



- Ed Comeau: This is Ed Comeau, the producer of CRR Radio. Fire departments across the nation are facing unprecedented challenges in responding to the COVID-19 pandemic and dramatic changes are being made in how they operate. To help, CRR Radio is launching a series of conversations with people in departments, large and small, to learn what they are doing to plan, prepare, and respond.
- Ed Comeau: We appreciate everyone taking the time to talk with us and share their experiences. In addition, Vision 20/20 has created a Coronavirus Shared Resources Library that contains a wealth of information contributed by departments. This site includes policies, procedures, response checklists, and a lot more and our goal is to help departments avoid having to reinvent the wheel. It's available at strategicfire.org/coronavirus. And if you have anything that you want to contribute, you can also do it through that page as well. Again, the URL is strategicfire.org/coronavirus and with that, let's get into our show.
- Ed Comeau: We're talking with Rich Llewellyn who's the assistant chief with the Everett Fire Department up in Washington which, as we all know, really was the epicenter of this whole coronavirus problem that we're having now sweeping across the nation. Rich, I really appreciate you taking the time to chat with us today.
- Rich Llewellyn: You bet, Ed. It's a nice to be able to take a break and share some of the lessons that we've learned early on in this event.
- Ed Comeau: And that's exactly where I'd like to dive right in. You've been on the front line of this whole problem from the beginning. Well, can you just tell us what and what you have learned and what you have done? And what you want to share with other people across the nation?
- Rich Llewellyn: Absolutely, and this really came into focus in late January when the first US patient was identified. From my conference room, I can look over and see where he was housed and being treated. And then, from my office I can look at the other main hospital in town that's really taken a lead role in handling a lot of cases here in Snohomish County.
- We were in preparation mode. We were watching what was going on in China and some of the other countries that are impacted. And then, when our first patient came, we went into a rapid planning mode. We started identifying sources of PPE and getting PPE coming in. And then, come up with a plan for transporting what we expected would be one or two patients. We thought that Public Health would have these patients identified and we would have a plan for transporting patients from home to the hospital who were non-critical, or even critical, but just needed a trip up to the hospital, we would know who they were.
- One of the things we found is we're not going on calls for COVID patients and being exposed. We're going on calls for people who have fallen, for people who



are weak, for a person down on the sidewalk with alcohol on their breath, and those are the COVID patients that we're encountering that are catching us. So we were prepared but the virus is moving really fast in our community and it passed us up. So we've had some people in quarantine and it's because they were exposed on calls that were in "non-COVID calls." So, we really have to be aware of what's going on and things change. Things change on a daily basis: our understanding of the disease process, our understanding of how best to respond changes. We operate in a county that has a fairly robust and historic auto aid agreement in place and we're generally borderless. It's really driven us together as a county.

We currently have seven days a week a chief's meeting in the morning that's hosted online, lasts about an hour. Just about every department in the county is on there, including federal and industrial departments. We have Boeing here, they have their own fire department. We have a Navy base in town with their own department. Communication is critical on this and having everybody on the same page is really important. So we have a unified fire operations center or fire coordination center that's being stood up for the first time in our county with multiple agencies contributing personnel to that.

We anticipate that things are going to get a lot worse before they get better. Let's see, this morning's numbers were at 645 confirmed patients in the county and 15 deaths. We think that we're probably about 60 days out from having the first [inaudible 00:04:59] come in, so we're seeing patients every day.

Ed Comeau: Operationally, what kind of changes did you make to how you're doing things?

Rich Llewellyn: Well, we had always been a gloves and eye protection agency since eye protection first came into place. We had three levels initially of PPE that we identified and level one was standard eye protection and gloves. Level two was an N95 or APR respirator and eye protection, which was at the time still standard eye protection. And then level three was goggles, N95 respirators or APRs, and gowns and of course with gloves.

Again, this virus ran past us with where we're at. We've switched to N95s or APRs, require respiratory protection on every call as well as goggles. Our assumption is the people we're seeing are going to have COVID regardless of what they look like. Our level three calls or level three PPE adds a gown into the mix, and those are being used for known COVID patients or high likelihood COVID facilities. So, we're looking at residential institutions as high likelihood COVID locations.

I'm turning around my other windows, I'm looking at the jail and that's a place we assume has COVID inside. We have one adult care facility that we've transported or contacted patients, patient numbers in the double digits that are confirmed to have COVID, so we assume that that environment is contaminated

and every person in there is likely exposed. We've switched. Actually, I'm going to issue an order probably later today to switch to level three PPE for all medical facilities and all adult care facilities regardless of symptoms.

One of our challenges is things are changing so quickly, we need to be able to communicate to our crews. One of the ways we're fixing that or addressing that issue is we have a station mantra that's up on the wall in every station that shows current incidents. We've added a dashboard to that, that shows our latest information on our COVID response. So, new orders are highlighted and then we also put in the gist of whatever order is coming out. So for level three it's going to be add a gown to everything at these facilities and refer to the special order for more information.

We track numbers of COVID patients in Snohomish County. Any relevant information's up on the dashboard and what is important about that is it allows guys to see changes quickly that's changed live. I can sit at home on my computer and make a change to the dashboard and it's in all of our fire stations. People can see what's new before they even get on the [rigs 00:08:04] in the morning. They're not having to go check their emails and filter through a bunch of email that has come out from headquarters. They can see what's relevant, what's pertinent right now and what's going to help them today.

Some other operational changes, we've air-gapped our administration in our shop facilities. Response crews or suppression crews aren't allowed to visit our administrative facilities. They're not allowed inside the shop. Any vehicle exchanges at the shop take place outside and our mechanics maintain at least a six foot distance from the crews. The crews are required to decontaminate all the apparatus prior to turning over at the shop.

One of the difficulties that we are concerned, with this air gap, is our lack of communication or loss of communication with the crews in the station. So, the chief recorded a video to be released to the crews about 15 minutes just telling them what our plans are, where we're at, and where we're headed, how we see this playing out in the near future. We've set up a standing appointment with our videographer in the city in order to make sure that that's a regular video that's going out. We're going to send one out once a week just to make sure everybody knows that admin is still here. Admin is still paying attention to what's going on and we care about what's happening out there.

Social distancing is important. We have social distancing practices that we're implementing in the stations. We want the crews to change over their rigs, make the shift transfer while maintaining adequate social distancing. We don't want them hanging out in the stations when they're done. They need to leave. We're implementing self-checks for cruises that come in. We want to know what their temperatures are. We're putting thermostats at the entry waste all the stations. We want the crews to come in those entryways in the morning, mark down whether or not they have any symptoms and mark down what their



temperature is based on other stations or other departments in the area that have had experience with people showing up to work sick. And we've had some close calls.

We have had a positive employee at work and we had to put some people off on quarantine because of that, so we're being very careful with our workforce. We want to maintain our service for as long as we can deliver it. We're not giving up on delivering service to the community, so we're trying to make sure we have a healthy workforce.

Ed Comeau: You mentioned disinfecting the engines. What does it take to do something like that? And is that something that you have to do after every call, some level of decontamination?

Rich Llewellyn: We're disinfecting our transport units after every call certainly and we're disinfecting engines every day, which is something we've never done before. We want to make sure that when crews are coming in they're starting off the day with a clean engine. And after that, it's up to them. If they were on a call where they're potentially exposed or they think they may have been exposed, they need to decontaminate themselves and decontaminate the engines at the level they feel is adequate.

We've provided checklists and equipment to decontaminate the engines. We have more equipment coming. That's one of the advantages of working in a multi-agency approach to this problem is we're pulling our orders and trying to get equipment in and we're having some success getting equipment because it's a large order that's coming from an entire county versus a bunch of small orders from individual agencies. So we're waiting on some electrostatic foggers that will allow us to more effectively clean engines. We have 55 gallon drums of cleaning agent that's on its way to the county right now we're very careful with the cleaning agent. We want it to kill the virus but not our people, so we're diligent in our research and ordering what is right and what is safe for our people, but what is also effective.

Some of the other things that we found, as far as external communication in addition to the chiefs meetings. We're speaking language that the fire department really hasn't spoken in this area before. We're talking about ESFs and obviously we're operating ESF #4 mostly, but we have other emergency support function partners that also are less familiar with this language. And then we are working with our law enforcement partners in ESF #13 to make sure that their needs are addressed in both PPE and in knowledge about what's going on. This is not a problem that's common in law enforcement circles but it's something that we can help them out with, so we've reached out and are working closely with them.

Also, our state and federal partners are critical on this. We need to have communication and good communication. We've had some hiccups as far as plans that were made at the federal level and then at the state level and got pushed down really quickly without any local input. We've been able to reel that back and make sure that whatever plans are in place meet what our local needs are and our local conditions. Our community is really important to us, as it is for all fire service agencies, and how we communicate with the community is important as well. And so we're developing consistent messaging for social media across multiple agencies. We're making sure that the community knows we're still here, but we're going to look different.

I've seen a lot of these social media posts that show firefighters in 95s and goggles arriving just so people are comfortable. In some of the early days of this event, when we weren't sure we were going to get adequate PPE levels, we were brainstorming what our responders were going to be responding in. And at one point, it was black garbage bags and scuba goggles. It sounds ridiculous, but we're trying to protect our workforce and we're willing to go to great lengths, but we needed to make sure that the public knows the people who are showing up in scuba goggles and black garbage bags were from the fire department, so that that would have been important had we gone there to make sure that message got out. One of the things that concerns us is not only is toilet paper flying off the shelves in the Seattle area, but if you go to a sporting goods store, ammunition is also flying off the shelves. So, the public is nervous and we need to make sure that our personnel are protected, so social messaging or social media messaging is critical for us.

Some other things that we're finding is this event is changing so rapidly and evolving so rapidly, particularly with our understanding of COVID-19 and the underlying virus. We're reading science papers every night. We joke that we have a science officer who comes on to the morning chief's meeting and gives the update, but it is important that we understand exactly what we're fighting and how to best protect people. So one piece of advice I have for people who aren't in the thick of this yet or still getting ready is start reading. There's great information online and most of the science journals that I've seen are making it free for just the public to get on and read it.

The Lancet is one of those journals that has great information. It's a British medical magazine. I've been reading that every night. They have an infectious diseases section that specifically deals with coronavirus, great information on there, and we're learning new stuff about how it's transmitted. At first thought it was just respiratory and now we're finding out that there is a potential oral-fecal route as well. We're looking back at with the SARS epidemic since it's a similar virus and some of the lessons learned from that, and those are also available online in a lot of the science journals. So, find those people out there who can speak the language of science, and they're present in every fire agency, and get them to translate it into plain English so we can get it out into the hands of the troops and they understand what's going on.



Ed Comeau: If you could climb inside a time machine and go back to when this was all starting, what do you wish you had done differently or done better?

Rich Llewellyn: I would have launched our upgrade of PPE far earlier than I had. I'm spreading the message to all of my friends that I communicate with, "Start wearing respiratory protection and, and goggles on every call." I still talk to agencies, even in Washington, and not locally so they're a little bit less effected, but they're still not wearing respiratory PPE on every call on, and that was a lesson learned for us. This is in your community. You're not going to recognize it. It's not somebody with a sign on their door saying they have COVID. This is somebody who felt weak and fell and/or has muscle pain and you're going to walk in and you're going to be exposed. We are still quarantining crews as they're exposed. We need to protect our workforce. We're trying to minimize the impact of one big wave of people being off to our ability to deliver service. So I think that's probably the biggest takeaway is if you have one patient, you have a lot more and you don't recognize them. You can't see them and you don't know they're sick.

Ed Comeau: What kind of impact do you think this is going to have long-term on the fire service in a year? If you and I talk again, what changes do you think will have permanently happened because of this?

Rich Llewellyn: I honestly think we're going to lose some people in the fire service. There have already been members who've been in critical condition, not locally. I believe in California there was somebody who was in fairly serious condition. We've had several firefighters infected locally with varying degrees of impact. Some of them I was fairly concerned about. Nobody is critical here locally, but we're going to lose firefighters from this. We have people on our job who are immune-suppressed or taking medication that makes them so, and I'm really worried about that.

The other impact that I anticipate is a psychological impact. This is not a one battle and we're done. This is an extended campaign and we're essentially in a war. Well, we're on a wartime footing and people get worn out and we're not able to sustain that for long-term. So, I think we're going to lose people because they're psychologically impacted from this. In doing some research on people who've been quarantined previously, there are some long-term PTSD concerns with that. So we need to make sure that our psychological wellbeing is being taken care of. People who do survive this and there's some early research out of China that indicates severe cases may lead to some loss of pulmonary function. We're going to have long-term impact of firefighters. This is not the flu, this is not the cold, this is something worse and it's going to impact the fire service.

Ed Comeau: I really appreciate taking the time, Rich, to talk with us. I know you're tremendously busy up there. But the information you've given us that we can share with everybody is just so helpful for those that are not as much into the thick of it as you are right now. And we really wish the best for you up there.



Rich Llewellyn:

Hey, you bet. Thanks Ed. And a couple of other things that have come to mind since we've been talking is we're a transport agency, so we're taking our patients up to the hospital and we do have something of a combination where we also use a private ambulance here, but we're all in this together. So, the private companies need to understand that, that PPE is important and they're an important partner in this. We want to minimize our exposure at the hospital. Work with your hospital now to come up with a transfer procedure. If they don't want COVID possible patients walking through or being wheeled through their ERs, they need to have a procedure in place and that needs to be understood by all the partners.

We've had some communication hiccups with our hospitals as far as implementation of procedures that we in the fire service didn't agree with and push back on. We're still seeing a little bit of siloing. We're working through that, but reach out today to your hospital to talk to them about how they want to receive a COVID positive patient. Look around for staffing.

Probably my final point for you, we had a bunch of recruits going through the academy. We recalled them anticipating that we're going to have a wave of patients and they're getting the crash course on department specific EMS procedures, and then next week they'll start some department-specific academy procedures. So we're going to have our own little mini academy here, but they'll at least be available for when that wave starts to crash that we can rapidly transition them to EMS and get them out on the streets quickly.

And then, look at your retired folks if you need some help staffing. If you want some help in your FOC, retired people who've maybe been out of the game for just a little bit but still know what the score is, can come back in. We have brought back in a retired assistant chief and he's helping us out with some of this. So, we anticipate that over the course of the next year we're going to have significant numbers of staff, whether it's field staff or administrative staff, we're going to have this condition. And they'll be out of the game for a little bit, we need to make sure that we continue to deliver service and look for every opportunity to do that.

Ed Comeau:

We've been talking with Rich Llewellyn who's assistant chief with the Everett Fire Department up in Washington. Rich has provided us with the wealth, a treasure trove, of documents that we've posted on our coronavirus page. If you go to a strategicfire.org/coronavirus, we've got a shared resources library up there that Rich has contributed a great deal to, as are so many other people. And Rich, we really appreciate all this information you've given us today here on CRR Radio, the stuff you've given us online, and we're really just wishing the best of luck for you up there.

Rich Llewellyn:

Thanks Ed, I appreciate it and I think we're all in this together. So, communication is a key and hopefully other people can take some of our early lessons and run with them and make them better. We're not set up in a



monolithic way. We want to continue to evolve and I think as a whole the fire service can survive this.

Ed Comeau:

You've been listening to a special edition of CRR Radio focusing on what departments across the country are doing in response to the COVID-19 pandemic. I also want to remind you of the Coronavirus Shared Resources Library that contains a wealth of information relating to policies and procedures that you might find helpful. Or if you have something you want to contribute, you can do it all that strategicfire.org/coronavirus.

CRR Radio is a production of Vision 20/20 and it's produced by me, Ed Comeau, and edited by Rich Palmer. Be sure to subscribe and follow us on Twitter and Facebook @strategicfire. Thank you for listening.