Working Beyond Borders and in Partnership to Create a Pediatric Recognition System

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THERESA MORRISON-QUINATA: Good afternoon, everyone. And thank you for joining us for the Health Resources and Services Administration Maternal and Child Health Bureau Emergency Medical Services for Children program webcast. Today's webcast is about “Working Beyond Borders and in Partnership to Create a Pediatric Recognition System.” I am Theresa Morrison-Quinata, Public Health Analyst with the Emergency Medical Services for Children program. Again, thanks for joining us.

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Today our speakers plan to take you through their experiences as Georgia ventures out to learn more about the process of creating a pediatric recognition system, and to share with you what they have learned thus far through their partnership with California's EMSC program. To ensure they understood what the undertaking involved, and to tap into the experience of others, the program staff sought the support and guidance of the California EMSC team. Dr. Gausche-Hill and Dr. Mabley and Miss Al'Belar will present an overview of how they partnered, what they have learned and how they intend to proceed.

Our first speaker is Tracie Al'Belar. Miss Al'Belar is the EMSC program manager for the state of Georgia. Over the course of the last three years Tracie has established an EMSC state advisory committee, increased pediatric educational training and policy for

emergency medical technicians, and promoted the importance of pediatric emergency equipment on ambulances. Prior to joining the state EMSC office she served as the training coordinator for Georgia's mental health division. She has also worked for several years as a special education teacher for both middle and high school levels.

Next we have Dr. Jill Mabley. Dr. Mabley is Georgia's EMS medical director for the EMS office. She has served many years as the region 1 medical director and currently serves as a member of region 1 EMS council. She is the medical director for the Cherokee County fire and emergency services and several other licensed services in region 1. Dr. Mabley also served several terms as the EMS medical director advisory council chairperson. Dr. Mabley received her medical degree from Rush Medical College of Rush University, and did her residency at Northwestern University in Chicago, Illinois.

And next we have Dr. Marianne Gausche-Hill. Dr. Gausche-Hill is the Director of Emergency Medical Services and Pediatric medicine fellowships at Harbor, UCLA Medical Center in Torrance, California. She is known nationally for her work as EMS researcher and educator and for her leadership in the field of pediatric emergency medicine. In 2007 Dr. Gausche-Hill was awarded the American College of Emergency Physicians national education award in emergency medicine. In 2005, she was awarded Martha [inaudible] APLS award from the American Academy of Pediatrics. In 2007 Dr. Gausche-Hill was awarded Emergency Medical Services for Children Heroes Award for Lifetime achievement. The following year in 2008, Dr. Gausche-Hill was

named one of the heroes of emergency medicine by the American College of Emergency Physicians and in 2010, was a finalist for the Daily Breeze health care provider of the year.

Miss Al'Belar, Dr. Mabley and Dr. Gausche-Hill, thank you so much for joining us today. So let's get started. We first have Miss Al'Belar and Dr. Mabley from Georgia's EMSC program.

JILL MABLEY: Hi, this is Jill Mabley, calling in from Atlanta today. And I hope our first slide is up, Working Beyond Borders. We will talk about the formation in Georgia about the state EMS for children council which was done, well, we'll talk about that. And our initial site visit from the HRSA representatives in 2008, which is when Tracie started working with us. We will also discuss our work on the specific performance measure of pediatric hospital designation. After our initial work on that performance measure and our site visit we are going to talk about the efforts that we made. We weren't making much progress so we asked HRSA for another site visit and this time we were fortunate enough to have Dr. Gausche-Hill come and work with us. She is going to present the information that she shared with us and our EMSC council and then Tracie and I will return to describe our efforts after Marianne's visits and the lessons that we learned. Slide, please.

We belong to a division of the department of community health in Georgia. The state office of EMS is just part of the division of state government that has wide

responsibilities for health care delivery in Georgia and this slide demonstrates some of those responsibilities. Slide, please.

This slide of our initiatives for the fiscal year of 2011 shows initiatives for our department set by the commissioner. Our commissioner is appointed by the governor. And I'm going to get a little bit into the description of what it's like to work at the state level as far as trying to make policy decisions and influence legislation. Our office is currently part of emergency preparedness which you can see on the slide is the third initiative, so we are pleased with being near the top of the list of things that our department will do. However, last week the state legislature passed a law that is going to reorganize our department and the state level I found this type of reorganization happens primarily with every new election and new governor and I have found over the years some of the changes are good and will benefit EMS and EMS for children, others aren't so good. I would imagine everyone that works at the state level is familiar with these kinds of barriers and logistic changes. Slide, please.

Regarding the demographics of Georgia, I found that when considering tinkering at all with the public health system in the state that certain basic demographic facts about the state influence how the legislators set priorities and how the legislators decide to spend money. So I want to spend a brief time talking about what our state is like. Geographically large by eastern standards, and I know compared to California we are not that big, but by eastern standards we are quite large. Geographically diverse in the sense that we have both coastal real estate, which means hurricanes and evacuations,

and areas that actually have what pass for mountains out here, not like the mountains out west, of course. But because of that, we have to frequently deal with ice storms and extensive power outages. Of the 10 million people in Georgia, one quarter of children. Of these children, about half are on state funded insurance, which of course is Medicaid or Medicaid equivalent. Despite that, we still have 10 to 12% of the children in Georgia that have no insurance resources at all. About 159 counties and the reason I'm commenting on that has really huge political implications for Georgia and getting anything done in the state. We have the second highest number of counties at 159 of any state in the U.S., except for Texas. The traditional reasoning for this creation of all these counties was that when counties were created back in the 1770s idea was the country farmer should be able to travel to the seat of government and home in one day in horseback or wagon. Local rule is a grand tradition since 1777. Regionalization is not part of the state culture. The current political culture views all as local and is tough to regionalize.

This slide, health is the organizational structure of EMS in Georgia. The slide we are presenting was the structure until last week, like I say when we were in the department of community health with partners of community health and preparedness of homeland security. And the legislature voted to reorganize and gave us a date of July of this year. Newly created department of public health. I'm feeling this is an example of reorganization that is actually going to benefit the EMS community, since the physician, Dr. Brenda Fitzgerald, she will be leading the new public health department and is one of our advocates and allies. I mention that because one of the themes of today's

presentation is the importance of identifying dedicated individuals that you can enlist to help you, and our expectation is Dr. Fitzgerald will be one of those dedicated persons. Slide, please.

So down to the office of EMS and trauma, our mission includes licensing ambulance services and individual EMTs and paramedic providers. We supervise, but do not deliver education and training, and take part in disciplinary actions, and I'm finding they are all too often required. So EMS for children is just one of our areas of responsibility, but one held in very high regard by the state office. Regarding the organization of EMS in the state, we are divided into 10 EMS regions. Each has a paid program director and volunteer medical director. Up until the budget crisis years of a couple years back, each region had a training officer and administrative assistant. With the budget changes, we only have one person doing the job of three people. This is one of our difficult barriers. Advisory councils, two that you see on the list. They each meet quarterly and discuss issues of state and regional importance. The first one is the EMS advisory council, and that's paramedics and agency directors. The EMS medical director's council, the 10 who are volunteers and another 15 volunteer positions with an interest in expertise in prehospital and medical. And we have two pediatricians who have specialized in emergency medicine, two trauma surgeons, medical directors from the really large EMS agencies, and we are fortunate to have academic EMS physicians on our councils. All of these councils, as well as the EMS for children advisory council all meet quarterly. They are all volunteers. Slide, please.

The reason that I'm showing some additional information about trauma is that it is part of our office of EMS, so part of EMS for children, and it's an area that's really made some advances that we are hoping to transfer into the EMS for children arena. After years of really very vigorous lobbying efforts to make the legislators aware of the poor survival of traumatized patients in Georgia, I am not going to give you our statistics because they are so embarrassing, a state trauma commission was formed in 2007 to address the public health crisis of insufficient number of trauma centers. It allowed us to do things as replace ambulances that were breaking down because they were so old and had so many miles, and these were primarily in rural areas. We were also able to initiate the process of trauma system building which did involve regionalization and hospital designation as trauma centers. Tracie and I have been working with that group and have been able to get them to include a pediatric commitment to trauma designations in the hospitals as part of this effort. That's the good part. The bad part, in the fall elections of last year, a statewide referendum which was being voted on to actually fund the trauma commission was rejected by the voters. And it was only for -- well, I guess it's all relative. We felt it was a very small what we were asking for, $10 fee for driver's license registration every year designated for trauma funding. It was defeated. At the same time I think the legislators sensing the voters were not behind trauma financially and this year the fiscal year, the budget from the legislature has been cut dramatically, almost in half for the trauma commission. Bad part of this is really the future of trauma commission funding at this time is unclear. Slide, please.

So going down to EMS for children, when Tracie came on board even though EMSC had been created in 1994, in recent years the council really had suffered from a lack of interest and participation at the regional level. I'll have to say that when Tracie came on, the advisory council was revitalized and when we had the commission from her, from the grant with performance measures I think that helped us to focus on the details of what we really needed to do. We were able to recruit new members and increase our efforts to include participation from outlying regions. We did struggle with, even though we were revitalized, we did struggle with leadership for a period of time. Our chair resigned due to family members and she had been active and a chair of the council. Our replacement chair, I'm going to give his name, Tim Peoples, a firefighter, a paramedic, he took on the chairmanship, became ill and died shortly after assuming the chairman role. That was really disruptive to the group because we valued him so much and we had been through two chairmen recently. We are now on the third for the short time and we wish her nothing but health and happiness and she's doing a dynamite job for us so far. She is a paramedic with major experience and commitment to EMS for children. So, we had our, with our sort of reenergized and reformed EMSC we had our site visit from HRSA in May of 2008, and that's where we really looked at the performance measures that were required by the grant. The performance measure that we are discussing today is, and this is a quote from our original assignment, "the existence of a statewide, territorial or regional standardized system that recognizes hospitals that are able to stabilize and/or manage pediatric medical emergencies and trauma," and referred to as the pediatric recognition system. The concept of hospital regionalization for pediatric recognition really did not have an existing model in the state

of Georgia. I mentioned before how important local control is to Georgia and how foreign the idea of regionalization is. So while hospitals, of course, had a state professional organization in GHA, the Georgia Hospital Association and of course they participated in joint commission surveys, efforts to regionalize were met resistance. To allow weekends at night to have one cath lab, the designated destination for the EMS people to take the patients to get cathed immediately. And five were capable in Atlanta involved in this, and Emory and the emergency medicine fellows and faculty member from faculty and Grady assisting on this. We worked on it for two years and it was discouraging and has not been resolved. I see it as the difficulty creating the regionalized concept for Georgia. However, also as public awareness of things like stroke centers and cardiac cath centers drew, we found acceptance of the concept of hospital designation has grown in the state legislature. Our initial efforts were directed to seeing what other states have done with their pediatric hospital designations and I'm going t turn it over now to Tracie who is going to describe our findings from other state models. And Tracie, you are up.

TRACIE AL'BELAR: Hi. Well, where to begin. Like Jill said, I got here about three years ago and the performance measure was listed and I was not sure where to begin and so I started by asking HRSA technical assistance folks, I believe I had Joslin at the time, and you know, we talked a bit about it and then she said you know, you need to come to the annual meeting and you'll be able to ask others who are currently working on it, other grantees. And that's kind of where I started.

When I went to the annual meeting I met the EMS grantee from Arizona, and I told her what I was trying to accomplish and she sent me a lot of information and even wanted to speak with our group. But what she really told me first was that she first started educating herself and her advisory committee on the concept of regionalization. They all received copies of the report which is the future of emergency care. Arizona has a voluntary trauma system and volunteer perinatal system in place. And they presented to the group how they started it 28 years ago, and then Illinois on their steps and process. Once she understood the regionalization concepts, she approached her department leadership for the go-ahead to proceed. Then a stakeholders meeting and analysis, then she had a larger meeting with 29 hospitals to discuss the feasibility of establishing a recognition system in Arizona. Last time I spoke with her she had several plans to create different work groups such as a discipline specific work group, outcomes work group, data reporting work group, primary care work group, and overall plans to use administrative oversight to define her system. And Arizona, the state government will not be the entity that defines what it looks like. The hospitals will be responsible for that determination.

When we looked at Utah and spoke with the grantee there, they focussed their efforts specifically on creating a pilot at their largest hospital inner mountain, and Tennessee they have a mandatory process in place, the board for licensing health care facilities. They also have an EMSC legislation in place in their rules and regulations to ensure compliance. Tennessee has four levels of categorization, comprehensive pediatric facility, general pediatric facility, a primary and a basic.

And then we looked at Illinois. And in Illinois they actually have created a committee made up of volunteers to do site visits at the hospitals. It's a jump-off from their larger EMSC committee. Those volunteers identify staff readiness at the hospitals and the capabilities to provide emergency and critical care, and then they have a checklist that they bring with them. They have three levels of pediatric emergency care. They have stand by, the emergency department approved for pediatrics, and then the PCC. Illinois also has designated 200 hospitals at one of these three levels. So to simplify, I don't want to get into all the detail about each different state, but to simplify, every state has a different way of approaching this goal and the main thing we learned was to know who was doing what, know what the current policies and politics are, and make sure that the EMSC program has a relationship with the hospitals that are providing children's services because those are really your champions, and if the hospital association is a power player in your state, they, too, must be at the table. And it takes time to understand and time to create these relationships necessary to move forward. Those relationships are the most important part of your success. Next slide.

So, implementation. Even with all the models that we reviewed, the committee still had some questions about how to implement the model here in Georgia. What were the basic steps to get started, how could we tailor the ideas we had heard specific to Georgia's needs, especially since the entire idea is unfunded, how could we get buy-in from the hospitals who have the current influence in our state with the hospitals and

how could we partner with the hospital association and the trauma commission. Next slide.

So Jill and I decided to talk to a HRSA rep about it and at this current time, based on what the concerns were that we should speak with Bonnie and Donna from California. She offered us suggestions for implementation like GSA, telling them about the benefits of being the designation center, that it increases the patient and family satisfaction, as well as hospital staff satisfaction, and it's possible. She arranged a conference call with Bonnie and Donna and told us about Dr. Gausche-Hill and we told her what we wanted to do, what the barriers were, and she said she would come out to Georgia and speak with the committee, which is very cool. On another note, I have to mention the difficulty with gathering data and getting the hospitals on board. When I first got here in 2007, the grantee had sent out paper notices to expect a survey collection and sent the paper surveys also to the hospitals before she left. So when I came in, there were paper surveys coming in and not an approved way to collect the data, so I was getting the spread sheets and calling to get a list of hospitals and it took quite a while for them and, to get me a working list. So I could make my calls and email. The survey process dragged on for months but I was able to get all but four hospitals to complete the survey. But that was only after multiple calls. Next slide.

So this second go-round that we just did for this year, I attended the workshop where they taught me how to clean the data, the collection process was in line and the survey was only open three months. I still used the Georgia hospital association to give me a

list, but I did some preliminary calling and emailing to clean that list. And plus I sent out an email blast letting them know the survey was coming. I still didn't get much cooperation from the hospitals at first. We only had 12 entries for the longest, and finally I just used the last few weeks to get on the phone and make my calls and we were able to reach our 80% participation. So anyway, back to the HRSA consultation. At this point we were offered the site visit by Dr. Gausche-Hill, and we eagerly accepted and I'm going to turn it over to Dr. Gausche-Hill who will talk about the information she brought to Georgia.

MARIANNE GAUSCHE-HILL: Thank you so much. I'm pleased to be able to present on this webcast with the representatives from the Georgia state office of trauma, and the division of response. And we will talk about EMSC and pediatric readiness and I'll outline my objectives on the next slide. It will be to discuss data on preparedness or readiness of EDs and the implementations and the performance measures. Also relate the California experience on the development of regionalized pediatric emergency care and highlight some of the barriers that have been outlined by Georgia on how we have overcome some of those barriers. I'll also describe the EDAP program for the emergency department approved for pediatrics program as well as pediatric regional centers, called pediatric critical care centers in L.A. County and contrast to other state models. Next slide.

First of all, there's a number of hot issues in emergency medical services for children and in emergency medicine in general. Readiness, and what it means are hospitals

and this impacts any type of recognition program. Regionalization is an issue and categorization. So controversy exists on what they have on the emergency outcomes for children and the impact on the capability of the work force. Readiness, all elements in the continuum of care which commit to a floor or a minimum of pediatric training and readiness can be built. Regionalization of care ensures children are transported to facilities primarily or secondarily with enhanced care, and regionalization to maximize health benefits and outcomes while minimizing costs and resources over a specified geographic area. There is a push for regionalization, injury in children and exclusive systems have better outcomes in isolated head injury. In regards to categorization, it's a process for inventorying, assessing and catalogue the emergency care sources capabilities and capacities of medical care facilities in a community or region. Using a criteria-based classification system over a range of emergency care conditions. This process is used to assist really physicians, hospitals, health departments, and emergency medical services agencies to make informed decisions on how to develop, organize and appropriately utilize health care resources for the emergency care system. Categorization can be accomplished either using a self-survey or declaration by facilities, by agency survey and verification or a combination of the two, and we have heard some examples of combinations of this. In regards to the categorization issue, the EMS for children program performance measure number 74 assesses state performance as was mentioned on the percent of hospitals recognized through a standardized system able to standardize or manage pediatric emergencies, and 75 address traumatic emergencies. Each plays a role in the implementation of a regionalized system. You need to have a floor or readiness, you must have

categorization of hospitals to appropriately identify pediatric patients to be transported to the various hospitals with different capabilities and a coordinated and regionalized plan for data collection and quality improvement. So some of the critical questions related to these issues are, does your EMS system have pediatric pretreatment protocol as part of the readiness, does the system have policies for the care and transport destinations of pediatric patients and this is going to be impacted by categorization and regionalization plan. The work force, important for readiness. Does your EMS system transfer children to EDs which have met standards for pediatric receiving facilities. Again, this could be part of a regionalization plan. In some system, all hospitals within the system could meet certain criteria. And others it may be a select set of hospitals that are either designated or self-declare through a voluntary process in which some type of verification would occur through either the Department of Health or EMS. And finally, does your ED have a nursing or physician coordinator for pediatric emergency care. I'm going to talk more about that. It seems to be an integral part of readiness determined not only by the IOM and others. Organizations collaborated for the first time on a statement "Guidelines For Care Of Children in the Emergency Department". This was from a 2001 guideline, the joint policy statement was supported in concept by 22 professional organizations, including the joint commission, the American Medical Association, and the American Heart Association, as well as a number of other professional organizations who care for children. Next slide.

Within these guidelines are sections on administration and staffing of ED, equipment and supplies for EDs caring for children. These guidelines could serve as a basis or

criteria for a categorization program that could occur either in Georgia or other states. In addition, one of the major recommendations which has been supported by the institute of medicine recent report in 2006, specifically the one relative to the emergency medical services for children, recommends that hospitals have two coordinators. One of which is a physician, and in most hospitals this would be a physician and nursing coordinator. In addition, they also highlighted that there be a pediatric emergency care coordinator within EMS. So why are a physician and nursing coordinator, why are these pediatric emergency care coordinators so important? Data suggests that hospitals that assign a nursing coordinator are more likely to comply to guidelines, and the staff is more likely to be satisfied and competent in their care of children. I believe these coordinators are vital in the implementations guidelines, in the EMS, EMSC planning as well as on the hospital level for pediatric readiness. Let's see some data which will frame our recommendations for improving pediatric readiness within EMS systems. Next slide.

The Center For Disease Control performed emergency pediatric services and equipment supplement as part of a national hospital ambulatory medical care survey. This sampled short-stay hospitals in the United States. The data was based on the 2001 version of the American Academy Of Pediatrics and Emergency College Of Emergency Physicians and the guidelines were first released in 2001 and then updated in 2009. And what they found in their survey is that 53% of hospitals admitted pediatric patients but did not have a specialized in-patient pediatric ward and only 6% of emergency departments had all the equipment as listed in the 2001 guidelines. Now,

there was a large list of equipment that was necessary and in fact, approximately 80% of the hospitals had 90% of the equipment. It's just that only 6% had all the equipment as listed in the guidelines. This background was very important in order to provide a basis or a why do we need some type of recognition program within Georgia and this is why I wanted to present this data. Next slide.

Subsequent to this investigators at the Los Angeles biomedical research institute at UCLA, and I was one of the investigators, implemented a nationwide survey of 4800 emergency departments for compliance of 2001 guidelines. Major findings of the survey serve as an important message and published in Pediatrics in 2007, 89% of seen in nonchildren hospital emergency departments and 57% see less than 10 pediatric patients a day. To ensure pediatric readiness may not be there if they are not seeing a large number of pediatric patients. And small sizes of pediatric equipment, including neonatal or infant-sized masks, or a rescue device, and Magill forceps, which are absolutely, can be lifesaving in cases of foreign body aspiration were often missing. Only 6% had the equipment, a fair amount had some equipment, but the most glaring problem was that the small size equipment was not available. Also only 59% of respondents were even aware of the national guidelines. So this is concerning because we felt there was unawareness of the guidelines, it was unlikely that they would be implemented. Okay. Next slide.

From this project we learned that overall preparedness of emergency departments based on the 2001 guidelines was relatively low. So, hospitals that tended to be more

prepared or urban, higher volume, a separate care area for pediatrics and most importantly, had a physician and nursing coordinator for pediatric and nursing care. We found hospitals, regardless of the pediatric volume, if they assigned a role for a physician and nursing coordinator for pediatric nursing care were more likely to be pediatric ready. Indeed, the first study to support the institution of medicine recommendations for nursing coordinators in hospital EDs. Next slide.

In addition to evaluating compliance of the national guidelines, the same group of investigators evaluated the effect of providing an implementation kit to a select group of U.S. hospitals with the goal of improving readiness. The kit contained a cd with resources needed to meet 2001 guidelines, things such as sample policies and procedures. Overall, there seemed to be little effect of the kit, but they found something very remarkable. And that is having a visit or just us visiting those hospitals to assess readiness improved all the hospitals' readiness. In other words, there seemed to be a time dependent prepared neds, independent of the intervention which was the visit effect. Just by visiting the hospitals and looking at what supplies and policies they had in place actually encouraged them to improve their pediatric preparedness or readiness. And in fact, because of this, I feel very strongly that whatever program is initiated, that some type of verification is necessary to ensure readiness throughout the system. Next slide.

This study, this series of studies showed much work is left to be done to improve pediatric readiness of EDs as measured by compliance and national guidelines.

Readiness to care for children of all ages should be a patient safety directive really for all of us, and strategies to improve readiness and preparedness must go beyond the creation of guidelines. This was emphasized in my visit to Georgia and I think was very compelling as a reason to continue their efforts for categorization or regionalization plan. So strategies can occur on a number of levels, including collaboration between systems to share best practice as we were doing today on this webcast. Other strategies may include the implementation of pediatric receiving requirements, such as those outlined in national guidelines, creation of EMSC regulation as done in other states such as New Jersey, or working with accreditation organizations to survey pediatric readiness. Regardless of the strategy, use of on-site surveys of compliance is likely to improve pediatric readiness in the system. Next slide.

In the emergency department readiness has impacted, or impacts daily really on the lives of critically ill and injured children. And ED managers must take action to ensure the staff has appropriate equipment, medication and competencies to care for children of all ages. EMS system managers can participate in improving pediatric readiness through assuring the capabilities as part of quality improvement initiatives, and in working with hospitals to meet the AAP and other national guidelines. Now I would like to talk, switch gears a little bit about a model of regionalized care in the state of California. First of all, as a conceptual framework, parents often transport children to a local emergency department based on geography and not necessarily on hospital capability. We also know that 10% of prehospital transports by paramedics are for children. EMS systems include hospital receiving centers which vary in ED and

inpatient pediatric resources and overall, pediatric capacity varies from region to region and state to state. Next slide.

In regards to EMS, to the EMS system construct for emergency care, there are a number of concepts that have been employed in a number of states and some have been mentioned. One is a voluntary concept, and a voluntary concept is that hospitals can opt to become pediatric ready based on specific criteria, outlined locally, regionally or nationally. Another concept is regulatory, and that hospitals required by Department of Health services EMS office or other authority to comply with pediatric readiness standards as defined either by state or national guidelines. EMS systems can verify readiness standards through paper survey or as I mentioned before, on-site verification, and there may be some advantage of on-site verification, although that involves other resources. Next slide.

In the Los Angeles model it's voluntary for hospitals to comply with county guidelines for pediatric readiness, emergency departments. These county guidelines pretty much mirror national guidelines. The Department of Health, Los Angeles EMS agency, as one of the divisions, sets criteria and verifies through on-site review on a periodic basis, generally every three years. Hospitals who meet the standards for readiness are the only hospitals that can receive pediatric patients defined as 14 years or younger by 9-1-1 transport. There are other models in other states as has been mentioned and voluntary, without verification, voluntary compliance with verification, and with or without on going verification. Just a couple of definitions just so we are all speaking the same

language here, Los Angeles county there are a number of levels of pediatric guidelines. The EDAP program or the program that I'm describing relative to pediatric readiness and regionalization within Los Angeles was developed 25 years ago. The three types of hospitals which have been identified are emergency departments approved for pediatrics or EDAP, which is an emergency department with specific equipment, staffing and policies in place to meet the immediate needs of children with critical illness or injury. Rural systems within the state have also employed a similar concept, something called a Cdap, and these are stand by, so a physician on call, and it would be manned by health professionals. The rural stand by hospitals serve as critical access hospitals in areas in which few physicians are available. The next level within L.A. County are pediatric medical centers, PMCs. The regional pediatric centers or critical care centers. A hospital that has both an emergency department staffed and ready as well as inpatient capabilities and specialists to care for the injured child. And pediatric trauma center, which has staff and training designed to care for the critically injured pediatric patient, specifically age 14 and under. They would receive those and transport directly from the field. Requirements for these levels can be found for those interested on the Los Angeles county EMS website, and my remarks, or my, the copies of my slides can be downloadable at the end of this, and there are a number of links and resources available for you. Okay. Next slide.

A few words on the history behind the development of EDAP in L.A. County. Developing in 1969, and the early EMS systems focussed on cardiac and trauma care,

and once the systems were in place, it became evident the specific needs for children in the system were not being met. Next slide.

Some of the specific needs that were identified at that time was a need for uniform pediatric equipment and guidelines for paramedics. Specific education and treatment guidelines for prehospital personnel. And in fact, in California, we developed some of the first pediatric education for prehospital professionals that later became the national course. A need for a regionalization plan for rapid transport of critically ill and injured children to specialty centers and equipment staffing and policy guidelines for patients transported by the 9-1-1 system, all of these things were specific needs identified a number of years ago and this was in the 1980s. Next slide.

In the early 1980s one of the Pioneers of this movement was my mentor, James Seidel. He was a pediatrician based here and published "are the needs being met" and working with Eve Black, and the Los Angeles county EMS agency, Dr. Seidel involved the very first guidelines for prehospital care and transfer of children. The concept that was born was called EDAP, as I defined earlier, emergency departments approved for pediatrics. Dr. Seidel's vision was that hospitals meeting requirements for pediatric readiness would receive pediatric patients and could stabilize or secondarily transport to pediatric critical care centers. He felt any emergency department in the system could qualify as an EDAP, and this is based on the construct that I already commented on, that parents tend to bring their children to hospitals geographically. He felt these emergency departments could qualify if they met specific guidelines. Created the, thus the EDAP

concept created the first regionalized system to EDAPs or the subspecialty capabilities and now called pediatric medical centers or pediatric trauma centers. Turned out that each part of this was that each EDAP was required to designate a medical director who would be, the pediatric emergency medicine coordinator or the physician coordinator and a nurse liaison who would be the nursing coordinator for pediatric emergency care. Their role was to, or their roles were to ensure that the guidelines were being met, pediatric equipment was available, quality processes were in place and this included staff receiving ongoing, continuing education in emergency care. We have the logo for the pediatric liaison nurses in Los Angeles, the nursing coordinators. They meet regularly, they have a very robust association that they work together to improve pediatric care on a county level. Next slide.

The EDAP effort in Los Angeles county actually sparked an interest in evaluating EMS systems nationwide for pediatric capability, as well as assessing quality care. Nationally there was a concern it lacked resources for the care of children. Indeed, the next slide.

In 2008, the Institute Of Medicine released three reports, one "Emergency Care For Children Growing pains," and you see copies of the reports that can be downloaded from the institute of medicine's website. Next slide.

What the Institute Of Medicine found out in 2006, was that emergency departments are severely overcrowded, an immense financial burden of uncompensated care, fragmentation of resources, inadequate search capacity, especially for children and in

California, there is ongoing efforts to improve search capacity, or to find search capacity for children. Personnel shortages and work force issues very acute for pediatric emergency care. And there is limited data on quality, inadequate research funding and infrastructure for research on a national level and limited preparedness of emergency departments for pediatric patients. Next slide.

Furthermore, the Institute Of Medicine outlined a vision, and their vision, I think is a good one, was a coordinated regionalized and accountable emergency care system and outlined numerous recommendations how it can be accomplished. As a part of the dissemination of reports, they held a series of workshops in various parts of the country with various stakeholders. During one of the workshops, Miss Curtis stated it is unconscionable the nation's EDs are not prepared for children and Congress should be ready to intervene to make sure the EDs are prepared. So what's next? Let me tell you that EDs, staff in EDs and emergency department directors, nursing directors, are all working hard trying to improve the care for all the patients they see. And the professional organizations are doing so as well. The intent is there, although sometimes not all the resources are available. Next slide.

In regards to the IOM recommendations and EDAP program, the concept is that EMS agencies in hospitals are to a point pediatric coordinators to provide pediatric leadership. I mentioned this before, and the EDAP program in Los Angeles interfaces as well with the IOM recommendation. The L.A. County EMS agency has been a leader in this since the 1980s because of the establishment of physician and nursing

coordinators for the pediatric emergency care within EDAP, and also appointing emergency care experts within its committee structure. I'm going to comment on this. First of all, they are the liaison nurses so they provide the oversight locally in EDs in hospitals and pediatric issues are formally represented in the Los Angeles county EMS agency through a pediatric, a newly formed pediatric advisory committee. So by having pediatric advisory committees in EMS, this allows for a number of stakeholders to provide input into policies, procedures of the EMS agency. Next slide.

Let's see where we are today in L.A. County. And this slide demonstrates a map of the over 4,000 square miles of Los Angeles county showing a number of hospitals that have been identified as emergency departments approved for pediatrics. There are 72 total receiving centers in L.A. County and over half, or 44 hospitals, have opted to meet all the standards for an emergency department approved for pediatrics. This ensures that in very short fashion children can be delivered from the field to hospitals which are pediatric-ready. Next slide. In the past decade there have been over 200,000 children transported to EDAPs within our county. In the same period, over 30,000 taken to pediatric critical care centers or pediatric trauma centers. The Los Angeles county, in Los Angeles county averages about 27,000 EDAP transports a year to the 44 EDAPs. Also, seven hospitals are pediatric medical centers, which are pediatric regional or critical care centers, of which six are also pediatric trauma centers. Next slide.

In summary, Los Angeles county EMS established the first program of regionalized emergency care. They have ensured readiness in the system to meet the needs of

children and serves as one model. Also in regards to barriers, initially every hospital wanted to participate and they were allowed to do so. Not all wanted to continue the verification process but as long as there's a large number of hospitals willing to participate, this ensures that children in a timely fashion could be delivered to a hospital that is pediatric-ready. Next slide.

Other models exist and EMS systems may wish to implement some or a part of these models. In California, 31 agencies that address the readiness differently. In L.A. County, we have EDAPs. Other counties a similar type of program or EDAP program. And others require that all receiving centers meet specific pediatric requirements. As an example, the New Jersey model requires three regulation, all emergency departments meet pediatric readiness standards as national guidelines. They will have the equipment available from one hospital to the next in the system. The Illinois model is inclusive and voluntary and as was described before, it's similar in California, it's in that it's voluntary or similar to the Los Angeles model and approximately 50% of the hospitals in the state have participated. Next slide.

States that develop models such as we have described are likely to meet the state partnership performance measures. Federal EMC will evaluate the effectiveness throughout the partnership program. And we have already discussed in part performance measures, 74 and 75, which addresses the pediatric readiness of hospitals to stabilize children with medical or traumatic emergencies. Next slide.

Performance measures 79 and 80 address the permanence to make sure the needs are met and integrated in the established EMS system. In California, how this is done, initially it's defined in statute through the health and safety code, and the state of California at this point is also in process of writing regulations for EMSC within the state. This just demonstrates the statute. Next slide, please.

In addition, local EMS agencies have to develop an EMSC plan which includes important aspects of EMS system planning such as implementation management, prevention activities, prehospital patient care and those are like prehospital guidelines, dispatch, etc. Transport to emergency departments, and establishment of various pediatric critical care centers or subspecialty centers. Next slide.

As was mentioned earlier, California is now taking the next step, moving from the health and safety code to EMSC regulation. The goal is to establish the conceptual framework in the EMS systems which will allow for growth of EMSC and all communities in the state. Next slide.

One of the other things that California has done, which I think has been quite useful and has helped to raise awareness of EMSC activities within the state, is the establishment of a state EMSC technical advisory committee. This allows for various stakeholders to participate in the improvement activities. The California technical advisory members are multi-disciplinary. Include at least one physician and a number of physicians on the committee. Prehospital personnel, EMS, state authority representatives, nurses, and

even parents are involved in this committee. We also actually for the first time have established a pediatric emergency fellow representative to allow for young physicians to begin to participate through a mentoring program in EMSC activities within the state. We are hoping that this promotes more physicians for getting involved in EMSC activities. Next slide.

With this experience, working with Georgia, I have learned that the sharing of information between systems is useful, and it helps us define and describe the challenges and provides strategies for solutions to PROS within systems which are not unique to any one system. I feel that partnering early provides for input by stakeholders plus vested advocates and even naysayers can be a powerful team. Finally, data speaks of getting some data of what is occurring, either nationally or within the state, actually helps promote change and the human interaction and interest stories demonstrates the need for change, makes the demand more personal. Next slide.

In conclusion, there are number of models in the states. California or the Los Angeles model is successful but there are a number of other models and it's best to use what works locally and I think Georgia is working toward that. Georgia is working to involve stakeholders and to have partnerships by involving stakeholders, more vested in the process. Partnerships that share best practices are powerful means for change and should be encouraged in the development of any regionalized system. Next slide.

I would like to finish by informing webcast listeners about another opportunity to improve the hospital or systems readiness. In June we will have another webcast to discuss the development and implementation of a national web-based survey which will allow all the participating hospitals within the country to benchmark their pediatric readiness against other hospitals within their state and the nation with an opportunity for performance improvement. This is an exciting opportunity for emergency department medical directors, nursing directors, EMS systems managers, to assess pediatric readiness within their hospitals or within their region. Next slide.

I would like to thank the federal partners of the EMSC program health resources and services administration, Maternal and Child Health Administration, for sponsoring this webcast and my visit to Georgia to witness the exciting initiatives involving in the state. I know there are barriers but I know great changes are happening. I look forward to questions at the end of the webcast and now I would like to turn the webcast over to Dr. Jill Mabley who will describe the next steps for Georgia EMSC.

JILL MABLEY: If I could have my next slide, which I hope is entitled Georgia moving forward. We were really energized by Marianne's visit and with the last few slides I wanted to show you what we have done since she visited us and what we plan for the future. So our accomplishments, because we had financial challenges, we really have concentrated on getting buy-in from important shareholders and also identifying potential shareholders. Tracie has continued to diligently collect data. We have been able to increase our pediatric educational offerings, in particular we have a three-day

EMS for children conference scheduled for I think it's June, first week in June. We have also facilitated through the grant process the alphabet courses that are aimed at the pediatric EMS provider. In addition, we have gone to each region council and have encouraged each regional council to designate a pediatric representative to EMSC, to our state council, who can then meet with us on the state level and take our message back to the regions. Also initiated relationships with Georgia Academy of Emergency Physicians and also the Georgia chapter of of America Academy Of Pediatricians and also attended the trauma committee meetings, and realizing even though their funds are drying up, we hope to have language for the pediatric capabilities trauma centers.

The barriers that remain, the first one I'm going to spend a little time with, it refers back to the tradition in Georgia of local control rather than regional control. Georgia state law requires that EMS hospital destination choices be determined by the patient or family members unless the patient has an unsecured airway or is unstable. And in those cases, of course it's, they have to go to the closest appropriate facility. But because the family and/or patient is by law allowed to make the choice of destination, we are very concerned at the state office level about how wise those choices are, and the fact the choices are not made by someone who is clinically knowledgeable. So even if we do designate hospitals as pediatric centers, that doesn't mean the pediatric patients in need will be transported there. And our medics do attempt to educate the medics and family members about the best destination choice. The law still remains it's the patient choice. We are hoping with the assistance of the trauma commission we can educate

the state legislature about how preferable it would really be if we could guide patients to the right facility, rather than leaving up to the patient choice.

Secondly we don't expect, as far as barriers, don't expect funding to improve in the short-term. In Georgia, we have higher unemployment rates than the national averages and the housing market here is not recovering like it is in other parts of the country. In addition, we are still seeing significant plant closings and lay-offs, and then the trauma commission legislative funding cuts I already referred to. Third barrier that we continue to have and Tracie referred to this, too, is even though we have been able to identify and work with leaders, in a few hospitals in Georgia, primarily the children's hospitals or those who express a pediatric commitment, we still are having difficulty reaching the majority of the other 170 hospitals in Georgia, despite assistance from the Georgia hospital association. And then again I want to mention Tim's death, and the way that has been really an emotional barrier for the group because we have really continue today grieve for the loss of his presence, and what we have done in a positive way to get past that is we have created a statewide award for excellence in prehospital pediatric care we have named in Tim's honor, and that will be presented the first time this year at the EMS for children conference.

As far as what we are planning for the future, the state office -- we have submitted a legislative request for the ability to designate hospitals, and that's tied in with the trauma center hospital designation that our office already has in state law. What we are requesting in new legislation is that we be allowed to designate other types of specialty

hospital in addition to trauma. We do expect this request will pass. However, there's only three legislative days left in this session, so we are uncertain whether it will pass or whether we have to take it back to the legislature next year. But we do believe that by allowing the state law to allow us to designate other specialty centers besides trauma that will facilitate -- and partnering with the CDC and -- a project is involving nine other states. Led by the CDC and the AAP, and it's concentrating on communications, state level decision making. The Georgia team working on this has identified as their key challenge, again, this reflects the culture, the political culture of Georgia and the difficulty of regionalizing anything.

The third future direct positive, through trauma commission grant money, made available is the electronic version of the Broselow system. And he and his colleagues have agreed to provide access to the system, to the prehospital EMS units on a pilot project in part of the state. So I'm working and will be meeting next week with the doctors to adapt the hospital version of electronic Broselow to the prehospital community and the hope is to make it available to all hospitals and all EMS agencies in the state. And if you want to take a look at the tool, it does require a password for the entire site, but there is a demo, and you will see how exciting this is. So, our last slide, the summary for us is that we are going to continue to work within the structure that we have here in Georgia, knowing it varies in limitation but we have found as Marianne referred to really the most important part is taking the time to create the relationships necessary to move forward. And that ends my presentation. So, I think -- do we have any questions?

THERESA MORRISON-QUINATA: Yes, we do. Five questions and one comment. But knowing that we have 12 minutes in our time right now, I would like to first say thank you very much, Dr. Mabley, Miss Al'Belar, and Dr. Gausche-Hill. We look so forward to hearing more about your successful implementation of the pediatric recognition system in Georgia. And we wish you much success. And I would also like to thank our viewers for joining us today before I go on to the questions, and let you know that this webcast will be archived and it usually takes a couple of days before the live version is available on HRSA's website, but due to recent happenings there may be some short delay with that. So just be patient with us. So, let me ask you the first question. And some of them you may have answered throughout the presentation. But I'll just ask anyway. For Georgia, the EMS office will be under, is going to be under the department of public health. How is it currently structured at this point?

JILL MABLEY: Currently we are -- this is Jill. And currently we are part of what's called the department of, two years we were part of department of human resources, now under the department of community health and the new department will be public health. And I think the main thing when I have been talking to my colleagues how it will benefit us, it puts us closer, higher up in the food chain or the chain of command, closer to the governor, which is besides working would the legislature, that's how we intend to get our, get things done. So, right now there is probably, Tracie, you can correct me if I'm off, but there's four or five levels of bureaucracy now between us and the governor and his office. With our new organization, we are actually going to be only -- our, Dr.

O'Neal, my director, will report directly to the commissioner in the governor's office. So access to the real decision making and the real power about getting things done is what's going to improve for us, and decreasing the bureaucracy.

>> Definitely. Always better to be closer to the governor.

>> The other question was for how long has California had its pediatric recognition systems, EDAP and PMCs, and what would you say is the greatest barrier most states may face, starting new?

>> The EDAP program has been in existence for 25, really 25 1/2 years, and I think the biggest barrier is I think some of the continuing education, to get education in the areas, and also probably acceptance at some hospitals may not want to participate. We try to encourage all hospitals to participate because we know that children are taken based on geography. So I think just encouraging hospitals and trying to provide a resource to hospitals so that they can be compliant with whatever criteria that are set is probably the biggest challenge, and I think we have been working towards that by collaborating between hospitals and regionally to provide continuing education and other resources so more hospitals can participate in the EDAP program. So I think it's pretty much those things. Acceptance and then continuing education and then resources. And really you have to identify a thought leader within hospitals that are going to kind of take it and run with it. If you have a voluntary system. And so I think that's a challenge as well.

>> Okay. So I guess a follow-up, I guess, since you said you mentioned voluntary. A follow-up question was under L.A.'s model that is voluntary, it says how many hospitals have signed on for this recognition, and I recall you said 44 out of 72, correct?

>> Yeah, 44 out of 72. It's similar, it's over -- similar to what happened in Illinois, I think. We have over half of the hospitals participating, and then some will join, some will need additional time to meet the requirements.

>> Okay. How would you recommend responding, and this is for any of the speakers, how would you recommend responding when told we just don't have the funds to support the project, and all EMS agencies already know where to take children that are ill or injured?

MARIANNE GAUSHE-HILL: This is Marianne. I just want to state that relative to just having the equipment available, that cost is very, is really not a barrier. We looked at this particular issue, and found that the cost is very minimal. It would cost less than 18 cents a visit for all the hospitals within the United States to meet 100% compliance with national guidelines. So it's very cheap. If you look overall for any particular hospital, generally less than $1,000 to have one of the equipment, or to become compliant with the equipment guidelines. Now relative to some of the other resources, such as getting pediatric, or getting pediatric emergency medicine coordinators, nursing and otherwise, these can be shared roles, so I think sharing them and also exchanging with hospitals

within the area, at least sharing information with hospitals in the area is really a good thing. I don't know if Jill or Tracie want to comment.

JILL MABLEY: This is Jill. And I would add that clearly from what I have said funding is a huge issue for us in Georgia right now. It's not going to be forever, so what Tracie and I really are concentrating on is the relationships and finding out who the people are we can count on. That doesn't really cost any money. It just requires, like Tracie said, working the phones and talking to people and trying to identify and my hope is when financial things get more beneficial to us, that we'll have already recognized the people that we can count on to go forward.

>> I would agree. I think that the larger part of this is just to take back with you about building relationships and seeing if you can get some things started on a volunteer level. You know, a lot of it doesn't require, you know, financial assistance up front. It's just a matter of getting buy-in and people willing to do the work. And I think that's probably where you need to focus first, and then the rest will follow. But -- there's a lot of work that you can get done in the volunteer free level.

>> Thank you. Thank you very much. Okay. The next question was for on-site verification, who do we contact?

>> I think that varies, and in Los Angeles County there is a number of physicians, nurses, who have volunteered to help participate along with the L.A. County EMS

agency staff to go to the various hospitals. And this is done in a fashion so all the hospitals can be verified in a three-year period. And you can tap in, and people want to get involved and that gets them vested and interested in the program. By reaching out to volunteers is a useful thing. The hospital association, local medical associations, American college of emergency physicians has state and local chapters, and the American academy of pediatrics has state and local chapters and it can be quite useful in terms of getting volunteers to participate in the on-site verification program. And the way we do it, we actually have, you know, just a checklist of requirements that are county standards, or county guidelines and we also do a chart review. And the national guidelines there is a checklist available from the national resource center site as well as the AAP and another site that you can use as a checklist to kind of check compliance with national guidelines. So I think EMS agency and then volunteers, getting volunteers is how we do it and also how Illinois accomplished their on-site verification.

>> Excellent. And we had one last comment which was the fellowship mentorship program. How do we get the EMSC fellowship mentorship program, how do we get a copy of that?

>> Okay. What we have done essentially is that, in our state EMSC technical advisory committee, we have created a membership in which one of the members will be a peds emergency medicine fellow, and I guess probably the best way is for someone to email me and I can just send you what, you know, the membership of our committee is and then maybe we could enter a dialogue into how we are going to do that in the future.

>> Thank you very much. Again, everyone, we are one minute on the mark before 3:30. Thank you to our special guests, and our great speakers today. I wish everyone well. And thank you very much for our listeners and our viewers. Take care.

>> Thank you.

>> Thank you.