

# HIGH-RISK PREGNANCY PROGRAM

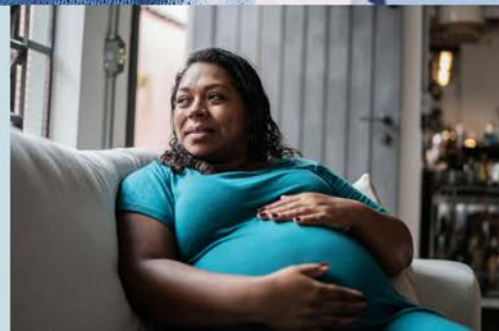
2022-2023



**UAMS**®

Institute for Digital  
Health & Innovation

High-Risk Pregnancy Program





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# LEADERSHIP LETTER



Joseph A. Sanford Jr, MD

We are proud to announce that the 2022 Institute for Digital Health & Innovation (IDHI) High-Risk Pregnancy Program (HRPP) report is given on the cusp of a major milestone coming up in 2023 - the program's 20th anniversary in providing care and positively impacting the lives of Arkansas' at-risk pregnant women and babies. It is a tremendous achievement that reflects IDHI and HRPP's commitment to elevating care standards through collaboration and continuous improvements. The accomplishments, achievements, and innovations that occurred in 2022 serve as a reminder of the strides the medical field, digital health, and the HRPP program have taken in the past 20 years.

Twenty years ago, online health-care education was relatively limited. Learning platforms were scarce and consisted of static webpage content with few interactive features, health-care professionals faced challenges in fulfilling their CE/CME requirements through online methods, and online resources were difficult to access in rural and underserved areas due to the slower internet speeds. Today, the University of Arkansas for Medical Sciences (UAMS) uses innovative online platforms that provide valuable resources to health-care professionals in Arkansas and beyond.

In 2022, the IDHI Education Team continued to ensure health-care professionals in all 75 Arkansas counties had access to online innovative learning opportunities and continuing education resources through LearnOnDemand.uams.edu, while PatientsLearn.UAMS.edu continued enhancing patient knowledge and skills through interactive online learning modules and videos presented to 7,514 registered users. Additionally, the Guidelines for Best Practices, an integral part of the HRPP's effort to effectively bridge the expertise of maternal-fetal medicine and neonatology specialists, significantly impacted health-care practices through weekly virtual conferences as well as the webpage which saw 18,452 page views, 178 first-time visitors, and showed a reach in 69 Arkansas counties, all 50 states, Washington D.C, and 38 other countries.

Community outreach education 20 years ago relied heavily on traditional methods such as in-person workshops, seminars, and community meetings. Today, a variety of methods are utilized for outreach education. POWER (Prenatal Outcomes Workgroup using Education and Research), works with hospital teams to address barriers to evidence-based practice and decrease maternal morbidity and mortality through the Obstetric Patient Safety (OPS): Obstetric Emergencies Workshop. Participants of the course complete online learning modules and engage in live, hands-on, simulation learning where newer material boasts increased simulation experiences partnered with escape rooms and gamification, experiences unavailable 20 years ago.

Other neonatal education programs, such as the interactive S.T.A.B.L.E. program, Neonatal Resuscitation Program (NRP®), and Fetal Heart Monitoring courses, have made remarkable impacts on post-resuscitation/pre-transport stabilization care for sick infants, post-birth neonatal emergencies, and fetal-maternal oxygenation, respectively. All of these programs are now offered online through interactive and didactic learning, case studies, and simulations in addition to traditional settings. Additionally, other specialized education programs utilizing online learning platforms include Women's Mental Health, Diabetes Care in Pregnancy, and the Arkansas Fetal Diagnosis and Management Program, all of which have contributed significantly to improved care outcomes.

Twenty years ago, the infant mortality rate in Arkansas was 9.8 deaths per 1000 live births. Since the implementation of the HRPP in 2002, that rate has continued to drop. The latest report generated in SFY2020 using the HRPP Database created by our Evaluation and Research Team, the infant mortality rate is 4.5 deaths per 1000 live births. The HRPP Evaluation and Research Team also plays a crucial role in surveying patients receiving telehealth consultations regarding their levels of satisfaction with their telehealth appointments, another option unavailable to patients 20 years ago. Patients receiving telehealth services expressed immense satisfaction with their providers and telehealth visits, scoring both highly on the 10-point satisfaction scale. These scores reflect the exceptional quality of care provided to high-risk pregnant women in Arkansas.

Moving forward, IDHI and the HRPP remain committed to elevating care standards through collaboration and continuous improvement, positively impacting the lives of pregnant women and babies across the state.

Sincerely,



Joseph A. Sanford Jr., M.D.  
Director, Institute for Digital Health & Innovation



# High-Risk Pregnancy Program Overview

**Evidence-Based Guidelines**

Obstetrical, Neonatal

**Expansion of Telemedicine  
Network & Clinics**

Obstetrical Sites, Ultrasound Sites

**Evaluation & Research**

Presentations, Grants, Publications

**Case Management**

Following Baby Back Home, Tele-Nursery,  
Arkansas Fetal Diagnosis and  
Management

**24/7 Consultation Call Center**

Consults, Triage, Transport, Follow-Up,  
Appointments, Provider Support

**Outreach, Education & Support for  
OB Providers**

Teleconferences, High-Risk OB, OB/GYN  
Grand Rounds, ONE Team, PedsPLACE,  
POWER

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High-Risk Pregnancy Program

# EDUCATION & SUPPORT

The IDHI Education team develops engaging and innovative learning activities to meet the needs of today's busy health-care professionals. IDHI offers two online educational platforms — LearnOnDemand.uams.edu and PatientsLearn.uams.edu. While Learn On Demand offers continuing education on a variety of health topics for professionals, Patients Learn provides education developed specifically for patients. These sites, available 24/7, allow learners to work at their own pace from any device with internet access. Onsite educational opportunities include customized simulations, drills, training courses and conferences. Health-care professionals in all 75 Arkansas counties use resources developed by the IDHI Education team.

CONTINUING EDUCATION	2021-2022	2022-2023
CE Hours Awarded	5,691.75	4,293.75
Live Virtual Conferences and Events	252	200
Live and Archived Education Modules on LearnOnDemand.org	423	278
Other Live and Archived Videos or Modules	907	910

HEALTH-CARE PROVIDER ACTIVITY	2021-2022	2022-2023
Attended Live Events	6,045	6,815
Completed Enduring Materials	12,862	29,138
Accessed High-Risk Obstetrics (HROB) Modules	3,039	2,534

**\*LearnOnDemand.org New Users: 4,236**

**\*Total Users on LearnOnDemand.org: 31,739**

## PatientsLearn.uams.edu

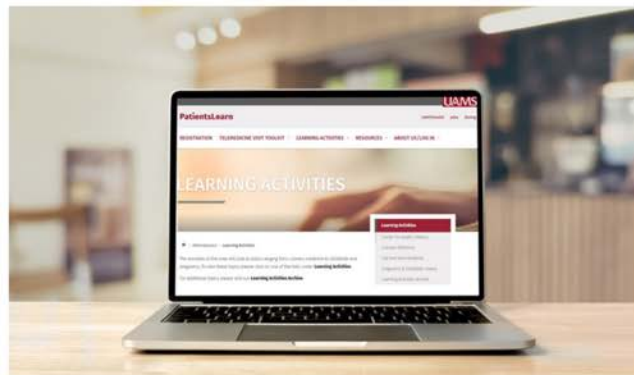
Top 3 Most Accessed Content

1. Labor and Delivery Tour
2. Pregnancy and Childbirth Resources
3. Diabetes Education Courses

PatientsLearn.UAMS.edu Unique Users: 7,514

Interactive Modules and Videos: 71

Counties in Arkansas with Registered Users: 57



# TOP FIVE HROB MODULES ACCESSED

## 2021-2022

1. Safety of COVID-19 Vaccines and Pregnancy
2. 2021 Basic Fetal Heart Monitoring
3. 2022 OB Emergency Simulation Lecture
4. Addiction During Pregnancy
5. 2021 OB Emergency Simulation Lecture

## 2022-2023

1. Basic Fetal Heart Monitoring
2. Addiction During Pregnancy
3. OB Emergency Simulation Lecture
4. UAMS Milk Bank
5. Baby Boot Camp Basic Training: Screenings & Hypoglycemia



### EDUCATION TEAM

Front row, left to right: Jo ann Grace, Kesha James, Dr. Stanley Ellis, Kim Lamb, Bernadette Martin

Back row, left to right: Samantha Wilson, Rita Tuggle, CJ Fortune, Brian Lee, Annemarie McGahagan, Candace Lewis

Not pictured: Valerie Thomas

# GUIDELINES FOR BEST PRACTICES

intend to positively impact patient outcomes and enhance clinical decision-making. The Guidelines for Best Practices are an integral part of the High-Risk Pregnancy Program's effort to bridge the expertise of maternal-fetal medicine and neonatology specialists across Arkansas.

Clinicians, as well as mothers and newborns, stand to benefit from a consensus approach to providing obstetrical and neonatal care. A mobile-friendly and freely available website, <https://angelsguidelines.com>, provides 24/7 access to a repository of best practice guidelines at the point of care and enables urban and rural Arkansas providers to participate in guideline development and improvement.

Each guideline is annually reviewed by content experts to assure the availability of the most current, relevant practice recommendations and local resource information. The collaborative guideline development team includes expert Arkansas authors and reviewers from multiple disciplines, out-of-state peer reviewers, and research librarians. Additionally, obstetrical and neonatal best practices are discussed during weekly virtual conferences between UAMS and Arkansas Children's specialists and clinicians at remote sites throughout Arkansas.

More than 3,200 health-care providers utilize this resource, and clinicians from 69 Arkansas counties access the guidelines. While the guidelines are developed to support Arkansas' health-care providers, guideline registrants represent 50 states, Washington, D.C., and 38 other countries. This year's most frequently viewed guidelines include Diabetes in Pregnancy, Hypertensive Disorders of Pregnancy, Syphilis, Hepatic, Biliary Tract, and Pancreatic Disorders in Pregnancy, Preterm Labor, Breastfeeding, and Neonatal Abstinence Syndrome.

## QUICK FACTS ABOUT THE GUIDELINES

- Promote best practices for health-care delivery in Arkansas based on scientific evidence, national standards and expert consensus.
- Offer essential, readily accessible and well-organized clinical information as references for practicing physicians and advanced health-care providers.
- Make it easy to stay abreast of updates and current recommendations in practice.
- Serve as a quick reference and local resource at the point of care in an easy-to-navigate, mobile-friendly and freely available format that is available 24/7.

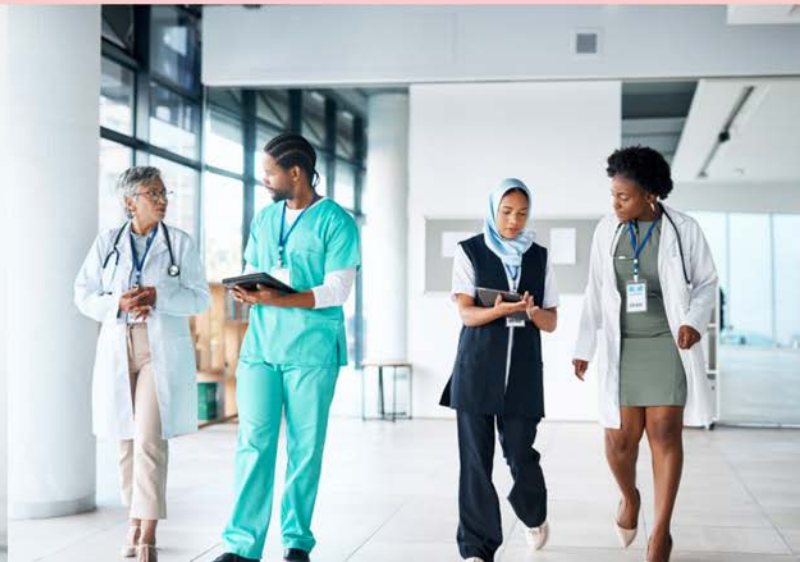


## GUIDELINE OUTREACH EFFORTS

- Presented guidelines to 2,572 attendees, including physicians, advanced health-care providers and medical students via in-person and virtual conferences.
- Provided guideline website information directly to 621 providers representing 23 counties during classes and on-site training, and to 168 leadership attendees representing 32 unique health-care facilities in 25 counties during two statewide nursing leadership conferences.
- Provided guideline updates during the High-Risk Obstetrics (HROB) and PedsPLACE teleconferences and weekly email promotions to over 1,000 providers.
- Also marketed through the LearnOnDemand.com calendar page as guidelines are presented and discussed during the collaborative teleconferences of HROB and PedsPLACE.

## **GUIDELINE ACCESS**

- Website page views: 18,452
- 178 first-time health-care professional visitors this year (120 from Arkansas).
- Guidelines have been accessed by registrants from 69 of 75 Arkansas counties.
- There are registrants from all 50 states, Washington, D.C., and 38 countries.



# COMMUNITY OUTREACH EDUCATION

## POWER OB EMERGENCY SIMULATION DRILLS & EMERGENCIES WORKSHOP

Despite efforts from many collaborating agencies and professional organizations, the maternal mortality rate in the United States continues to remain high. To educate health-care providers on obstetrical emergencies, the Association of Women's Health Obstetric and Neonatal Nurses (AWHONN) developed the Obstetric Patient Safety (OPS): Obstetric Emergencies Workshop. The OPS workshop, provided by the Perinatal Outcomes Workgroup through Education and Research (POWER) team, is designed to help nurses and providers identify, assess and manage the care for women with specific obstetric emergencies such as hypertensive disorders of pregnancy, postpartum hemorrhage and maternal sepsis. Nurses and providers working in the following departments: perinatal, emergency, medical-surgical, ICU, and critical access find this course essential to caring for women presenting with obstetric emergencies. Participants of the course complete online learning modules and engage in live, hands-on, simulation learning during the workshop. The combination of these learning modalities assists providers in caring for the perinatal population and reduces the risk of maternal injury and death. Facilitator and lead instructor, Erin Murders, MSN, RNC-OB, provided the third edition of the OPS workshop in July 2023, and the program will continue into 2024. The new material boasts increased simulation experiences partnered with escape rooms and gamification. To schedule this engaging educational experience at your facility, email Erin at [EAMurders@uams.edu](mailto:EAMurders@uams.edu).

# DRILLS & EMERGENCIES WORKSHOP CONT.

The POWER OB Emergency Simulation Drills are important in preparing labor and delivery staff across the state for those unexpected emergencies that can arise during the delivery process and beyond. Each simulation class focuses on using patient safety bundles, algorithms and checklists to help with the early recognition and treatment of a hypertensive crisis and a severe postpartum hemorrhage and what to do when shoulder dystocia occurs. We discuss the importance of being prepared for an emergency before it happens because you can never predict when one will occur. Practice and preparedness are the keys to saving lives and improving maternal and neonatal outcomes across our state. For more information or to schedule a POWER OB Emergency Simulation Drill at your hospital, please email Erin Murders at [EAMurders@uams.edu](mailto:EAMurders@uams.edu).

NUMBER OF CLASSES

9

NUMBER OF PARTICIPANTS

113

## Participating Facilities:

Arkansas Methodist Medical Center – Paragould  
Baptist Health Medical Center – Conway  
Baptist Health Medical Center – Little Rock  
CHI St. Vincent Hot Springs  
Drew Memorial Health System – Monticello  
Jefferson Regional Medical Center – Pine Bluff  
National Park Medical Center – Hot Springs  
Saint Mary's Regional Health System – Russellville  
St. Bernards Health-care – Jonesboro  
Unity Health Harris Medical Center – Newport  
White River Medical Center – Batesville  
Willow Creek Women's Hospital – Johnson



# S.T.A.B.L.E.

S.T.A.B.L.E. is the most widely distributed and implemented neonatal education program to focus exclusively on the post-resuscitation/pre-transport stabilization care of sick infants. Based on a mnemonic to optimize learning, retention and recall of information, S.T.A.B.L.E. stands for the six assessment and care modules in the program: Sugar, Temperature, Airway, Blood pressure, Lab work, and Emotional support. A seventh module, Quality Improvement, stresses the professional responsibility of improving and evaluating care provided to sick infants.

S.T.A.B.L.E. facilitator and instructor Tina Pennington, MNSc, RNC-NIC, has been involved with the program since 2006. She delivers a wealth of clinical experience and knowledge from her 18 years of stabilizing infants born at UAMS.

Now offered as an interactive course, students can choose to take the class as a group from their facility or individually from their computer. For further information, contact Tina at 501-686-7576 or [penningtontinac@uams.edu](mailto:penningtontinac@uams.edu).

NUMBER OF CLASSES

6

NUMBER OF PARTICIPANTS

195



## OUTREACH TEAM

Left to right: Dawn Brown, Angie Hunton, Tina Pennington, Erin Murders, Shari Drakes



## NEONATAL RESUSCITATION PROGRAM

If you have ever given birth, assisted in the delivery, or have been witness to the event, you know that no one in the room breathes until the baby cries. In 90% of the cases, the baby will cry spontaneously, and everyone will cheer. However, in about 10% of deliveries, the baby will need some assistance to cry or breathe after birth. This assistance can range from stimulation and suctioning to short-term positive pressure ventilation. Of this 10%, about 1% will need further help through intubation, chest compressions and/or fluids and medications (American Academy of Pediatrics, 2021). Nationally recognized, the Neonatal Resuscitation Program® utilizes a team-based standardized approach to recognizing and responding to post-birth neonatal emergencies. The curriculum is a blended learning platform, which includes online didactic instructions and hands-on case-based simulation/debriefing. The simulation focus is on clinical leadership, closed-loop communication techniques and team-building exercises.

Tina Pennington, MNSc, RNC-NIC, clinical services manager, travels across the state, providing classes to the hospitals that do not have in-house instructors. Tina brings 18 years of NICU experience to each class, making them realistic, interactive and informative. The focus of the hands-on skill simulations is to allow the learners to practice needed skills in a safe, yet realistic environment. For further information or to schedule a class at your facility, contact Tina Pennington at [penningtontinac@uams.edu](mailto:penningtontinac@uams.edu) or 501-686-7576.

NUMBER OF CLASSES

13

NUMBER OF PARTICIPANTS

128



# FETAL HEART MONITORING

The Association of Women's Health, Obstetric, and Neonatal Nurses (AWHONN) is the recognized leader in fetal heart monitoring education. The POWER outreach team is proud to provide AWHONN's Intermediate and Advanced Fetal Heart Monitoring courses to hospitals across the state. In January 2022, AWHONN completely revised and updated the curriculum for both the intermediate and the advanced classes. Their convenient online and in-person formats are evidence-based and provide the essential tools for educating the entire team. Both courses use a case study approach to focus on fetal-maternal oxygenation, interpretation of tracings, and the selection of clinical interventions. The advanced course is offered quarterly via Zoom with an option to hold an in-person class if requested. The intermediate course is a hybrid course that requires each participant to complete online prerequisite education, followed by a one-day, in-person instructor-led class. For more information or to schedule a fetal monitoring class, email Erin Weeks at [EWeeks@uams.edu](mailto:EWeeks@uams.edu).

NUMBER OF CLASSES

27

NUMBER OF PARTICIPANTS

142

# MATERNAL SAFETY BUNDLE OUTREACH

The POWER team travels across the state, providing resources to support the implementation of maternal safety bundles in Arkansas' 37 delivering hospitals. Studies have shown that safety bundle implementation has improved maternal outcomes and decreased maternal mortality and morbidity. The team provides support, educational opportunities, and materials to help hospitals successfully implement and sustain maternal safety bundles. The support is provided in person and through interactive video. Through outreach, the likelihood that hospitals will achieve successful implementation and sustain ongoing use of these safety bundles is improved.

OUTREACH OPPORTUNITIES

112

NUMBER OF PARTICIPANTS

142

DELIVERING HOSPITALS

37

## POWER WORKSHOPS

**November 2022:** The Fall POWER workshop highlighted the work being done around respectful maternal care. The POWER team hosted a presentation by Sarah Copple and Catherine Hill, both from the Association of Women's Health and Neonatal Nurses. Their presentation highlighted the Respectful Maternity Care Framework and Evidence-Based Clinical Guidelines that support providers in delivering care that ensure equity and inclusion for all patients. With a focus on shared decision-making, attendees were provided information to enhance care delivery and support respectful care. These practices align with the POWER team's current work to improve maternal and neonatal outcomes across our state.

PARTICIPATING HOSPITALS

20

NUMBER OF PARTICIPANTS

62

**April 2023:** The Winthrop Rockefeller Institute, atop scenic Petit Jean Mountain, was the perfect setting for the first live Spring POWER Workshop since 2019. The POWER team hosts this gathering of 98 perinatal leaders, educators and physicians representing 31 of the 37 delivering facilities in Arkansas to discuss innovations for improving perinatal patient outcomes. Three new initiatives were recently introduced: Arkansas becoming a member of the Alliance for Innovation on Maternal Health (AIM), the formation of the Arkansas Perinatal Quality Collaborative (ARPQC), and the introduction of a new safety bundle — Safe Reduction of Primary Cesarean Birth. The POWER team members include Dawn Brown, BSN, RNC-ONQS; Tina Pennington, MNsc, RNC-NIC; Shari Drakes, BSN, RNC-OB; Erin Murders, MSN, RNC-OB; and Angie Hunton, MNsc, RNC-OB.

PARTICIPATING HOSPITALS

31

NUMBER OF PARTICIPANTS

98

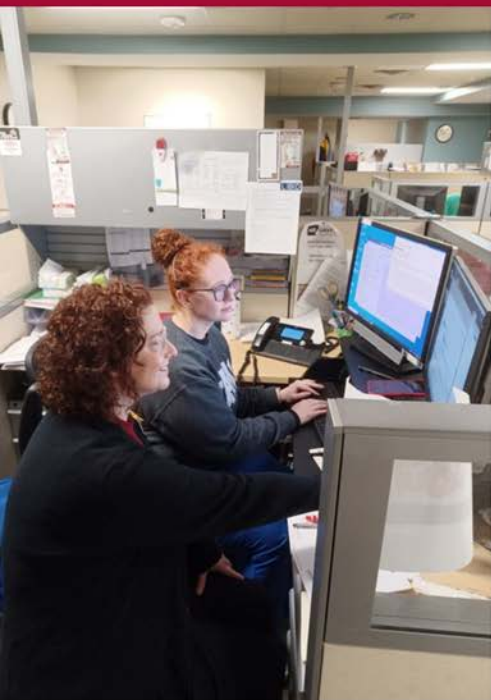
# SPRING POWER WORKSHOP ATTENDEES



# CALL CENTER

**789** Patients Who Would Have Sought Emergent Care

**204** Emergency Care Visits Avoided



The IDHI Call Center facilitates a high volume of calls to provide 24/7 triage, care and case management to high-risk pregnancy patients across the state. The call center is staffed with trained, competent and caring professionals. Maternal-fetal medicine referrals, professional nurse triage of obstetric patient concerns and requests for transfer of patients to UAMS for high-risk obstetrical care are all serviced through the call center. Follow-up calls for all triage visits are completed, along with postpartum phone calls to answer any questions or concerns and provide breastfeeding and self-care support.

The extensive OB case management program continues to support and improve the care provided to high-risk obstetrical patients. Patients receive phone calls throughout pregnancy and after delivery that provide disease and condition-specific education as well as reminders for upcoming appointments and tests. Perinatal bereavement follow-up phone calls are provided for infant loss at any gestational age. Procedures and processes are frequently reviewed to maintain the most up-to-date care. Quality improvement and quality assurance promote the delivery of the best care.

**118,628**

**Grand Total Call Volume  
IDHI OB Call Center +  
ABC OB Appt Center**

**20,462**

**ABC- High-Risk OB Appt  
Center Total Call Volume**

**98,166**

**IDHI OB Call Center  
Total Call Volume**

**INFORMATION CALLS**

**1,945**

**CLINIC RN CALLS**

**641**

**TRIAGE CALLS**

**6,654**

**MD TO MD CONSULTS**

**292**

**ARRIVED MATERNAL TRANSPORTS**

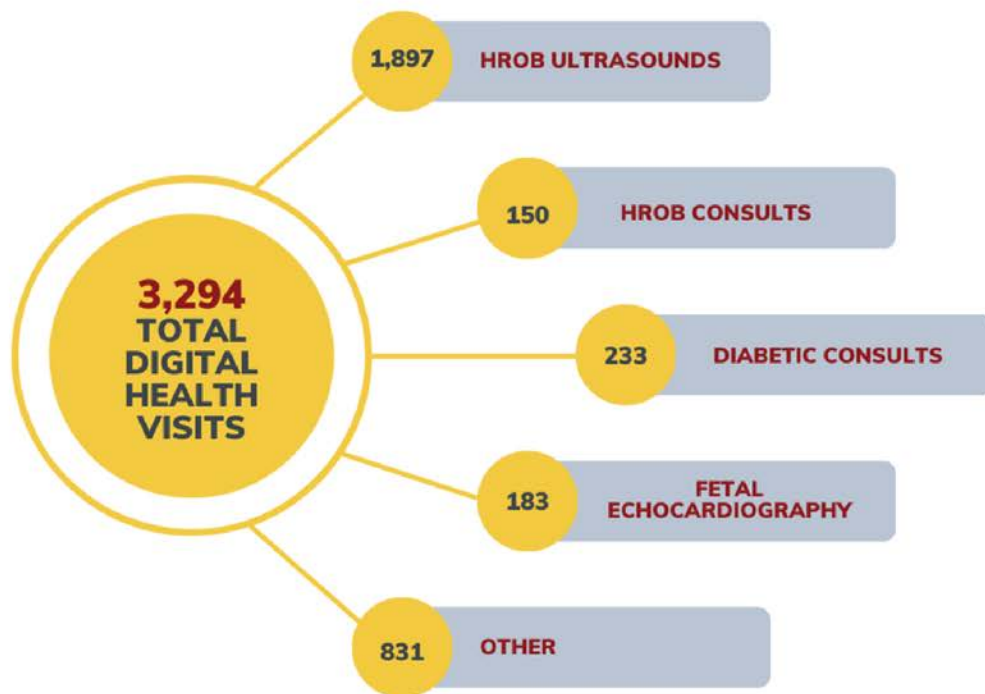
**269**

**FOLLOW-UP CALLS & CASE MGMT**

**21,866**

# TELEMEDICINE NETWORK & CLINICS

With 73 of 75 counties designated as either fully or partially medically underserved, the High-Risk Pregnancy Program creates statewide access to Maternal-Fetal-Medicine specialists and high-risk obstetrical health-care team. Arkansas providers refer patients in need of HROB management or co-management virtually. This ensures that the HROB patients remain in their communities, decreasing travel and worktime lost while receiving the appropriate care. Patients are case managed for additional care coordination as needed to increase the best outcomes.



# DIGITAL HEALTH IN THE NURSERY

Whit Hall, MD, a neonatology professor for the UAMS College of Medicine, leads virtual census rounds three times a week at 26 nursery sites across the state of Arkansas. These virtual rounds include neonatology and subspecialty consultations, coordination of patient transports, follow-up on neonatal and maternal transports, collaboration and education.

VIRTUAL ROUNDING EVENTS

146

TOTAL PARTICIPANTS

540

BACK TRANSPORTS FROM  
UAMS TO REFERRING HOSPITAL

198

## TELENURSERY SITES

Arkansas Children's - Little Rock  
Arkansas Methodist Medical Center - Paragould  
Ashley County Medical Center - Crossett  
Baxter Regional Medical Center - Mountain Home  
Bradley County Medical Center - Warren  
CHI St. Vincent - Hot Springs  
Delta Memorial Hospital - Dumas  
Drew Memorial Health System - Monticello  
Harris Medical Center - Newport  
Jefferson Regional Medical Center - Pine Bluff  
Medical Center of South Arkansas - El Dorado  
Mena Regional Health System - Mena  
Mercy Hospital - Fort Smith  
North Arkansas Regional Medical Center - Harrison  
National Park Medical Center - Hot Springs  
Ouachita County Medical Center - Camden  
Saint Mary's Regional Health System - Russellville  
St. Bernards Medical Center - Jonesboro  
St. Michael Hospital - Texarkana, Texas  
UAMS  
Unity Health White County Medical Center - Searcy  
Wadley Regional Medical Center - Texarkana, Texas  
Washington Regional Medical Center - Fayetteville  
Willow Creek Women's Hospital - Johnson  
Willow Creek (Johnson)



*"The maternal morbidity and mortality crises have put maternal health on the forefront of national and state conversations within health-care and policy. Mental health is an important part of solving this crisis, and the Women's Mental Health Program has dedicated services to address common psychiatric illnesses by providing specialized care as well as provides access to treatment through telemedicine options. The WMHP continues to look at ways to expand available treatment options and train the next generation of providers that will be an important part of reducing maternal mortality."*

*Jessica Coker, MD*

## WOMEN'S MENTAL HEALTH PROGRAM

The Women's Mental Health Program (WMHP) at the Psychiatric Research Institute provides specialized psychiatric evaluation and medication management for pregnant and postpartum (up to 6 months) women as well as pre-conception consultation. The program also provides acute inpatient psychiatric care within the institute's Women's Inpatient Unit. The WMHP is the only program in the state and one of the few in the nation to focus primarily on psychiatric illnesses, including substance use disorders, from pre-conception through the postpartum period. Comprehensive clinical care complements the integration of both clinical education and research across multiple disciplines within the program. In collaboration with obstetrics, anesthesia and neonatology, the WMHP aims to improve both obstetrical and neonatal outcomes for mothers with mental illness.

Shona Ray-Griffith, M.D., oversees the ambulatory services provided by the WMHP and is joined by Hannah Williams, M.D., to provide outpatient care at two locations to best serve the women of Arkansas. The two locations are the UAMS Women's Clinic, where co-located psychiatric care is offered to women receiving obstetrical care through the UAMS system, and the institute, where Ray-Griffith and Williams provide outpatient services to expand treatment access across the UAMS Health system. The WMHP also offers digital health appointments at the institute after an initial in-person visit, in accordance with Arkansas telemedicine laws.

Jessica Coker, MD, serves as medical director of the Women's Inpatient Unit and oversees inpatient services. In addition to digital health consultation services with providers through the UAMS Physician's Call Center, she also provides consultation and liaison services to multiple disciplines within UAMS Medical Center. The High-Risk Pregnancy Program Call Center serves as a primary source of referrals to the WMHP; however, the WMHP has received referrals from across the state. The WMHP provides comprehensive services for pregnant women with psychiatric illnesses with or without co-occurring substance use disorders. In doing so, women who require psychotropics or those misusing/abusing licit and illicit drugs, including alcohol, receive comprehensive evaluations and individualized treatment plans. Available services include a risk/benefit analysis of treatment options, medication management, electroconvulsive treatment (ECT), group and individual therapy, and treatment planning for management through delivery and the postpartum period. Additionally, inpatient psychiatric services are also available for individuals who need acute management of psychiatric illnesses and detoxification from illicit or licit drugs and/or alcohol.

**TOTAL VISITS**

**1,932**

**TOTAL CONSULTS (MD/MD)**

**46**

**TOTAL CONSULTS (MD/MD)**

**56**

### **WMHP TEAM**

Jessica Coker, MD, psychiatrist  
Shona Ray-Griffith, MD, psychiatrist  
Hannah Williams, MD, psychiatrist  
Katelyn Durey, BS, research assistant  
Kelly Mulkey, peer support specialist

\*Visits include Substance Abuse and Mental Health

# DIABETES CARE IN PREGNANCY

Since December 2014, the UAMS Obstetrical Center for Management of Hyperglycemia in Pregnancy has been accredited by the Association of Diabetes Care and Education Specialists, formerly the American Association of Diabetes Educators. This certification ensures that the diabetes education provided to patients complies with comprehensive national standards. The program includes an in-person or virtual group-setting diabetes education class taught weekly in both English and Spanish. In the past 12-month reporting period, 299 women with diabetes were managed by UAMS Health Women's Center: 5% with type 1 diabetes, 30.1% with type 2 diabetes, 64.2% with gestational diabetes, and 0.7% with other forms of diabetes.

## DIGITAL HEALTH CONSULTATIONS

If time or travel restrictions prohibit a patient from driving to the Women's Center, patients can receive individualized diabetes education and monitoring via the IDHI High-Risk Telemedicine Clinic. This option for co-management ensures patients receive the same high-quality care available in a face-to-face setting. Since 2015, digital health diabetes consultations have been delivered through interactive video to patients at distant sites, including county health departments and regional health centers. To find out how patients can access diabetes education via digital health, please contact the HRPP at 1-866-273-3835.



103

Women with diabetes completed consultations with UAMS Women's Center via digital health this reporting period

## IMPROVED GLYCEMIC CONTROL

Good glycemic control decreases the risk of adverse outcomes for both mother and child. Glycemic control is evaluated by a hemoglobin A1C (HbA1C) laboratory, which provides a three-month “average” blood glucose level. Women with type 1 and type 2 diabetes managed by this program demonstrated improved glycemic control throughout their pregnancies.

### TYPE 1 DIABETES n = 15

Mean 1st trimester HgA1C	Mean 2nd trimester HgA1C	Mean 3rd trimester HgA1C
8.16%	7.59%	7.97%

### TYPE 2 DIABETES n = 90

Mean 1st trimester HgA1C	Mean 2nd trimester HgA1C	Mean 3rd trimester HgA1C
8.61%	6.59%	6.39%

## **WEB-BASED INSTRUCTION ON NUTRITION (WIN)**

The WIN program is an online, self-directed curriculum designed by the UAMS Obstetrical Diabetes Care Team and includes a maternal-fetal-medicine specialist, a clinical pharmacist, an advanced practice nurse and two registered dietitians. The program covers topics including the diagnosis of gestational diabetes and first steps (Module 1), management of diabetes in pregnancy (Module 2) and prevention of type 2 diabetes after delivery (Module 3). WIN utilizes videos, self-paced slices, interactive activities and a closed-captioning option to engage online learners. The concepts address blood glucose goals for pregnancy, managing blood glucose with diet and medications, carbohydrate counting, recommended carbohydrate intake for meals and snacks, portion sizes, nutrition label reading and exercise guidance. In addition, downloadable PDFs listing portion sizes for various food groups are available. An “Ask the Expert” link allows users to contact a Certified Diabetes Educator (CDE) with nutrition questions via email. This course can be used in place of a conventional face-to-face diabetes class or as a supplement to traditional education methods.



## **OBSTETRICAL DIABETES CARE TEAM**

Left to right: Laura Sanders, RD, Mary Kate Clarkson, PharmD, BCACP, CDCES, Nafisa Dajani, MD, Brooke Keathley, APRN, CDE, Andrea Tappe, RD, CDE

# CASE MANAGEMENT



## ARKANSAS FETAL DIAGNOSIS & MGMT

The Arkansas Fetal Diagnosis and Management (AFDM) program at UAMS provides comprehensive medical care and support to pregnant women and their families that are diagnosed with congenital anomalies or genetic abnormalities. The AFDM team, in collaboration with a multidisciplinary team of pediatric specialists, provides a family-centered and complete plan of care for mother and baby for the best possible outcomes.

**NEW CASES ADMITTED**

**442**

**LIVE DELIVERIES AT UAMS**

**289**

**PRENATAL CONSULTATIONS**

**468**

### **AFDM TEAM**

Nafisa Dajani, MD  
Pat Magann, MD  
Adam Sandlin, MD  
Sara Peebles, MD

### **AFDM GENETICS TEAM**

Shannon Lewis, RN, BSN  
Shannon Barringer, MS, CGC  
Hyelim Kim, MS, CGC  
Noelle Danylchuck, MS, CGC  
Lindsay Ouzts, MS

# MFM TEAM



Everett Magann, MD



Nafisa Dajani, MD



Adam Sandlin, MD



# MFM FELLOWS



Dayna Whitcombe, MD



Taylor Ghahremani, MD



Michael Wendel, MD

*"Life is a flame that is always  
burning itself out, but it catches fire  
again every time a child is born."*

*— George Bernard Shaw*



# PATIENT'S STORY

Morgan Maxwell is a mother of five children, all under the age of five, including twins Kasen and Kohen, born on January 4, 2023. During her pregnancy, Morgan was referred to the High-Risk Pregnancy Program by her OB-GYN, Kenneth West, M.D., when it was discovered that she was having monochorionic diamniotic twins, meaning the twins shared the same placenta.

Throughout her pregnancy, the High-Risk Pregnancy Program provided Morgan with exceptional guidance and care. She expressed her gratitude, saying, "They were very informative and very helpful through my whole journey. This was new to me; I never had a high-risk pregnancy before, and they made me feel very comfortable and well taken care of."

Living in Taylor, Arkansas, Morgan traveled to UAMS in Little Rock once a week for ultrasounds to monitor factors like placenta fluid levels and pulmonary artery health. At 21 weeks, she received a diagnosis of twin-twin transfusion syndrome, twin anemia-polycythemia sequence and selective intrauterine growth restriction. The condition rapidly progressed from stage 1 to stage 3 within five days. As a result, she was sent to Houston, Texas, for procedures to separate blood vessels and provide one of the twins with a blood transfusion.

At 34 weeks, Morgan began experiencing contractions and immediately contacted the High-Risk Pregnancy Program. In response, she was instructed to travel to UAMS in Little Rock, where she gave birth to her twins via cesarean section. The newborns weighed 4 pounds, 1 ounce and 4 pounds, 8 ounces at the time of their birth and spent 13 days in the NICU. Despite the challenging experience, Morgan shared that her twins are now "thriving" and have grown significantly in weight. The twins now weigh 14 pounds and 17 pounds.

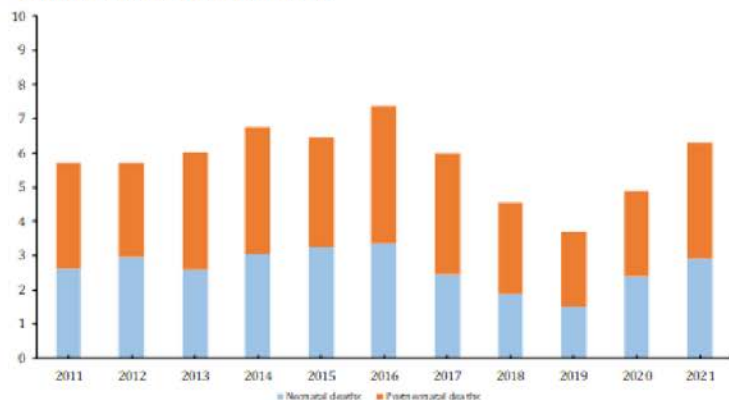
"It was a scary experience," Morgan admitted when reflecting on her journey. "All of my babies have been term. I never had any issues before. Then we had to do surgery and a C-section. I never had to do a C-section before... and then the NICU experience — it was just all a roller coaster."



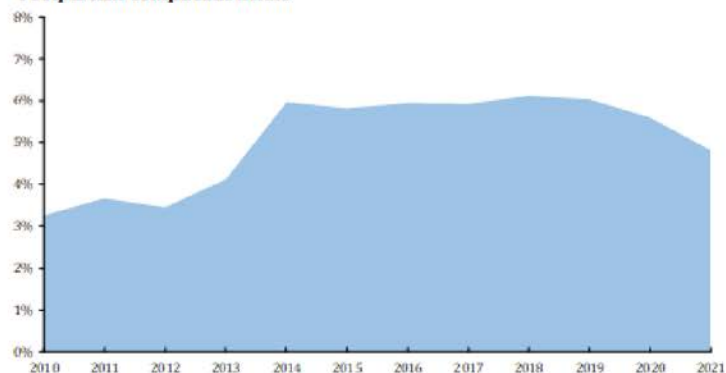
# EVALUATION AND RESEARCH

To evaluate the UAMS High-Risk Pregnancy Program (HRPP) and determine its effect on Arkansas mothers, babies and the health-care system, the Evaluation and Research Team created the HRPP Database, a linked database comprised of data from the Arkansas Department of Human Services (DHS) and the Arkansas Department of Health (ADH). The DHS data includes health-care claims records for mothers and babies covered by the Arkansas Medicaid program. The ADH data includes information from birth certificate records, death certificate records, fetal certificate records and data from the hospital discharge data system (HDDS). The HRPP Database is updated each year, with new files coming in from the DHS and the ADH. For babies covered by the Arkansas Medicaid program, data is now available up to the first half of state fiscal year 2020 (SFY2020). For mothers covered by the Arkansas Medicaid program, the most current data available is through the first half of SFY2021. Using the HRPP Database, the Evaluation and Research Team develops and updates dashboards comprised of standard metrics for mothers and babies. Furthermore, trends are assessed across SFYs for the various maternal and infant metrics. The Evaluation and Research Team also surveys health-care providers throughout the state that have used HRPP services to evaluate if they found value in the program.

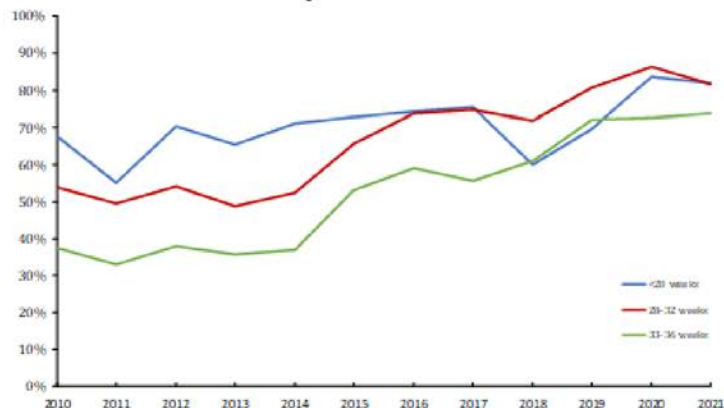
**Infant Deaths Per Thousand Births**



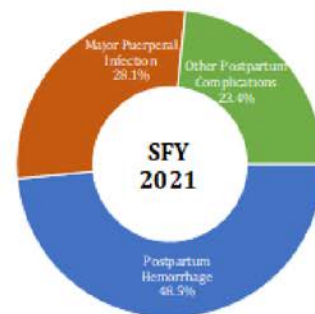
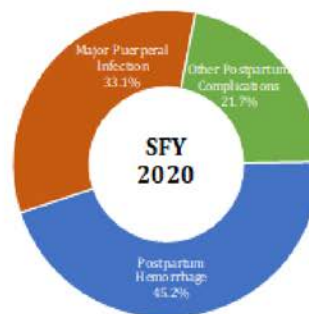
**Postpartum Complication Rate**



**Preterm Births Delivered in Hospitals with NICU**



**Postpartum Complications**



The infant mortality rate in Arkansas' Medicaid-covered population has consistently decreased in the years following the implementation of the HRPP in SFY2002 when infant deaths were recorded at 9.8 deaths per one thousand live births. Over the last decade, the rate has fluctuated between 7.4 infant deaths per 1,000 live births in SFY2016, the highest rate in the period following the implementation of the HRPP, to a low of 4.5 infant deaths per 1,000 live births in SFY2018. The most current data recorded a rate of 4.8 deaths per 1,000 live births during SFY2020. The Evaluation and Research team utilizes infant metrics to track preterm deliveries that occur in hospitals with a neonatal intensive care unit (NICU). Data from the last full state fiscal year (SFY2020) shows that 75% of preterm babies born at less than 36 weeks of gestation were delivered at hospitals with NICU facilities. The percent of babies born at hospitals with NICU facilities at less than 28 weeks of gestation, 28 to 32 weeks of gestation, and 33 to 36 weeks of gestation was 83.6%, 86.3% and 72.6%, respectively.

The rate of postpartum complications in Medicaid deliveries has fluctuated since the implementation of the HRPP; however, the rate has been relatively stable at nearly 6% over the last decade. The lowest rate registered was 3.2% in SFY2010. The rate currently stands at 5.6% in SFY2020. Postpartum hemorrhage continues to be the leading contributor to postpartum complications, with 45% of the total complications attributed to this category in both SFY2020 and the first half of SFY2021. In response to this issue, POWER continues to work with hospital teams to address barriers to evidence-based practice and to decrease maternal morbidity and mortality in Arkansas through the implementation of maternal safety bundles.

The HRPP Evaluation and Research Team continually gathers patient satisfaction data to inform their quality assurance program by surveying those patients who receive telehealth consultations. A total of 106 patients participated in the survey between November 2022 and May 2023. Survey respondents rated their telehealth providers very highly, with an average score of 9.21 on a scale of 10. The telehealth visit experience received a slightly higher score of 9.41 out of 10. Most patients (95%) reported that they were happy with their telehealth appointment. Similarly, 95% of the survey respondents felt that their telehealth providers were effective in communicating information in a way that was easy for them to understand. A majority of respondents (81%) reported that scheduling their telehealth appointment was easy.

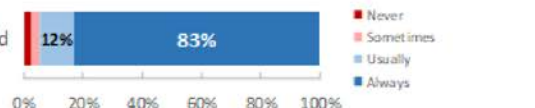
Telehealth is a convenient option for patients as it enables them to receive medical care without having to travel far from their homes. In addition to saving time, it also helps to reduce travel expenses. According to the survey, 62% of the patients that participated in telehealth appointments reported having to travel less than 30 miles, with 17% of those reporting no travel at all. Nearly half of all respondents (48%) reported having to travel more than 70 miles if there were no telehealth services available. When asked “Why do you like your telehealth appointment”, 48% indicated that they were not required to travel far for their appointment, 6% said “I could see the same provider when I delivered my baby”, and 5% said they did not have to find someone to take care of their children. If telehealth was not an available option, 65% of respondents reported it would have cost them more than \$75, with 43% of respondents having to spend more than \$150 per visit.

## Overall Telehealth Satisfaction

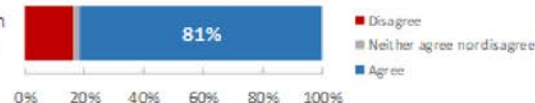
On a scale of 0 (worst) to 10 (best), how would you rate this telehealth visit and provider?



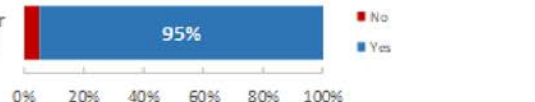
How often did your provider explain things in a way you could understand?



Scheduling my telehealth appointment was easy.

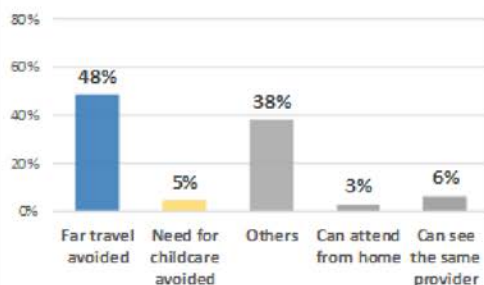


Were you happy with your telehealth appointment?



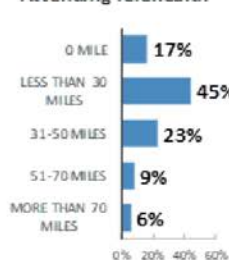
## Benefits of Telehealth

Why did you like your telehealth appointment?

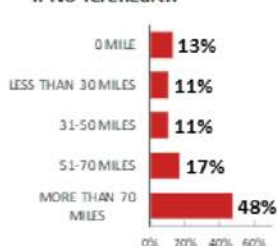


Travel Distance

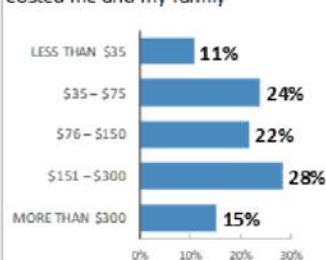
Attending Telehealth



If No Telehealth



If no telehealth, it would have costed me and my family



In summary, the patients expressed great satisfaction with HRPP telehealth services, giving high ratings to both the providers and the telehealth visits. This reflects the high quality of HRPP telehealth services that we continue to offer across Arkansas to women who have a high-risk pregnancy.



# PROVIDER'S STORY

Kenneth West, M.D., an OB-GYN, chose this medical specialty due to its diverse nature, offering a variety of experiences each day. “One day you’re an obstetrician,” West explained, “the next day you’re a surgeon; third day you can do infertility; fourth day you’re a clinic doctor and mix and match as you like. So, it’s never really boring. It just takes your creativity to take you into new avenues.” West began his medical journey at UAMS in 1992, where he delivered his first child during his junior year. He still keeps a picture of the newborn in his office.

During his time at UAMS, West had the opportunity to work with Terri Imus, the current IDHI clinical director, who was a labor and delivery nurse back then, along with Curtis Lowery, M.D., the former director, who started the High-Risk Pregnancy Program (then known as ANGELS).

Currently, West practices at The Women's Specialists of Texarkana, a clinic he co-founded in 2004 with Sudheer Jayaprabhu, M.D., another UAMS graduate. Since its inception, West has been utilizing the High-Risk Pregnancy Program extensively stating, “I send lots of patients down for maternal-fetal medicine evaluation, level 2 ultrasounds, things of that nature; and they’re good about going through that and getting back with me.” He appreciates the convenience of consulting with the maternal-fetal medicine team, even during late hours, and has explored various aspects of the program, including diabetic education, multiple gestations and maternal-fetal cardiac issues.

For West's patients, one of the program's biggest benefits is the reduction in the need for travel to receive specialized care. "They can get access to that care without having to travel," he noted. "The ability to refer a patient to the program, and [then] the program arranges ultrasounds, looks for anomalies and continues to track growth throughout the pregnancy, is a great asset for the overall care of the clinic's patients." West expresses his admiration for the High-Risk Pregnancy Program, describing it as "access to excellent care at your fingertips."



# LEADERSHIP

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High-Risk Pregnancy Program

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