JANE FOY: Well, hello again, everyone. It's a real pleasure to present with Caren today. She and I have worked together for many years. First of all, we don't have any disclosures, so pass that slide by. We'd like to discuss the potential role of school nurses in the care of complex children, which we'll be defining shortly, and the factors that might affect their fulfillment of that role, which is important to the pragmatic day to day functioning in your practice.

Review some examples of kids that could be served collaboratively by school nurses and community physicians. And finally, reflecting on this, figure out some ways that you might improve the care of school-aged children with complex conditions in your practice. So starting with definitions for today's talk, when I say children with complex health needs, I'm really talking about any child who has other than the routine health issues.

So children with chronic conditions, children the require medications, children that are not as alert as they might be because of medication side effects-- the full array, just for purposes of discussion. And we're also going to be talking about a variety of educational terms. And because I thought it might be useful to you, we have a sheet that I think you'll find in your packet that's a list of educational jargon.

So just to refer to that, it's just as bad as the medical jargon. So one of the most important terms for the purposes of this talk is IDEA, I-D-E-A, which is the Individuals with Disabilities Education Act of 1997. And it is a special education law that requires that children with disabilities require a FAPE-- Free and Appropriate Public Education, F-A-P-E-- in the LRE, Least Restrictive Environment possible.

So those are two important abbreviations that are common with educators. And then the sheet goes down to explaining other terminology that's used in that particular act. The early intervention program is one example. There's a long list of the kinds of exceptionality categories that are discussed in I-D-E-A.

But in particular, we wanted you to notice Individualized Educational Plan, or IEP. So it's required that any child with one of these disabilities have one of these plans in place. And the parent has to sign off on it and approve it. And it is a vehicle for discussion and mutual understanding. So if you're aware of a child in your practice that has an IEP, that could be an important beginning of a conversation about how that child's needs are being met in the school.

A 504 Plan-- this terminology comes from Section 504 of the Rehabilitation Act of 1973. It's a civil rights statue. And that just says that there need to be reasonable accommodations to a child with any kind of special need. And so children that don't necessarily have one of these exceptionality categories might be served with a 504 plan, with aids and services.

Let's see-- an example of that might be a child who would benefit from a hearing apparatus that connects directly to the teacher to keep out other distractions. So the child with ADHD could just-- basically everything could be muffled except what's coming from the teacher. That would be an example. The child is not hearing impaired. The child is just subject to distraction. So that might be an example of that. Caren?

CAREN JENKINS: In Forsyth county, many times were delegating the tasks that a nurse has to have performed at a school each day. It's not the nurse that is at the school. We delegate to staff members that may be teacher assistants, office assistants, to give medications and special procedures. But due to our low staffing, we're just training and delegating many of these tasks.

In November of 2014, there was a law that was passed that EpiPens would be what we call stock EpiPens in each school. So it's important to note that each public school and charter school in North Carolina has an EpiPen and an EpiPen Junior available for all school functions. We have first responders that we train to administer these EpiPens, and we have to have a minimum of two to four people on staff that can administer them for all school related activities, including ball games, anything that's extra curricular.

We're also-- we do a lot of follow up and make home visits. So keep in mind, if you have patients out there that need things, our nurses-- tap into the nurses. I want you to do that. Just know there is a nurse available, but it may not be each day. You could certainly have your office person to call and leave a message, have her to call you back at your office.

But we do home visits from things like pediculosis, vision, hearing follow up. We do vision screenings on first graders, third graders, fifth, and seventh. That's very routine. Any time we have a student that fails a vision screening, we send home letters. But often times parents are not compliant. So we have to reach out to these families and go to the doors and talk with them about how important it is to have glasses or hearing aids and have further follow up.

How do we identify our students that need action plans, like an asthma action plan or a diabetic care plan? Ideally, each principal would send home a form to every student in the school. And on that form, it gives the parent the opportunity to indicate what medications or what health needs a student has.

So then the nurse in turn would develop a care plan and send that home for the parent, along as she would also send home a medication form. It's very important for health care providers to realize we are not allowed to give any medication at a school without a signed form by the physician. So oftentimes parents will bring medications to school without a medical provider signature on what we call our medication form.

And we have to return those and ask the parent to seek the physician to get that authorization. Our ratio in Forsyth county is one nurse to every 1,800 students. That is a large, large number for us to serve. But fortunately, Forsyth county commissioners were very good to us and we have 10 new nurses that were hired since July of 2015.

So our number has really diminished. The ideal ratio is 1 nurse to 750 students. So I've written in my budget this year asking the commissioners again to give us some more positions. We really would like to have one nurse in every school, because what we're seeing on the front lines is continuous glucose monitors, diastat-- can you imagine we have to delegate diastat to office personnel?

There's just so many complex needs and the needs are great. So we really would appreciate any support you could give us. We would like to really know our students and be there for them every single day and provide them the medical care that they deserve. I also have five employees that are EC nurses, and they're in exceptional children schools. The ideal ratio is 1 nurse to 125 students.

We have five schools in Forsyth county that provide very good care students. Students are very complex. Their health conditions are very severe. Many times, they're wheelchair bound. They may even be vented patients that we do have a one on one nurse as well. So we serve a variety of different schools. There's approximately 80 schools in Forsyth county.

I did mention the delegation. We get a lot of push-back. A lot of teacher assistants and teachers do not want to do these procedures. Can you imagine if you have to be trained on how to do a G tube feeding several times a day and you're a teacher assistant? You're very, very anxious. It's not the norm for them.

So it takes a long time to do the teaching. We do return demonstrations. But many times, we have people that just don't want to do that. That's why I think it's best if we would have a nurse in every school. Something new I do want to point out-- there is a typo on this slide. For the Fall of 2016, you see where it says House Bill 13?

There's something very new about to happen. We've always had to have a physical exam on each kindergartner within the 30th day of school. But House Bill 13 will say each child that is new to North Carolina for the first time in a public school will be required to have a physical exam. So keep that in mind. That's K through 12. We have to have that in place by the 30th day of school.

And if children do not have that, then we have to suspend them. So in your practices, keep that in mind. We don't want children suspended. I know in years gone past before we were working so closely with Dr. Foy and Northwest Community Care, we had children out of school for up to two months because they couldn't get their physical exam.

So it took that long. But now we're strategizing and we're working with our community partners and we're able to work with you guys. And I think you understand how important it is to keep these children in school. The new physical form, they're available outside where you registered. We have some. We didn't pass those out for everybody. But they are available outside when you leave today.

But it's called the North Carolina Health Assessment Transmittal form. So this year, you can use this form or the old kindergarten form for new kindergarten students. But this will be the only form that you would use for first grade through 12th grade, because the old form says kindergarten. So keep that in mind. This form is available at the Department of Health and Human Services under women's and children's health. So from your practice, you can have your office personnel to download that and make copies as needed.

JANE FOY: So just to put in a plug, anticipating that this new rule is going to cause some crises for some families in the Fall, particularly those who've just moved to the area-- so they've just moved, they've just got their kid in a new school, and they learn that they are going to have to have a physical within 30 days or the kid is going to be kicked out of school. That's the scenario. So I would just ask you all to anticipate this.

Have your staff ready to identify callers that are new to the community and whose kids are in school. And I hope that you'll be able to prioritize these children's physicals, because it's an emergency-- kids not in school, particularly with working parents or families that are in disarray for these other reasons. That is a situation that could be unfortunate for everyone concerned.

There are a number of ways that a school nurse might be able to help you in the care of children with a chronic condition. And I just wanted to call a few of those out. One of those is to work with the parent to individualize a health care plan for the school. And as part of that, would be an emergency plan for what to do if the child has a seizure, if the child begins to wheeze, if a child has other symptoms at school.

Those things can, to a certain extent, be anticipated. So that would be a way that the nurse could help you. Another would be to let you know if this child's condition is interfering with the child's education. You might not know that, and unfortunately we do rely on parents as messengers. And at times, they don't have that information.

So I think it behooves us to prime our school nurses to gather that information for us so we know how these kids are doing in their most important function, which is school. If the child does have an IEP, an Individualized Health Plan, or a 504 Plan, we can ask that health needs be addressed in that plan. And if you can get that health issue incorporated as one of the items in that plan, educators think in those terms.

So it's very useful to have that happen. The same is true of a 504 Plan. This is their world. These are their processes. So then the final thing I would just say is that a school nurse or personnel trained by that school nurse can serve as a liaison between the child, the school, the family, and you. So always that this relationship could be helpful to you.

We thought we would talk about a couple of case examples of children that are commonly in your practice, and just talk about our respective roles and how that might play out in the care of children. So let's take the child with asthma. We're accustomed to educating the family, to educating them about how to use their inhalers, to make sure they have the inhalers they need-- very importantly, to explain the difference between their maintenance drug and their rescue drug and their differences in the way those are used.

But one place we sometimes fall short is that we don't make certain that there is a labeled set of these inhalers for school, as well as for home. And this can be done by just writing your prescription very specifically-- x is for home and x is for school. And then very importantly, they need to be labeled with the individual child's information, because remember, there might be 25 of these at the child's school and they wouldn't know which one belongs to which child.

And they have to be distinguished between which one does the child take every day versus which one is the rescue drug, if the child is symptomatic. So I would say that your role involves educating the child-- your role as clinicians-- educating the child and family. Oh and also, this important decision about when a child is capable of carrying his own inhaler and administering it.

That's a sort of developmental judgement that you could very wisely I think weigh in on so that the school could know that that child has your confidence in being able to help manage the condition. So Caren, what would you do?

CAREN JENKINS: Again, what typically happens is the child comes to school with a medication. They'll have an inhaler. It won't be labeled. They bring it in a bag, because everybody wants to bring an inhaler to school in a non-prescription box. So the school has 25 inhalers in a Food Lion bag--

[LAUGHTER]

And we don't know who it belongs to. So we can't give those medicines. And if you're the nurse, you arrive with a Food Lion bag with all these inhalers. You're panicked. You know, day one, school starts. So what we need is the original container from the pharmacy. And do, again, educate your families between rescue meds. They bring the steroids to school. They don't bring the inhaler that's the rescue med.

We need an action care plan. There's a lot of school nurses here that would put a plug in for that. Give us that action plan so then we can go to the classroom and we can educate that teacher. We go step by step. We're required to go do procedures. And as a school nurse, you're going to want to make sure that they're using their inhaler correctly and just slowly going through the process and not doing it so quickly.

You want to do good teaching to that individual student on site. So it's just very important that we take the time and that we do have a care plan on hand for each and every child.

JANE FOY: And Caren, you would also have a role in preparing that staff at the school to recognize the symptoms-- if the child wheezes and how to use the meds and how to supervise the child in taking them and so forth.

CAREN JENKINS: Right. We go over that individually on the care plan and we have to do teaching and documents.

JANE FOY: Another important point in sharing the care of these kids is to be sure that you have a release of information, exchange of information, so that the school can give information to you or the school nurse and you can transmit information to the school. We don't just have HIPAA to contend with. We also have FERPA, which is this the education community's version of HIPAA basically, which says that they have to keep everything private.

And there are some really ferocious preservers of FERPA. So just an FYI, if you can get a release up front on any child for whom you would like to exchange information, that would be very helpful, too.

CAREN JENKINS: We do not have a peanut-free school system here.

SPEAKER 1: I would assume not, but I just--

CAREN JENKINS: Right. If you have a anaphylactic reaction or you have that diagnosis, it is flagged at the cafeteria. That's the nurse's role. She needs to work with the parent to get a form signed. Then when the child goes through the line, it flags it on the computer to make sure if there is a product that could contain peanuts, it will red flag it on the computer.

That's in the ideal world. What if the parent doesn't inform the nurse, which is oftentimes the case? And that's why we're glad that we have stocked Epi. Last year we used five EpiPens in the Winston-Salem Forsyth County School system for emergencies.

JANE FOY: And even though there is this stock EpiPen at the schools, it would still behoove you, if there's a recognized allergy in a child, that you provide the EpiPen specific to that child. That goes without saying.

CAREN JENKINS: Yes. That is very important. The stocked Epi is not to take the place. Each person that has that diagnosis, each child, needs to bring their own EpiPen. We anticipate that. The school system cannot afford to provide all EpiPens to all students. That's about $48,000 that what we've spent last year in the school system, we were able to get that free of charge. But that will not continue.

So it's very important if your child has that diagnosis, make sure that you encourage your families to bring the EpiPen to school. Very good point.

JANE FOY: We thought we'd also just mention the case of type 1 diabetes mellitus because this has become quite a daunting challenge for our school system, as it probably is for all of you. Actually, this is the reason that I became so interested in school health because my own child was 10 when she was diagnosed with type 1 diabetes.

And the struggles were just astronomical. Everything from the rules didn't allow her to eat in the classroom. There was no one on site to help test her. Initially she wasn't getting her own injections, so it was just a nightmare. So I took it on my little cause, as my cause celebre, to try to educate the schools about how to help support children with type 1 diabetes.

Well, that world was very simple compared with the world now. These kids go to school with pumps. They have continuous glucose monitoring devices in place. And not only that, but somebody has to interpret them and then give the correct amount of insulin. So how do we deal with that? I think our role is to make certain that all this technology that the kids are carrying is understood to the best possible extent by the family and that they have a resource person to call with their questions.

Likewise, we need to be sure that the school has a resource to call with their questions, which might happen in real time and when the family might not even be reachable. So again, having that release in place so that all the people that need to exchange information can, I think that's critical. I think the other thing we can do is to help children, families-- and Caren will explain how she does this in school-- recognize symptoms of hypoglycemia, which is really the emergency that we're so concerned about that could happen, and have some plan for that child, whether it's a glucose tablet or cake icing or whatever, to help rescue a child who's experiencing a hypoglycemic episode.

And that could happen. Remember, if the child-- let's just say the child just doesn't eat a good lunch, it doesn't eat the lunch that you expect or the kid is more active at recess than you expect. So those two things, a resource for dealing with the technology problems that might come up during the day, for interpreting any information that's coming off of those devices, and then a strategy for handling hypoglycemia in that child.

And the school goes to a tremendous-- and the school nurses go to tremendous ends to try to create a safe environment for these kids. And I'll let Caren tell you some of the things they do.

CAREN JENKINS: I'm going to give you a common scenario. Johnny will come to school in the morning and mom has not fed Johnny breakfast, because mom wants Johnny to eat at school. So he comes to the front office. The nurses already trained the office assistant to check blood glucose. So she checks the blood glucose.

Then the office assistant has got to pull up the breakfast menu. And it'll tell you the number of carbs on the breakfast menu, and feel free-- you probably all have looked at the Winston-Salem Forsyth county school site. You go under on the menu area, under the Options, and it will give you the exact carbs for each item.

So the teacher assistant will decide with the student, if the parent has not been involved with this plan and if the parent has not brought a meal or packed a meal for Johnny, then she's going to give him insulin with an insulin pen. So there's a lot of teaching that goes into counting carbs as a lay-person and use an insulin pen.

And then the student goes to have breakfast. Then that happens again at lunch. It happens again in the afternoon. One afternoon, very recently, one of my nurses called me panicked because the office person that was in charge misunderstood insulin and for a low blood sugar, she gave eight units with an insulin pen.

Now that is an emergency. The parent is furious because the parent gets to the day care, the daycare is trying to provide orange juice because the child rode the bus to daycare. So the child's arrived. And so the mother worked all night to get that blood sugar up. So then I get a call the next day. Why don't we have a school nurse? Why do we have a lay-person administering insulin with an insulin pen?

I think she's got a fair point. So additional teaching needs to happen. Again, as Dr. Foy mentioned, these CGMs, the CGM, the parent, wants the CGM out on--

JANE FOY: Continuous glucose monitoring.

CAREN JENKINS: Continuous glucose monitoring. It's very common. Wake county has many, many students. We're about to have-- they're projecting lots and lots, because as we have effluent families and they want their child's blood glucose monitored. And this is instantaneously. So the nurse has the app. The teacher has the app. And the parent's calling the nurse.

The blood sugars done up to 153. Can you go ahead and give some insulin? So if you're not there every day and you're the teacher and you're getting these phone calls, it causes a lot of disruptions in a classroom. We're trying to plan ahead because we know that's what we're going to be faced with in the coming next year, where we've had several in-services my staff has, and we're just projecting that this is going to be a continuous problem.

But just keep in mind what we need, and we really need for you to partner with us. We need that diabetic care plan. We need the medication form signed. Keep in mind, we'd love to work with you. If you've got a child that the family is not compliant, we need to know that. We need to bring that family in and work with them.

JANE FOY: We're not trying to scare you to death. But a little dose of reality about what the school nurses are trying to contend with-- and just to put in another plug, we had this experience last year of going to our county commission and asking for more school nurses. And actually we ended up getting more than we even asked for because the parents who spoke at that and the other folks who spoke at that meeting were so impressive.

And because these common sense issues that we're just discussing today had never crossed the awareness of our county commission. And unfortunately, school nursing is often one of the first things to go in an education budget. So wherever you live in North Carolina, you could lend your support. There's actually an article that I found just recently. It was in JAMA 2014.

It shows on that the cost benefit analysis on school nurses is very favorable as far as our reducing job loss by time away from work by parents, distractions to teachers, attendance by students-- in all of those ways, it has been demonstrated that it is a good investment, a very solid investment, of public dollars to get school nurses. And ideally, we would have one in every school.

Let's get down to the sort of practical office scenario of ideas that you might take back to your practice for strengthening the relationship with your school nurses. But one would be to identify an office staff member who could serve as your liaison to the schools. And that individual could have a list of the school nurses, could have numbers to call, could have social work numbers to call as well, because sometimes the crises that our children experience are of a mental health variety, or the families are experiencing other kinds of social crises.

In at least one community in North Carolina, we have a protocol for exchanging information between schools and physicians in relation to children that are inattentive and disruptive in the classroom. Before this protocol was put in place in Guilford County, we frequently had a situation where the school was sending a child to us demanding that the child be put on medication because the child was so disruptive.

After the protocol, we could ask that the school gather a certain amount of information, including a test to see if there was any disparity between the child's cognitive ability and how he was performing in the classroom, Vanderbilt form filled out so that we actually knew what was happening in the classroom and were able to monitor over time.

So that kind of protocol could be replicated in other places. And so I just told that out to you as one way that we might all work together. I feel that there's a lot of benefit in flagging the medical record in some special way, either a PHR or paper record, if you're still with that, with a child that has school health needs, and then having office routines for those children with those flags.

And that would be looking for IEPs and 504 Plans and Individualized Health Plans in those children, having conversations with parents about how their health needs are being met in school. And then very importantly, having a routine to effectively communicate with the school after those kids are seen, where their care is adjusted, their medication is changed, there's a change in the child's health status, the child's been in the hospital-- those are all things that the school needs to know.

And so again, if your office is doing this automatically, that school liaison could take care of that. A little advance planning would mean that this kind of preparation could be done with a minimum of disruption to you. So those are our collective thoughts about working with school nurses.