New Cardio-Obstetrics Clinic in Bloomfield targets trends of heart disease in pregnant women

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Despite tremendous medical advances over the past decades, women today are more likely to die from pregnancy-related causes than they were 30-plus years ago.

The number of pregnancy-related deaths in 1987, per data collected as part of the Centers for Disease Control and Prevention's then-new Pregnancy Mortality Surveillance System, was calculated to be 7.2 deaths per 100,000 live births.

In 2018, the most recent year for which data was available, the figure had risen to 17.3 deaths per 100,000 live births. This rising trend, the CDC notes, likely is due to an increased prevalence of heart health conditions such as hypertension, diabetes, and other chronic heart diseases.

The CDC defines pregnancy-related deaths "as the death of a woman while pregnant or within 1 year of the end of pregnancy regardless of the outcome, duration, or site of the pregnancy — from any cause related to or aggravated by the pregnancy or its management."

Heart disease is not reserved for the elderly; the physiological stresses of pregnancy make women in their child-bearing years particularly vulnerable.

Heart disease is already the leading cause of women's death, yet, according to the CDC, only about 50% of women realize this.

In response to the increasing incidence of cardiovascular conditions among pregnant women, the American Heart Association in 2020 strongly recommended that women with cardiovascular conditions be cared for by a cardio-obstetrics team during and after pregnancy to provide specialized care for the mother and baby.

The alarming trend of pregnancy-related deaths and AHA recommendation were the driving forces for the AHN Cardio-Obstetrics Clinic, which opened last month in Bloomfield. The clinic will provide specialized care using a multi-discipline (cardiac and obstetrics) approach to managing the health of mother and child before, during and after pregnancy.

Clinic directors represent both branches of the team approach: Dr. Indu Poornima, a cardiologist, is director of AHN Women's Heart Center, and Dr. Devon M. Ramaeker, a high-risk obstetrician, is director of the AHN Maternal-Fetal Medicine division.

They aim to raise awareness of cardiovascular disease's role in maternal deaths while providing enhanced care at the clinic.

What's going on?

According to Poornima, "[women] are coming in with a higher burden of cardiovascular risk factors." There are likely several reasons for the increased prevalence of heart disease.

Indu Poornima is Medical Director of Nuclear Cardiology and Director, Section of Preventive Cardiology and Women's Heart Center at Allegheny Health Network. (AHN)

Poornima points to a few factors. The average body mass index, an indicator of obesity, has escalated. Simultaneously, the rate of Type 2 diabetes, also a risk factor, has increased. Lifestyle factors such as smoking, poor diet and physical inactivity also contribute.

Many women are choosing to delay pregnancy until later in life. Additionally, improved medical care has increased the number of women with repaired heart defects who survive to reproductive age. In both cases, the body is less able to handle the stresses of pregnancy.

Moreover, more women are utilizing in vitro fertilization, or IVF, which is linked to higher incidence of hypertensive, or high blood pressure, disorders.

Providers are also seeing more cases of people coming in with no apparent risk factors, other than possibly age, who suffer cardiac incidents. A woman's first pregnancy is now known to be a risk factor for the diagnosis of preeclampsia — pregnancy-related high blood pressure that can damage organs.

Pregnancy is nature's stress test

Cardiologists regularly order "stress tests," also known as exercise stress tests, for patients at risk for cardiovascular disease. Exercise makes the

heart pump faster and harder and can be used to identify problems with blood flow to and within the heart.

Pregnancy is often considered nature's stress test because it places significant physiological demands on a woman's organs and systems, particularly the cardiovascular system.

A woman's blood volume increases between 45-60% to meet the needs of the growing fetus, requiring her heart rate to rise as well. The amount of blood pumped from the heart per minute increases, making the heart work harder and which, in turn, impacts blood pressure.

Pregnancy, simply, places greater demands on the cardiovascular system.

Devon M. Ramaeker, a high-risk obstetrician, is director of the AHN Maternal-Fetal Medicine division.
(AHN)

"All of these things that occur during pregnancy to help support the pregnancy really can exacerbate a pre-existing cardiac diagnosis or identify one that was previously undiagnosed," says Ramaeker.

Pregnancy can unmask potential problems, which can be helped only if mothers and their physicians pay attention.

Ramaeker wants to empower women to speak to their providers if they are not feeling well. She laments that mothers often claim they just want their

baby to be OK, and reminds them, “Your baby can’t be OK if you’re not OK.”

The first time a woman develops symptoms of cardiac disease may be during pregnancy, Ramaeker points out. Many typical pregnancy symptoms overlap with cardiac diagnoses, such as shortness of breath, recurrent heart palpitation and chest pain.

“Trying to identify what is normal pregnancy physiology versus something abnormal and related to cardiac disease can be challenging,” she says. Any such symptom a pregnant woman experiences could be normal, but Ramaeker believes any of them warrants “a discussion with your provider to ask, ‘Does this need additional evaluation?’”

The fourth trimester

Maternal care in the fourth trimester — a term used to describe the first three months after the baby is born — is frequently neglected. All women should pay attention to their health, particularly their blood pressure, for six weeks following delivery. New moms with risk factors or who developed preeclampsia need more long-term follow-up.

“And more importantly,” says Poornima, “they need to be aware that they are at risk of future heart attacks due to strokes.” She continues, “We think high blood pressure during pregnancy is one of the drivers of that. This is very concerning because you’re talking about a young age group, and stroke can be a devastating complication.”

Any form of preeclampsia requires long-term follow-up. Blood pressure frequently returns to normal once the baby is delivered, and physicians used to think the risk was over. They now understand that women who develop preeclampsia during pregnancy, at the time of delivery or postpartum may experience health effects, including the risk of developing high blood pressure, heart disease and stroke, later in life.

Poornima worries that women in their reproductive years also don’t think to have their cholesterol checked. Some data, she notes, suggest coming into pregnancy with high cholesterol may put a woman at increased risk for developing preeclampsia.

"None of these are million-dollar tests or anything. It's just very simple stuff. But many patients and providers just aren't aware, so it's all about raising awareness."

Adjacent to West Penn hospital, the new clinic is at 5140 Liberty Ave. (AHN)

Access, and ease

Access to quality prenatal care is key. But, according to Ramaeker, "maternity units often close because hospitals can't maintain them, especially rural hospitals."

They are costly to staff. According to the American Hospital Association, in 2020, almost 50% of reporting rural hospitals indicated they did not offer obstetric care. And between 2015 and 2019, 89 obstetrics units closed. Consequently, there are many rural areas — referred to as maternity care deserts — without access to care.

Women considering pregnancy and having preexisting cardiovascular conditions, including chronic hypertension, a history of preeclampsia, cardiomyopathies, diabetes, high cholesterol, heart valve disorders, aortic dilatation or congenital heart disease, or are in their mid- to late-30s, should receive preconception counseling from a cardio-obstetrics team.

Ideally, women with preexisting high-risk medical diagnoses are identified before becoming pregnant. But, according to Ramaeker, "There's a significant number of women who, even if they wanted to, could not access prenatal care because it is cost-prohibitive, so understanding the

importance of accessing appropriate specialty care during pregnancy is critical."

The months following delivery — a vulnerable and busy period for mothers — are crucial as well. Keeping up with multiple baby and mother appointments is challenging. The clinic aims to be a sort of one-stop shopping — encouraging the mother's continued care that might otherwise go neglected by allowing her to address her obstetrical and cardiology needs in one trip.

The concept of obstetricians and cardiologists taking a team approach is relatively new. Understanding of medicine changes over time, and even well-experienced obstetricians learn about recent trends, practices and procedures daily.

Dr. Ramaekar sums it up by sharing this anecdote while attending a conference: "I was talking to my 3-year-old on the phone yesterday, and she said, 'Mommy, are you done learning medicine?' She wanted to know when I was coming home, and I said, 'Oh sweetie, I'm never done learning medicine, but I am coming home soon, if that's what you're asking.'"

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