

## Promoting Maternal Health in Texas: Current Data and Initiatives

**Announcer:** Welcome to this podcast hosted by Texas Health Steps Online Provider Education. This is one of two podcasts about promoting maternal health in Texas. In this episode, we will cover what the data tell us about maternal health and discuss various initiatives that are underway to promote better outcomes for Texas mothers and babies.

We are speaking with two experts today. The first is Dr. Manda Hall, Associate Commissioner for Community Health Improvement at the Texas Department of State Health Services. Dr. Hall is the point person for the state's efforts to reduce maternal mortality and morbidity. Dr. Hall, welcome.

**Dr. Hall:** Thank you. I'm glad to have this chance to share what we've learned and what we are doing at a state level.

**Announcer:** Our second guest is Dr. John Hellerstedt, a pediatrician and former health-care executive who now serves as Commissioner of the Texas Department of State Health Services. Dr. Hellerstedt, welcome.

**Dr. Hellerstedt:** Thank you. It's great to be here.

**Announcer:** Dr. Hellerstedt, let's begin with you. Please give us an overview of the importance of the state's efforts to understand and respond to maternal mortality and morbidity.

**Dr. Hellerstedt:** Absolutely. Well, of course, what we're talking about in maternal mortality and morbidity are basically either deaths or serious injury, serious health conditions, that are related to or caused by or associated with pregnancy. Our journey to reduce maternal morbidity and mortality really specifically started after an article was published out of the University of Maryland which used death certificate data that had been submitted to the CDC and calculated a really high maternal mortality rate for Texas. To make a long story short, we were able to actually prove that that high rate was not true, that there were far fewer maternal deaths, but it told us two things. It told us that we had a problem with the fidelity of our death certificates, but it also told us that we had a great opportunity to further reduce maternal morbidity and mortality in the state of Texas because we know that, when we look at other states, even though we kind of ended up in the middle of the pack in terms of that rate based on the true numbers, if we look at other states, they do much better than we do, and so we wanted to see what we could do to make things even better.

**Dr. Hall:** When we look at maternal death, for every woman who dies, there's actually 50 to 100 women who suffer from severe maternal morbidity. That means, as Dr. Hellerstedt had talked about, suffering from some sort of complication or injury as it related to that pregnancy. We really know that we have an opportunity to impact both maternal morbidity and maternal mortality here in Texas.

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**Announcer:** Let's begin with a discussion of maternal mortality. What conditions are most often associated with maternal death in Texas? Before you get into the details, please remind us about the definition of maternal mortality.

**Dr. Hall:** Maternal mortality is actually the death of a woman that is associated with pregnancy. Looking at these deaths is actually one of the key activities of the Maternal Mortality and Morbidity Task Force here in Texas. This is a legislatively mandated advisory committee that consists of 17 appointed members that have various backgrounds, from doctors who are experts in maternal health, family physicians, we have a psychiatrist, a medical examiner, we have researchers who look at social aspects of health, so just a wide variety of folks that are then working together to review cases to help us to see what's happening here in Texas, but also to make recommendations on things that can be done to really impact these preventable deaths here in our state.

**Dr. Hellerstedt:** Right. I would want to add the Maternal Morbidity and Mortality Task Force really is an amazing group of experts who all volunteer their time. They spend time reviewing individual cases, right down to the medical records of women who have passed away, and they make a determination about what was the cause in their medical opinion, and specifically whether or not it was preventable.

**Dr. Hall:** In addition to that, they look at contributing factors, so those factors that may have impacted that particular case. As we talk a little bit more about the data, we'll see that, on average, for every maternal death, there was a little over five contributing factors to those individual cases.

**Announcer:** Can you tell us more about the causes of pregnancy-related deaths?

**Dr. Hall:** I think it's important, though, that we first define what a pregnancy-related death is. Really, what this is, if this woman had not been pregnant, would she have died? When the Task Force reviewed their cases and we looked at pregnancy-related deaths, we actually found that about 40 percent of those deaths were pregnancy-related. The other piece of that is really looking at preventability. Looking at the preventability of these cases found that, about 80 percent of the time, it was identified that this death was preventable.

They also had the opportunity to look at what the causes of death were, and the leading causes of death included cardiovascular and coronary condition, obstetric hemorrhage, infection, and cardiomyopathy. Using this information in addition to what we call contributing factors, which can be individual factors—they can be provider, facility, system factors—all had a contribution to these deaths. On average, there was a little over five contributing factors per death that were identified through the review of these individual cases by the Task Force.

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When we look at what the Task Force found through their review, as well as what we're able to see through statewide data trends, we know that there are a wide variety of things that need to be done in order for us to improve maternal health outcomes here in Texas.

**Dr. Hellerstedt:**

I think it would be fair to say that all of the things that contribute to public health in general and the health of individuals and communities are all at play when we're talking about maternal morbidity and mortality. The further you go out from looking at the contributing causes, the more you realize that it is, in fact, a very complex problem and one that has many, many different factors. In order for us to be effective, we're going to have to find out ways that we can address as many of those factors as possible.

By the way, we've looked at the data, we've looked at the timing of when the maternal death occurs versus the cause of death of when it happens, and that's revealed some very interesting data. Dr. Hall can speak to that.

**Dr. Hall:**

Yes. We did. When we looked at the timing and cause of death, we actually found that the majority of maternal deaths actually occurred greater than 60 days postpartum. We also found that the top cause of death was actually drug overdose, and the majority of those deaths did occur more than 60 days postpartum. We had an opportunity to look at that zero- to seven-day time period, which we really kind of used as a proxy for that in-patient period of time. We saw, again, that obstetric hemorrhage was one of those top causes of death, but we also know that eclampsia is a top cause of maternal death, and both it and obstetric hemorrhage have been determined to be some of the most preventable causes of maternal death.

**Dr. Hellerstedt:**

Or associated. It's any maternal death within 42 days of delivery. That's the official maternal mortality rate. However, when we look at the problem, and when the Maternal Morbidity and Mortality Task Force looks at the data, we go out to an entire year after the delivery date. We think that gives us a better perspective. That's why some of what we were mentioning about the causes of death, as you get further out from the time of delivery, really begin to change. They stop being quite so much medical complications as things like drug misuse, suicide, and other substance abuse and mental health complications. If you didn't look at that more extended period of time, you would miss the contribution that those other types of conditions make to maternal mortality.

**Announcer:**

What can you tell us about the health conditions and events that cause severe complications for Texas mothers, and what are the most common causes of severe maternal morbidity?

**Dr. Hellerstedt:**

Well, as one might imagine, the causes of severe maternal morbidity are very closely related to the causes of maternal mortality. It's often the case that a particular medical condition, if not able to be reversed at a point in time, may lead to death. In some cases, the process can be reversed. The woman may

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suffer a serious spell of illness and may, in fact, even end up with permanent disabilities as a result of it but the result is not death. For example, one source of permanent disability is women can be subject to a particularly aggressive form of hypertension during pregnancy that we call eclampsia or preeclampsia. The outcome of that high blood pressure is ultimately to cause a stroke. In some cases, the stroke is fatal. In other cases, the woman can recover from the stroke.

Maternal morbidity and mortality are very closely related to each other, so much so that we believe that, for every episode of maternal mortality, there's anywhere between 50 and 100 women who suffer an episode of severe maternal illness or severe maternal morbidity as a result.

**Dr. Hall:** There are certain risk factors that would put a woman at risk for both maternal morbidity and mortality—things like obesity, underlying hypertension, or diabetes. We also know that Black women are more likely to suffer from maternal morbidity and mortality, and so we know there's a role of health disparities in outcomes that we see around maternal health.

**Announcer:** The Maternal Mortality and Morbidity Task Force report provides a wealth of data about health risks to Texas mothers. How are the Department of State Health Services and its partners working to convert data into action to promote maternal health?

**Dr. Hellerstedt:** Well, we're very proud of the efforts that we've undertaken. Sort of the centerpiece of it is Texas AIM. I'm going to let Dr. Hall tell us more about that.

**Dr. Hall:** Taking data and moving it to action is very important. The work that we do here in Texas really falls under the umbrella of our Healthy Texas Mothers and Babies framework. This is really a public health framework in order for us to be able to improve maternal and infant health outcomes. We do that through different components that allow us to work at not only the state level but at the community level. One of those key components is our Perinatal Quality Improvement Network. Within this network, our goal is really around quality improvement to improve outcomes. The work of our Task Force falls within this arena. So does the work of our state perinatal quality collaborative, the Texas Collaborative for Healthy Mothers and Babies, and then Texas AIM, which is the program here in Texas which is implementing our maternal safety bundles.

AIM is actually a national program. It stands for the Alliance In Maternal Health. We have implemented here in Texas based on those data trends that we've had an opportunity to talk about. We're starting this program with obstetric hemorrhage. We have implemented it in over 200 hospitals here in Texas. Hospitals have an opportunity to participate in either the AIM Basic or the AIM Plus program. When they participate in the AIM Plus program, they're actually participating in a learning collaborative.

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**Dr. Hellerstedt:** One of the things I'd like to point out is that it's a completely voluntary program and we're extremely pleased with the response that we've gotten from Texas hospitals. It's not just the hospital administration, though. It's the medical staff, as well. We're talking about . . . when we say bundles, we're not talking about payment bundles, we're talking about, essentially, evidence-based protocols, evidence-based ways of taking care of women that can lower maternal morbidity and mortality.

The other thing, I think, that's very exciting about it is it's really a team-based approach. It's not just teaching the doctor how to quantify blood loss, for example. This is really teaching the entire team what to be looking for and empowering every member of the team to be able to speak up and have people assess the situation and see if there's an impending outcome that they want to try and prevent.

**Dr. Hall:** Texas is a very large state and so we've taken a regional approach to how we're implementing this here in Texas. We've actually divided the state into five different cohorts. The different hospitals are working with other hospitals within their area. We have in-person meetings. They have access to technical assistance and support, ongoing calls and webinars, and then the opportunity to be able to look at their own data, which can really drive quality improvement within their particular hospital.

**Dr. Hellerstedt:** Right. Having come from a background as being a physician executive in a hospital system, part of what we did every day was really to try and organize these kinds of teams of care and set up best practices and disseminate them to measure the outcomes, so I'm here to say that the way we're doing it is the way you have to do it, because it is not an easy thing. It's not just something that people could read a pamphlet and put it down and then they're all set and ready to go. It's about reaching out, it's about creating those learning collaboratives where hospitals learn from each other. They're able to take the basic precepts, if you will, of how to build teams and the basic information evidence that's there in these AIM protocols and adapt them to their particular hospital. That's what's really exciting about it. It's completely necessary that it's got to be a very hands-on effort in order for it to succeed.

**Dr. Hall:** Other states who have implemented these AIM bundles have had success, and so they have actually seen decreases in severe maternal morbidity within their states. It's important for us to learn from other states, but know that hospitals are learning from each other.

**Announcer:** We've covered a lot of data about maternal health. Can you sum it up in a few words?

**Dr. Hall:** What the data allows us to do is to be able to move forward and drive change because, at the end of the day, we know that it's not just about data. These are about women. These are about families and keeping families whole.

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**Announcer:**

Thank you. Next up is a companion podcast where we talk in more detail about some action steps health-care providers and organizations can take to improve maternal health in Texas. Please join us and encourage your colleagues to listen, too. Remember, you can find links to the resources mentioned by the speakers on the podcast page at [TXHealthsteps.com](https://TXHealthsteps.com). That's [TXHealthsteps.com](https://TXHealthsteps.com).