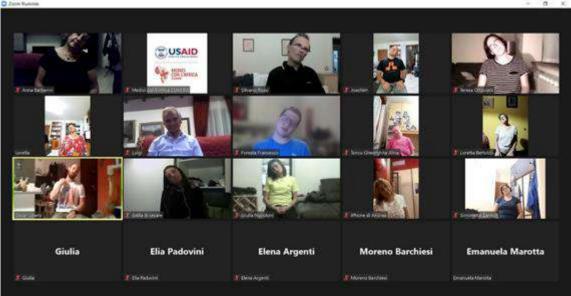


Some face-to-face FIT4CARE training sessions







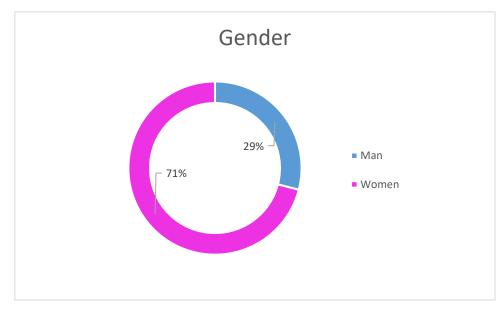


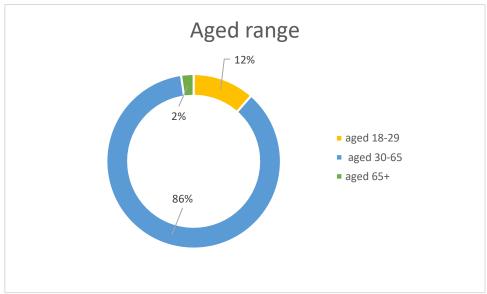




From March 2021 to April 2022, **CUAMM organized 75 FIT4CARE courses for 994 people**. Most of the attendees were women (71%), and most of the participants belonged to the age group of 30-65 years old (86%), followed by the age group of 18-29 years old (12%). There were very few participants over 65 years old (2%).

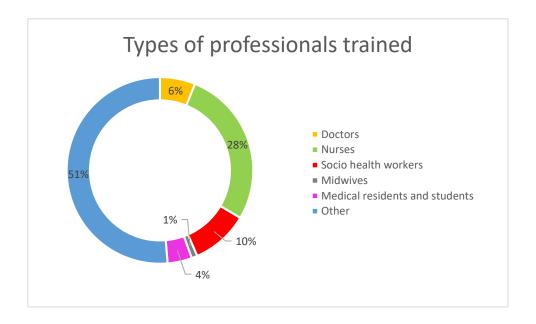
The course was primarily attended by people from other health professions (51%), such as physiotherapists, speech therapists, psychologists and volunteers. Volunteers had different professional backgrounds, and many were not health professionals. However, they contributed to fighting the COVID-19 pandemic in Italy and found the course topics interesting and valuable for their working and volunteer activities. In addition, the course was attended by nurses (28%) who work in hospitals and nursing homes and doctors. Finally, social health workers, doctors and medical residents were the minority.











This data shows us how the topics of the FIT4CARE course can be interesting not only for health care professionals, in particular nurses, but also for a wide range of people. We saw how the COVID-19 pandemic had caused strong stress on people who needed to find a moment of well-being. A person's well-being, particularly during working hours, is crucial, and we often don't give it enough attention. Thanks to FIT4CARE, Doctors with Africa CUAMM helped shed more light on this issue, which the course participants greatly appreciated. Almost all the people who participated in FIT4CARE gave the training course a positive or very positive rating.





3.2.3. Lessons learned from the training programs

Overall, the participants highly appreciated both courses offered within the IRC19 project. In the case of JUST IN TIME, participants particularly appreciated the excellent preparation of trainers and the thoroughness of the topics covered, particularly regarding the pandemic management within healthcare facilities. It should be remembered that health professionals found themselves without adequate training in emergency response in the first waves.

During the course, participants explored all these issues and discussed them with good trainers who were enthusiastic about helping their colleagues. For several moments, the trainers talked about their own experiences in response to disaster and emergency events, such as the earthquake in the Abruzzo region, the seaquake in the Philippines Islands, and the cholera epidemic in Angola. These "voices from the field" transmitted to participants the idea that there are different types of emergencies. Today, we are focused on the COVID-19 pandemic, but we need to be aware that we should be called upon to respond to an earthquake, a flood or another pandemic in the future.

The richness of the JUST IN TIME course came from the participants' experiences. They told many stories, bringing out the need to share their thoughts, the fears and the small victories with other colleagues who, although unknown and geographically distant, experienced the same emotional impact. Especially in the first few months, they felt the need to talk about their experiences. They shared moments of despair, such as seeing patients die alone without any family members beside them; of fear of infecting their loved ones at home, for example; but also of satisfaction and encouraging episodes such as seeing patients recover or being stopped in the street by families grateful for their efforts. This created strong emotion and empathy moments that gave a special value to this course.

In the case of FIT4CARE, the participants were always actively engaged, practicing the exercises and asking questions about the theoretical parts presented during the class, such as breathing techniques, improving the quality of daily nutrition and back exercises.

Participants expressed their gratitude for the thoroughness of the course topics and the program being partly theoretical and partly practical. We found that participants were particularly satisfied with the practical part of the course. The exercises proposed by the teachers actively involved the participants, who often found immediate benefit, especially in the parts of spinal hygiene and breathing. In the satisfaction questionnaire we sent out at the end of the course, 98% of the participants felt satisfied with the FIT4CARE experience and would recommend it to their colleagues.

Many positive comments also came from the Civil defense volunteers. Although they are not health professionals, they played a key role in stemming the negative consequences of the COVID-19 pandemic. Besides considering the course comprehensive, they appreciated being recognized and involved in free training projects that were also dedicated to their well-being.





"Hello, thank you very much for this amazing course, for your professionalism and kindness. The course is very useful because I am a nurse in a hospital and I am a civil defense volunteer. The stress level at work is very high." – FIT4CARE participant

"Hello! I wanted to thank you for the FIT4CARE course, which was really interesting and inspiring! Congratulations to the trainers who involved the whole class despite the virtual lesson. It was useful to take a couple of hours to reflect on one's own well-being and to create a healthy routine to work better."—FIT4CARE participant

"We participated in the FIT4CARE course and I must say that it was very important in supporting us in our activities. Thank you to the trainers, the course organizers and especially the CUAMM health workers!" – FIT4CARE participant

The COVID-19 pandemic has profoundly changed our lives and our habits in general. The training given by Doctors with Africa CUAMM is usually carried out in a classroom. During the COVID-19 pandemic, we understood how the internet could help us guarantee learning activities while in the distance, with the benefit of reaching many people from different cities who probably would not be able to participate in a training course physically.

Online training made it possible to organize heterogeneous classes composed of health professionals who come from different Italian regions and have different backgrounds. This type of class allows sharing of experiences and fascinating discussion moments.

The training promoted by the IRC19 project with the JUST IN TIME and FIT4CARE courses allowed health professionals to find time for themselves and their training and education, despite the period of emergency and difficulty. These activities are very important to help and guide health professionals in training to develop and advance health services.

FIT4CARE, in particular, was a real challenge. It was born as an alternative course to the face-to-face ones, and it was welcomed by the audience immediately in a positive way, and it is still bringing excellent results. In fact, we have many requests for FIT4CARE training from all over Italy, not only for health professionals but also medical and nursing students.

The possibility of training so many health professionals at no cost represents CUAMM's gratitude for the hard work and sacrifices required of all categories of health workers to respond to the pandemic emergency. CUAMM believes that the preparation and well-being of the person come first; it is indispensable for taking care of the patient even in these difficult times and with the hope of being better prepared for future challenges.





3.3. Partnership with CRIMEDIM

During the COVID-19 pandemic, CUAMM and CRIMEDIM used their experiences in cooperation and disaster medicine studies to provide support in managing healthcare systems, as they were under pressure worldwide. The IRC19 training project was part of wider collaboration and friendship between Doctors with Africa CUAMM and CRIMEDIM that began before the pandemic. In 2018, they were involved in a big project called NEMS, National Emergency Medical Service, funded by the World Bank to start a national transport system for obstetric and surgical emergencies in Sierra Leone, which was hit hard by Ebola between 2014 and 2015. The challenge was to respond to emergencies and create a stable and lasting emergency medical system. Starting from the positive experience of the rural district of Pujehun, where CUAMM has operated since 2012, thousands of ambulance service paramedics were trained in the whole country by CRIMEDIM staff.

The training of international health personnel is, therefore, one of the main focuses of the two organizations' work to ensure that healthcare systems provide the best quality services even through the most demanding challenges to deal with future emergencies in low resource settings. Every health care worker should be equipped to proficiently and safely work in various facilities during disasters, both in high and low resource settings like in Africa. For this reason, CUAMM and CRIMEDIM decided to create a **new digital training** program called **JUST IN TIME IN LOW RESOURCE SETTINGS**. The course aims to **train the current and the next generation of health care professionals in African countries**, preparing them to work efficiently in any disaster scenario.

The curriculum program was designed with the specific aim of providing African health care workers with the following specific disaster-related competencies:

- Provide a common background of knowledge and information about disaster-specific information;
- Provide the adequate competencies to proficiently and safely work inside any healthcare facility during any disasters;
- Understand the working principles and the standard operating procedures in place at their workplace in preparation for, during or in the aftermath of a disaster; and
- Understand basic principles of disaster medicine and public health emergencies.

The digital course consists of 7 modules delivered through a distance learning interface. Each module on the e-learning platform consists of a compulsory unit (lectures, presentations, videos) and an optional unit (indepth documents). The compulsory units have a maximum duration of 45 minutes each.





The curriculum is reported in the following chart:

	Module	Lecture	Learning objectives
I.	Introduction to public health emergencies and disasters	Basic principles of disaster management The Disaster Cycle	 To understand definitions and characteristics of public health emergencies and disasters To know key epidemiological principles and terminology of emergency interventions To be familiar with the <i>Disaster Cycle</i> To be familiar with the principles of emergency preparedness and disaster risk management To be familiar with the classification of disasters (e.g. natural, technological) and disaster-specific terminology (e.g. surge capacity, triage, incident command system)
II.	Introduction to vulnerability and response at the primary care level	 Vulnerability and disasters at the primary care level Gender and disasters Mental Health and Disasters 	 To understand different dimensions of vulnerability with the objective of assessing the ability to anticipate, cope, resist, and recover from the impact of a hazardous event To understand different modes of assessing vulnerability To be familiar with concepts of adaptability and resilience To understand elements of preparedness for and response to disasters at the primary care level
III.	Basic principles of pre- hospital disaster response	Pre-hospital disaster management	 To understand general principles of disaster response at the pre-hospital level To understand the key principles of triage during MCI and the START protocol
IV.	Basic principles of hospital response	Hospital disaster response	 To understand the concepts of hospital surge capacity in terms of staff, stuff (i.e., PPE, pharmaceuticals, ventilators, beds, oxygen, and other supplies), and structure (i.e., the physical structure and the management infrastructure), and the importance of allocating scarce resources To recognize the value of triage and the difficulties in dealing with the ethical challenges of distributing limited medical resources





V.	Infection and prevention control (IPC) basic principles	• IPC	 To be familiar with the safety and security protocols in place at health facilities To be familiar with the policy and procedures in place at the health facility To follow all disinfection, waste management, and cleaning protocols at the health facility
VI.	Experience from the field - I		Lesson learned from the COVID-19 pandemic
VII.	Experience from the field – II		Lessons learned from previous disasters (the 2015 Ebola Outbreak and 2019 Idai Cyclone Mozambique)

The JUST IN TIME IN LOW RESOURCE SETTINGS course was designed and developed between December 2021 and March 2022, to be publicized and carried out in the following months. The hope is to reach as many African health professionals as possible in all the countries where CUAMM operates and neighboring countries. At the end of the training, participants are expected to meet the criteria for qualified health care personnel with basic disaster medicine competencies.

The collaboration between CUAMM and CRIMEDIM in responding to emergency crises will continue in the coming months, not only with the training programs (such as JUST IN TIME IN LOW RESOURCE SETTINGS) but also with interventions in the field. Even though the CUAMM's mission is one of medium and long-term humanitarian action, as it is faced with an increasingly unstable global scenario, it must integrate this factor into its humanitarian interventions. Only recently, humanitarian and climatic emergencies have significantly impacted the health systems and development projects in the African countries where CUAMM operates.

Based on these reflections and the increasingly frequent emergencies on the African continent, CUAMM decided to develop its activities further in humanitarian missions in sub-Saharan Africa. This ambitious project was publicly presented in Padova on September 25, 2021, with a public event in which Luca Ragazzoni, the current Scientific Coordinator of CRIMEDIM, and a group of researchers and PhD students from the center were also present. The event aimed to promote an initial training on emergency management, to present CUAMM's emergency activities carried out in the past (e.g. the cholera epidemic in Angola, the Ebola epidemic in Sierra Leone, the Cyclone Idai in Mozambique and now the COVID-19 pandemic) and to present the NGO's future humanitarian missions.





The event was the first step in recruiting and initially training people interested in humanitarian missions. During that day, we explored the concepts of disaster and emergency and the importance of risk management in all its phases, presenting practical examples. In this way, participants had the opportunity to learn more about emergency management and response (topics covered in the JUST IN TIME course). The event was highly appreciated by those present, who followed the topics covered by the speakers with interest and asked many questions, resulting in a constructive debate. At the end of the session, CRIMEDIM emphasized its desire to support CUAMM's work and the need to maintain successful collaborations to respond to future emergency crises.



Public event organized by CUAMM and CRIMEDIM





3.4. International Outlook Talks

The COVID-19 pandemic struck everywhere in the world, bringing about significant changes in society on several levels, and it forced people to change their perspective on the state of things in our societies. In other words, it made people more aware of their vulnerability and reaffirmed that health is a global issue and must be addressed as such.

"Voices from the front line: The world during the COVID-19 pandemic" is a cycle of online meetings as part of the Italian Response to COVID-19 project realized with the contribution of USAID. It was created precisely to address the impact that the COVID-19 pandemic had from a global point of view, going beyond national perspectives. The purpose was to broaden the international target of reference by involving not only specialists but a greater public with interest in global health issues and the pandemic.







The 4 talks gathered the testimonies of those who, in various parts of the world, have fought on the front lines against COVID-19: Health workers (doctors, nurses, researchers), people from public, private and non-governmental organizations, migrants, women and so on.

The main goal of these talks was to try to identify good practices and models that could be shared internationally. Specifically, they attempted to enrich the perspective on these topics and answer questions such as: Where have the most effective strategies been put in place to provide continuity of health services, and what do they consist of? Will vaccines make it to the global south? What impact has COVID-19 had on international cooperation? How much have women been affected, and how fundamental is their contribution to the restart of society?

3.4.1. Public and private experiences from Italy and Germany during the COVID-19 pandemic

This first talk was inaugurated by Don Dante Carraro, Director of Doctors with Africa CUAMM, and Andrea Atzori, Head of the International Relations Department. They introduced the cycle of seminars and the underlying themes revolving around the need to adopt shared and supranational solutions to overcome the COVID-19 pandemic, proposing concrete models for addressing emergencies in the future. In sequence, the conversation focused on the Italian and German experiences in facing the pandemic from the point of view of humanitarian aid, the third sector, public health systems and the private sector, trying to identify effective strategies put in place to deal with the pandemic while continuing to guarantee health services.

Link: https://www.youtube.com/watch?v=dI5m3fAis0s

- Roland Göhde Chairman of the German Health Alliance (GHA).
- Dr Thomas Zahneisen Director for Humanitarian Assistance of the German Federal Foreign Office.
- Manfred Dietel Former Director of Pathology, Charitè at the University of Medicine in Berlin.
- **Dr. Giuseppe Rossi** Director of Azienda Socio Sanitaria Territoriale (ASST) in Cremona.
- Anna Ferrino CEO of Ferrino S.P.A, an Italian mountain equipment and clothing company.
- **Holger Rupp** Co-founder and Manager of EUMEPRO, a company that produces surgical and FPP2 masks in Germany.







Panelists of the 'Public and private experiences from Italy and Germany during the COVID-19 pandemic' talk

3.4.2. Advancing international development in times of crisis

In this panel, the question of how international development can be advanced during times of global crises, rather than assuming it will inevitably fail, was addressed. The panel brought together national and international agencies working with local beneficiary communities, and the speakers were chosen for their considerable experience in understanding the importance of delivering international development agendas at the community level and at the same time promoting national and international integration when responding to broader crises such as climate change and pandemics. The topic of discussion was both timely and important: how can we ensure that international development agendas advance even in such times of global crises? How might future investments in their work amongst communities or with host governments be better integrated with tackling climate change, responding to pandemics or even addressing political instability? And what is happening under the curtain of the COVID-19 pandemic?

Link: https://www.youtube.com/watch?v=FT0uSmnnRWA&t=3579s

- Richard Gordon (Moderator) Director of Bournemouth University Disaster Management Center (BUDMC).
- Andrea Atzori Head of the International Relations Department of Doctors with Africa CUAMM.
- Paolo Baladelli PAHO/WHO Representative a.i. Argentina.





- Chiara Giusto Health and Nutrition Policy Assistant for the European Commission's Civil Protection and Humanitarian Aid Operation in Brussels.
- Giovanna De Meneghi Partnership and Advocacy Manager with Doctors with Africa CUAMM.



Panelists of the 'Advancing international development in times of crisis' talk

3.4.3. People on the move: the migration phenomenon in the pandemic era

In this talk the panelist discussed migration during the COVID-19 pandemic and tried to give answers to the following questions: How had the COVID-19 pandemic affected the phenomenon of migration? How is it possible to establish and enter into dialogue with the rest of the world by creating a network between people and countries to communicate as best as possible about what is happening? Moreover, CUAMM shared its experience in providing immigrants with health care services in the Puglia region before and during the pandemic.

Link: https://www.youtube.com/watch?v=yCxiISa8ago&t=3s

- Chiara di Benedetto (Moderator) Communication Strategy Specialist.
- Mary Avery Deputy Assistant Secretary for Global Information Services in the State Department's Bureau of Administration (USA).
- Roberto Venneri Secretary-General of the Presidency of the Puglia Region.





- **Davide Mosca** Honorary Associate Professor at the Institute for Global Health, University College London.
- Marcella Schiavone Thoracic surgeon.





 $Panelists\ of\ the\ 'People\ on\ the\ move:\ the\ migration\ phenomenon\ in\ the\ pandemic\ era'\ talk$





3.4.4. Empowered women for resilient communities

In this talk, the panelists discussed women's fundamental role in managing crises, including the COVID-19 pandemic, and how their roles have changed throughout this emergency, particularly in vulnerable countries. They also approached the challenges faced by women that were exacerbated by the pandemic, such as the exposure to violence of any type, less employment and the interruption of education.

Link: https://www.youtube.com/watch?v=-rIJa4opmbI

- Gary Cohen (Moderator) Corporate/CDC Round Table on Global health Threats and Board Director UNICEF USA.
- Mary Ann Etiebet AVP, Health Equity Lead, MSD for Mothers.
- Flavia Bustreo Vice-Chair of the Botnar Foundation and Co-Chair of the Lancet Commission on Gender-Based Violence and Maltreatment of Young People.
- Veronica Censi Regional Partnership and Advocacy Manager for Doctors with Africa CUAMM in Angola and Tanzania.
- Daniela Ligiero Executive Director and Chief Executive Officer of Together for Girls.



Panelists of the 'Empowered women for resilient communities' talk





4. Support to vulnerable groups

Since its foundation in 1950, CUAMM has always worked close to the most vulnerable people, those living in remote areas, at the margin of societies, struggling for basic services. Therefore, within the IRC19 project, CUAMM identified five vulnerable groups, spread all over the country, to which provide a specific type of assistance based on their needs in facing the COVID-19 pandemic. The beneficiaries of these groups were already struggling before the COVID-19 outbreak, thus the pandemic and relative lockdown measures exacerbated their living conditions.

4.1. Pinerolo

Pinerolo is a town near Torino where the CUAMM Piemonte Group is active in awareness-raising campaigns and multicultural integration projects. When the pandemic started, the group decided to act and help the most vulnerable in different aspects. The CUAMM team, with the IRC19 project, decided to help the group fulfil this objective. The intervention in Pinerolo consisted of 2 activities: a medical mediation desk and health training courses for foreigners.

The first activity designed by the group was the establishment of a mediation desk. The desk was designed to provide clinical and health consultancy, make appointments with medical specialists, provide support and transport to health facilities, and provide cultural mediation and translation of therapies and health information provided by the doctors. This intervention was directed at people who could not carry out these activities by themselves because of language and cultural barriers or sickness.



Training given by the CUAMM Piemonte Group to immigrants and refugees

During the lockdowns and the high peaks of the COVID-19 pandemic, the limited interactions increased the problems and difficulties these people had with the health system. During the months between January and April 2021, the group implemented the mediation desk activity, basing the workforce on volunteer doctors that spent their time providing support to this activity.

This activity carried out by the volunteers of the CUAMM Piemonte Group had significant repercussions on the health of individuals and the local health network's involvement in supporting fragile people belonging to poor and marginalized groups of the local population. Through this activity, the doctors and hospitals involved often had the opportunity to inquire about little-used or unknown health care tools, such as the possibility of obtaining, thanks to Italian laws, the assistance of a cultural mediator to improve the relationship with a patient foreigner with little knowledge of the Italian language.





The second activity in Pinerolo was the organization of training activities for foreigners. The training courses were designed to address different topics of social interest, such as violence against women and children, and health interests, such as dealing with the COVID-19 pandemic and using the Italian healthcare system. Unfortunately, this part of the intervention suffered a sharp slowdown due to COVID-19 strong containment measures, including a ban on meetings of groups of people. The training restarted once the lockdown ended and the containment measures eased.

The CUAMM Piemonte Group also launched a series of 4 meetings with a small group of foreigners and refugees. Despite having a small audience, the meetings were greatly appreciated by the participants who received information about the Italian health care system and its functioning, home first aid, the correct use and storage of drugs, infectious diseases, and vaccinations, focusing on COVID-19.

The volunteers reported how the support received was fundamental to organizing the medical mediation desk and training for foreigners, allowing the service to be used by various people in need and allowing the group of volunteers to organize, test and ultimately improve the quality of the service offered.





Meeting of the CUAMM Piemonte Group with immigrants and refugees





4.2. La Spezia

As previously mentioned, an important part of the IRC19 project was dedicated to helping marginalized communities, which were heavily impacted by the COVID-19 pandemic in the Italian territory. The intervention was in line with the work that CUAMM does in the African continent, this time in Italy, so the CUAMM team decided to support, after the signing of a Memorandum of Understanding, the Group San Giovanni Bosco in La Spezia, in the Liguria region. The group assists the homeless community of La Spezia, a frontier city composed of Italians and an immigrant population.

Before the pandemic, they already supported almost 40 people daily, providing meals, showers, laundry service, luggage deposits and general services to solve bureaucratic problems. After the pandemic started, the number of people in need and the requests for help grew exponentially, making it inevitable for the group to add several activities to reach more people. Through the IRC19 project and the constant collaboration of the CUAMM team with monitoring and reporting activities, the group was able to add to the already existing activities also the distribution of lunch, dinner and food kits not only to the growing homeless community but also to all the families that due to the pandemic economic consequences faced hard times due to the loss of jobs, for example.



The intervention in La Spezia lasted nine months with continuous interactions between the CUAMM team and the Group San Giovanni Bosco with the exchange of data, narrative and financial reporting, and several field visits to assist the group and supervise the ongoing activities. The intervention implementation was divided into 2 categories: one related to the distribution of food and provision of services and another related to the rehabilitation of the shower space in the group's main building.

For the first category of activities, the group decided to provide meals (breakfast and dinner) daily to the homeless population and whoever needed it. The breakfast delivery took place in a room of the group's building, which people could easily access from the main street, following the protocols of distance and sanitization to prevent infection. In the case of dinner, the delivery took place in a separate building where a





system was put in place so that the volunteers prepared pick-up dinners with hot meals and water in single and sanitized bags every evening and distributed them to the people in need at a certain hour.

The group also mapped the target population, selecting the families in most need to which the group delivered food kits with staple food items for two weeks of meals. And after the provision of equipment through the IRC19 project, the group could also support the people in need that referred to the center by providing them with a sanitized and heated place where they could shower, a laundry service and the provision of clothes.













Distribution of breakfast, prepared meals and food products in La Spezia





The second category of activities included the lighting and restructuring of the shower space so that a division between female and male showers was made, turning it into an adequate area for people to take a hot shower. It also includes the provision of equipment such as industrial washing machines, dryers and industrial fridges. This equipment eased the work of the volunteers allowing them to wash more clothes each time and store a larger amount of food for distribution.

Over the course of the project, CUAMM supported the Group San Giovanni Bosco in the provision of:

- 27,000 breakfasts
- 98,970 lunches
- 27,240 dinners
- 5,810 showers
- 2,224 clothe washings

Through these activities, the CUAMM team tangibly perceived the positive impact of the IRC19 project on a very fragile segment of the population and an improvement in the group management of resources and provision of services. After the intervention's conclusion, the group could programme the activities and use the lessons learned to seek funding and continue supporting the community.

An inauguration ceremony was organized on December 23, 2020. The activities were still ongoing, but the lighting and rehabilitation of the shower space were finished. At the small ceremony took part the Director of CUAMM, Don Dante Carraro, the Mayor of the city, Pierluigi Peracchini, the Bishop of the city, Mons. Luigi Ernesto Palletti, the IRC19 Chief of Party, Andrea Atzori, and the project coordinators from the group side, Don Fabrizio di Loreto and Anna Iavazzo. The inauguration was a great and emotional moment in which the activities were presented, and the group expressed gratitude for the support received.









Inauguration ceremony of the intervention in La Spezia





4.3. La Lunigiana

Lunigiana is a territory between the regions of Liguria and Tuscany. The physical borders of this land include part of the Tuscan-Emilian Apennines, making it overall mountainous and characterized by features that cause difficulties for the inhabitants of this area, who live in several different hamlets, to be connected and access to basic services. In this territory, through the IRC19 project, CUAMM, in partnership with the Association Cose Giuste developed an initiative to make basic services more accessible to the local population.



Map of the Lunigiana territory (in orange) and the city of Fivizzano

Because of the territory's composition and the small villages' dynamics, the closure of a store, a post office, a clinic or a pharmacy constitutes a serious inconvenience for the community. The COVID-19 pandemic further complicated this situation, jeopardizing the hope of a better future for the people living there and, in particular, for women, who had to abandon jobs or activities that allowed them a progressive autonomy or the possibility of personal fulfillment. This project aimed to strengthen the services offered to citizens of the various hamlets and towns by involving vulnerable groups in the area. For this reason, the project involved 13 women from the different hamlets; they received specific training to master the skills to open an access point in their hamlet to support their local community with basic services.

For logistical and organizational reasons, the Municipality of Fivizzano was chosen as a reference area, and the municipality selected the 13 women. The women involved had to be residents in the municipality, unemployed or seeking employment. They received specific training in basic computer skills and municipal



The women of Lunigiana who took part in the project

services to be provided to citizens living in nine hamlets, namely Ceserano, Equiterme, Gassano, Gragnola, Monzone, Rometta, San Terenzo, Sassalbo and Vinca. Suitable spaces were set up in the various hamlets, and workstations were installed with computers, printers and related equipment. The access points were located in public buildings and flagged with each municipality's logos for recognition. After the training and setting up of the access points, the selected women started to support members of their





local community in accessing services ranging from post office services to pharmacies, administrative services and online procedures, among others.



The city of Fivizzano



The landscape around the city of Fivizzano



The women at their workstations with the computer and other equipment





4.4. Foggia

Through the IRC19 project, CUAMM strengthened its activities in support of vulnerable groups in the province of Foggia, in the Puglia region. Indeed, since 2015, CUAMM has been implementing an intervention in favor of seasonal agricultural workers living in the informal settlements in the province of Foggia, offering health assistance through the deployment of a medical team.

The informal settlements are located in the countryside of Foggia, far from cities and towns. During the harvest season (from May to October), they fill up with migrants reaching up to 10,000 people. All settlements are characterized by the lack of basic services such as toilets, running water, electricity, safe food, and decent housing. Most of these settlements consist of shanty towns with precarious dwellings built with recycled materials such as plastic, cardboard and wood.



 ${\it CUAMM's}$ integrated outreach clinic within an adapted van

To reinforce the National Health Service, CUAMM, in partnership with the regional authorities, created an integrated outreach clinic within an adapted van. Specialized doctors/nurses, with the support of a cultural mediator, identify vulnerable persons of concern to be offered Primary Healthcare Services (PHC) and, when needed, to be referred to a higher level of care (Foggia or Bari Hospitals).

In January 2020, when the COVID-19 pandemic broke out, the Puglia region called CUAMM's medical group to intensify efforts and medical services in the ghettos to raise awareness, inform and prevent the outbreak of COVID-19 in such areas. CUAMM had therefore joined the regional task force dealing with minority issues. Thanks to the IRC19 project, CUAMM was able to reinforce the medical team's work while providing food kit assistance to the people living in the informal settlements.

CUAMM conducted 129 medical team missions throughout the project, visiting 2,136 people. Furthermore, the team distributed 3,629 food kits, equivalent to 54,435 meals. Assisting the most vulnerable and marginalized people, excluded or forgotten by society, is at the core of CUAMM's mission in Italy and Africa.





The COVID-19 pandemic proved, once more, the importance of creating and supporting an inclusive health system that leaves no one behind.



Distribution of food kits to the population in need in the province of Foggia



Medical visit to a seasonal agricultural worker in the province of Foggia

"The settlements are far from everything, without water, electricity or windows. Nobody here arrives, no services, no ambulance if someone is sick. There is not even the possibility of reaching a supermarket. Everything is too far away. Thanks to CUAMM and the USAID project, food kits are distributed. Every time I am moved to see how those receiving the food kits do not even wait to have the package in their hands to open it and eat the food. And also when they know that the camper comes with the doctors for the visits, they welcome us as "saviors". [...] I really like this job because the CUAMM team is really committed and works hard to help those people who are forgotten. Thanks to the IRC19 project we are really making a difference for this people" - Aaditya, Cultural Mediator







 $Medical\ visit\ to\ a\ seasonal\ agricultural\ worker\ in\ the\ province\ of\ Foggia$





4.5. Napoli

The intervention in Napoli was not limited to the support of health structures and facilities. The CUAMM team was contacted by the responsible for "Tenuta Melofioccolo", a didactic farm founded in 2018. The idea behind this project is to create a space where nature can be an instrument through which people can reconnect with themselves and rediscover the value of manual work and a slow pace of living. During the first pandemic outbreaks, the farm activities had to stop due to distancing and safety protocols. The responsible had the chance to study the effect that the COVID-19 had on people, especially the consequences of the lockdowns on children.

Along with the CUAMM team, the responsible of the farm designed paths and courses for the youngest ones to face the psychological consequences of the pandemic and the relative isolation measures. The different courses and paths were designed to allow children to rediscover the outside space, social life and the relationship with nature. All the activities successfully addressed the problem of isolation and distance and were constantly followed by teachers and professionals updated on the subject of psychological issues.

An inauguration ceremony was organized on April 21, 2022, with the presence of the Director of CUAMM, Don Dante Carraro, to show the work done in helping the children population face the pandemic consequences.



The responsible for Tenuta Melofioccolo explaining the intervention realized by CUAMM





5. Community Preparedness

The COVID-19 pandemic has shown the CUAMM team how our work throughout the Italian territory, a pillar in the organization structure, is mandatory to share experiences and expertise to overcome difficult times. The CUAMM field officers, through the IRC19 project, had the chance to reach out to a wide range of the population in the different regions involved, talking about COVID-19 and the effects of the pandemic. They also had to arrange different meeting modalities to comply with changing pandemic protocols. Moreover, CUAMM had the opportunity to organize the annual meeting for two years, in which the IRC19 project was explained, and all the results and achievements were presented.

5.1. Community outreach through CUAMM Support Groups

In order to tackle the challenging situation affecting Italy during the first wave of the pandemic, causing citizens to face long periods of quarantine and social distancing, it was crucial to strengthen community relations. In a time when the effectiveness of COVID-19 contention measures depended heavily on individual behavior, it was necessary to actively support communities to tackle the crisis and post-crisis situation together, ensuring that no one was left behind in terms of assistance and communications.

Through the IRC19 project, CUAMM strengthened community relations at the national level by leveraging its vast network of CUAMM Support Groups, involving more than 3.800 volunteers across Italy, spread out in 29 cities across 11 regions.

REGION	GROUP NAME	
Piemonte	Gruppo Piemonte	
	Gruppo Mama Teresa con l'Africa	
Liguria	Gruppo Liguria	
	Gruppo Monza-Brianza	
	Gruppo Milano	
T. a. L. a. P.	Gruppo Cremona	
Lombardia	Gruppo Varese	
	Gruppo Bergamo	
	Gruppo Lecco	
Trentino Alto Adige	Gruppo Trentino	
Friuli Venezia Giulia	Gruppo Friuli Venezia Giulia	
	Gruppo Campagna Lupia	
Veneto	Gruppo Padova	
	Gruppo in moto con l'Africa	
	Gruppo Vicenza	
	Gruppo Verona	
	Gruppo Bassano – Asiago	
Emilia Romagna	Gruppo Modena-Reggio Emilia	
	Gruppo Bologna	





Toscana	Gruppo Firenze	
	Gruppo Pisa	
	Gruppo Siena	
Marche	Gruppo Marche	
Abruzzo	Gruppo Abruzzo	
Puglia	Gruppo Bari	
	Gruppo Salento	
Multi Regional	Gruppo Ferrovieri con l'Africa	

The 27 CUAMM Support Groups engaged in the project are listed in the table below.



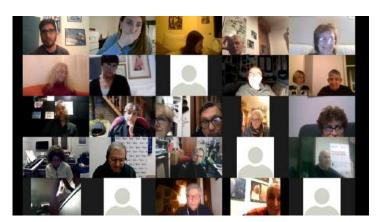
From the beginning of the project, all 27 CUAMM support groups were equipped with the necessary materials to perform activities online and offline, depending on their needs related to the development of the pandemic. They immediately started working to promote dialogue with their local communities and develop education and awareness-raising activities. In particular, the outreach activities organized by the support groups follow three main categories:





- Meetings with local authorities to improve regional and local governance by strengthening the
 dialogue between public authorities and local communities, specifically focusing on increasing trust
 in the national response to the pandemic.
- Group meetings to promote dialogue with local communities and develop education and awarenessraising activities to rebuild local networks and reinforce confidence in the local administrative institutions.
- Public events to raise awareness on global health themes, increase knowledge and trust in the national
 health system and promote a constructive dialogue between professional health experts and the Italian
 civil society through live sessions and debates on social networks.

Over the course of the IRC19 project, the 27 CUAMM Support Groups organized **200 community outreach** activities: 19 meetings with local authorities, 87 group meetings and 94 public events. Through all these activities, the support groups reached **16,899 beneficiaries**.



Online Local authorities meeting - Gruppi di Modena, Bologna, Firenze e Siena



Online Local Authorities meeting - CUAMM staff with Health Authorities











Online group meeting - Gruppo Milano



Public Event - Gruppo Piemonte



Public Event - Gruppo Monza-Brianza

Being close to the local communities and engaging them from the beginning of the COVID-19 pandemic positively impacted their resilience. Through the numerous initiatives organized with the IRC19 project, the CUAMM Support Groups raised awareness among the Italian population on themes such as COVID-19, global health and cooperation, reinforcing the message that health challenges must be tackled together, not in isolation, promoting a culture of solidarity and collaboration.



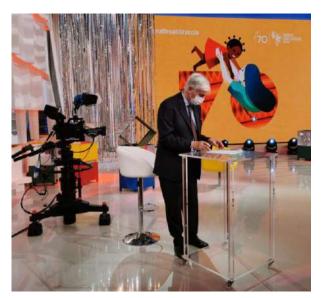


5.2. CUAMM Annual Meeting

The annual meeting is the most important event for the CUAMM organization. It is the moment in which all the results and the evidence of the successful implementation of the projects that the organization leads in the African continent and Italy are presented to stakeholders, employees, public entities, international donors and the general public.

Due to the COVID-19 pandemic, the 2020 annual meeting was held through live streaming from a television studio. The host, speakers and guests presented the results achieved that year and the problems incurred by the pandemic. Moreover, the Chief of Party, Andrea Atzori, took the chance to launch the IRC19 project and explain to spectators the planned activities and the objectives to be reached in the following year.





CUAMM Annual Meeting 2020 on a television studio

The 2021 annual meeting, instead, was organized in Padova to celebrate the 70 years of service of CUAMM and to present the vast effort made during the pandemic to support the poor populations in the African continent. The 2021 annual meeting was also an occasion to present the first year of implementation of IRC19 and the activities carried out all around Italy. Among the speakers, along with professor Alberto Mantovani, Scientific Director of Humanitas and Luca Zaia, the President of the Veneto region, many other important guests contributed to the presentation of the results achieved by CUAMM including a video message from Doctor Anthony Fauci.

Anthony Fauci, Chief of the National Institute of Allergy and Infectious Diseases (NIAID) and Chief Medical Advisor to President Biden stated:

"I am very happy to have the opportunity to thank Doctors with Africa CUAMM for your decades of work with the American Embassy in the Vatican and with the United States to address to health needs in Africa.





I also congratulate you on your recent collaboration with USAID to improve the resilience and preparedness of communities throughout Italy while trying to get out of the critical phase of the COVID-19 pandemic by trying to rebuild everyday life. Although we are nearing the end of the second year of the COVID-19 pandemic, the end of this global health crisis is still a long way off and important challenges remain. (...) We have to do better. We have a moral imperative to protect the poor and vulnerable (...) Your dedication to this principle, your passion and tireless commitment, help to respond to this unprecedented health emergency, while simultaneously preparing communities with resilience strategies to face future infectious diseases that will inevitably arise. Thanks again! Please continue like this, good continuation of the event and continue your extraordinary work".



The video of Anthony Fauci, NIAID Chief



The doctors Giovanni Putoto and Francesca Tognon of CUAMM announcing the continuation of the program "Mothers and children first 1000 days" with news goals and focuses







The volunteers of the Rubano Vaccination Center; Luca Zaia, President of the Veneto Region; and Don Dante Carraro, CUAMM's Director

Links:

Annual meeting: https://www.youtube.com/watch?v=wy5-WX_8PFg

Fauci message: https://www.youtube.com/watch?v=kjOBO1oqyac

Pictures: https://www.mediciconlafrica.org/blog/la-nostra-voce/news/annual-meeting-2021-le-immagini-dellevento/





6. Public Outreach

Over the course of the IRC19 project, to directly engage and inform the national and international community on the project activities and global health topics more broadly, CUAMM produced different information materials ranging from articles, magazine publications and videos to a website and a graphic novel.

6.1. Articles and publications

To increase trust in the national and local health sector, fostering dialogue, education and exchanges between health experts and civil society, CUAMM produced, published and disseminated **52 articles** throughout the IRC19 project.

Key topics covered in the articles are COVID-19 between Italy and Africa, epidemic management and global health threat to raise awareness and enhance knowledge on global health cooperation among the Italian civil society. Below there is a list of all the articles published during the project period.

Title	Date	Author	Published in
Situational Brief: Deportations and Irregular Migrants During The COVID- 19 Pandemic	Jun-20	Mosca D., Marotta C., Di Gennaro F., Putoto G., D'Alessandro M., Bhopal R.	Lancet Migration
Our Vulnerability to the "Global" Virus	Jul-20	Carraro D.	Health and Development
No More "Business as Usual"	Jul-20	Maciocco G.	Health and Development
One Planet, One Health	Jul-20	Atzori A. and Di Benedetto C. interview Quammen D.	Health and Development
Leave No One Behind	Jul-20	Atzori A. interviews Sachs J. D.	Health and Development
COVID-19 South of the Sahara	Jul-20	Scuccato R.	Health and Development
Resilient Health Systems to Overcome Crises	Jul-20	Putoto G.	Health and Development
In Mozambique: A three-pronged to the fight against COVID-19	Jul-20	De Meneghi G., Occa E.	Health and Development
In South Sudan: The COVID-19 pandemic is "a crisis on top of a crisis"	Jul-20	Scanagatta C.	Health and Development
COVID-19 at Wolisso Hospital, Ethiopia	Jul-20	Manenti F.	Health and Development
The value of field training with CUAMM	Jul-20	Di Benedetto C.	Health and Development
The Role of Supply Chains in Emergency Response	Jul-20	Saba G.	Health and Development
Pandemie ed equilibri globali	Nov-20	Di Benedetto C. e Atzori A.	Saluteinternazionale.info
An unequal pandemic	Jan-21	Carraro D.	Health and Development
Black lives matter	Jan-21	Maciocco G.	Health and Development





Pandemic within a pandemic	Jan-21	Di Benedetto C. e Bustreo F.	Health and Development
The asymmetrical impact of the pandemic: data from Uganda	Jan-21	Nannini M.	Health and Development
Pandemic complications: the case of Wolisso	Jan-21	Manenti F.	Health and Development
Home-based care: tackling tuberculosis in Uganda	Jan-21	Cadorin S.	Health and Development
Reorganizing health services: Cuamm's response in Sierra Leone	Jan-21	Caracciolo C.	Health and Development
Under the radar: Covid-19's societal impact	Jan-21	Осса Е.	Health and Development
Mozambique: moving beyond crisis to build development	Jan-21	De Meneghi G.	Health and Development
Humanitarian partnerships	Jan-21	Brighenti M.	Health and Development
Cuamm's response to COVID-19 in Italy	Jan-21	Atzori A.	Health and Development
Aiding La Spezia's neediest	Jan-21	Trivelli M.	Health and Development
Foggia: the fartherst corner of our own backyard	Jan-21	Raho L.	Health and Development
Rediscovering Ivan Illich	Jan-21	Putoto G.	Health and Development
Lotta al Covid nei ghetti	apr-21	La Forgia N.	èAfrica
Vaccinare tutti	Jun-21	Braga L.	èAfrica
Educazione sanitaria per i migranti	Jun-21	Durando S.	èAfrica
Una risposta integrata: dall'Italia all'Africa	Aug-21	Atzori A.	èAfrica
Getting from vaccines to vaccination, everywhere	Sep-21	Carraro D.	Health and Development
When the virus hits inertia	Sep-21	Maciocco G.	Health and Development
Africa stumbles: the third wave of COVID-19	Sep-21	Putoto G.	Health and Development
Vaccines as a common good	Sep-21	Mantovani A. and Di Benedetto C.	Health and Development
Obstacles to vaccination in South Sudan	Sep-21	Scanagatta C.	Health and Development
The effectiveness of maternity waiting homes	Sep-21	Bertoncello C. and Dalla Zuanna T.	Health and Development
We won't save ourselves alone	Sep-21	Garattini S. and Di Benedetto C.	Health and Development
And the last are still last	Sep-21	Geraci S.	Health and Development
Vaccination for all in Italy, too	Sep-21	Atzori A.	Health and Development
Our most important resource: people	Jan-22	Carraro D.	Health and Development
Vaccine apartheid	Jan-22	Maciocco G.	Health and Development
Improving community resilience through early warning systems	Jan-22	Fernandez De Cordoba Farini C., Feranley C. and Gordon R.	Health and Development
The link between economic growth and development	Jan-22	Di Benedetto C. interviews Carbone G.	Health and Development
A strategic vision for emergency management	Jan-22	Atzori A.	Health and Development





African Hospitals facing emergency	Jan-22	Manenti F.	Health and Development
Seeking refuge in one's own country: Mozambique	Jan-22	De Meneghi G.	Health and Development
Climate change and nutrition: a daily challenge in Southern Angola	Jan-22	Brighenti M. and Piccolo M.	Health and Development
South Sudan: caught between war, floods and epidemics	Jan-22	Scanagatta C.	Health and Development
Critically ill patients in Africa	Jan-22	Pisani L. and Haniffa R.	Health and Development
Why are Sierra Leonean mothers hesitant about breastfeeding?	Jan-22	Cattaneo A.	Health and Development
Epidemic illusions about public health	Jan-22	Putoto G.	Health and Development

6.2. IRC19 website

With the launch of the first activities of the IRC19 project, it was necessary to give visibility to the work and results obtained with a website, facilitating the availability of information and content by users, and telling about the project in an innovative, engaging and aesthetically appealing way.

To do this, CUAMM collaborated with Melting Pro, an Italian agency that promotes cultural and social products. Since September 2020, CUAMM and Melting Pro had organized video meetings on the Zoom platform to identify useful elements for the construction and publication of the IRC19 website. The video meetings were very useful in understanding the needs of the beneficiaries from the site, such as the various collaborators and national partners of the IRC19 project.

In January 2021, the IRC19 website https://covid19.mediciconlafrica.org/irc19/ was published, which was useful for the following points:

- Information and dissemination: The first function of the website was to publicize the IRC19 project and inform users about the activities promoted by the project and the services offered, giving voice to the stories and testimonies of the people involved. On the website, for example, it is possible to consult all the news, photos and videos on the types of interventions carried out in the 19 health facilities and the activities carried out in support of vulnerable groups. The visibility of photos, videos and celebratory moments has promoted the 'CUAMM model' of emergency management and cooperation in Italy during the pandemic crisis.
- Training: The website contains training programs for health care professionals, students and citizens interested in CUAMM's initiatives. Specifically, there is a section dedicated to JUST IN TIME and FIT4CARE training courses with the possibility of registering for these courses. In addition, there are all the references to global health training activities.
- **Networking:** The other goal of the website is to build a network and partnership activities to expand the range of action of CUAMM, exchange expertise and strengthen some areas of activity. Within the





website, this function is facilitated by the page dedicated to the map of Italy, where the regional initiatives, the health facilities involved in the project, the health professionals engaged in the training and the local CUAMM groups are graphically visible.

• Fundraising: The aim of the website was also to make CUAMM more familiar to new users, raise awareness and expand the network of supporters, sponsors and donors in Italy: from healthcare professionals, doctors, nurses and medical students to representatives of public institutions; from donors and fundraisers to individual users and citizens looking for information. This is why the website was designed in Italian.

The IRC19 website is still available with the aim of telling users about all the activities carried out during these months of the project (a sort of public archive). It is possible to consult all the articles, videos, testimonies and press reviews of the IRC-19 project. It is also still useful for sharing the training offered to health professionals and for introducing CUAMM to a wider public, thanks to direct links to the NGO's official website https://www.mediciconlafrica.org/.



IRC19 homepage

6.3. Graphic novel "Never Give Up"

During the development of the IRC19 project, CUAMM had the opportunity to give concrete help in the fight against COVID-19, but not only. We had the chance to listen to the testimonies of many people and health professionals, especially women, who told us how they experienced the pandemic outbreak and how they reacted to it. Thanks also to these stories, we noticed how women play a fundamental and multifaceted role in crisis management: as professionals, family members and caregivers for children and the elderly. In different societies, it is women who by all means build the foundations of society, setting an example of resilience and





teaching communities how to adapt and move beyond emergencies. However, women are also the most affected by such crises; they are at greater risk of job loss, health problems due to lack of care and exposure to domestic violence.

CUAMM wanted to give voice to the many women who have had the strength amongst hardship to adapt and keep going forward, taking care of others with a powerful spirit and sense of responsibility beyond themselves. The idea of creating a graphic novel called "Never Give Up" was born from this reflection. Published both in Italian and English, the graphic novel shows and tells the experiences of formal and informal caregivers and what the pandemic meant for their personal and working lives.

"Never Give Up" is a result of a series of long-distance interviews with health workers, volunteers, cultural mediators and activists started in September 2020 and ended at the beginning of 2022. The reason why CUAMM decided to use the graphic novel format is for its power and because it is an easy way to reach people, particularly youngsters, and it also allowed young and female graphic novelists to put down on paper a farreaching and personal vision of what they want to tell, with dozens of tools at their disposal. The starting point was the wish to build an alliance between different worlds to create new connections: real, narrative, imaginary and digital.

Readers are taken on a journey into four contexts in Africa and Italy that are very different but have a great deal in common in the face of global crisis. The journey begins with Celesta, an activist in Beira, Mozambique, who has been fighting a two-fold struggle against the pandemic and the HIV she contracted when she was pregnant. It continues with Claudia, a nursing coordinator from the Marche region, on the front line in the fight against the pandemic, working in a hospital that needs to be restructured. And then Nuru, a community health worker who has never stopped working to bring light to the community of her Tanzanian village. Lastly, Rossella takes us back to one of the areas in which the IRC19 project has invested many resources: supporting doctors, mediators and volunteers who, like her, have seen the pandemic as one more reason to defend the right to health of migrants living in the "last mile" of the Puglia region in the South of Italy.

"Never Give Up" is published on the official website and social media channels of Doctors with Africa CUAMM. It is possible to read it and download it at this link:

https://doctorswithafrica.org/en/whats-new/news/homenews/never-give-up/





MEDICI CON L'AFRICA **NEVER** GIVE UP STORIES OF WOMEN FROM AFRICA AND ITALY DURING COVID-19

Graphic novel "Never Give Up" digital cover





7. Lessons learned and recommendations for best practices and ongoing challenges

After two years of intense work that required great commitment, resilience and adaptation from the CUAMM team, with the essential financial support from USAID and in cooperation with the Italian government, the public health system, CUAMM's network of health and non-health workers, universities and the Italian citizenry, the project IRC19 was officially concluded.

From the new experience of intervening in Italy and dealing with a so far unknown virus pandemic, CUAMM as an organization learned valuable lessons to continue and improve its work and, more comprehensively, on the multi-level governance of national and international health crises. The Chief of Party Andrea Atzori and the Project Manager Veronica Censi reflected on the meaning, relevance and impact of the IRC19 project as a whole and arrived at the conclusions synthesized below.

• What was the role of Doctors with Africa CUAMM in the mitigation of the pandemic through the IRC19 project?

According to the Chief of Party, CUAMM had the key role of providing effective and timely responses to the changing needs and priorities of the health facilities, vulnerable groups and beneficiary population, who were supported by the organization in a moment in which the public administration and health institutions did not have the means and methodology to do so. For that to be possible, CUAMM dialogued and cooperated with authorities, health care workers, CUAMM Support Groups in different Italian regions, and the cited vulnerable groups to find impactful responses to their punctual urgent needs.

The Project Manager, more broadly, pointed out that CUAMM's key role in mitigating the COVID-19 pandemic in Italy was its support to the national health system in reaching the last mile. She also confirmed that the correct identification of the needs was essential to provide adequate responses to many, sometimes unexpected, needs of the health system and the communities through specific interventions that prioritized the most fragile.

• What was essential for the project to be successful?

The Chief of Party identified two essential aspects that allowed CUAMM to successfully provide support and rapidly respond to the real needs of health institutions, first-line health care workers and the population. The first aspect was the project's flexibility to adapt to the changing circumstances imposed by the pandemic phases and, consequentially, the changing needs of the stakeholders. Practically, the IRC19 project started with a focus on the provision of materials and equipment to health care facilities and nursing homes, to later shift the attention to training health care workers in handling the COVID-19 pandemic according to their roles, to finally center on strengthening the vaccination campaign with the creation of the CUAMM Vaccination Center in Rubano.





The second aspect pointed out by Andrea Atzori was CUAMM's know-how acquired by its experience working in resource and accessibility limited contexts in the African continent, on some occasions in the management of emergencies also of epidemic character. This valuable know-how acquired through the years by CUAMM was the base for developing the training provided to health care workers and reorganizing health structures' functioning to better manage the health crisis.

The Project Manager corroborated that the project's design and the experience of CUAMM in Africa heavily influenced its success. However, Veronica Censi expressed that, in her view, the most important aspect was the CUAMM team's ability to read and analyze the context and change the strategy accordingly, with the beneficiaries' close participation and feedback.

• What helped CUAMM to be successful as a team?

The secret behind the essential role of CUAMM's team in carrying on the project and obtaining outstanding results, according to the Project Manager, was the combination of a clear division of responsibilities, supportive behavior among the team members and strong motivation and skills of each of them. She also mentioned the whole context as an opportunity for personal growth for all the team. The Chief of Party confirmed that the team's skills and heterogeneity were indeed fundamental for the project's realization.

• Which were the biggest challenges, and how did CUAMM overcome them?

The biggest challenges on the implementation of the project, from the Chief of Party's perspective, were the combination of lockdown measures that limited CUAMM's possibilities to act, the constant changes in the pandemic situation and, thus, the related measures and policies that required the adaptation of CUAMM's interventions, and the inexperience and lack of preparedness of the health institutions and its workers in managing health emergencies since the COVID-19 pandemic was the first national health emergency of great magnitude in the country's recent history.

Complementarily, the Project Manager added that other great difficulties were establishing priorities regarding the types of interventions and beneficiaries, and dealing with the bureaucracy and institutional timings that did not coincide with the need to provide rapid responses.

• Are there any personal lessons learned?

The Project Manager expressed that, by seeing the best of her country in action to face the toughest period of the last decades, she learned how much resilience and strength the Italian population has when they focus their energies on something truly important.

In turn, the Chief of Project's personal lesson was that it is possible to translate global health, relief and emergency experiences in developing countries into critical interventions in Italy and Europe, since, even if the contexts are very different, the knowledge acquired by CUAMM in African countries over many years was crucial to acting in Italy.





• How has the pandemic changed your view on the role the third sector and CUAMM on the management of health?

According to the Chief of Party, the third sector is crucial in preventing, monitoring and responding to health crises. It should, therefore, be constantly trained, equipped and prepared to act in close collaboration with public institutions. In that context, as expressed by the Project Manager, CUAMM is an important actor in health management as it can and has already provided the Italian health system with valuable tools and knowledge to deal with emergencies due to extensive experience in the matter.

• How could CUAMM help Italy and the countries in which it operated to better prepare and face eventual future health crises?

The Chief of Party, Andrea Atzori, emphasized the rediscovery of the network of health workers that previously collaborated with CUAMM in Africa as a great asset to help Italy and other countries in future health crises. This network was very important for carrying on the IRC19 project as it has experience delivering health services in challenging environments. Moreover, those health workers were the ones to establish some bridges between CUAMM and the health facilities or vulnerable groups in need of support and also to define the priorities and deliver solutions. This same adequately trained, equipped and motivated network is nowadays responding to the crisis in Ukraine.

The Project Manager, Veronica Censi, complemented by saying that, in general, there is the need to advocate for a change in emergency response management and countries' preparedness. CUAMM's role is to continue sharing its experience and closely cooperate with the Italian and other countries' health systems on preparedness to deal with future health crises.