

10 Best Practices for Reopening A Survive and Thrive Guide™

Introduction:

Welcome to 163rd webinar today entitled Best Practices - The 10 Best Practices for Reopening are part of our series of the Survive and Thrive Guide of our Corona virus Care Community of Practice. I'm Charles Denham - I'm Chairman of TMI T and co-founder of the MedTac Bystander Rescue Care Program. And this program of the coronavirus care community, a practice started more than a year ago when we had the crisis, a couple of introductory comments, first off our purpose mission and values. Our purpose is that we are focused on protecting and enriching the lives of families, patients, and caregivers. Our mission is to save lives, save money, and create value in the communities we serve. We try to live our core values, which spell ICARE, integrity, compassion, accountability, reliability, and entrepreneurship. And I'm delighted to welcome all of you.

Disclosures:

We won't discuss our financial disclosures. However, the funding of this entire series has come from family philanthropy, no product service or technology will be discussed and no funding directly, indirectly or through any affiliated means has been given to this program from the pharmaceutical or medical device industry. I'm really delighted to have a wonderful group of speakers and reactors to this topic today. We have Dr. Gregory Botz who is a full professor of anesthesia and critical care at MD Anderson cancer center, as well as an Adjunct Professor at Stanford Medical College. We have Heather Foster who will be beaming to us over recording - who has been a nurse preventionist, for infections as well as an ICU and critical care nurse. We have Bill Adcox and Bill is the Chief Security Officer and the Chief of Police of the Police Department at the University of Texas at MD Anderson in Houston.

Introductions:

We have David Beshk who is an award-winning educator, a co-founder of our program with schools with MedTac and a master instructor, as well as an Eagle Scout advisor. We have Jamie Yrastorza, who is a freshman medical student at the University of Nebraska. Who's also an Eagle Scout and is advising our team, and has been an intern working with us and both publishing and producing continuing education credit programs. We have Paul Bhatia. Paul is not only a pre-med student, but also the president of the Anteater EMT association with the University of California at Irvine. And is also a terrific educator, having done a terrific job, not only in the area of EMT education and students, but also through the crisis. We have Charlie Denham, my son, who's a co-founder of the MedTac Bystander Rescue Care Program.

And he's the high school lead for a vaccination program. We'll share with you. So we're really delighted to be starting today.

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The Voice of the Patient: Jennifer Dingman

We always start our programs with a voice of the patient. Jennifer Dingman is a long-standing patient safety contributor. She and a morning team on Saturday mornings have established a number of initiatives, and one was a grassroots effort that helped the centers for Medicare and Medicaid pass and put into action, a pay for performance program in hospitals that led to hundreds of thousands of lives saved and tens of billions of dollars. She's been a coauthor on numerous papers and has been on committees representing patients. And we're delighted to have Jennifer who has been our voice of the patient for this program throughout its entirety. Jennifer, would you please set our compass heading today for today's program?

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Thank you, Dr. Denham, and thank you for having me. I'm looking forward to today's webinar, everything that - I have learned so much from these webinars, with everything that they're teaching us regarding the COVID virus and what we need to do, I'm looking forward to the future.

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Now that America is getting vaccinated and we're getting back to normal, but we still have to be cautious. They're variants out there, and there's just so much more to learn. And hopefully this experience will teach us and prepare us for the future to where something like this will never happen again in history. Dr. Denham and his team have provided so much valuable information for the public and for other groups that are helping the public. And I just want to thank everyone here today - who's here today and who has been here in the past for being here. Please share the recording of this webinar with your family members, friends, colleagues, and anyone else that you would like to share it with. And, um, again, I'm going to hand it back to you, Dr. Denham; I'm looking forward to today's program. Thank you so much.

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Thank you, Jennifer.

And thanks for your steadfast support and a terrific work in the past. It's just a delight to be working with you.

IHME Projections:

And we look forward to rounding out this series and we'll continue with it as long as we need to. And that's where this slide that I'm showing right now actually came from just this week. It was from yesterday, from I H M E probably the leading forecasters of the impact of the COVID-19 both as infections and deaths around the world. And you can see that we're delighted to have a reduction in the daily deaths globally, but as you can see, there are forecasted potential risk coming forward. I always call myself a recovering optimist on the wagon of reality. My hope is that we won't have another surge here in the United States, but you can see that we really are seeing variant surges around the world.

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And with many countries who have not been vaccinated, even though we're lagging behind where we really want to be. And we hope that we won't have a variant surge here in the United States. This being a global webinar, we want to acknowledge so many of you from 194 countries around the world that are experiencing a pretty terrific impact by COVID-19. So this is the forecast as of yesterday. Today we're going to cover 10 principles. What we'd like to do is give you the 10 best practices for reopening, but we've got to cover some topics that will really give you the grounding in why these best practices are the best practices. 10 principles - we'll go through 10 principles that are absolutely critical and then we'll cover the 10 best practices. And we're delighted to have this group of speakers and reactors to address them.

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So I will review them and read the slide for you, but I want you to see how much of that the work in the best practices for reopening has to be anchored in the science that we already know. We're delighted to have Dr. Gregory Botz who will be a speaker for all of the best, all of the best practices, and most of the principles. Unfortunately, he's in the ICU taking care of patients today. I've given you a brief bio of Dr. Botz, who's been a wonderful contributor and a co-founder of the MedTac Bystander Rescue Care Program. He's also the chief medical officer for the police department led by Chief Adcox, who I'd like to

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ask to just comment and Chief Adcox, not only are you an award-winning security leader, but you're also really a Pathfinder in the area of threat safety science.

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And we know that this program is being used for continuing education for both clinicians, as well as families, but also for first responders. Let me on behalf of all of us, thank you as our representative of first responders and the professional leaders of being an educator - you are one - first responder - you lead the first responders, and you're also representative of the safety and quality of care at MD Anderson Hospital and Cancer Center. So we just want to thank you. You kind of wear three hats all the time, and we just like to have your message to the first responders and families and first responders.

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Thank you very much, Dr. Denham, can you hear me? Yes, sir. Thank you. The most important thing that I'd like to say, is not just for the first responders, but for all of us, you know, we just need to make sure that we are very, very careful and we don't let our guard down. We need to stay true to our prevention actions, the things that we're doing every day. First responders need to work to 10 principles. We need to continue to, to drill those, to work through those, to make sure that that's an important part of us, and lastly, that they need to continue to learn. There's a lot to be learned and a lot to be found. We don't know yet. And so this is a serious issue. Yes, it's, thankfully we're turning the corner, but we need to keep our vigilance up and then we need to learn and we need to work the 10 principles. And that would be the main message I would have for, for our first responders.

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Thank you. Thank you so much, chief. And Heather Foster we would just like to express to her fellow nurses, caregivers, pharmacist, and allied care personnel, how grateful that we are for you all carrying the load on behalf of our country. And hopefully we won't have another surge, but, we would be remiss in not acknowledging so many of the frontline caregivers that go way beyond the doctors, physicians, but also the EMS providers and the whole continuity of care. She asked me to share that message with you. You'll hear from David Beshk in a moment, but he also is representing the educators. And I know we have a lot of teachers and families of teachers, and David, when we get to your portion, I'd like to have you just express your thoughts in addition to why it is so important that we have chief family officers and leaders of our families as we go forward.

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And so we'll ask you to do that. David, as we move forward. I'm really delighted to have Jamie Yrastorza with us today. As I said, he is now a medical student at the University of Nebraska. He's done a terrific job in much of the core content that we've pulled together and he'll be able to speak live as well as Paul Bhatia who has been a steadfast supporter of this program at global speaker with Jamie on a number of our programs as well. I'm going to give you a chance to see the kind of work and the great work that they've done and share a couple of video clips and actually have them comment. And my son, who's just graduating from his freshman year in high school - you'll also hear from him, although he's not available today as well.

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When we look back at our MedTac program, and just to give you a little bit of historical context, we put the put together the - MedTac is the combination of medical best practices and tactical best practices.

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We wouldn't be where we are today if we hadn't started with these six, almost six years ago, these Cubs Scouts on the right where we experimented with the concept of could we teach them CPR, and stop the bleed program from the American college of surgeons. But we wouldn't be where we are today without having Mr. David Beshk, the award-winning teacher who took the chance of starting to teach this. And we've been teaching this as a program in schools, afterschool programs, as well as school programs in the summer. And Mr. Beshk actually, after learning one of the techniques on a Thursday, it saved the first life of a MedTac of which just in the school where it was started, we've had three lives saved. MedTac has focused on the eight leading causes of preventable death from emergencies.

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These are preventable deaths that bystanders or good Samaritans can weigh in on before EMS arrives. What the question is, what can you do in the 10 minutes before EMS arrives? That's what we've been teaching in MedTac. And then when coronavirus crisis struck we focused on what you see there as infection care is one of those practices. We've also been blessed to be able to write a number of campus safety magazine articles, which you, which we'll have posted on the website. The most recent actually addresses family safety plans during the COVID environment. And you'll hear, you'll be able to reference that. So for those of you that are joining us for the first time, who is the TMIT Global? I started at TMIT 37 years ago, when I was at or just left my training and moved into practice in Austin, Texas. Over that period of time and has grown to leaders that are in 3000 communities at 3,100 hospitals.

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We have 500 subject matter experts that over the years have contributed. Not one of them has been paid. Every one of them has contributed their time and energy for these free programs. And as you heard, we've put on now a hundred and 160, this is our 163rd month in a row that we've put on these programs. When the crisis hit in New York City, and in Italy, we began - we realized where can our small non-profit organization do the most good that would not be duplicative? And we decided that could be with the families of the essential workers. When we went into lockdown, the people that had to work no matter what. And you see the 16 industry sectors that were declared by the department of Homeland Security. Then in June, June 18th of 2020 as see on the left, educators, all educators from, from preschool all the way through to technical services, as well as educational services were declared by Homeland Security to be essential workers.

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And we're so grateful to have Mr. Beshk, Chief Adcox and Dr. Botz - all of your speakers, in fact, in one way or another, are educators - would fall in that category. What we did was we started off by producing short video tapes that could help families and essential workers and first responders and rapidly grew to an entire program. Now at 12 survive and thrive courses, which you can find on our web site and we're curating and continuing to update content. However, the science is changing faster than we can even curate it. However, you can go on our website, www.medtacglobal.org, and you can view any of the material that was created. We started with 60 subject matter experts. It's now grown to over 100 subject matter experts that participate with us. They come from all areas. There is they're as young as seven or eight years of age from schools as well as scouting groups to people in their eighties.

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And they also include a number of experts who we interviewed for two discovery channel films that you see at the bottom of this slide. On the right is one of our next documentaries. We've got three

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documentaries in the pipeline. Likely, this third will be with the discovery channel where one of the other main streaming entities. The first was Chasing Aero, Winning the War on Healthcare Harm. The second was Surfing the Healthcare Tsunami, Bring Your Best Board. And this third will be Three Minutes and Counting, What Can we do as Good Samaritans in those first three minutes from drop to shock for cardiac arrest or for massive trauma and bleeding. And you see a number of experts and contributions from, , some wonderful people that include astronauts, former assistant secretaries of health, Sully Sullenberger, who performed the Miracle on the Hudson, Jim Collins, and my dear friend and late partner, Professor Christensen from Harvard.

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And you also see speakers from today. What's most exciting to me most recently, as we have now, over 30 college students, alumni and faculty members that are focused on driving down vaccine hesitancy through a program that you'll hear more about here in a few minutes. And these are a number of our students that are all donating their time to help drive down the hesitancy for vaccination. So we're going to cover 10 principles and 10 best practices today. The best - the 10 best practices as you see, are arranged around what we call the four PS, which are prevention, preparedness, protection, and performance improvement. And Chief Adcox, I'd love for you to help us understand the concept of *left of boom*, meaning, how can we prevent something - the bad event from happening, but we're talking about prevention, which is primary prevention of getting infected.

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Secondary prevention is reducing the harm perhaps of infection. Preparedness is getting ready. If somebody were to get sick test positive need, quarantine need isolation, and then protection is doggonit, somebody got sick, now, what are we going to do about emergency care, providing care at home? And then what do we do through recovery if someone gets long haul disease. And then at the new normal, what can we do at the new normal? So let's talk about the 10 principles of family transmission chains. And as we look at the family transmission chains, they impact virtually every single one of the topics that we covered in our survive and thrive guide. As we look at what we call the four PS, we'd like everybody to be thinking, how can we prevent, how can we prepare when it happens? What do we do to protect our loved ones and ourselves when we care for them?

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And then what can we learn? What can we learn now a year after this issue has presented itself. And it looks, I've got, my slide is stumbling there for a minute. Okay. So the first is family transmission chains. What are they? Well, we, our hypothesis was that, was that you weren't just catching it at work as an essential worker, but you could catch it at school home. And their most vulnerable people could catch this through their families. Now we have studied over 1000 family responses and family is a loose definition. It could include our college students that are on today to speak, who might be living with roommates, but from our study of over a thousand, it confirmed to us as well as many of the medical papers that family transmission chains are the problem.

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It's the Achilles heel. It continues to be the Achilles' heel. And the best thing we can do is to be able to stop these family, transmission chains and block them at the source. If we save the families, we can save the worker. If we saved the worker, we can save the nation. So it's, we didn't have the data when we started, um, that we do today, that a huge amount of spread is through asymptomatic spreaders. They

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may never get the disease, but they may infect their loved ones who then come back to work and then end up with a positive test. So we can say families across communities if we focus on the family. So as we look at this topic, I'm going to be playing a short clips from Dr. Botz, had Heather Foster, and I will show some clips of Jamie Yrastorza and Paul Bhatia, and then have them speak as well. So let's listen to Dr. Botz right now.

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So Dr. Botz, as we think about smart reopening now more than a year after we started our community of practice, what are your thoughts regarding family transmission chains, the spread through families? I think it's very important to understand that family transmission chains have been such an important aspect of viral spread in our communities. And as we move from an acute phase where we had lots of cases to now, perhaps a maintenance phase or a lessening phase, as we've moved to reopening, it's still important to consider that family transmission chains can exist and can continue to move the virus through our communities.

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So I said, as I said, Heather Foster could not be on she's on duty today in a hospital. She practices as a nurse, she's been a nurse prevention practitioner, but she's also helped us tremendously at the front line in developing what's necessary to manage this disease in our communities outside of the major medical centers. Heather: Family, transmission trains are even more important than what we thought before. And primarily, because if we bring that virus home to our children, who we know are going to be our biggest, spreaders, that's, that's the main reason why we got to definitely break the chain within our family circles. They're going to be out in the community. They're going to be asymptomatic carriers and unbeknownst carry these viruses to, to those who are susceptible. Denham: So, as we think about these family transmission chains, everything that we're focused on, we must, we must remember that we need to vaccinate not only ourselves, but also vaccinate our families. It's absolutely critical that we do so. So let's hear from Dr. Botz about that. I think it's really important to promote everyone you know in your circle to get vaccinated so that it will help reduce the spread of the Corona virus in our communities.

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So the third principle is *don't share the air*. This is critical because what we realized over the last year and a half, is that it's absolutely vital that we understand that the major spread rate is through asymptomatic and symptomatic people and not on contact surfaces, so much, although they are really important, but we need to be able to, to focus on the fact that they're both large droplets and small aerosol droplets that can hang in the air that are absolutely critical. So let's hear what from Dr. Botz on, on that. Botz: I think that it's critically important for us to emphasize that Aerosol spread is a major factor in the spread of this virus. So by using a clever statement like *don't share the air* we emphasize that trying to reduce our exposure by reducing time in closed spaces with poor ventilation is a very important strategy to reduce transmission.

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So what I'd like to do now is share with you our great experience working with our students. Jamie Yrastorza, I've given you his bio, has helped us with the work in the masks. He's also helped us with our continuing medical education program for University of Texas programs as well. We're really delighted to have him work with us. And now in the incoming medical student is really armed with the knowledge

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and the critical information that is important. Jamie, can you share with us your experience and learning about aerosol risk and what we know today that we didn't know when we started with COVID.

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Yes. I would say that aerosol risk is something that I really didn't know very much about before starting on our research projects. And it's actually very important to understand the mechanism of aerosol risk, because it really makes you understand why the measures that we put in place - that we encourage, like wearing masks and don't share the air, why those are so, so important to preventing the spread of the virus.

Denham: Fantastic. And I think you and I had that the dilemma of the science was changing so rapidly and when 239 scientists wrote to the WHO and said you must focus on aerosol risk. It took them many months to finally declare that it was the biggest risk. And so now we really need to put on our thinking cap and say, wait a minute, maybe some of the energy that we've focused on high contact surfaces needs to be really focused on ventilation and HVAC systems. Paul - love to get your take on this and your perspective as it EMT and as someone that is dealing with this challenge and caring for other people at the front line.

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Bhatia: Absolutely. So, it's definitely important to understand the risks behind the aerosols. But also, even though our vaccination progress is continuing, it's still incredibly important that we all continue the best practices for ourselves and our families such as face masks and, and social distancing we're out and about, especially in crowded dense area. Denham: Fantastic. And I think it's really, really critical that we keep wearing the mask. Wouldn't you guys say that masks are just as important as they were until this virus burns out? As we think about our immune compromised patients of which there are a huge proportion and others. And so it really isn't a political issue - it's just basic science. Wouldn't you both agree. Absolutely.

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Foster: Masks are still very important. We've learned a lot about the Covid since the beginning of the outbreak, and I think the evidence is clear on the aerosolization of this virus. So the masks are huge mitigators of that – of spreading the virus to other people. So as we open, so I think it's important that we continue to use our masks, especially amongst those are not vaccinated yet.

Denham: So, our next principle is to turn science into safety. Our focus has been on learning what are the public health guidelines that keep changing very dramatically? And God blessed them. They are having to change the guidelines more and more rapidly because the science is exploding. However, they're giving us *the what* and our programs and that 12 programs that we've now generated are the *hows*. So what we try to do is put the meat into the how of what those topics might be. Let's listen to, Dr. Botz regarding this issue. Dr. Botz, as we think about the CDC and our local public health organizations putting out guidelines. We like to say that they provide us *the what*, and that we are providing *the how* can bring the science into safety and then hopefully safe success. Thoughts there.

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Botz: I think it's so important for us to take the information that is shared by the public health agencies and by our scientific community, and try to figure out how people can actually operationalize that in

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their daily lives. How can they take the science and the knowledge that's being spread by our, our leading agencies and actually make it work for ourselves, for our families and for our community.

Denham: It's been wonderful working with Mr. David Beshk, who I introduced earlier. As we look at the CDC guidelines are changing continually and still changing regarding kids in schools. And it makes it very confusing and hard to follow. David Beshk actually helped us understand why it was so important that we have our family members be led by a safety leader. And David, what I'd like for you to do is really address this issue of the chief family officer with whom you work with all the time as an educator of young children and why this is so critically important. Can you share with us this concept of a family CFO?

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Beshk: Absolutely. Thank you, Dr. Denham. As an educator who, part of my role isn't just educating children, it's educating families, it's educating the adults on ways that we can be more effective as a team to work together to help everyone feel better and learn. And the CFO I find is a critical component within the family in all areas of life, but especially with right now, with what's going on. As you mentioned a minute ago, Dr. Denham, that the numbers and the policies and the, and all of the regulations everything's changing so quickly. So, and that can for, especially for young children can create a lot of confusion. And where there's confusion, you get a lot of of high emotions and you get just a lot of things that inhibit the families ability to work, function and, and work well together. From my perspective, the CFO, especially in times like today with, with the ever-changing landscape of, of coronavirus, their main role is to create a sense of calm and a sense of predictability within the family and sharing information. And it's not just top-down. I think a CFO, their, their main job is to be a good listener and to listen to the emotions and the questions, the ideas that the rest of the family may have. Take that into consideration and do their best to keep everybody up to date, to keep their plans up to date, to make sure that everybody falls back on their training, which should always be current and information should be as current as possible. The CFO plays a very important role within the community, especially within their household to create a sense of certainty, a sense of calmness, and to be making sure that everyone's kept abreast with what information they need to be safe.

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Denham: Thank you, David. And you worked on a very rapid response project with Charlie Denham focused on being the family lifeguard when we saw this enormous surge over Thanksgiving, and then heading toward the holidays. And you all were able to communicate, I believe very well to young people, as well as Scouts and girl Scouts and children, how they could actually play the role as the family lifeguard. I wanted you just to - maybe you'd reframe that. I thought it was probably one of the best examples of responding within hours of a challenge and then moving forward, and maybe why it's still applicable today, because we don't have everybody vaccinated and we've still got a significant risk.

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Beshk: Absolutely. I'm really, I'm really proud of, of this aspect. And I'm glad that you included it today, That, you know, I think we oftentimes overlook the importance and the value that children can play in the family, especially in situations like this, where you give them a sense of ownership. You give them some leadership and some responsibility within the family unit, especially when you have large gatherings. Now that summer's opening up and with the holiday season and all of those things that they can be eyes and ears that, you know, oftentimes adults get busy and we lose sight of safety protocols. And we lose sight of distancing and sharing of materials, and by giving children, and even as young as

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five years old, I have my, my preschooler who I made one of the family life guards over the holiday season. And we recently had some, some friends in town and they were vital. And just, hey daddy, don't forget to, you know, we're not sharing utensils. Hey daddy, makes sure to keep the window open in the bathroom and you give them those opportunities, you train them appropriately, and they, they can be incredibly important lifeguards and members of our family to keep everybody safe.

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Thank you, David. And I know you've got demands where you're working today and taking the time, but as we move through the reopening and we move back to the eight leading causes of death that are just critical emergencies, we now have hesitancy to be good Samaritans. You've just done a terrific job of teaching fifth graders. And we've taught everybody from third graders to, from eight, from eight to 80, the broader CPR - Stop the Bleed Program for trauma and our broader program. Can you just leave us with the message on how critical it is since you saved the first life - you learned the technique on a Thursday and saved a life on a Saturday, how vital it is that we all become good Samaritans and not be reluctant to help others and, and use some of the protective mechanisms. So we actually can help others and loved ones.

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Beshk: Well, absolutely. I mean, look at it for obvious reasons, you know, Corona viruses is kind of in the spotlight of, of, of what's going on, but we still have people getting injured. You still have people in need of CPR. You still have massive trauma. Obviously we see what the shootings going on around the country. These eight leading causes, it's imperative because, you know, like you said, Dr. Denham, we have, we have those critical moments before emergency personnel can get there. And I think as you know, well, one of the greatest messages that MedTac preaches is that just because you understand how to do something doesn't mean that you have to do it, but you could teach it to other people. And so being able to have those skills and the confidence to maybe not put your hands on somebody, but to be able to say, Hey, I can teach you what to do. And that's why we go as young as eight, and even younger to five years old, right? Teach how to put your hands in the center of the chest and push hard and fast because those people, children, and young adults and anybody, you can be a teacher it's, the all learn all teach model. And we can't forget about the other aspects of safety and our role and our importance as being first responders oftentimes to these critical emergencies. And you have these short windows that are our defining moments, and we have to be able to step in and we have to be able to provide that care and bridge that gap between, from job to shop.

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Denham: Well, listen, thank you so much, David. And thank you. You're our representative of our teachers and the younger age group. And we just want to thank you and thank you for helping all the teachers that may be on today. Thank you for all. And we're so grateful to all of you for taking the risk of taking care of our kids. Thank you so much for what you're doing.

Beshk: Thank you very much into all the teachers out there. This information at first may seem overwhelming and may seem, you know, 30,000 feet, but it's really not. You just got to get in there and get your hands dirty. And you're going to find how, how rewarding and how interesting and how fun it is to share this with not just yourself and your colleagues, but with your students. So I encourage you to, get involved and take that first step, but it's rewarding.

Thank you, David.

Yes, sir. Have a nice day.

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So from Dr. Botz: Denham: As we look at organizations down at the family unit level or large organizations, or medium sized organizations, private, public, non-profit, we really believe that it's critical that we have a leader, somebody who takes a safety plan by the horns, and actually makes sure that when it's designed and followed through. Your comments there.

Botz: You're absolutely right. It is so important that we have someone or some group focused on the safety of our organizations, including our families, in order to maintain the attention, the diligence to our safety practices, to keep everyone safe.

Denham: Dr. Botz, as we now are going into our reopening phase, many people are not only shedding their masks and social distance, but they may also shed the idea of employing the five Rs, which we've put together that having the family safety plan or corporate safety plan. Your comments regarding that as we look at reopening.

Botz: Well, it really is encouraging that the numbers of cases and the number of hospitalizations, certainly the number of deaths is decreasing. That's very favorable. However, I think it's important to maintain our focus on the five Rs and in order to reduce the risk of transmission. Remember the vaccinations are only 95% effective at best. That means that up to 5% of people will be infected. They may not get sick. They may not need hospitalization, but they certainly can infect others. And until we get a higher level of vaccination in our communities, we are still risk of passing the same, very serious viral illness to others who don't have the protection from having had vaccination. Using the five Rs is a critical approach. Perhaps we adjust it to our current context, but still having the same attention to the fibers is critical to our response.

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So as we talk about these five Rs, and you just heard from Dr. Botz regarding them, what are they? And those of you that are dialing in for the first time, and most of you will have be seeing this on demand. Please go to our website and you can watch our programs on how to build a patient safety plan or a family safety plan, how to implement it. We have templates - we have a number of assets available to you. So let's just review them quickly. So the first R is readiness - to be ready. And if we look at the plans and we look at, at these topics, the five Rs are really spelled out as a cycle. And the reason we spell them out and we use the idea of a cycle is the plans are constantly updated. We must constantly be updating our readiness response, rescue, recovery, and resilience. So as we look at those, what's readiness? Readiness is preparation, regular review, and updating of a plan based on the latest science, regular deliberate practice of the rules and skills each member may undertake. When we think about response, what's response? Response is the family moves to action to respond to an emergency. The safeguards are put in place. This might be a member might be infected or exposed. This can still happen. Although we're dropping so many of the required precautions and guidelines, we still have many, many people that have not been vaccinated. We have many people that are what's called immune compromised, meaning their immunity is down. They could get infected. And we also have, around the world, many, many countries, , where the virus, the variants are raging. And now that travel will be opened up, we're at risk of these variants coming to us here.

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So what's rescue? Well, rescue is the regular deliberate practice of the roles and skills to take somebody a loved one or a friend or a colleague to the emergency department if they have severe symptoms. This means having records and medications ready to go with the patient. And also what's really critical because of aerosol risks, windows down, masks, any way that you can move without sharing the air. We

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now know today in 2021, much more important than we ever thought it was. And I got a number of stories. I wouldn't use the names, but a number of stories of people that caught the disease in cars, in sharing transportation. And then what about recovery? Recovery is this issue of the family recovering, but long haulers. Those that develop these long-term symptoms are an enormous group. We're seeing more and more of it. It was estimated at one time, 10%, some estimate, 20% some say that there are long-term symptoms that are even a bigger fraction and percentage of people. So as we look at this recovery, it's really important that we be ready to take care and learn through the recovery process so that we know that we can get back to what we call the new normal. So these are the five Rs. We've covered them in our prior Survive and Thrive Guide courses. And we hope that you would see those. Now resilience is the last R. What is resilience? Well, resilience is fortifying your response - learning from what's gone on -for response rescue and recovery in the plan. We've learned so much now about what law enforcement and what Chief Adcox would use as a term *target hardening*. How do we harden the target of our family unit or our company or our learning unit to be able to be safe?

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Okay. So not for that for the principals. Now we can move rapidly through the best practices. Let's talk about the vaccines. And as we look at these, and we look at our survive and thrive guide courses, they map beautifully to prevention, preparedness protection, and performance improvement. And you can go on our website and watch any of these 90 minute programs, and we'll continue to curate the content and update the content to make it able to be functional. And we look forward to you being able to watch those.

So now let's talk about the vaccines. We've started a program called *Take the Shot, Save a Life* led by the students, two of which are on our program today. This is a program to drive down hesitancy in multiple groups in high schoolers, college groups, and families. The movable middle are not those that are definitely against vaccination, which are estimated to only be maybe 10 to 15% of the population, the movable middle need answers and access. An article that just came out yesterday in Vox was really excellent and articulated not only the message, but the studies that lack of access of real or perceived is still a problem, even though we hear that there's so many places to go. Many people do not see COVID-19 as a threat because it hasn't impacted their own families. And there's so much misinformation out on the web about this. Lack of trust in the vaccines - they were developed so rapidly and many do not understand the long and arduous work that was undertaken to develop that MRN methodology which is so critical to the Pfizer and the Moderna vaccines. There is a lack of trust in the institutions that are government institutions with much - a lot of misinformation out on the web. And then there are these - a variety of conspiracy theories. I really recommend that you read this article, it's free. You can get it on the web. And it was really, really well done.

So we put together about six weeks ago the *Take the Shot, Save a Life* program and helping students be able to have the vaccination conversation. Why vaccinate, why you and why now? And the vaccination conversation can be shared with adults, anybody who might be in that moveable middle, and we're guiding students - our students. Two of which are on our program today, are the coaches of high school students and other college students. They represent a number of our leading universities. They're what's in it for the high school students are, this is where they can have a real connection with people like Jamie Yrastorza, who's going to medical school, and Paul Bhatia who will go to medical school, and be able to talk to college students that can help them understand what's going on in our students, from these leading organizations, we're mentoring to help them with their advanced degrees and where they will go with the research and work.

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(00:42:04):

We now have 30. And the group that you see before you are the original group, for whom we have short video clips addressing a number of the issues. So what we did was put the vaccination conversation video together, but then each one of these individuals has tackled two or three, or even more of the topics to be able to give a message student to student college student, to, or a scientist to a high school student. And we're really blessed to have them have put together these FAQ's, we're starting to deploy it now in some pilot sites, and we'll be taking it to scale very rapidly. So we're delighted to have Paul Bhatia who you've been introduced to earlier, and Jamie Yrastorza, both involved in this and I'm going to ask them to comment, but I'm going to show two clips of these excellent young men.

Bhatia: So there are a lot of myths out there. Some people think that the vaccines give them COVID. Some people even think that they get sterile after getting vaccinated. And some people even think that the vaccines come with some sort of microchip or device. I'm here to tell you that there is no evidence for any of that.

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Yrastorza: So I would say we are currently in a really important point in the pandemic. And if you look at the data, we can tell to your own health, as well as to the public health, there's no reason to wait. So I would encourage all of you to have the conversations, to look at the data, to share the information that you know, and encourage everybody to get this vaccine as soon as possible. There's really no reason to wait.

Charlie Denham: I hope you guys all get vaccinated to save the lives of your family.

Denham: So Jamie, would you like to kind of comment on this particular project in focusing on the vaccines, the hesitancy group and your message to our broader audience of families, of first responders, and essential workers.

(00:44:10):

Yrastorza: I'm sorry, Dr. Denham, can you repeat the question? I'm having some trouble with my internet. I think you broke up there for a second.

(00:44:16):

So Jamie, would you please, , express your message to the first responder families, essential worker families and our broader, broader audience of the general public regarding this program to our young people, but what your message might be to everyone regarding vaccination?

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Yrastorza: Yeah, so I think we were talking about the 10 best practices for reopening. I would say the vaccines are probably the easiest one to implement, and maybe the one that would give the most results, the quickest to all of us. So if you know people that are hesitant about getting the vaccine, I would really encourage you to share information with them because we might not trust governments and we might not trust social media or institutions, but I do believe that people still might trust their friends. So I really am very excited about this opportunity and this *take the shot, save a life program* because I really think that the work we're going to be doing, especially in young people's lives is going to be hugely impactful to the public health. And it's going to have great results towards my generation who really needs to get the vaccine

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[\(00:45:19\)](#):

Denham: Fantastic, Jamie and congratulations on medical school, and we really look forward - I think you'll be a terrific doctor. Another terrific doctor will be Paul. Paul, would you provide your perspective building on what Jamie said of the message to our essential workers, first responders and educators who a part of this program?

Bhatia: Absolutely. So like Jamie said, the, it's going to be a really effective for people that for your friends and family to be, I guess, most influenced by, you know, convincing them to receive the vaccine, and to spread the message and also to lead by example. So it's an incredibly effective if you haven't been vaccinated, but you're still, you're still on the edge, definitely go out there and get your vaccine. That's going to go a long way in helping convince the people that you care about to also do so.

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Denham: Thank you, Paul. I really appreciate it. And Charlie's message to young people you heard in the video. Charlie's receiving a second vaccine and many of his high school student colleagues and teammates have sought it and we see almost no side effects. And so we really look forward to having everyone participate in this program with us.

So the first best practice is vaccination, and the second is - one of our first programs was coming home safe. How do you come home from a hot zone at work, the warm zone, which is where you disinfect and then the home, the safe zone. And what we've really learned through this program, which was really, really well received, was social distance, and masking, hand hygiene, and high contact surface cleanliness is important. Now what we know is that ventilation is absolutely critical. As we come through the warm zone of disinfecting and many of our doctors were disinfecting in their garage and having separate rooms, they're now doing just as they haven't changed their procedures. However, they now can be much more efficient at it, but they're really, really focused on the critical issue of aerosol risk. And we know that the average human being touches their face 24 times in an hour, so that as Dr. Botz says, this isn't zero with contact surfaces, it is less, probably far less than what we originally thought. However, the aerosol risk and the risks to our HVAC systems is much more important. So these original slides haven't been changed actually a year ago. And we can see in maintaining the safe zone is not only keeping the disinfection station if you have somebody sick at home, or if you are exposed at your job, , but maintaining ventilation should be all caps and understanding the latest rules on isolation, quarantine, and care of our seniors. All really important.

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Now, a recent article, as recent as April 15th came out, this is an excellent article that provided that the 10 scientific reasons in support of airborne transmission. Now, we like to use the term airborne, meaning that it could be large droplets that land close to the person over maybe five microns that land close to the person can be touched or breathe in. But those that are much smaller, smaller than five microns are the ones that can float in the air. So we see now long range transmission has been reported in quarantine hotels in settings, asymptomatic individuals now anywhere from 33 to 60% or 59%, the aerosol particles are critically important. Transmission outdoors and well ventilated areas is now last, which is good. Infections in healthcare settings called nosocomial infections have helped us understand what's going on. For those of you that are interested in drilling down, take a look - read this.

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There were three articles that came out at the same time, which were absolutely excellent, and they really helped us understand this airborne risk. Anybody that's contemplating carpooling and being in

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poorly ventilated spaces needs to really read these, to understand them. So now we know that it's called surface or fomite transmission is probably less than what we thought it was. And the guidelines regarding masks were technical, and they were hard to understand. But all one needs to really look at is the right side of this graphic and you see fully vaccinated people, really in great, in great shape. Regarding masks on the left is the high risk. But anyone who is going into a poorly ventilated space, I believe should be wearing a mask because the vaccines in the practical world only protect you 90% of the time.

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You still have a 10% chance of getting severe disease and severe disease can put you in the hospital and also can cause death. We've seen breakthrough infections with them. So it's really important that we understand the guidelines, read them and really know we just don't throw away the masks. That it's absolutely critical that we keep in mind what we need to do and where the risk areas are. So we recommend that you read the CDC guidelines and, and follow them closely and understand that just because you're vaccinated or just because your community has low risk, doesn't mean you shed the mask. You really need to look at the risk at yourself. So as you look at the CDC guidelines, they are continually updated regarding safe activities. And that brings us to the next critical issue is keeping the family safe. And what we did with this was and the slides are a year old and they apply today.

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You need to look at the threats in your community and then identify the vulnerabilities of your family, and then determine what your risk is. You just don't throw down the mask and say, I'm going to go and operate in the community because everybody else is. So what we did was we said, look, your goal should be to reduce your vulnerability, your personal vulnerability, and of your family. And you can't do that without kind of assessing what that is. Now, way back then, this was the background infection in Orange County where I live. My family includes a male over 65, I'm 66 on Saturday, my wife is in her fifties, I have a mid-teen who has had cardiac surgery is vulnerable to hyper-immune reactions, and now I have a grandmother - we have a grandmother who is now a hundred years of age, but this was back then. If you look today at our infection, the daily infection rate and the chart that you see there is much lower - we're at a lower tier. We're at the minimal tier in California; we hope that we won't have it move up. But I still have the same vulnerability for my family. So what would I do? I need to step one, identify each family member, and look at the outside threats in the community and the inside threats to your family in your community so you understand what those are. Being able to look at them by age, look at them related to their immune status and the risk for hyper immune reactions in my family, we have both. And then the step two is really to articulate those by those family members. So then you can put together a family safety plan. And the family safety plan then is something that applies to the five Rs. And what you do is you take those five hours and say, okay, how can I reduce the vulnerability of my family?

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Now, your family may not be vulnerable at all, but we do know that Jamie and Paul are in high-risk and will be in high-risk environments and they're going potentially bring home the virus. They might not get sick, but they might bring it home to their family and their family members. They need to look at well, what behaviors, what we would we maintain? The third step is then develop a family safety plan. Now we're not going to go through that today. We're on time with our, our program today. But we have a 90 minute program on putting a plan together, and we have a 90 minute program on the templates, and you can go back to look at those. Develop your plan, and then plan the flight, and fly the plan.

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Now, Dr. Botz, Chief Adcox and Charlie and I wrote an article for campus safety magazine that identified the family impact scenarios. You might range from no exposure, no test or no negative risks - to infected requiring ICU and life support and respirator and ECMO, which is the artificial lung. So we recommend you read this. Now, why would you read it today, when we have the light at the end of the tunnel, and we're reopening? We're not sure where we're going to be free of a variant. And there are over 200 epidemics that the WHO tracks per year. And I think we're going to be up against this now for the rest of our lives of the series of pandemics that will strike where we are. So as we look at practicing the safety plan, that means that not only do you build it, but you actually need to practice those things. So let's go back to Dr. Botz.

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Denham: Dr. Botz, now, as we consider the 10 best practices, first off is vaccines. Are you inspired and excited about the wonderful leaders that we have from some of our top universities, faculty members and alumni who have joined the cause for the *take the shot campaign*?

Botz: I think it's really exciting to see that so many people across our higher education communities, our scientific communities, and our community leaders are so passionate about joining our efforts to spread the word that vaccination is the right thing. I think it's really encouraging to see that our young college students are energized to promote vaccination among their peers. This is all a good effort and will pay off in the end.

Denham: So our Coming Home Safe program which is a full course, emphasized very early in the pandemic, being safe at work, cleaning high-contact surfaces, social distancing, and masks. What's your message now that we know so much more about coming home safe?

Botz: I think we still have to have a great amount of diligence and attention to those public health strategies. Perhaps they aren't as important in their prominence in our approach during reopening, but they are still very sound practices. We had a lot more attention to contact surfaces early on in the pandemic because we did not have enough data to know if that was a serious mode of transmission – perhaps it's less but not zero. But certainly reducing the contact with people with social distancing and by wearing masks, especially in closed spaces where there's poor ventilation or poor clearing of perhaps aerosol material in the air – those public health strategies are still very strong. We just need to temper them for the current context.

DELETE???? I think you can, , you'll be able to hear Dr. Botz talk about that for just about everything that your family might be at risk for, but certainly with the coronavirus, it's been vital to keep the family unit safe. So perhaps now, as we move into the reopening phase, we can adjust the family safety plan accordingly, but still pay attention, still practice, and still rely on it as a strategy for reducing the risk to our patients, to our family members, to our community members and the like Dr. Botz, you have taught all of us with your formal training and simulation, and then practicing simulation, , in critical care in multiple areas, helping law enforcement and other organizations, and, , even teaching people how to deal with emergencies on airplanes.

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You've really emphasized to us the importance of competency, currency, and deliberative practice. Can you underscore those words? Of course, I think that one of the most important strategies for operationalizing what the science and the public health agencies are telling us is to in fact, develop a plan and practice it regularly so that it becomes, , not only the right thing to do, but the behavior that you will follow in that circumstance. We know that when there are stressful situations, when there is a crisis at hand, people don't always behave or react the way they think they will, but by using deliberate practice, by using, , repetitive, , behavior and communication and teamwork, you're more likely to react in that way. And that may be the difference that leads to a favorable outcome.

Matches video again(0:56:34):

Denham: So now, as we talk about providing care at home. What happens if someone is gets COVID? Now we have not saturated our hospitals now, but Paul will tell you that he had to help build auxiliary hospital beds here at UCI in Orange County. If we were to have a variant that escaped the vaccines and could not get vaccines developed rapidly enough, we could be back in the place where we have to take care of someone at home who might or should be in the hospital, or we might be referring people to be at home because they're less risk and due to where they live. So it's really important that we look at how would we take care of somebody at home. And this applies to any of the potential pandemics that we might be having, or a surge. So we have a 90 minute program that we put together that basically took you through the steps of creating in your home, a treatment room that would allow you to do exactly what we do with it as isolation room in a hospital. And Heather Foster, Chief Adcox and Dr. Botz all helped us with this entire process of what would you have to do if you had to care for someone at home. And this was very beneficial to us to be able to do it.

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Heather Foster: The work we've done in the Care at Home has not changed other than we'd be placing more emphasis on the aerosolization of this virus though – providing great ventilation for example; not sharing the same living space with those who have the virus; rather than emphasizing on wiping down surfaces.

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Denham: Dr. Botz you were a great contributor as were nurse preventionist and others regarding providing care at home. Now we may not have to care for as many people at home, but God forbid we would have other surges and other variants that would influence us to have to care for people care for people who have COVID that are COVID positive at home with others. What would you like to add?

Botz: I think it's really important for us to maintain our vigilance and our plans for caring for those who contract the Corona virus. The vaccines have reduced the spread. They may have reduced the serious consequences of infection. Fewer people are being hospitalized. Fewer people are dying, but the Corona virus is still in our communities. It's still being spread at a low level. And so people who have immunocompromised people, who've not yet completed vaccination, those people are still at risk for getting the same illness that was prevalent earlier on in the pandemic. And so maintaining our strategy for caring for those people at home is still important.

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Denham: So now emergency rescue skills. What do we do if someone is getting sick and they might be, you might not know them very well? They might be roommates at college. They might be at a facility where you're working, or they might be in your home. What do we do regarding rescue? So we put a

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whole program together on taking people from knowing how to assess when someone is sick; using pulse oximeters, being able to ask the right questions, looking at the trouble - the troublesome signs and symptoms, then how to safely transport them to the hospital. But one of the really important things to recognize is most of the transportation groups that were - Uber Lyft, any of those; taxis, would not take a sick person from the emergency department home. So being able to then transport home and then be able to undertake what's absolutely critical to have what they need for that care at home, including the medications.

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We put together - and we have a short video with Dr. Christopher Peabody of UCSF - the Five Rights of Emergency Care, which we developed years ago that has applicability today. These five rights are absolutely critical. We review them in the videos and in our program, but to briefly cover those is to focus on the right provider. They need, patients need to know to go to the place where their medical records are, bypass the urgent care if you're really sick, to get to a major medical and make sure to make the right choices. The right diagnosis can only be generated with the right history and medical records, care plans, being able to bring medications, imaging studies and test documentation, absolutely vital. And then for the right treatment, it's important that everybody understands short-term and long-term implications. And when people were at the emergency department, they could not be, have a family member with them, and being able to have a charged phone, as simple as having a charged phone in the parking lot, very, very critical when you bring a loved one to the emergency department.

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And then the right discharge. This is one of the most important issues brought up by Dr. Peabody, which is to make sure to understand the return precautions - when we do return for care. Some people think, well, that's all they could do for me. I'm getting sicker. So I don't go back. So absolutely critical that we understand these techniques and really understand what we might do to help a family member who might be ill - very, very important. And then the right follow-up is after you get better, making sure that you have the continuity of care with your primary caregivers, so that there's the handoff.

So Dr. Botz now, as we think about recognizing someone at home who may have severe disease, who we must get to the emergency department, and then perhaps have to then bring home from the emergency department, what would you like to add that we now know that maybe we didn't know over a year ago about emergency care, identifying people that we need to bring to the hospital?

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Botz: Well, I know it's very favorable that the numbers are falling in our communities, but there are still going to be people who contract the coronavirus and are going to have symptoms that are beyond that which can be managed safely at home. Our hospitals have not really changed their stance on providing a protected environment for the care of patients with and without COVID disease. And so we still have to have a strategy for safely interacting with the emergency department when needed so that your loved one can get the most appropriate care, but in a different way than hospitals have traditionally operated. We still have limited visitation. We still have cohorting of people who are at risk for the coronavirus pending testing results, or those who have tested positive for the COVID virus. And so having a plan for recognizing the person who could no longer be managed at home and having a plan for moving them safely to an emergency room or a healthcare provider is still part of our critical family plan.

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Denham: So Dr. Botz, you are a critical care doctor and actually teach young doctors and doctors in training about critical care. Now, with more than a year under our belt, what advice do you have to family members who may unfortunately have a family member with COVID who goes into the ICU now that we've learned so much more?

Botz: I think we're very fortunate that we are moving into a phase of this pandemic where fewer people need hospitalization and fewer people are requiring ICU level care. But again, that's not zero. There are still people that have respiratory symptoms that cause a significant hypoxemia or low oxygen levels that require ICU level care. And so having an understanding of what sort of management, what sort of technology, what sort of strategies we have for managing those patients will go a long way to help families understand what's going on with their loved one. And what things may, you know, occur in the next 24 hours or 48 hours or days ahead. So understanding what happens in an ICU is critical because most of the people who require ICU level care with COVID often require life support measures during their ICU stay.

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So now, long haul disease - what about the long haul conditions that are absolutely critical? We know that these are very, very common, much more common than we ever thought. I'm a real fan of Francis Collins, Dr. Francis Collins of the NIH. And in a recent program at the end of April, this quote is, could not be more powerful: "I can't overstate how serious the issue is for the health of the nation. The estimate based on studies showing roughly 10% of people who get COVID could have long haul COVID-19 and long-term course may be uncertain". And we know there are a number of papers where it may be estimated to be even greater. Multi-system inflammatory disease, which can harm patients, and it may be that you might have a mild, a mild case of COVID and then get a very serious long haul, issue with fatigue, brain fog, the lungs, infiltrates in the lungs with persistent requirements for oxygen, depression, palpitations and heart disease and inflammation of the lining of the heart, blood clots, chronic kidney disease, even hair loss. And so these are, these are absolutely serious. No one should want to have these. And when we are talking to those loved ones or friends that are reluctant to get vaccinated, they really need to know how common this is and that, and you don't have to get a severe case of COVID to then get this long haul condition that can strike so many of our organ systems, which are absolutely critical. We highly recommend a 60 minutes program on long haul disease with two athletes, two women that were athletes, that were marathon runners and trainers who actually were just totally debilitated and not after severe disease - one of the, one of the best 60 minute programs that I've seen. And so, really, really critical for us to understand this.

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Dr. Botz, we now know so much more about long haul disease and that we don't want to have it, and that it could really have some serious ramifications on one's future. What would you like to add regarding long haul disease and recovery through that period of time when people have to get back to normal, and it take me take many months?

Botz: I think we've learned a tremendous amount about those people that have persistent symptoms after COVID infection; we call that long COVID or long haul disease. But what that means is there are ongoing signs and symptoms of inflammation and organ dysfunction in people who have been infected with COVID. I think one of the things we've learned that's most important is that the people who get long haul disease aren't necessarily the people who have required ICU care. They can have a relatively

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mild case of COVID and not require hospitalization, but still have a long lingering period of debilitation from the effects of the COVID infection.

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So, as we think about these very serious ramifications of these illnesses, and we think about what we would like to accomplish as we go forward, we really need to think about the four Ps at the new normal. Which is how do we implement an approach? Let's say, we, we get through this current phase; we might have outbreaks, hopefully that we won't have another COVID surge with variants. And even if we didn't, how would we then start to operate at the new normal and knowing that this virus still may be in our community? And so what we've done is we said, look, , let's go back looking at, or looking over the last year. And if we look at the areas that we've been focusing on over the last year, we actually started with something general, but then we moved to coming home safe.

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We move up into the best prevention right now are the vaccines and understanding the variants and the road to victory. Knowing how to assess your family and your own risks so that you can define your behavior, not by what your politicians say locally, but what you know about the science and make the, turn the science into safety. Putting together - and it could be the most simple plan or a complex plan, and being able to put together a plan. And we've provided a lot of really great material that really has not changed - that providing care at home hasn't changed at all; the hospitals have not changed what they're doing in terms of isolation rooms, the emergency departments have learned so much more about aerosol risks, but going to, and coming back from the emergency department, really super important highlights. And then when people are in the ICU, God forbid that you have a family member that's still had to go to the ICU, but if you have somebody who's vulnerable, severe disease, a certain percentage, you're going to go to the ICU and a certain percentage are going to die - really big, a big issue for those of us that are trying to convince others to get vaccinated and look at our, our go-forward plan is long haul disease.

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This is nothing a young person - I wouldn't want my son, who's a competitive surfer and who is an aspiring student to go through brain fog and then to go through unsteadiness and not be able to compete. And so as we look at the 10 best practices and then apply them to what we're doing in the new normal, I think it's really, really important that we all recognize how vital we are going to be as we move forward.

And Dr. Botz, finally, as we think about operating at the new normal, we develop the four P model of prevention and preparedness and protection when *about event* occurs or what we call boom that might occur and performance improvement. And having that be a cycle and a series of loops where we're learning to practice the 4 Ps. What would you like to share with us as we think about this as one of our closing practices and what we must do as we operate at that new normal, after this wave of Covid?

[\(01:11:52\)](#):

Botz: I think the four P's are a critical strategy for operationalizing our response to COVID disease in our community. Just like the five Rs define our strategy for preparing for, and responding to COVID disease in our family unit and in our community. Using the four PS as a strategy for operationalizing our approach and our execution of things that need to happen when someone has COVID is so important. And I think the most important is to close the loop with a performance improvement strategy to take

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what we've learned over time and adjust how we are responding to COVID disease in an ongoing fashion. For instance, as we have moved from the last surge of COVID disease in our communities into a more stable state, perhaps leading to more reopening, we still have to pay attention to things that are happening and feed them back into our family plan, into our strategies for care at home or emergency care. All of those things can be modified based on what we've learned about this disease over time, especially in this very, very significant pandemic.

Foster: On the reopening as communities are excitedly reopening, I think it's important that we take the smart approach to this. A lot of us are ready to ditch the mask and move on, but as I had a conversation with a community member, you know you wouldn't want your surgeon to walk into your operating room without a mask and without washing his hands. These practices that healthcare workers have been abiding by have been proven effective to have positive outcomes for our patients. This is no different for the community members in the pandemic. So as we start shedding the masks, [laughs] good choice of words there, we want to be careful that we're not shedding virus, right, so I think as we step out in the "new normal" – I like how people are saying that now – that we're just careful about it and cautious about it.

[\(01:14:06\)](#):

Well, Dr. Botz, thank you so very much for your wonderful contributions to this program now over a year, and many, many courses that we now are combining to look at reopening, and we're so grateful that you've been able to offer this expertise to the audience.

Botz: Thanks very much. It's been my pleasure to participate in this very important effort. And I hope that our communities have learned about the COVID disease and are using our five RS and the four P's to make it safer for themselves, for their family members and the community around them.

[\(01:18:24\)](#):

So now, as we wrap up and we'll go back to Jamie and to Paul and to Jennifer Dingman for her reaction as now, not as just the voice of the patient, but representing the community. We have these 12 courses, they're all 90 minutes. We'll now, as we head hopefully to the light at the end of the tunnel, we are going to curate them and make them more and more appropriate for where we are today, as we want to practice the four Ps at the new normal. I'd like to go back to Chief Adcox first and ask Chief Adcox to now kind of highlight areas that you think are important from your perspective. Then you kind of wear the three hats and the triple threat that Bill you're threat safety scientist, you represent law enforcement and first responders, but you're also at a major medical center and know an awful lot about the clinical care that's delivered in our - you're protecting and helping your world-class clinicians at the world's foremost cancer center. Bill, your thoughts.

[\(01:15:53\)](#):

Well, thank you. Everyone that's presented and all the information has come out today - just so valuable and so important that everybody lent their expertise and their time. One of the things I did want to say is that apart from what Dr. Botz says, part of what he said was he talked about maintaining vigilance and and maintaining our plans. And those, those things are very critical for us to do all of us, whether a first responder or whether you're wearing whatever hat we are wearing. I think the thing for all of us remember is that, , when we talk about these principles and these practices, and we talk about the Corona virus, the thing to remember is, is that each and every one of those practices, almost across the board can be utilized in a universal fashion throughout our lives and throughout emergencies and in other viruses and other things that are going to be happening. So it's not just not just that we package it

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in a coronavirus, which is the, is the threat that's with us now and likely a lifetime and beyond, but it is going to help us in virtually all walks of life. And it helps us as we develop safety plans as we develop emergency plans. And then our, our arena here in the Gulf coast region, you're dealing with hurricanes on a regular basis and other critical fashions. And so this stuff dovetails real good. And the last thing I like to say is these programs and this data and this information for everybody that's on the webinar, for everybody that's going to see the webinar in the future, and everybody that's going to avail themselves to these great resources, it's going to allow us as a society as a, as a community, a community of practice, it's going to allow us to, to focus on facts and, and appropriate caution and not on fear and, and ignorance and not doing the things that we should be doing. And it allows us to allow us, us to have fear as a friend and not as a foe. It allows us to be able to pay attention. So you, you're going to get all the facts. You're going to understand what are the appropriate cautionary things that you can do, how you can be vigilant, but still live your life, still have quality in your life, still saved the lives of your family members and the rest of the community. So, I think it's fabulous. And thank you so much for allowing me to participate.

[\(01:18:20\):](#)

Well, thank you, Bill. And, we really appreciate it. We will continue to update where we are.

I'd like to go to Jennifer and give Jennifer a chance to comment on what you've seen Jennifer, and then we'll come back to you when we close, but, , we'll go to Jennifer then Jamie, and then Paul. Jennifer, are you muted? Let's go to Jamie. Jamie, I see that you're muted - Jamie your comments - your thoughts regarding what we've been reviewing.

[\(01:19:03\):](#)

Yratorza: I think it's really important information for everybody to learn. You know, we're in a good place in the pandemic and hopefully it will continue to improve, but we know pandemics are an international phenomenon, so we have to remain vigilant. We hope that their variant won't come and 10 best practices for reopening are just really important for your own health and the health of society as a whole.

Denham: What's your message, Jamie to other college students. You're now moved to your advanced degree and probably moved to more advanced degrees as you specialize - you have any special message for college and high school students?

[\(01:19:37\):](#)

Yratorza: Well specifically in the time that we're in, get the vaccine, if you haven't gotten it already. I think again, I'll reiterate myself that I think of the 10 reopening practices getting the vaccine is probably the single easiest and maybe the most impactful of the 10 reopening practices. So I really, really, really encourage all of you, but specifically the college students who we all really want to go out and have a social life again, please get the vaccine.

[\(01:20:02\):](#)

Great. Thank you.

So, Paul, your summary thoughts on things that you think you would like to underscore?

Bhatia: Yeah, so, you know, it's, it's pretty, it's, , you know, go on the news or go on social media and see how steep and kind of think that we're basically done with a pandemic. Fortunately that's not entirely the case. It's definitely not the case. We don't know what these variants in other countries will

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possibly be doing. We don't know what, you know, what, how the, how infections might progress within our communities now, given that the vaccines aren't completely capable of making us immune to the virus, but they are pretty effective. What we do know is the effectiveness of all the practices that we've been working on since day one – face masking, social distancing, and just making the best decisions based on your threat profile, people around you, people in our household, in your environment and, and the prevalence in our community to make the best decisions for you and for the people you care about.

[\(01:21:10\)](#):

So Paula and Jamie, I'll just come back to both of you and just say, state one of the questions, and please go into chat anyone. , and, if you watch this program, the majority of people will watch it and record it. We'll have a link for you to submit questions on the website. People are inundated right now with webinars. It's a tough time of the year, but we know that there are a lot of leaders that are watching today that were, we'll share this with their constituents, that we would love to be able to help answer questions and then refer you to our program next month. And we'll answer your questions for that. But as I go back to Jeni and both you and Paul - as we talk about why do I mask, why should I mask after I've been vaccinated - why is that important? And I think it's really key that people understand that the vaccine only prevents severe disease. And at the front line, in millions of people, the effectiveness drops to about 90%. So you're going to give about a 10% rate of people that will get infected with severe disease and severe disease can lead to long-term problems as well as mild disease. And the other issue that a lot of people don't realize is that you can harbor the virus in your nasal pharynx and in your body, not get any symptoms, and that's how the variants continue to develop. So maybe Paul, cause I see you're on, you're camera's on you right now. Why should we wear masks after we're vaccinated in a community where we've still got a lot of infection?

[\(01:22:46\)](#):

Bhatia: Well, for the exact same reason why they worked so effectively in the first place. By keeping the barrier over yourself, whether you're infected or not, it acts as a safeguard to prevent you from spreading it to others, even, you know, potentially if you are asymptomatic such that, you know, you're not showing any symptoms, you might not even feel sick at all, but you're still capable of infecting others. That piece of cloth is going to be the best way for you to prevent from transmitting it to other people.

Denham: Thank you. And Jamie, you have done a lot of work with us on the masks - articles we're writing, updating the mask videos. Do you want to help us understand maybe a little bit more detail about what we know about how effective these masks are? I'm just thinking of the Roosevelt aircraft carrier and where a lot of the spread information in the past, you and I were both surprised to find out that a lot of the distance recommendations and spread recommendations were built on studies that were 40 50 years ago.

[\(01:23:51\)](#):

Yratorza: Yeah. So we know that aerosol transmission is incredibly important. And one thing that I learned about masks, cause it's actually, you know, when you shed the virus, you're actually not shedding individual viruses, which are unbelievably tiny. You're shedding, the virus encapsulated a little glob of mucus and it's the mask that has the fibers that are actually electrostatically charged that catch those mucus particles. So just because the viruses in a different phase of the pandemic or whatever masks continue to be effective and they will always be actually an effective tool against any respiratory

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virus. And we know also that asymptomatic spread is one of the major drivers of this virus. So, we do need to be aware of asymptomatic transmission.

[\(01:24:33\)](#):

Denham: Right. So for anybody who's traveling and flying just remember, if you go into the "head" - in the bathroom on the plane that is poorly ventilated or stand on a jet way, close to other people that is poorly ventilated, the cross-pollination of air and sharing air, it you know, that's why we came up with the principle of don't share air. If you're going into an environment where the air turnover is very low, that's where I would want to wear a mask. And I think people need to kind of harness the science and not just throw away the mask or wear a mask all the time, but actually understand a little bit more about the science. So Jamie, I just want to thank you for your contribution to the program. Paul, you as well, and on behalf of our community in Orange County for your steadfast work - here's a pre-med student - there you are building axillary hospital beds; you really won our heart when you did that, Paul, you're one of our heroes for doing that. And, I'd like to come back to Chief Adcox for any final words. And then we'll go to you, Jennifer,

[\(01:25:36\)](#):

Adcox: Thank you. What a lively discussion and super, super stuff that we're talking about. The only thing I can say is this is to encourage everyone to please publicize where the site is so that everybody can get this information. Help us, help others and bring everybody into the community of practice. Just such a robust amount of information. And last and not least Dr. Denham, thank you so very much for putting these webinars on and supporting this and making it happen. None of this is ever going to be possible without you. And I know just how much sacrifice you've had to make to have this happen and all of us that are in this program here deeply appreciate it. So thank you so much.

[\(01:26:27\)](#):

Denham: Thank you, Chief, and thanks for your contribution.

And the last word will be with Jennifer Dingman. Jennifer, what would you like to share? And then I just want, and then I'll have some concluding comments because this program will be used for continuing education for doctors, nurses, and also for corporations. And I'll have a final couple of words there, but the final content word for the day as always. Jennifer, thank you again for all you've done in patient safety and quality and for being our voice of the patient to this more than a year of programs.

Dingman: Thank you, Dr. Denham, excellent discussion. And I just, just want to echo with Chief Adcox said, it's so important to share this information with your family, friends and colleagues, go to the videos and watch all of them, share them widely.

I just want to thank our speakers for all the good that you're doing and everything that's happening right now. I'm very, very optimistic and excited for the future and Dr. Denham, I can't thank you enough for the educational information that you put out to help people. I'm sure you've saved so many lives and help make people make really good decisions through your work. So God bless everyone here. And we'll see you next time. Thank you so much. So I'll hand it back to you, Dr. Denham.

Denham: Great Jennifer. So this program, it was built actually to be able to deliver continuing education for law enforcement, for clinical specialties, as well as for nursing and allied health care and also for corporate health systems. And we truly believe that every, every organization needs to have a health security officer. And we look forward to putting a lot of the framework that you have found today into that curriculum. And so I just want to thank everyone and those that were recorded today, as well as those that are live. And, as we always say, fight the good fight, finish the race and keep the faith. That's

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our motto, and everyone can be a patient and everyone can be a caregiver. Thank you all. And we'll see you next month.