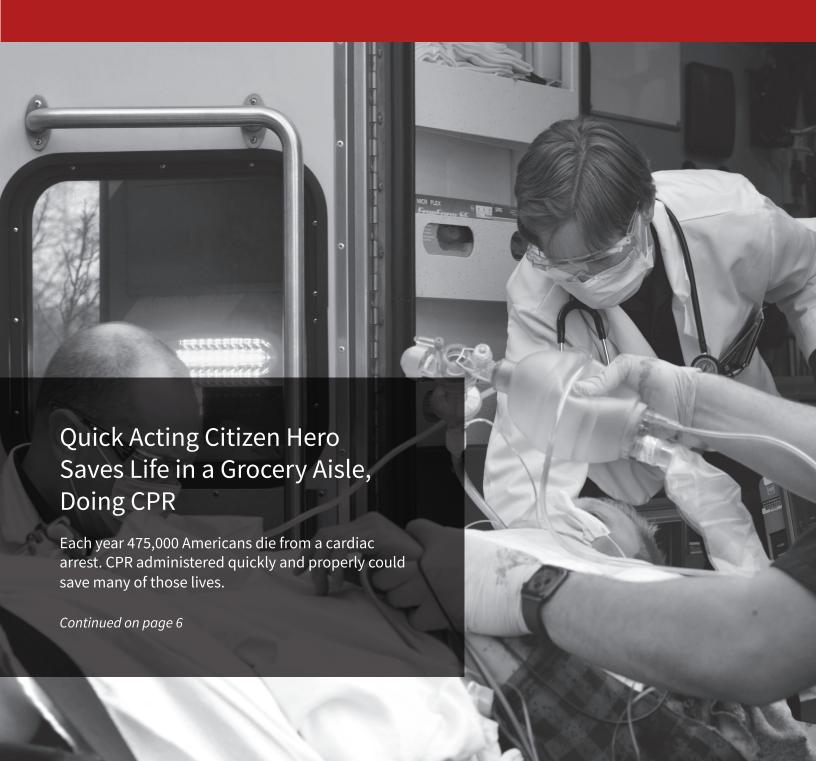


DISPATCH

MEDIC ONE FOUNDATION

Newsletter Spring 2021





Lopez Island paramedic Nicole O'Bryant along with King County paramedic Brian Barrett discuss patient treatment during a scenario at the Mega Code drill during their time as paramedic students.

Lopez Island Paramedics Exhibit High Level of Skill, Because There Isn't Anyone Else to Call

Steve Tilles had a high-powered career as a physician and researcher in Seattle, specializing in treating people with allergies and asthma. For most of those 23 years, he and his wife, Becky, spent getaway time on Lopez Island, where they built a second home. Then, a couple of years ago, Steve left his practice to join a biopharmaceutical company that develops treatments for food allergies, a job that would allow him to work remotely. He and Becky moved to Lopez as nearly full-time residents.

For 50 of his 60 years, Steve exercised "pretty obsessively" and had no history of heart disease. In April 2020, that changed. "It came out of left field," he recalls. "I just had some weird symptoms. I knew a cardiologist in Seattle and called him." Although it didn't seem very serious at first, Steve left for the mainland the next morning and ended up with bypass surgery. "The doctor said it was a really bad blockage in the main artery, called a 'widow-maker.'"

Steve and Becky returned to Lopez after his surgery, isolating at home due to the pandemic. On July 9, after the last ferry of the day had left the island, he began to have chest pain again.

"So I told my wife I needed to do an EKG—we have one at home—and the rhythm was okay, but I'd had PVCs (premature ventricular contractions) for a couple of hours, and they were worse than usual. We talked about it and decided to call 911."

Paramedic Nicole O'Bryant and EMT Donna Hasbrouck, from Lopez Fire, responded. "One challenge with COVID,"

"That Lopez paramedic picked up the PR depression as a sign of pericarditis; that's a cardiologist thing, not something most doctors or first responders would be expected to know."

says Nicole, "is that we're only sending one medic and one EMT into the house, which can make it challenging to gather information from the spouse, patient, and also get everything done." Normally, there would be two to four EMTs inside.

"Steve and his wife were already on the phone with their doctor, who was trying to run the call," says Donna, "but Steve realized right away that Nicole knew exactly what she was doing."

"She was all business and did the things she needed to do," recalls Steve. When his cardiologist—who was on the phone with Becky—asked to speak with Nicole, she said she had to do her assessment first. "She started an IV, did an EKG, and then talked to him. She mentioned that the EKG showed some PR depression. Everyone agreed that I couldn't stay on the island that night."

Airlift Northwest flew Steve to a hospital in Seattle. He was diagnosed with pericarditis and treated with an anti-inflammatory and anti-spasmodic. He and his cardiologist were very impressed with Nicole's knowledge and skill.

"My cardiologist said, 'you know, that Lopez paramedic picked up the PR depression as a sign of pericarditis; that's a cardiologist thing, not something most doctors or first responders would be expected to know.' Our Lopez fire chief said this was exactly the kind of thing Nicole would pick up, because of her Medic One training." There are three paramedics on Lopez: Nicole, Caleb Pal, and Michelle McDarmont. All of them were trained through the Medic One Paramedic Training Program in Seattle, then fulfilled the vision of the program by returning to serve their small community.

"It's incredible to have this opportunity; getting people trained to a national—above national standard," says Michelle. "I'm grateful for what the Medic One Foundation has done for me and other medics, which helps this entire region of Washington."

Lopez Island has approximately 2,500 year-round residents, although that number swells in the summer when tourists visit. Many residents are over 60 years old, and there's no hospital on the island. Decisions have to be made about when and how to transport patients to other locations.

"It's not totally risk-free, putting someone in a helicopter," says Caleb. "If there's a storm, for example, we need to weigh health risks. Having seen so much in training helps us make those calls."

Paramedics on Lopez must have a high level of skill, because there isn't anyone else to call.

"This is a small island with a very thoughtful, supportive community, but they are arguably way ahead of the game when it comes to the emergency medical system. It is second to none. It really stands out as a benefit to Lopez Island," says Steve Tilles.

"Without the Medic One Foundation," says Jim Ghiglione, acting chief of Lopez Fire, "there's no way we could have been able to have these three incredible professionals perform at that extremely high level. The only way it works is through the generosity of people who donate to the foundation."



The 2020 coronavirus pandemic caught our state, and the country, unprepared. As Medic One and firefighter/EMT teams began to see the first victims, the organizations supporting them were scrambling to provide enough personal protective equipment (PPE) to keep them—and their patients—safe. Procedures were changing, too. On every call, N95 respirators had to be worn. There weren't enough of those in the beginning.

"Betty Yang, a UW emergency medical physician, came to me and said that first responders were running out of N95 respirators," says Jonathan Posner, PhD, from the UW's Engineering Innovation in Health program (EIH). "She thought the existing process for decontaminating and reusing N95s was too onerous for the first responder community."

The solution was to create a custom-built system for mask decontamination that could be used at individual fire stations. It began with collaboration between Dr. Posner; Dr. Tom Rea, King County Medic One program medical director; Deputy Chief Dave Van Valkenburg, Kirkland Fire; and Deputy Chief Dennis Dahline, Seattle Fire.

Dr. Posner put a team of engineers together. "Grad students and other designers and engineers that I had worked with," he says. "Everyone was very interested and said 'Yes, how can I help?'"



Representatives from fire departments and EMS agencies throughout King County gathered to see the newly-developed N95 Mask Decontamination Unit.

Research had been done already on how ultraviolet light (UVC) can be used to inactivate viruses and other organisms on N95 respirators; how much UVC was needed to kill SARS-CoV-2; and whether the process would affect the fit and function of the masks.

Next step was to build a box that was about the size of a mini-fridge and designed to hold up to 15 masks. The team measured how much energy each mask would receive and confirmed that the UVC dose was sufficient to decontaminate all surfaces of the N95s. Each box

weighs about 100 pounds and takes half an hour to decontaminate the masks. The first boxes were delivered for use in August 2020.

"They're great," says Jim Whitney medical services administrator for Redmond Fire. "They're giving us the ability to extend the life of N95 respirators." As the pandemic began, Whitney explained, PPE procedure changed to require every responder to wear an N95 on every call, creating a shortage. King County Medical Emergency Services/Medic One, based at Redmond Fire, has two light boxes, receiving a third in January. "So now, masks not used in direct contact with a COVID-19 patient can be decontaminated and used again, allowing up to three uses for each mask."

The boxes are manufactured and assembled by local companies Meadow Creature, Burn Design Labs, and CycleFab. So far, 54 boxes have been distributed and 20 more were expected in January. Training is provided for first responders who use them.

"People who work in medicine, and first responders, are really putting themselves out there and are the heroes of this pandemic," says Posner. "They show up and put themselves at risk. The fact that we were working on a project that would be meaningful inspired the team to work hard, stay up late, and turn out something of high quality. It's nice to find a way to contribute."





Quick Acting Citizen Hero Saves Life in a Grocery Aisle, **Doing CPR**

step of doing CPR."

Each year 475,000 Americans die from a cardiac arrest. CPR administered quickly and properly could save many of those lives.

Take for example Roman Khramets, age 46, from Lynnwood. In December of 2020, Roman didn't feel well. He booked a massage in Kirkland and stopped at nearby Whole Foods to buy antacids for what he thought was heartburn. That's all he remembers until he woke up in the hospital and was told he had a heart attack.

But Kirkland resident Dave Crotwell knows what happened, because he was in that same store with his wife, Jill, picking up some milk after work. He is the Director of Respiratory Care Services at Children's Hospital. Dave's wife was lingering a little, so he walked from the dairy aisle around the corner to the medicine aisle and saw Roman on the floor, with a grocery staffer standing above him. That was about 30 to 45 seconds after Roman collapsed, a time span confirmed by the store's security cameras.

Dave ran over, told the Whole Foods worker that he worked in healthcare and started assessing Roman. "It was clear he was not in good shape," Dave said. "I evaluated him and started CPR when I realized he didn't have a pulse. I kept doing CPR for seven minutes or so until the fire department and Medic One showed up. They placed him on a monitor, shocked him with a defibrillator, and that

Kim Martin, Incoming Executive Director for the Medic One Foundation, presents Dave Crotwell (center) and Roman Khramets (far right) with a Lifesaver Challenge Coin. Representatives from Redmond and Kirkland Fire Department, including Redmond Fire Chief Adrian Sheppard (far left), were also in attendance to celebrate this special occasion.

brought his heart rhythm back. Medic One did their great work of stabilizing him and taking him to Evergreen Hospital for further care."

Redmond Medical Services Officer Mike Waite was one of those first responders, supporting Aid 127 from the Kirkland Fire Department who did basic life support and defibrillation; and Medic 123 from Redmond Medic One who administered IVs, intubated, and swiftly transported Roman.

Mike knows that everything happened just right that day for Roman. "He's 100-percent fortunate to be alive. He only had a chance because they recognized he was having a medical emergency and called 911, and Dave chose to take the next step of doing CPR. The biggest thing adults have issues with is starting CPR, because they are scared or unsure they might do the wrong thing, even if they've had the training."

But Mike says that early chain of survival seeing the problem, activating 911, and the action of the lay public to do continual chest compressions before professional help arrives can be the difference between life and death.

"And Dave chose to do CPR despite the potential of exposing himself to Covid-19," Mike added.

The day after Christmas, Dave received a call from Medic One that Roman had walked out of the hospital four days after the event and was a total success story. About a month later, everyone met face-to-face at Kirkland Fire Department on Rose Hill.

"Roman and his girlfriend thanked me. She started crying and my wife started crying. I'm 47 and that could have been me," Dave said, pointing out that in his 26-year career, while he maintains basic life support skills, this was his first time doing bystander CPR outside of work. Roman is grateful to be alive. "Of course I'm super grateful to the guy who came to my aid. I'm honestly not sure why things happen the way they happen. I'm still processing it," he says. "But now we have plans to learn CPR. It makes a lot of sense."



Sign-up for a Free Virtual Hands-Only CPR/AED Class

Due to the COVID-19 pandemic, much of America is now working from home where **more than 70%** of sudden cardiac arrests occur.

Visit mediconefoundation.org/programs/cpr to sign-up for your free class today! There's no better time to acquire the knowledge and skills necessary to help save a life.



Thanks to Ida Culver House Broadview's generous donation, future paramedic students will receive exceptional training and education.

Ida Culver House Residents Give Generously

Ida Culver House Broadview surpassed its generous donation record this year, raising over \$18,000 to support the education and training for future Medic One paramedics in our region.

In 2014, residents at Ida Culver Broadview started a fundraising event that became an annual Drive for Medic One. During January and February this year, over 100 households in the independent living section participated. Enthusiastic supporters of Medic One, the residents are grateful for the care they receive from Medic One paramedics.

"Last year, Medic One made 132 calls to Ida Culver Broadview. So we are well acquainted with Medic One," says Bob Gabbert, the 2021 fund drive coordinator.

Bob and his wife of almost 52 years, Janet, were among those who received care during their years at Ida Culver. "Medic One came seven times for my wife and one time for me. In my own experience, I had a TIA (transient ischemic attack) a little over a year ago, and it was very comforting when they came through the door."

It was a simple process to gather support: a note on everyone's shelf, a donation box placed in the lobby, and a month of residents dropping off checks. A few extra reminders from Bob, some encouraging give-aways from the Medic One Foundation, and the drive was a great success. Despite pandemic safety protocols, Bob made sure residents could see the moment when their donations were presented to the foundation.

"We presented the check to Kim Martin, from the Medic One Foundation, in our library. We filmed it and then showed it to everyone on our in-house TV channel."

Thank you, Ida Culver House Broadview, for your support!

Year in Review

2020 was a challenging year for both our paramedic students and all first responders who are working harder than ever, fully dedicated to providing the emergency services desperately needed in our community during the COVID-19 pandemic. During this challenging year, your support made it possible to:

- Train 13 new paramedics for our region.
- Produce 74 ultraviolet N95 mask decontamination units for local fire departments.
- Provide 1,500 gratitude meals for fire and police personnel who staffed the COVID-19 testing sites for first responders during the beginning of the pandemic.
- Purchase four additional training manikins for the Paramedic Training Program to meet social distancing requirements.
- Award 13 grants to help fire departments purchase muchneeded rescue equipment, training manikins, P100 masks, and triage training supplies.
- Purchase new audio/visual equipment to support social distancing and remote learning for paramedic students to keep the training program on schedule during the pandemic.

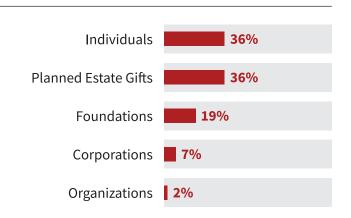
Your support is a major reason why Medic One paramedics achieve a survival rate for sudden cardiac arrest that is among the highest in the world. Every day, your gift brings life and hope back to families.

Medic One Foundation 2020 Financial Highlights

IMPACT OF YOUR GENEROSITY \$1.5 MILLION Paramedic Training & Education 62% 15% Community Outreach EMS Research Grants 7% CPR/AED & First Aid Training 6% **EMS Equipment Grants** Regional EMS Projects 4% PulsePoint Citizen Alert System 1%

DONATIONS BY SOURCE

\$2.85 MILLION



STATEMENT OF POSITION*

Total Net Assets	\$6,265,804
With Donor Restrictions	\$2,409,774
Unrestricted	\$3,856,030

^{*}Unaudited

The Foundation's most recent audited financials and IRS 990 can be found by visiting mediconefoundation.org.



Keeps Training Program on Schedule

Last summer, the Medic One Paramedic Training Program was faced with a huge problem—how to maintain social distancing of 24 students and ensure that their training and education continues should any of them become guarantined due to COVID-19.

The answer was to secure a second classroom and install a new audio/visual system to support remote learning for the students, as well as remote continuing education for the 270 active paramedics in our region.

The total cost for the equipment, additional furniture, and installation of the audio/visual system was \$125,000.

Thanks to the generous support of the Aldarra Foundation, Puget Sound Energy Foundation, and our Medic One Foundation donors, we were able to purchase this much-needed equipment.

Paramedic students in Class 47 participate in a sudden cardiac arrest drill while utilizing their new audio/visual system, which allowed students to watch the various scenarios remotely.

"These generous donations made it possible for our program to train students during the COVID pandemic"

"These generous donations made it possible for our program to train students during the COVID pandemic" says Eric Timm, Director of Paramedic Training. "We are able to provide remote learning in innovative ways. Our classroom design is a model for other departments."







Class 47 Students Participate in Numerous **Drills to Hone Their New Skills**

Imagine this as your to-do list for the day: "Step out. Make tough decisions. Manage chaos. Be a leader. Save a life." For the 24 students in Medic One's Paramedic Training Class 47, that's their task during the numerous training drills over the last few months. The drills are hosted by fire departments, including Seattle, Bainbridge Island, Redmond, Shoreline, and Bellevue. Each drill addresses specific medical scenarios, such as trauma, sudden cardiac arrest, and pediatric emergencies.

Students spend the entire day practicing their skills by rotating through various scenarios that often include individuals who volunteer as mock-patients. Senior paramedics stand nearby, analyzing the students' actions and making detailed notes. With the assistance of firefighters/EMTs from local fire departments, the students assess, treat, and transport patients to a mock-hospital, where physicians critique each student's performance and provide valuable feedback and instruction. These drills, which are critical to the successful training and education of our region's paramedics, are not possible without the support of our donors.

> To stay up-to-date on the training and education of the paramedics that you help support, follow us on Facebook, Twitter, Instagram, and LinkedIn at @MedicOneFndn.



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Paramedic students from Class 47 participated in numerous drills, including the Bellevue Trauma Drill. This drill tested their knowledge and skills in the assessment and treatment of patients suffering from gunshot wounds, falls, motor vehicle accidents, and more. *Continued on page 11.*