Jennifer Hannah: Good afternoon, everyone. Thank you for joining us today. I am Jennifer Hannah the Deputy Director for ASPR’s National Healthcare Preparedness Programs, or NHPP, Branch. Before I hand it over to our first speaker, I would like to provide a brief overview of what we will cover. First, I will provide a few ASPR Healthcare Readiness Program updates. Next Shayne Brannman and Dr. John Hayes will provide an update and demo of the new DASH tool. Afterwards, Captain Duane Wagner will lead the regional panel. Finally, we will leave some time at the end for questions from the audience. I’d like to begin today’s webinar with a couple of administrative updates. As you all know, the Cooperative Agreement, Accountability and Management Platform, or CAAMP, is open to recipients and sub-recipients. For interview data collection, the data collection period began on July 6th and will run through September 9th. Next, I would like to take a moment and highlight two recently published Stories from the Field, which provide the opportunity to highlight the hard work and accomplishments of our recipients and sub-recipients. We have recently published two stories highlighting efforts in Illinois and Kentucky. Both stories provide an example of the diversity of support that ASPR funding offers recipients and sub-recipients for emergency preparedness and response. To read these stories and others visit the Stories from the Field webpage. For your reference, a member of our team will share the link in the chat. I will now pass it over to ASPR TRACIE.

Shayne Brannman: Good afternoon, everyone. We're delighted to provide you an update on the Disaster Available Supplies and Hospitals, or DASH, tool. Thank you to those on the line today who have reviewed and provided comments on the drafts of this tool. We received feedback from almost 100 subject matter experts, which has allowed us to make many improvements as we've refined the DASH tool over the last year. This project originated as a specific request from an ASPR TRACIE user and followed numerous similar technical assistance requests in recent years. While many resources are available related to planning and training for various scenarios a gap existed in helping ASPR TRACIE users determine how many supplies their hospitals need for an initial response to a disaster. To address this gap, DASH focused on supplies and four complimentary domains that include pharmaceuticals, personal protective equipment, burn, and trauma. ASPR TRACIE has been working with Healthcare Ready, HAIDA, Region 7 Disaster Health Response Ecosystem, and many other SMEs on the DASH tool since 2021. Our process for each of the four modules has been to look at the threat, identify and review relevant state plans and recommendations, review specialty society recommendations for supply stocking, and examine historical incidents for supplies and quantity used. Based on those environmental scans we developed an initial framework to discuss with select SMEs before seeking broader SME input. This process allowed us to develop a tool intended to help hospitals understand what supplies they need to have on hand for the 90% of incidents that may occur in their area. We look forward to hearing from you and your members on how DASH is used as we roll out the final module. Next Monday afternoon we will formally launch all four DASH modules and we'll send out a TRACIE Express devoted explicitly to the DASH tool. We want you to join our webinar that's devoted to this subject at 11:30 Eastern Standard Time on August 15th as we officially launch the tool. Share the link with
others that might benefit from this. It's now my distinct pleasure and honor to turn over to Senior Editor Dr. John Hick who gave countless hours of his time to develop this tool in conjunction with Jennifer Neraco from the ASPR TRACIE team and our HAIDA counterparts. They worked long weekends to provide this to you. John, thank you for your dedication, and over to you.

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John Hick: Thanks so much. I'm going to do a live demo, please let me know if this is not working. You can ignore all the birthday ideas at the top of the screen for my daughter. As you can see this is dashtool.org and this is live right now. This is your landing page right here, so what you'll see as you scroll down is, you have the hospital pharmacy module, the personal protective equipment module, the burn supply module, and the trauma supply module. Each of these is complimentary, so you really can't prepare for trauma without having adequate pharmaceuticals in place. Under the burn supply module, there's a number of supplies that might be required for surgical interventions or airway interventions during burn care that are listed in the trauma supply module. We intend these to be complimentary modules and to avoid duplication, we have parsed out supplies in the different modules depending on where they seem to fit most. I'll do a demo of few things. For the hospital pharmacy module, the first thing you'll see is some background information on what this is designed to do. As Shayne mentioned, this is designed to help a community identify, based on its hospital characteristics, what resources they need on the shelf to meet the needs of 90 percent of the events. We have instructions about how to complete the forums and download your information and make sure you save it. The methodology is important to read through because it tells you about the assumptions and limitations as we complete each of the modules. It may also prompt you to think about issues with your supply chain or discuss issues with your coalition about how many supplies should be available within our region and within our state based on what your particular regional characteristics are. The instructions and methodology are extremely important. You need to read the instructions and the methods to get the most out of the tool. What we'll do first is put our hospital characteristics in. We're going to choose our trauma level, which is the American College of Surgeons, or ATS trauma level and chose the emergency department beds. I'm going to put 30 in, which is somewhat over average. There are no burn beds at our in-patient location. We don't transfer trauma patients to a higher level of care, which is particularly appropriate for small community hospitals and critical access hospitals. Is this hospital the only hospital in the area or is it at disproportionate risk of taking a major share of burn and trauma patients. I'll choose yes and you can see how that changes our requirements on the right side. It will increase your requirements here by 50 percent. Also, if there's a natural disaster and you anticipate a hurricane, a flood event, or something else isolating the hospital for days or longer, it is going to essentially double your requirements. From a pharmaceutical standpoint, instead of predicting needs for the first 48 hours of care, now we're looking at 96 hours of care. When we double the time under natural disasters, it does double the number of patients. Again, that's explained in the methods and there is not much we can do about that. Essentially, what we're asking for, there is just a prolonged timeframe. You can see now in the different categories of pharmaceuticals and IV fluids that you would normally stock your pharmacy, what our goals are, but you don't have to pay too much attention to that. Let's go into one category and choose antibiotics because there are some pediatrics-specific examples here. Pediatrics is integrated into these modules, so when there are appropriate liquid formulations of antibiotics for the appropriate size in the tracheal tubes or similar things it is accounted for in pediatrics and for the percent of pediatric population that we would anticipate being affected. Otherwise, if we have
enough morphine or if we have enough analgesic or sedation for an adult and we would normally use that for a pediatric patient then we'll still have more than enough. Let's go to oral antibiotics. Based on your input is your target. You'll notice there's a hover there that gives you more information. You'll also see how these different formulations whether it's a suspension of amoxicillin or a tablet of doxycycline how that applies to your total needs. That's based on dosing such as how many times a day and how many tablets, so the total dose. Let's say we have a lot of tablets around, 1,000. Now you can see that we're already in the green and we've already exceeded our total goal for narrow spectrum oral antibiotics. We can now return to the index at any point here and choose a different category. For instance, intravenous fluids and work through that. Whenever we're done putting information into the tool we can download those as PDFs. We can save a link to come back and continue to work on the data that we have entered. It is not possible to download the data in an Excel spreadsheet that's one of the limitations of the Tableau environment. We think, nonetheless, that you will find the module very helpful. I want to take a quick look at the burn supply module here. I'll leave you to explore the personal protective equipment, or PPE, module and the trauma supply module on your own. The PPE module, great thanks to University of Nebraska, our NETEC partners, and others that assistant with preparations for patients with special respiratory precautions, patients with viral hemorrhagic fever, and then predictive tools for pandemic PPE consumption based on different assumptions about mask or respirator reuse. Also, many thanks to the American College of Surgeons Personnel and the American Bar Association members that provided valuable input into burn supply and trauma supply and a number of hospitals and other pharmacies that provided input into the hospital pharmacy calculator. For the burn supply module, we will go through it. Here's the instructions in the methodology. Again, it's very important to put your trauma level in because that will help drive your requirements. We're going to choose trauma level three, which would be a community hospital, a reasonable size, after some surgical resources. And in this case, when we put in 30 emergency department beds, it is going to increase the numbers of burn patients that we would be anticipating receiving because emergency departments that are in excess of certain numbers of beds are actually providing a range of emergency services that equates with a capacity that is larger than the five burn victims that are predicted for a small community hospital to be prepared for. If you provide inpatient burn care obviously your requirements will change and if you are a primary receiving center for burn patients in your area that will change. Same thing with the question, as we saw in pharmacy about natural disasters isolating the facilities. At level three and with 30 emergency department beds were preparing to receive 15 burn inpatients and 45 burn outpatients from amass burn event. If we were to change this number two, you will see that adjusts down to a lower level of preparedness for 5 burn inpatients and 20 burn outpatients. The burn module really concentrates on topical oils and there are a number of topicals that may be used for burn treatment. Because these can be very complimentary are used in different circumstances we'd like you to have some of each of those around and you'll see that reflected in the bar here with some goals in each of these. Then with the remainder, the orange bar at 40 percent, it's dealer's choice. You can choose what other products you would prefer to stock based on your local preferences. Let's say in preparing for 4 or 5 burn inpatients, you have to have one pound tubs of different topicals. You have met your topical treatment needs for those burn patients and you can move on now to the next page and figure out what sort of dressings you're going to use. And you have multiple choices depending on your preferences. If you happen to have silver impregnated products that's fantastic that is, the standard, yet we know most community hospitals won't be stocking those, so you have many options here from burn dressing gauze to
adapting to other forms. Again, once completed this will give you an inventory that allows you to see you know whether or not you would have adequate dressings for a 40 percent burn in an average size adult patient for the number of burn patients that your community hospital, your trauma center, your burn center would be anticipating receiving. If you decide to change your assumptions, you can see these numbers change, and you can adjust accordingly. You may decide that you want to have more supplies on hand now than what the tool predicts. We hope this tool will provide a really good way for hospitals to look at what they have available, what they want to have available, and work with their supply chain and their local coalitions as well as their states on what is reasonable to have on hand and using that as a springboard to what does it make sense to have in an regional cash, how do we access burn dressings under the SNS, for example, that might be needed in a much larger event, how quickly can those come, and where do they get delivered. We think this tool will help a lot to set some baseline assumptions for what hospitals may have on hand. Again, this tool is strictly voluntary, but we think it is a great driver for discussion amongst the different disciplines within the hospital as well as with supply chain and healthcare coalitions. With that, I’m going to stop screen sharing here. I think we have a few minutes for Shayne and I to take any questions that you might have. Look forward to the webinar coming up in August. Thank you, Jennifer and Megan, for your time on the agenda today. I'll assume you'll have more questions as you start to use the tool and you're always welcome to contact us and ask ASPR TRACIE that information is always available on the dashool.org website. I do see one question in the chat here. For a COVID-19 surge, this is a great question whether we have a module for medical needs, so from a critical care standpoint, that is something we have looked at. This was done on a very tight deadline was initially done to look at PPE, but we wanted to expand that to look at more all hazards. You'll find a lot of the items you would need for a COVID-19 surge, especially from an airway management standpoint in the trauma calculator. You'll be able to use that to look at the number of patients and those with critical illness that would also need the same supplies like catheters, NG tubes, and trachea tubes reflected there that would be needed for your general critical care. There is significant overlap with your medical needs and same thing with your pharmaceuticals All of the sedatives, many of the antibiotics, and other things that you might need to manage a larger medical center in there. Because a bioterrorism event does not fit in with any kind of standard community mass casualty planning and we don't really have any benchmarks for determining a reasonable threshold, and that is what the SNS is designed for specifically, so we did not develop specific recommendations around bioterrorism. That's something certainly we could develop some models for in the future, potentially, based on a scalable assumption about hundreds or thousands of victims, how they might be affected, and what level of hospitalization that might be required. Unfortunately, that is a little bit of shooting in the dark because we don't have a lot of good models to be set on. Great question, thank you.  

Shayne Brannman: This is Shayne from ASPR TRACIE again. We're going to be rolling this out Monday afternoon formally. You'll get an express and you can go to the site now, but we will formally introduce it Monday afternoon. I strongly encourage each of you to sign up for that webinar, so John will walk you through some additional specifics about all four modules and we'll have guests from Healthcare Ready, HAIDA, and Nebraska Medicine on as well and we'll keep these out there for about six months and continue getting feedback on how to improve and build upon these modules. They're really very good, but they're not perfect and we know that going into this. Take a good look at them, scrub it for us, and then get back to us in the next six
months. We’ll see where we’re at and what additional improvements could be made upon the DASH modules. Thank you very much for the time.

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**John Hick:** I want to address Deanna’s question. Pediatrics are not broken out by age group, but what we do is we estimate a percentage of potential victims we might expect for each category of equipment. For example, for neonates it would be quite unusual to have a significant percentage of neonates involved in a disaster for say trauma. On the other hand, as we’ve seen too often with school and other settings young children may be affected, and so we’ve tried to include a reasonable percentage of trachea tubes and things like that across the pediatric size range that might be required. Again, always open to continued feedback on this. The good news with pharmaceuticals and burn dressings and a lot of the trauma materials is that if we’re managing a 70 kilogram person, we can then manage a seven kilogram person, very effectively as well. We want to make sure, and I think we’ve included, the appropriate size, feeding tubes catheters and trachea tubes at a reasonable percentage for the casualties that we might expect from a community event including one that might occur in a school environment. Hopefully that’s helpful.

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**Shayne Brannman:** Thanks, John. Megan, back to you I think we’ve taken our time here with TRACIE and we don’t want to crowd out. We know we’ve got a great presentation.

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**Megan Wassef:** No worries at all. We have one more question that came in through the chat asking about a disaster plan to develop this for radiation chemical to match the HCC surge annexes being developed.

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**John Hick:** That’s a great question. Again, while we have some pretty good historical events for burn and mass trauma that we can draw on to recommend on shelf materials, there is very little to guide us from a chemical and radiation standpoint. Also, they’re actually few specific radiopharmaceuticals that we would expect the hospital to have on hand that really does come down to specialty stocking at the state and federal level. But SSKI is included as a possible recommendation on pharmaceuticals and a few others on how a hospital might consider stocking those and then work in concert with other resources within the community. In general, for on shelf supplies, unless you’re talking about chemical PPE, we do not have really good modeling. Because this is a voluntary tool, recommendations for how many sets of chemical PPE you might need are going to be very dependent on your local hazard analysis and not on us telling you that you should have 5 sets, for example. We have looked at chemical and radiation and at least at this point, our determination is that we don’t have a very good basis for recommendations for hospitals to have specific supplies in those domains for direct patient care. If we have further information or if there’s other things that can be done, again some modeling, some potential recommendations could be possible. As far as on shelf recommendations based on historical events at a 90 percent threshold that gets a little bit more difficult. Thank you.

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Megan Wassef: Thank you both so much for taking the time to present to us today. We appreciate it. I will now pass it over to Captain Duane Wagner, who is the field project officer for Region Five. Captain Wagner will introduce and moderate today's hospital association regional panel on pediatric surge during COVID-19.

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CAPT Duane Wagner: Thank you, Megan. Good afternoon everyone. I'm excited to be here today for the second of our monthly regional panels. During each of the monthly webinars, healthcare representatives from one of the HHS regions participate in a panel highlighting hot topics and lessons learned from COVID-19. This month healthcare representatives from Region Five will be discussing how they managed pediatric surge and the COVID-19 pandemic. It's my pleasure to be joined by several healthcare representatives today. As you can see from this slide, we have a diverse group of esteemed colleagues from across the Region Five group that includes Dr. Matthew Denenberg from Michigan, Dr. Emily Chapman from Minnesota, Cathleen Shanahan from Illinois, Dr. Dana Dahl Grove and Jim Guliano from Ohio, Dr. Roxanne Lefort and Dr. Samina Bhumbra from Indiana, and Dr. Maureen Luetje from Wisconsin. We're excited to have each of you on the call today. Thank you all for taking time out of your busy schedule. We're looking forward to hearing about the experiences, challenges, and accomplishments each of you had. I will start by going over logistics for today's panel. I will read each discussion question and indicate who will start the conversation. Feel free to add to what another panelist has said, even if you've already gone. For those in the audience, feel free to enter your questions in the chat during the panel discussion. We will address them during the Q and A portion of this call. My first question focuses on before the pandemic. Prior to the pandemic, what were the most effective strategies used to support pediatric surge? Let's start with Jim Guliano and Cathleen Shanahan. I'm curious to hear about your perspective from an administrative level.

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Jim Guliano: Thank you, Captain Wagner. I'll start off by saying this takes me back to the fall of 2019 where in Ohio we experienced a respiratory surge of sorts. Again, thinking about pre-pandemic and how we functioned, I think the two key words would be collaboration and communication. I'd probably throw triage in there as well, but the value of collaboration between our pediatric hospitals and our community hospitals on looking at which patients could potentially be transferred to adult hospitals, which patients absolutely by criteria needed to stay at a pediatric acute care hospital was so very important. And I think that collaboration, that communication certainly existed before the pandemic, it was heightened during the pandemic, but that was very key to our work in Ohio with many of our hospitals. That's how I would summarize the pre-pandemic.

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Cathleen Shanahan: Like James we had the same situation where we had surge at our facility and we are a free standing pediatric facility in Illinois in downtown Chicago. It was not COVID-19, but it really was more of the flu and respiratory virus, so that happened long before this, so we've been really prepared for it. One of the things that we do is a daily operational safety call in the morning, so you have a sense of how things are going to go with all the main key stakeholders and that really helped us set the stage for how the day would go. But we have a pretty robust surge plan at our facility with additional spaces, additional staffing, how we would
get them to do this, so it's kind of like a Tuesday to us in the winter dealing with this kind of event that goes out all the time. I know we're going to talk about COVID-19, but that didn't stress us as much as say the flu does or respiratory does. I hope that helps.

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**CAPT Duane Wagner:** Thank you for that, so let's turn next to Dr. Deanna Dahl Grove, Dr. Lefort, and Dr. Luetje. Anything to add from your clinical perspective?

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**Deanna Dahl Grove:** This is Deanna. I agree with James with regard to how Ohio hospitals work together. One of the things we actually had going for us before the pandemic was that we already had a pediatric disaster coalition. That was sort of in partnership with the EMSC and the HPP partners in Ohio. It really helped with the communication strategies between the hospitals as well as some of the planning tools that we could start to think about from looking at our Ohio based bed board for bed tracking looking at the age of patients things like that, so those were tools that we sort of worked on in the background, but I think really helped when you have to manage such things as respiratory patients and other infectious things that usually happen in the pediatric community and we had that going long before the pandemic.

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**Roxanna Lefort:** This is Roxanna. I would say going along with what everyone else has said, one of the big focuses pre-COVID-19 was getting our non-pediatrics centers ready and that was to help us in surge events, so that the main pediatrics centers wouldn't be overwhelmed, but allowing some of these other non-pediatrics centers to have the tools, the protocols, and the education to care for children appropriately and not have to transfer everything over.

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**Maureen Luetje:** This is Maureen from Wisconsin. We were looking at surge in kind of two different areas. We had surge for our traumas or mass casualty incident, which we practiced every once in a while, but it was not nearly the norm that I feel like we do now. Then you had your viral surges, which we felt like there were patterns that we knew when it was going to happen. We knew in the winter volumes are going to go up and that's where I feel like COVID-19 switched a lot of this for us and we had to standardize our surge practice a little bit better and have much more concrete numbers on when we needed to have an influx and then again deescalate things, so it did make us look for surge practices and change it up a little bit.

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**Samina Bhumbra:** This is Samina Bhumbra from Riley. To echo what Maureen was mentioning to the system, here at Riley what we've done for the last 20 years is a respiratory viral tracking report where through the system it is tracked, and we can try and start to see trends before they become more apparent. That's really helped us predict where clinical needs are for the future.

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**Duane Wagner:** Thank you. Dr. Chapman and Dr. Denenberg, we are interested in your perspectives as well, if you have anything to add.
Emily Chapman: When you first asked the question, before the others answered, one of my thoughts was how did we handle these things and we handled them internally. You basically were prepped to have your teams be able to staff up as needed, particularly, seasonal staffing differentiation and writing that into physician contracts to anticipate they would have more shifts in the hospital in the winter in anticipation of that the flexibility with your nursing staff. I think that was one of the major shifts was that we very much looked at it as a single siloed entity and how we managed surge and that's what shifted with COVID-19.

Matthew Denenberg: This is Matthew Denenberg. I can't add anything to what's already been said because we were part of a lot of that in Michigan as well. But one thing I will add is just before COVID-19, we formed a coalition or collaboration of 11 hospitals across the state of Michigan that serve most of the kids, so the three standalone children's hospitals, the four or five other children's hospital, and the large health systems in remote areas that serve the most children in those areas. We got on a call every Monday for 15 minutes for a multisystem call mostly during respiratory virus season as we all have surges. Then that very quickly, during a flooding in Kalamazoo, turned into every Monday and then during COVID-19 we're meeting twice a week. And we turned that into a dashboard, so we knew what was going across the state and it came in handy. One children's hospital in Michigan may have been full of ICU beds, they could get on the call on Monday and we could move patients around the state, bypassing the infrastructure of our large health system. We served as a grassroots group from the children-specific hospitals across the state. We talk every Monday still, text each other when we need things, and bypass our CEOs, presidents, and the people that would stop us in a moment of need. We're formalizing some of that with the state now and making it a bit less grassroots and a bit more real.

Duane Wagner: Thank you. My next question deals with the challenges each of your states faced. What were some of the most difficult challenges in triage and treatment for example, in pediatric COVID-19 cases. Also, if you could elaborate on how you overcame some of those challenges. For this one, if we could start with Dr. Dahl Grove, Dr. Lefort, and Dr. Luetje.

Deanna Dahl Grove: There were a couple things that really came to light. We’re Region 5 for kids and, obviously, we have a lot of connections with everybody. The thing that was really helpful for us was actually the collaboration that we had. Initially, we were the Eastern Great Lakes with just Michigan and Ohio, so during the start of COVID-19 when all the MISC was starting to come out, we didn't really know the definition of MISC, so our weekly calls were actually really helpful for us to understand how to look at MISC, what were you doing for testing, how many cases were you having, and just that situational awareness across state lines really was very helpful to understand what the region was doing. And then it got more formalized as the Children's Hospital of Michigan actually ended up doing a big study on it, sort of a case review, because they seem to be a hotbed for it. The other thing that was actually really interesting was when we actually had testing available for COVID-19 and the number of our ERs were overwhelmed in our region. Everybody was coming in. We were seeing three times
as many patients as we could because families just wanted to be tested, they wanted their kids tested, and they were worried. Creating a strategy to get outpatient testing going in a very quick and rapid manner was really important. We had NDMS come in and help us set up some remote testing sites and I'm sure Jim can remember all that because that was happening across Ohio. Some of the walk-in sites didn’t want to test, so the pediatrics were overwhelmed until we were able to get the age lowered, so that we could get kids tested. Really working with community partners and figuring out how to do that with public health is super important for us to reduce our volumes.

Maureen Luetje: It’s funny that you bring up MISC. I remember this was before Wisconsin was part of Region Five. We knew that the Children's Hospital in Michigan was getting hit really hard with this and we also heard about a presentation from your group and we reached out. We ended up getting that information to us internally throughout the region, which was extremely helpful because that it was scary. We weren’t sure what we were looking for, we weren’t sure how to do the treatment, so that was really helpful within the region that we had people that we could look to for that. Some of the things I found difficult is, and this is very basic now, but PPE. We just did not use PPE on a regular basis and when you did it was always like let's look in the manual about contact versus isolation. Getting over that hump of PPE was such a big thing in the beginning. You’d have a patient and you're trying to figure out a lot of new equipment information that not many of us had trained on. I think that's a huge thing we've gained from COVID-19 is that this is all pretty daily now with PPE. I think the supply issue was very early on and we were unable to get a lot of things. We were making our own masks and trying to figure out what did we have, what did we need, and what were we going to use to protect ourselves. Disseminating that to the community in the beginning was very difficult because we didn't feel like we knew the information to confidently tell community members.

Roxanna Lefort: Going along with what Deanna had mentioned, one of the most difficult things is we were so overwhelmed with the number of patients, both high acuity and low acuity. Kind of at the same time, a lot of our primary care offices weren't seeing sick patients, so a lot of the patients that parents would take in typically to see their pediatrician were coming to us. We were being seen for tests, for school notes, and then we were also getting those really sick kids. The overwhelming numbers of patients, trying to handle the really sick ones, and then also the patients that waited four hours for a test and were really angry, I think that was one of the things that made triage more difficult.

Duane Wagner: Thank you. We see a lot of common elements here, Dr. Chapman, Dr. Bhumbra, and Dr. Denenberg, curious about some of your challenges.

Emily Chapman: One of the more significant challenges for us as a freestanding children's hospital was trying to decide our comfort level with taking care of adults because really in pediatrics until we got into that summer respiratory season, where we really got hit, we had very low volumes throughout this time. The question was always what can we do to assist other
hospital systems and preparing your hospital system to be on the same page. That was a heavy
lift, and I'm quite certain, we weren't on the same page, but we do take care of older patients
largely in pockets of adult congenital heart disease or young adult cancers, and so forth.
Generally, in our MED surge and in our typical ICU there's not a lot of that, so making sure we
were committing to the community who desperately needed us to be flexible and who we saw
was internally accepted, known, and prepared for became one of my challenges that we haven't
mentioned yet.

Matthew Denenberg: Similarly, we took a lot of adults into our children's hospital because
we're free standing, but we're connected by a hallway to a 800 bed adult hospital, so we shared
space, we shared staff, we shared physicians, we shared all kinds of things. I think the biggest
challenge that we faced was messaging and communication with the community because we
were seeing all of these adult patients, we were having patients in the hallway, especially during
our second search, we were hearing stories about our friends at Children's Hospital Michigan
and in the meantime, we were being told on the news kids don't get sick. At the same time, on
our Monday calls, we were talking about who's going to take which kid for ECMO because there
are only a few places in our state. Working with the state and working with the community was
the toughest part, really getting that message out that kids can get really sick from this and it
isn't an adult only disease. I think we struggled with that a little bit, especially in the beginning.

Samina Bhumbra: I agree with what Emily and Matt have already brought up. One of the things
I did was helping to develop our treatment algorithms both for MISC and COVID-19. And what
was interesting was like what we've already mentioned a lot of emphasis was on adult care, not
so much pediatric care, and so, for better or worse, it was really good that we would meet with
our adult counterparts when developing treatment algorithms that could translate over to the
pediatric side or be adapted to the pediatric side. Other challenges that we started to encounter
actually was as we got deeper into the pandemic and reopened our elective surgeries were
trying to cope with how you handle a positive test, what does a positive test mean. We
promoted a non-test approach at our facility, where you assume everyone was positive and just
dawn the appropriate PPE, given that we had supplies for PPE available at that point and the
turnaround time for testing wasn't as great.

Duane Wagner: Cathleen, anything to add here?

Cathleen Shanahan: One of the things I was going to share with you is that, in Chicago, we are
not only a pediatric freestanding hospital, but we're also an Ebola center for one of three in the
city of Chicago. One of the things we learned from H1N1, that was mentioned earlier, was we
realized we were seeing 400 kids a day for weeks on end. None of them, to be honest with you,
well some were, were not quite sick, so they were really worried. After that, even though we
never used it, we established a plan to use one of our offsites. We did this with COVID-19, so
eyear on you took an offsite and it actually wasn't going to see patients because they all got
canceled families were afraid to come in and use that as a testing center for anybody that was
referred. Initially that didn't start right away because the City of Chicago Public Health would call us in the emergency room and say we're sending you over a patient. Then it was like we're getting six a day, but it got a little crazy because you had to prepare like you would for an Ebola patient for them. I think once we establish, which was shortly after that, when we talk how did we overcome some of this just offloading the testing to an offsite, not an emergency room, helped us. I have to agree everything you guys are saying we've had very similar experiences.

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James Guliano: I'll add that I think the awareness of multisystem involvement in pediatric patients, I cannot overemphasize how that was so necessary for all healthcare providers to indoctrinate into their practice. And then go back to the fact that this was an evolving body of knowledge about the pandemic. We were learning things by the hour in some situations, we were dealing with supply chain issues, and those issues changed. I heard someone mention ECMO earlier. At one point, through state coordination, I think it was New Year's Eve actually, there was literally no ECMO, no circuits available in the state, but for the fact that we did have one person who then came off ECMO, but unprecedented lengths of times at ECMO. We were working with adult and pediatric hospitals for all available circuit unit providers. It was something as simple as saying, where are the units in our state like what's the inventory. Also, if I need to call someone, how do I do that in a in a very fast manner, so I don't need to jump through hoops. It's not just calling a transfer center, but how does this work, so the value of the state hospital associations trying to coordinate those forums and getting people together. I will also say that with Dr. Dahl Grove and I communicate frequently. When she sends something to me to be distributed outwardly I take it seriously because it's just in time type information. The value is getting the message to the right people. It's not just establishing the need to know, but the value of knowing. Many times, people will say that doesn't pertain to me because I'm not a pediatric provider. Do you have an emergency department? Do you have a community? If you do this is something that you need to consider and we are all part of communities, so we all serve communities. Those were lessons learned and I think Deanna you might agree that we do have really good communication between the coalitions and getting that information outward.

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Matthew Denenberg: James, this regional work is so important because of what you just said. I will say one thing, I was the triage officer during the height of the adult pandemic and the adult surge. I was getting calls from Jacksonville, Florida for ECMO patients to come to Michigan because there was no circuits in the southern states, so these coalitions are so critical.

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James Guliano: Just to add to that, when we look at something as simple as ECMO, the first round of surge within ECMO was that we had patients who were on for so long, they're stay was so long on circuit, but within months that shifted to having plenty of circuits, we just didn't have the staff. We had hospitals that had to close down circuits because they couldn't staff rooms appropriately, so it was a different twist on the same problem. And how you handle that is a little different, so convening people to talk this out and come up with strategies was very important. I know many of my colleagues from the state hospital associations are on this call and I'm sure you've done similar work as well, and if you did, thank you.

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Deanna Dahl Grove: This is where I would make a plug for a concept that I think Michigan is really working on, which is the pediatric medical operation cell to be embedded in a medical operation cell at the state level, which really is a great concept that I think Ron has been working on out of Children's Hospital Michigan. It really sets the stage for how do you create the scaffolding to support staff to meet the communication structures, so that when you need these kinds of things they go into place. It's a really great thing for a pediatric element, but I think it only works if you have it for all medical elements because the things that you do regularly will actually be much more available to you in a disaster or some kind of big situation. So somehow embedding these kinds of concepts and we've done a nice exercise on that through Region Five and actually have a pediatric surge workshop coming up in August that's going to take a closer look at some of this stuff, which I think all of you have probably been invited to since you are from Region Five.

Emily Chapman: One of the interesting learnings that we had about that was we had previously been a part of listening in on a regular basis, of course, to our adult coalition and you know daily calls and sorting out where the most critical patients were and so forth, and then the emerging need to have a pediatric focused call that really could just look at pediatric patients. Very quickly, we learned you really need both because there is a need to flex our health systems. If you've got a 24-year-old patient in an adult system, you really have to understand what is sitting there in the adult system as you're thinking about what the pediatric providers are identifying. Of course, the calls would come from out of state and need a centralized hub, to consider those patients. We bounced back and forth a little bit with that concept of do we do a pediatric portion of the adult call, do we do a separate huddle, do people have to attend both huddles. Ultimately, we felt like one foot in each canoe was important for us to be able to effectively help triage those calls that came for pediatric critical care that you had to have that picture of the adult systems. Once again that was less the height of COVID-19 than it was the surge of illness as community restrictions lifted and we had this surge of illness, in addition to some the oncoming delta and so forth. It became a perfect storm almost created by our own social movements.

Duane Wagner: I appreciate the discussion. Those were some great points. We have a couple minutes and have one remaining question. Because of COVID-19 and all the preparations and everything that's transpired, how would this cause you to respond differently to a pediatric pandemic in the future?

James Guliano: I would just start off by saying that load balancing took on a completely different definition for me. It wasn't just about beds. It was about staffed beds. It wasn't about ECMO units, it was about staffed ECMO units, or IV fluids that weren't available or oxygen that was not at the kind of high flow oxygen that wasn't available, so it was how do you do this.

Matthew Denenberg: I would intentionally now, before we have a surge, tackle the ethics of scarce resources in pediatrics. It was kind of glossed over that we did a lot of that work in the adults in a hurry. It was great work and we did it in Michigan and across the country. Pediatrics
was like an appendix to the work because kids weren't getting sick enough and we knew we could handle the volume, as it was happening. We have to make sure we're ready because I don't think we could make the same scarce decisions for pediatrics that we made in the adult world like we are going to have to.

**Deanna Dahl Grove:** This is where I think the tool that Matt has been working on with Jabari that helps us see beds, staffed beds, unstaffed beds, what type of beds, and things like that is actually a very robust tool. I think they've worked on the pediatric dashboard really well and having something like that for children's hospitals is really going to help load balance. But you know we don't load balance, as Roxanna even pointed out, having hospitals ready to take care of kids in your critical access hospitals and your rural hospitals because that's just as important as having the children's hospitals know about stuff. We are part of a whole big system and we're only one component. I think it's really important that we understand our role in that and we are definitely working on strengthening our children's hospitals in Region Five as well as incorporating a lot of the stuff that we're doing with the pediatric pandemic network across the nation. We've definitely built great collaboration and great tools. More ideas are coming and understanding how we integrate into the whole system, so that we can create awareness for pediatric issues for everyone.

**Duane Wagner:** Thank you. I wish we could go on since there are a lot of great discussion points here. I want to thank this group not only for the discussions, but for what you do in your communities. You're all experts and you all do a tremendous amount of work. That's very evident and we appreciate what you do. I wanted to also mention to the listeners, if you want to submit a question, use the chat or raise your hand, if you prefer to speak live. Megan, I'll turn it back to you.

**Megan Wassef:** Thank you to all the panelists for such a wonderful conversation and, of course, thank you to Captain Wagner for moderating today's discussion. We wish we had more time because I think we benefited from hearing from all of you. Due to time, I'm going to go ahead and transition into the general Q and A. Jennifer, I'll go ahead and turn it over to you. If no questions come in, we can go ahead and answer some of those questions that came in the chat for the panel.

**Jennifer Hannah:** As Megan stated, we have a few minutes before the top of the hour, so we would like to open the line for any other questions either to our presenters or for ASPR in general. I did see a question that came in that asks about if there were any updates on the annual tangible property report, if it is required to be submitted under the ASPR, it was going to be looked into at the last meeting. The tangible property report is only required for the end of the project period, you do not have to submit it annually.

**Emily Chapman:** I see there's one point made in the chat about pediatric clinicians caring for adults and adult clinicians caring for children as a key asset, a force multiplier, and a disaster response. I completely agree with that. I will say I struggled more with whether we had the
flexibility in our nursing staff. I found that my clinicians felt more comfortable flexing one way or another and had a good, solid phone a friend and felt like they could support each other. Our nursing teams felt particularly uncomfortable, so it's a consideration when we think about disaster planning for us to make sure that we think beyond just the clinician.

Jennifer Hannah: Thank you for covering that and for that comment. We also got a comment from John from the Florida hospital association that says they worked with other hospitals and healthcare coalitions to help with COVID-19 response issues like identifying ECMO beds and the HCCs were a tremendous help as our state public health emergency was allowed to expire in June 2021 and our usual state partners were not as engaged. That's a great point about leveraging the healthcare coalitions within the jurisdiction. Thank you for that comment as well. I see we are one minute from the top of the hour, so I'm going to give today's closing remarks. I want to thank all of our presenters and panelists for their time today and for all that they do. Our agenda was packed with great information. I also want to thank all of you for your active participation. I know sometimes you probably don't get thanked enough, but you're certainly appreciated by ASPR and all of us at the NHPP. As a reminder, we invite you to share any stories regarding how you or your member hospitals are using ASPR funding to make a positive impact on your community. Please fill out our submission form or reach out to your field project officer for more information. A member of our team will drop the submission form link in the chat for easy reference. We look forward to hearing about the great work that you are doing. Also, I would be remiss if I didn't thank Shayne and Dr. Hick for the great presentation and demonstration on the DASH tool. All of us are looking forward to that rolling out on Monday. Just a reminder about the upcoming webinar on August 15th at 11:30 ET. More information will be forthcoming regarding that. Again, thank you everyone for joining today's call and hope you have a great day and a great week.