

Saving Ukrainian Lives Through Training Frontline Medics

American medical volunteers in Ukraine leave a lasting impact training future frontline medics

While the US's military aid often grabs the headlines, medical contributions are also important for Ukraine to fight for its freedom. Healthcare organizations worldwide have contributed volunteer doctors, donated medical supplies, performed emergency services, served on the frontlines, and provided training for Ukraine's future healthcare providers. This medical training not only helps save lives on the frontlines, but everyday citizens are affected by both war and non-war-related ailments.

As its volunteers return from another Resiliency Medical Mission (RMM) in Ukraine in June, MedGlobal, a humanitarian NGO that provides emergency response and health programs to disaster-affected and low-resource settings, has trained over 1,077 health professionals and 119 hospitals in Ukraine since the start of the war. MedGlobal has implemented a variety of training for healthcare professionals and trainers in Ukraine, including management of polytrauma, management of victims of chemical weapons, mental health training, basic life support (BLS), and diagnosis using point of care ultrasound (POCUS). MedGlobal was also the first NGO to visit Ukraine's Ministry of Health and donated \$5.8 million in medical supplies and medicine. As the first INGO to provide medical training in Ukraine, MedGlobal provides insight into how this training has saved lives in Ukraine.

Adapting to Life Under War

War has dramatically impacted Ukraine's healthcare system. Evacuation has left many hospitals understaffed, and those fleeing from the epicenter of the war and Russian-occupied areas are transferred to other hospitals in the West, increasing patient count as well.

Dmytro, a surgeon from Mykolaiv, underwent MedGlobal provided POCUS training. After the war broke out, Dmytro's hospital went from 24 people to ten, two of which are interns. Since half of the hospital staff left Mykolaiv, the remaining staff are left to work triple shifts. To add to the pressure, this hospital was the core military hospital in Mykolaiv for a long time due to the absence of military hospitals in Mykolaiv. His hospital also received military personnel from other Southern cities. Since Mykolaiv has been severely shelled, including Dmytro's hospital, the number of civilian patients at the hospital has also skyrocketed, accumulating a mountain of work for a small staff. The surgeon states that MedGlobal coming to their hospital for the training was incredibly helpful because, due to this staff shortage, the hospital doesn't have time or the numbers to leave the hospital.

Anna, who is training in psychiatry and psychotherapy, underwent MedGlobal's mental health training in March. The war broke out during her internship at the children's hospital and greatly impacted her work. Due to the internally displaced children from other hospitals, Anna's hospital became increasingly crowded. She also noted that the number of patients with anxiety has immensely increased in Ukraine. But Anna says that the increase in anxiety cases is not entirely negative. "Because the numbers are growing, a lot more humanitarian organizations are paying attention to mental health," she said. "Before that, it was completely ignored."

Many medical professionals in Ukraine have had to change or broaden their specialties to adapt to the increased and more diverse patients. Even though he is an anesthesiologist, Yuri

learned things only doctors and nurses would typically learn, lessons that he finds very useful in his work today. Another anesthesiologist, Oleh, also expressed his excitement to go beyond his comfort zone. In September, Oleh, who now works on the frontlines, completed the same RMM training course MedGlobal implemented this June, learning polytrauma care and surgery techniques. When Oleh completed the surgery training, he went beyond his competencies and mastered new skills. According to Oleh, these skills help him a lot on the frontlines.

Despite new war conditions, many remain optimistic. “I think we will win,” said Viktor, another recent RMM participant and head of the polytrauma department of his hospital in Kyiv. “and I realize that the whole world is helping us, because everyone understands who is on the side of truth in this situation.”

Learning from American Volunteers

A common sentiment amongst volunteers teaching MedGlobal’s courses is that the Ukrainians are always engaged in the material and eager to learn from Americans. In the classroom and in practice, trainers and future medics alike were focused on their trainers, absorbing every lesson in front of them. Yuri, an anesthesiologist from Rivne who took the BLS course, expressed the support he felt in communicating with MedGlobal’s volunteers from the USA. “It is a great experience to connect with nurses and doctors in one topic...and to know how it works in another country.” Yuri expressed his admiration for how generalized the curriculum was, and how grateful he was for the breadth of the training.

According to Olha Romaniv, the soldiers are impressed by how the American trainers are motivated and more involved, unlike Ukrainian instructors. “Normally, they just say your open books to page whatever and then go away,” she stated. “But here [the soldiers are] surprised how

hands-on everything is.” Anna enjoyed how her trainer, Maya, had her practice many typical issues she faces on the job. Rustem, another POCUS participant who is now on the frontlines, added that one of the key differences of the MedGlobal training was the trainers paying close attention to the students, recalling how MedGlobal trainers didn’t let any trainee go until they made sure they learned how to do the procedures correctly. According to Yuri, the Basic Life Support training in Ukraine differs from the American curriculum. “There are things that they teach in America that aren’t taught in Ukraine,” he said. Many participants recalled how MedGlobal taught them protocols that they didn’t learn in school in Ukraine. A trainee from the recent RMM, Vitaly Lypnyskyi, just finished his internship at a hospital in Kyiv. Vitaly has 60 days of experience managing combat trauma patients and stated that he was immensely invested in the training. “I learned about many new solutions that I did not use, since they are not available in Ukraine at all,” said Vitaly.

The American volunteers are incredibly confident in their lectures, sharing their knowledge and unique personal experiences. Volunteer doctor Mike Samotowka explained to a classroom of future frontline medics that as an American surgeon, he is used to dealing with gunshot wounds due to the USA’s high amount of gun crime, teaching techniques incredibly relevant for a war setting. Judah Slavkovsky, another volunteer surgeon, had returned from a medical mission in Afghanistan before embarking on his sixth mission to Ukraine. Slavkovsky recounted his time in Afghanistan to the Ukrainians, detailing a common case he witnessed where men would shoot themselves in the leg to avoid joining the Taliban. According to Slavkovsky, these men would end up with a much more severe wound than anticipated due to the trajectory of the bullet, showing the trainees that bullet wounds can be more damaging than they appear. Former US Army medic Dr. Bedford Hudson Berrey Jr. personally visited an orthopedic

hospital to demonstrate the techniques he learned from his time in Iraq. Despite a language barrier, the three directly engaged with the trainees, frequently asking questions and giving demonstrations using props. “The training is very useful because it is conducted by doctors who have practical experience in caring for patients with combat trauma,” said Viktor. “The most important thing is that the trainers have experience of recent years of work in Afghanistan, Iraq, on the one hand. On the other hand, these are representatives of some of the best medicine practices in the world.”

Yuri and Oleh noted the quality of the presentation and expressed how they admired the mix of practice and theory in MedGlobal’s training. “I’m very inspired and motivated by [the training]. It’s great in terms of structure and trainers and the way they shared this knowledge and practice. I really enjoyed practicing and everything was perfect,” said Oleh. “The training was really great. I was very much impressed by the trainers and by the structure that the theory was combined with a lot of practice....” The mix of theory and practice was an aspect many trainees complimented. “The most important thing is that [the training] was very useful, with practical examples that I will be able to apply in experimental conditions tomorrow,” said Dmytro Zavertylenko, a participant in the recent RMM.

Many previous participants also noted that the training helped them develop an instinctive routine for specific procedures that makes their work more efficient. “The main idea is not just to learn but also to structure it in your head,” said Oleh. “Because when you’re in the frontlines, and you are providing this medical care, you have to do it really fast, and you have to be focused, and you have to know the algorithm well because it’s all about saving the patient’s life. So everything should be done very quickly and efficiently, and you have to be really

focused.” The recent RMM students echoed Oleh’s sentiments, noting that learning these protocols and routines was especially helpful.

Reviews from the participants were entirely positive. Anna’s overall statements about the training reflect everyone else that was interviewed. “I really enjoyed the training,” she said. “There is nothing that I would change about it.” Many, like Viktor and Vitaly, were eager to learn more, commenting that Ukrainian medical education should teach what they learned. “In my opinion, our medicine needs to be transformed, in particular the training of doctors,” said Viktor. “Such practical training is useful and there should be many more of them. In my opinion, they should be mandatory during the training of future doctors or during the professional growth of doctors.”

Impacts of the Training

Volunteer medical training has profoundly impacted both the front lines and civilian healthcare. Dmytro says MedGlobal’s POCUS training made ultrasounds and resuscitation significantly easier and more efficient, alleviating work for his understaffed hospital. “It was a constituent part of a large process of saving lives,” Dmytro said. According to Dmytro, the ‘Butterfly’, a portable ultrasound device, also delivers higher quality and facilitates a faster process. The POCUS training sped up the diagnosis process tremendously, resulting in the team more quickly prescribing medicines, making injections, and solving other medical issues; taking pressure away from their chaotic situation. “The idea was to learn the algorithm,” Dmytro described. Dmytro’s hospital has ultrasounds, but the devices are large and are located on the first floor, making it difficult to move the patients and equipment to the 2nd floor, where the

resuscitation department is located. The main benefit of the butterfly is that it's small, accurate, fast, easy to use, and portable.

The training impacts those on the frontline as well. Rustem described that the POCUS training was very well structured, comprehensive, engaging, and valuable. Rustem says he tries to do the ultrasound with every patient on the frontline when he can, describing how he usually does ultrasound diagnostics at a stabilization point. Now he can do the ultrasounds in his car. According to Rustem, they can rescue many more patients on the frontlines thanks to the butterfly. When asked what new trainees taking these courses should know about the frontlines, Oleh advised that new medics “need to understand that when they go to the frontlines...you can say that it's divided into different zones: red zone, green zone, yellow zone... Forget about that completely because shelling happens in every zone. And it doesn't mean that you say, okay, I'm away from the frontline... It's still very dangerous because Russia uses shelling.”

Anna recounted her most memorable experience learning how to support patients and colleagues mentally. She described shifting her mental support techniques after the training. According to Anna, the wrong approach is to tell them what to do; the right thing to do is to ask the question so they come up with their own decision. She also commented that her mental health dramatically improved after the course taught the participants how to take care of themselves as well.

Yuri says he notices significant differences in his work before and after the training, especially regarding how to share information and the many special little tips. “It saves lives,” Yuri stated. “Everyone in our country needs to know these general skills.” Oleh added that he feels more confident in surgery manipulations which he had no prior knowledge of. He now has

to deal with many surgery manipulations on the battlefield, and after the training, he is confident he is doing everything correctly.

As a surgeon and a teacher in the Department of Surgery, Dmytro Zavertylenko plans to train his colleagues in what he learned, stating that it is not difficult to learn. “I will directly apply my skills and knowledge in the hospital where I work and where there are clinical bases of the department,” he said.

Continuing to Build a Brighter Future

MedGlobal’s volunteer doctors expressed their positive experiences working with the Ukrainians. Judah Slavkovsky discussed his motivations for returning to Ukraine for a sixth time. “The greatest joy is to be aware that someone’s life was saved thanks to training. Recently, an anesthesiologist called, who said that with the help of a portable ultrasound machine, which MedGlobal gave to military hospitals, it was possible to timely diagnose cardiac tamponade and save the life of the wounded. Such news is not often received through events on the front line, but it helps us to confidently do our work,” said Slavkovsky. Oleh, as well as other Ukrainian participants, expressed his satisfaction with the program and his desire to learn more from MedGlobal. Recounting Judah’s thorough teaching methods, Oleh said, “Everything was interesting and useful.” Oleh, who had previously trained under Judah, reflected further, “If you were to ask how to improve the training? The training was the best of the best, and it doesn’t need any improvement, in my opinion. Everything was perfect.” Dmytro Zavertylenko expressed his satisfaction with the trainers, noting that everything was understandable and taught with purpose.

Ukrainian civilians are also profoundly grateful for foreign volunteers' support. An older man encountered during MedGlobal's recent mission put his feelings of gratitude into a heartwarming story. "I am 85 years old. In World War Two, my mother, father, two brothers, they ended up in the concentration camps..." he stated. "I escaped to Donbas, and then I had to escape to Kyiv. And war brought me here. It's quite a common story." The older man bowed, a grateful smile on his face. "Thank you very much. Thank you, my little sunshine. Thank you. I wish your people peace, happiness, progress... I very much love the people there and the wonderful politicians and people who are willing to help us in our situation. Thank you."

With continued donations, MedGlobal plans to address the issues arising from the Nova Kakhovka dam breakthrough by starting mobile clinics in the region and providing water purification systems to combat waterborne illnesses. The continued actions of MedGlobal and other NGOs in Ukraine in the past year and a half are having a significant impact saving the lives of soldiers and civilians, and bolstering the needy and stretched thin healthcare sectors. MedGlobal will always be striving for a world without disparities in health; reaching the hardest hit communities in the world, and building resilience in healthcare systems where it is needed most.