# HIGH-RISK PREGNANCY PROGRAM **ANNUAL REPORT 2023-24**

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## **Leadership Letter**

Dear Colleagues and Partners,

I am proud to present the annual report for the Institute for Digital Health and Innovation's High-Risk Pregnancy Program (HRPP). Our commitment to enhancing healthcare through innovative education, comprehensive support, and dedicated outreach has once again been validated by our collective achievements.

This year has been marked by significant strides in expanding our educational offerings and improving patient care across Arkansas. Our Education and Support programs have continued to grow, with our online platforms LearnOnDemand.uams.edu and PatientsLearn.uams.edu reaching a broad audience of healthcare professionals and patients alike. These platforms have proven invaluable, providing accessible, high-quality education around the clock. Through personalized simulations, drills, and targeted training, we have supported healthcare professionals in all 75 counties of Arkansas.

Our Guidelines for Best Practices have seen increased utilization, with more than 3,400 healthcare providers across 69 counties benefiting from this critical resource. The broad adoption of our guidelines in all 50 states and 40 countries underscores their importance in improving clinical decision-making and patient outcomes.

The HRPP's outreach efforts, particularly through the POWER team, have had a profound impact. Our initiatives in maternal safety, including the implementation of safety bundles and advanced fetal heart monitoring courses, have been instrumental in enhancing maternal and neonatal outcomes. The workshops, simulations, and consultations provided have equipped healthcare providers with essential tools to handle emergencies and improve patient care.

The Women's Mental Health Program and the Obstetrical Diabetes Care Team have made significant contributions to addressing complex health needs, providing specialized care and support for mental health and diabetes management during pregnancy. These programs exemplify our dedication to addressing both physical and mental health challenges to improve overall outcomes for mothers and babies.



As we look forward to the coming year, we remain steadfast in our mission to enhance healthcare across Arkansas through innovation, education, and compassionate care. Our ongoing efforts to evaluate and research the impact of our programs ensure that we continually refine and improve our services to meet the evolving needs of our community.

Thank you for your unwavering support and dedication. Together, we are making a difference in the lives of countless individuals and families across Arkansas and beyond.

Sincerely,

 $\boldsymbol{\Lambda}$ 

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



### **Program Overview**



## **Education & Support**

The IDHI Education team designs engaging and innovative learning activities tailored to the needs of today's busy health care professionals. IDHI offers two online educational platforms: LearnOnDemand.uams.edu and PatientsLearn.uams.edu. LearnOnDemand provides continuing education across a range of health topics for professionals, while PatientsLearn delivers patient-focused education. Both platforms are accessible 24/7, allowing learners to progress at their own pace from any internet-enabled device. Onsite educational offerings include personalized simulations, drills, training courses and conferences. Health care professionals across all 75 counties in Arkansas benefit from the educational resources developed by the IDHI Education team.

|   | 2022-2023 | 2023-2024 |
|---|-----------|-----------|
| CE Hours Awarded  | 4293.75   | 4,156     |
| Live Virtual Conferences and Events                         | 200       | 181       |
| Live and Archived Education Modules on<br>LearnOnDemand.org | 278       | 212       |
| Other Live and Archived Videos or<br>Modules                | 910       | 921       |

#### CONTINUING EDUCATION

#### HEALTH CARE PROVIDER ACTIVITY

|                                      | 2022-2023 | 2023-2024 |
|--------------------------------------|-----------|-----------|
| Attended Live Events                 | 6, 815    | 6,091     |
| Completed Enduring Materials         | 29,138    | 39,523    |
| Accessed High-Risk Obstetrics (HROB) | 2,534     | 2,159     |
| Modules                              |           |           |

NEW LEARNONDEMAND.UAMS.EDU USERS



TOTAL LEARNONDEMAND USERS





**Education & Support** 

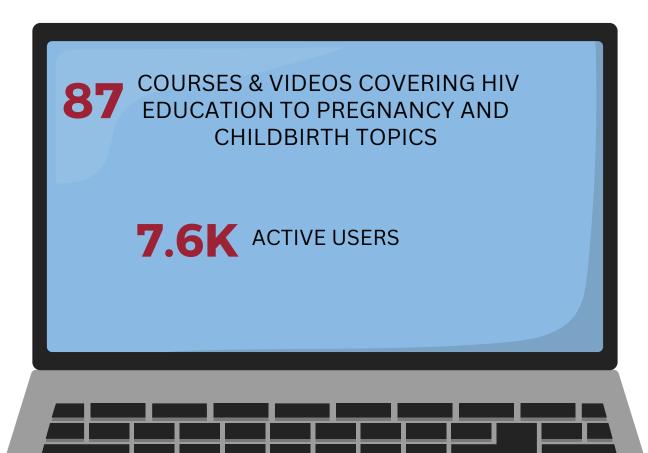
#### TOP 5 HROB MODULES ACCESSED

| 2022-2023  | 2023-2024  |
|--|--|
| Basic Fetal Heart Monitoring                             | Key Strategies for Improving Culture of Care<br>for Cesarean Reduction                       |
| Addiction During Pregnancy                               | Key Strategies for Supporting Intended<br>Vaginal Births and Managing Labor<br>Abnormalities |
| OB Emergency Simulation Lecture                          | Practicing Via Televideo: Practical and<br>Mindset Tips for Clinicians                       |
| UAMS Milk Bank   | HIV 104: Case Management   |
| Baby Boot Camp Basic Training: Screenings & Hypoglycemia | 2024 Basic Fetal Heart Monitoring  |

#### Technology

Patientslearn.uams.edu is an educational web portal that offers course modules designed to help patients learn how to manage their illnesses and conditions. The portal offers education on a variety of health topics, including women's health, high-risk pregnancy, pediatrics, and primary care.

### MOST VIEWED CONTENT - PREGNANCY AND CHILDBIRTH RESOURCES



## Guidelines for Best Practices

As an educational strategy and consensus approach to improve practice and reduce disparities in health care delivery, the guidelines 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.

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.

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. This collaborative effort enables urban and rural Arkansas providers to participate in guideline development and improvement.

More than 3,400 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 and Washington, D.C., in addition to 40 other countries.

- PRELABOR RUPTURE OF MEMBRANES
- CONGENITAL SYPHILIS
- RED CELL ALLOIMMUNIZATION (RH ISOIMMUNIZATION)
- BREASTFEEDING
- LABOR INDUCTION/AUGMENTATION

THIS YEAR'S MOST FREQUENTLY VIEWED GUIDELINES INCLUDE:

- HYPERTENSIVE DISORDERS OF
  PREGNANCY
- DIABETES IN PREGNANCY
- SYPHILIS
- PRETERM LABOR
- HYPERBILIRUBINEMIA IN THE NEWBORN INFANT 35 OR MORE WEEKS OF GESTATION



#### **QUICK FACTS ABOUT THE GUIDELINES**

Promote best practices for health care delivery in Arkansas based on national standards, scientific evidence and expert consensus.

Offer essential, readily accessible and wellorganized 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, mobilefriendly and freely available format that is available 24/7.



#### **GUIDELINE ACCESS**

- Website page views: 21,432
- 168 first-time health care professional visitors this year (128 from Arkansas)
- Guidelines have been accessed by registrants from 69 of 75 Arkansas counties.
- There are registrants from all 50 states and Washington, D.C., plus 40 countries.

#### **GUIDELINE OUTREACH EFFORTS**

Presented guidelines to 2,283 attendees, including physicians, advanced health care providers and medical students via in-person and virtual conferences.

Provided guideline website information directly to 814 providers representing 29 counties during classes and on-site training, and to 202 leadership attendees representing 21 counties during two statewide nursing leadership conferences.

Provided guideline updates during the High-Risk Obstetrics (HROB) and PedsPLACE teleconferences and weekly email promotion 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.



## Community Outreach Education

#### MATERNAL SAFETY BUNDLE OUTREACH

The POWER team travels across Arkansas, providing resources to support the implementation of maternal safety bundles in the state's 35 delivering hospitals. Research has demonstrated that implementing these safety bundles improves maternal outcomes and reduces maternal mortality and morbidity. The team offers support, educational opportunities, and materials to help hospitals effectively implement and maintain maternal safety bundles. Over the past year, POWER has collaborated with another key team on an initiative focused on improving primary cesarean section rates. This support is provided both in person and through monthly meetings aimed at assisting hospitals in implementing the Safe Reduction of Primary Cesarean Birth safety bundle from the Alliance for Innovation on Maternal Health (AIM). These efforts are expected to lead to successful implementation and continued use of maternal safety bundles, which research has shown to have a positive impact on maternal and neonatal outcomes. For more information on the work being done, please visit https://arpqc.org/ and https://idhi.uams.edu/high-risk-pregnancy-program/outreach/perinatal-outcomes-workgroup-education-and-research-power.



#### FETAL HEART MONITORING



The Association of Women's Health, Obstetrics 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 (FHM) courses to hospitals across the state. The courses convenient online and in-person formats are evidence based and provide essential tools for educating the entire team. Both courses use a case study approach to focus on the fetal-maternal oxygenation, interpretation of tracings and the selection of clinical interventions. Intermediate FHM is a hybrid course that requires each participant to complete online prerequisite education, followed by a one-day, in-person led class. During this course, participants will participate in didactic presentations and interactive case reviews, along with hands-on learning over perinatal procedures. Advanced FHM is offered quarterly via Zoom with an option to hold an in-person class if requested. The advanced course expands on the knowledge and physiological principals presented in the AWHONN intermediate EWeeks@uams.edu.

#### **COMMUNITY OUTREACH TEAM**

Dawn Brown, MSN, RNC-ONQS Angie Hunton, MNSc, RNC-OB Tina Pennington, MNSc, RNC-NIC Erin Weeks, BSN, CLC, RNC-EFM Lisa Engel, D.N.P.





#### **OB EMERGENCY SIMULATION DRILLS**

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 predicting when one might occur is not reliable. Practice and preparedness are the keys to saving lives and improving maternal and neonatal outcomes across the state. For more information or to schedule an interactive POWER OB Emergency Simulation Drill at your hospital, please email Lisa Engel at LEngel@uams.edu.

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, AWHONN developed the Obstetric Patient Safety (OPS): Obstetric Emergencies Workshop. The OPS workshop, provided by the POWER team, is designed to help nurses and providers identify, assess and manage 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 complete online learning modules and engage in live, hands-on, simulation learning during the workshop. The combination of these learning modalities assists providers in the caring for the perinatal population and reduces the risk of maternal injury and death. The new material boasts increased simulation experiences partnered with escape rooms and gamification. Information on how to schedule coming in 2024!





#### **NEONATAL RESUSCITATION PROGRAM (NRP)**



If you have ever given birth, assisted in the delivery or 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. 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, NRP® 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. Simulation focus is on clinical leadership, closed-loop communication techniques and team building exercises.

Clinical Services Manager Tina Pennington, MNSc, RNC-NIC, travels the state, providing classes to the hospitals that do not have in-house instructors to complete the skill portion (part 2). Tina brings her 29 years of nursing 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. Having the class in-situ (at the site) allows the clinician to gain experience with their own equipment and know where needed items are located on their unit. This means UAMS comes to you for this check-off.

For further information or to schedule a class at your facility, contact Tina Pennington at penningtontinac@uams.edu.



FY 2023-2024: 202 Health care professionals received NRP training. Tina taught 19 classes with an average class size of 6 students. Ten hospitals/groups requested training:

| FACILITY OR GROUP  | COUNTY       | ATTENDANCE | NURSES | M.D. | OTHER |
|--|--------------|------------|--------|------|-------|
| UAMS Regional Campuses – Jefferson<br>Regional Medical Center – Pine Bluff | Jefferson    | 38         | 0      | 38   | 0     |
| Conway Regional Health System – Conway                                     | Faulkner     | 73         | 59     | 0    | 14    |
| Drew Memorial Health System – Monticello                                   | Drew         | 19         | 11     | 0    | 8     |
| Ozark Health Center – Clinton  | Van Buren    | 27         | 20     | 1    | 6     |
| Johnson Regional Medical Center – Clarksville                              | Johnson      | 5          | 5      | 0    | 0     |
| Delta Memorial Medical Center – Dumas                                      | Desha        | 4          | 4      | 0    | 0     |
| Arkansas Methodist Medical Center – Paragould                              | Greene       | 16         | 15     | 1    | 0     |
| Little Rock Air Force Base   | Pulaski      | 3          | 2      | 1    | 0     |
| Ashley County Medical Center – Crossett                                    | Ashley       | 11         | 8      |      | 3     |
| UAMS – White River Medical Center – Batesville                             | Independence | 6          | 0      | 6    | 0     |
| Totals   |              | 202        | 124    | 47   | 31    |

Program information: https://www.aap.org/en/pedialink/neonatal-resuscitation-program/





#### THE STABLE PROGRAM

Based on a mnemonic to optimize learning, retention and recall of information, STABLE 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 communication and teamwork as well as the professional responsibility of evaluating care provided to sick infants, with the ultimate goal of improving future care.

Currently, STABLE is introducing its seventh edition, which will not only provide evidence-based updates but also changes in how the program will be taught. In the past, both New Provider classes and Renewal classes were taught by either local instructors or through a purchased online class. With the release of the seventh edition, STABLE will become a two-part series that will include an online class (directly through STABLE) called Foundations, and a second part, instructor-led class. The Foundations class will offer interactive videos, case studies, and a 2-year access to online resources that can be accessed during an emergent event. The instructor-led class will expand on the knowledge learned in part one through case studies and deeper dives into needed subjects. UAMS IDHI offered the instructor-led sixth edition class through March 2024, reaching 273 health care providers. Tina Pennington MNSc, RNC-NIC, the teacher/facilitator for the program, is looking forward to using the new format to provide a more interactive experience. For further information on The STABLE program, please contact Tina Pennington at penningtontinac@uams.edu or visit https://stableprogram.org/.









On November 15, 2023, Lisa Kane Low, Ph.D., CNM, FACNM, FAAN, delivered the talk "Dancing with Dystocia" to health care providers across Arkansas. The learning session, which addressed strategies for improving labor dystocia rates, was provided by the UAMS High-Risk Pregnancy Program POWER work group in partnership with the ARPQC.

Kane Low's talk focused on managing labor dystocia as part of an effort by the obstetrical initiatives in Michigan. The obstetrics initiative aims to safely reduce nulliparous term singleton vertex (NTSV) cesarean section rates, resulting in "reduced complications and improved health outcomes for families." Reducing NTSV cesarean birth is part of a two-year ARPQC and POWER team collaboration.

This work is part of a two-year collaborative initiative that started in July 2023 under the lead of ARPQC and POWER teams and is focused on improving primary cesarean rates across Arkansas delivering hospitals.







#### SPRING POWER WORKSHOP - APRIL 24, 2024

More than 96 front-line caregivers from hospitals across Arkansas came together in Little Rock on April 24 to attend a workshop on improving perinatal care. An additional 24 participants also attended the workshop virtually.

The all-day workshop, held on the second floor of the I. Dodd Wilson Education Building on the UAMS Little Rock campus, was a partnership between UAMS, ARPQC and POWER.

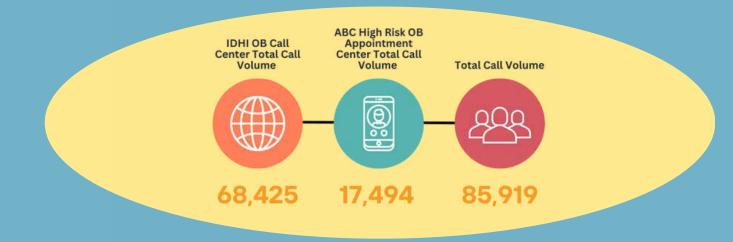
Workshop activities included presentations from national experts on evidence-based labor induction protocols and intermittent auscultation, a technique that counts fetal heartbeats during labor. Breakout sessions provided lectures and direct participation, including a newborn emergency "escape room" demonstration as a refresher for front-line workers. Other sessions focused on maternal health data and racial disparities in postpartum care, along with a cheat sheet on many warning signs of postpartum complications. Large blackboards in the hallway allowed attendees to share any barriers to implementing change and successes in their quality work journey.

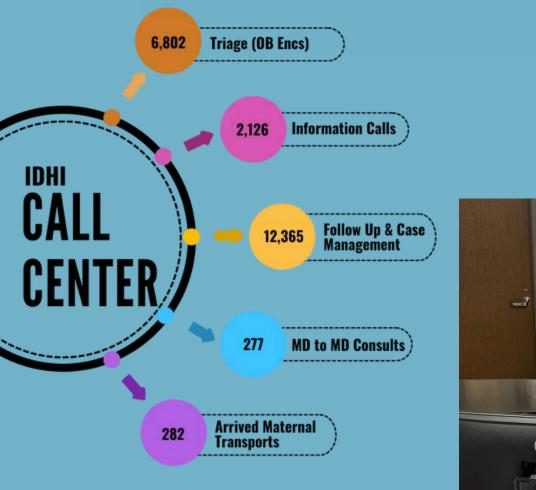




### **Call Center**

The IDHI Call Center facilitates a high volume of calls. The call center is staffed 24/7 with trained, competent and caring professionals. These calls regard referrals to the Maternal Fetal Medicine team, professional nurse triage of obstetric patient concerns and requests for transfer of patients to UAMS for high-risk obstetrical care. 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 and reminders for upcoming appointments and tests. Procedures and processes are frequently reviewed to maintain the most up-to-date care. Perinatal bereavement follow-up is also an important part of the case management program.

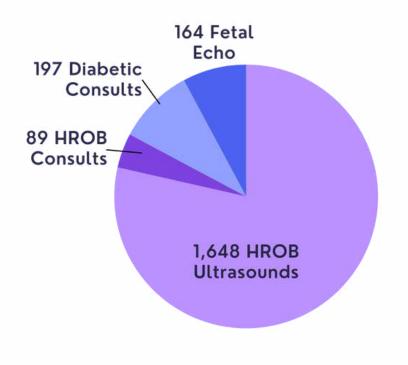






## TELEMEDICINE NETWORK & CLINICS

In Arkansas, where 73 out of 75 counties are classified as fully or partially medically underserved, the High-Risk Pregnancy Program facilitates statewide access to maternal-fetal medicine specialists and a comprehensive high-risk obstetrical health care team. Arkansas health care providers refer patients requiring high-risk obstetrical management or co-management virtually, allowing these patients to stay within their communities. This approach minimizes travel and reduces work time lost while ensuring patients receive necessary care. Patients receive case management for additional care coordination as required, aiming to optimize outcomes.



**7.8%** 164 Fetal Echo

9.4% 9.4% 197 Diabetic Consults

4.2% 89 HROB Consults

78.6% 1,648 HROB Ultrasounds

### Total: 2,098

### **Digital Health in the Nursery**

Whit Hall, M.D., a professor of neonatology at the UAMS College of Medicine, conducts virtual census rounds three times weekly, spanning 26 nursery sites throughout Arkansas. These sessions encompass consultations in neonatology and subspecialties, coordination of patient transfers, follow-up on neonatal and maternal transports, as well as collaborative educational efforts.



VIRTUAL ROUNDING EVENTS



TOTAL Participants



BACK TRANSPORTS FROM UAMS TO REFERRING HOSPITAL



#### **TELENURSERY SITES**

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



### Women's Mental Health Program

The Women's Mental Health Program (WMHP) at the UAMS Psychiatric Research Institute provides specialized psychiatric evaluation and medication management for pregnant and postpartum individuals 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 preconception through the postpartum period. Comprehensive clinical care complements the integration of both clinical education and research across multiple disciplines within the program. The WMHP aims to improve both obstetrical and neonatal outcomes for parents with mental illness and their children.



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 within central Arkansas -the UAMS Women's Clinic, where co-located psychiatric care is offered to women receiving obstetrical care through the UAMS system, and the Psychiatric Research Institute. At the institute, Ray-Griffith and Williams provide outpatient psychiatric services not only to individuals receiving obstetrical care within the UAMS Health system, but also throughout the state of Arkansas. To better serve pregnant and postpartum individuals, digital health appointments are available at the institute, in accordance with Arkansas telemedicine laws. Jessica Coker, M.D., oversees the Women's Inpatient Unit, a 10-bed inpatient unit that provides acute psychiatric care, and provides digital health consultation services with providers. The High Risk Pregnancy Program Call Center serves as a primary source of referrals to the WMHP and the WMHP receives referrals from across the state.

The WMHP provides comprehensive evaluations and individualized treatment plans for pregnant and postpartum individuals with psychiatric illnesses, including substance use disorders and behavioral addictions. 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. Inpatient psychiatric services are also available for individuals who need acute management of psychiatric illnesses and detoxification from illicit or licit substances.

Beginning in the summer of 2024, the WMHP is expanding its clinical and educational services to include a reproductive psychiatry fellowship. Over a 12-month period, fellows will learn to optimize medical management during the peripartum period to improve the health and well-being of patients with psychiatric disorders.

### **Women's Mental Health Program**



1,858

**TOTAL VISITS** 



**TOTAL CONSULTS** 

39

**TOTAL CALLS** 

WMHP Faculty and Staff Jessica Coker, M.D., Psychiatrist (pictured above) Shona Ray-Griffith, M.D., Psychiatrist Hannah Williams, M.D., Psychiatrist Erin Jefferson, M.D., Instructor Tracey Carey, MSN, RN, Clinical Services Manager Cyndi Vent, Peer Support Specialist

"Mental health conditions, such as suicide and drug overdoses, are leading causes of maternal mortality within the United States. The clinical expertise of the Women's Mental Health Program, complemented by their inpatient and outpatient services, provide the perinatal population of Arkansas with tools to address mental health. By providing clinical consultation to providers throughout Arkansas, expansion of educational opportunities, and use of digital health; the WMHP aims to address maternal mortality and morbidity throughout the state."

Shona Ray-Griffith, M.D.

### **Diabetes Care in Pregnancy**

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, since December 2014. This certification ensures that diabetes education provided to patients complies with comprehensive national standards. The program includes a group-setting diabetes education class taught in person or virtually weekly in both English and Spanish. In the past 12-month reporting period, 305 women with diabetes were managed by UAMS Health Women's Center: 3.9% with type 1 diabetes, 30.9% with type 2 diabetes, 64.9% with gestational diabetes and 0.3% with other forms of diabetes.

#### **Digital Health Consultations**

If time or travel restrictions prohibit a patient's drive to the Women's Center, patients can receive individualized diabetes education and monitoring via the IDHI High-Risk Telemedicine Clinic. This option for comanagement ensures that 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.

> **113** 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    | TYPE 2 DIABETES    |
|--------------------|--------------------|
| N = 12             | N = 94             |
| Mean 1st trimester | Mean 1st trimester |
| HgA1C              | HgA1C              |
| 8.76%              | 8.14%              |
| Mean 2nd trimester | Mean 2nd trimester |
| HgA1C              | HgA1C              |
| 7.04%              | 6.72%              |
| Mean 3rd trimester | Mean 3rd trimester |
| HgA1C              | HgA1C              |
| 6.96%              | 6.66%              |



### **Diabetes Care in Pregnancy**

The WIN program is an online, self-directed curriculum designed by the UAMS Obstetrical Diabetes Care Team which includes a maternal-fetal-medicine specialist, a clinical pharmacist, an advanced practice nurse and two registered dieticians. 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 conventional face-to-face diabetes class or as a supplement of traditional education methods.



#### **UAMS Obstetrical Diabetes Care Team**

Nafisa Dajani, M.D., Program Director (**pictured above**) Mary Kate Clarkson, Pharm.D., BCACP, CDCES, Program Coordinator Brooke Keathley, APRN, CDE Andrea Tappe, RD, LD, CDE Laura Sanders, MS, RD, LD



## CASE MANAGEMENT

#### Arkansas Fetal Diagnosis and Management Team

The Arkansas Fetal Diagnosis and Management (AFDM) program at UAMS offers extensive medical care and assistance to expectant mothers and their families facing diagnoses of congenital anomalies or genetic abnormalities. Working closely with a diverse team of pediatric specialists, the AFDM team develops a holistic care strategy centered around the family, ensuring optimal outcomes for both mother and baby.



#### AFDM TEAM

NAFISA DAJANI, M.D. PAT MAGANN, M.D. ADAM SANDLIN, M.D. DAYNA WHITCOMBE, M.D. JOSEPH FIXLER, M.D. SARA PEEPLES, M.D.

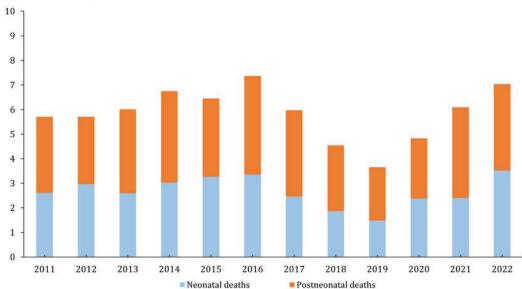
#### **GENETICS TEAM**

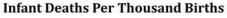
SHANNON LEWIS, RN, BSN SHANNON BARRINGER, MS, CGC HYELIM KIM, MS, CGC NOELLE DANYLCHUCK, MS, CGC

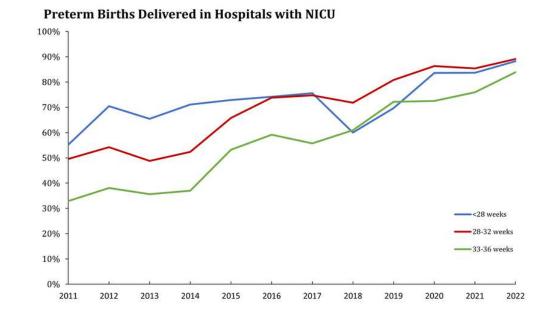
## **Evaluation & Research**

With an aim 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 Humans 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 database is updated each year, with new files coming in from DHS and ADH. For babies covered by the Arkansas Medicaid program, data is now available up to the first half of state fiscal year 2021 (SFY2021). For mothers covered by the Arkansas Medicaid program, the most current data available is through the first half of SFY2022. 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 had used HRPP services to evaluate if they found value in the program.

The infant mortality rate in the Arkansas' Medicaid-covered population has consistently been lower in the years following the implementation of the HRPP in SFY2002, when there were 9.8 infant deaths per 1,000 live births. The highest rate in the period following the implementation of the HRPP has been in SFY2016, at 7.4 infant deaths per 1,000 live births. The rate has been steadily decreasing since then, and the most current data showed a rate of 6.1 deaths per 1,000 live births during SFY2021.



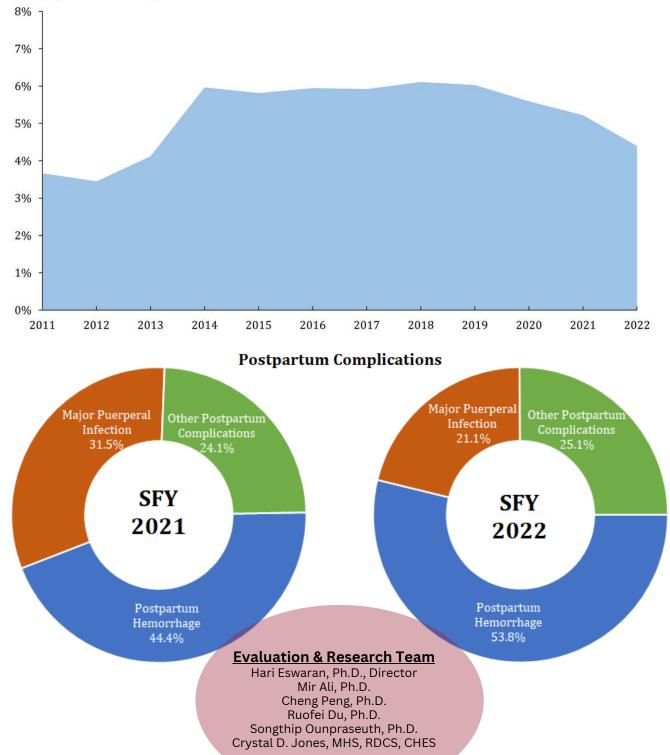




#### The Evaluation and Research Team also utilized infant metrics to track preterm deliveries that occur in hospitals with a neonatal intensive care unit (NICU). Data from the last full vear (SFY2021) shows that deliveries of preterm babies occurred at hospitals with NICU facilities for 77% of babies that were born at less than 36 weeks of gestation. The data shows that deliveries for 83.7%, 85.4% and 75.9% of babies born at less than 28 weeks of gestation, 28 to 32 weeks of gestations, and 33 to 36 weeks of gestation occurred at hospitals with NICU facilities respectively.

### **Evaluation & Research**

The rate of postpartum complications in Medicaid deliveries was 7.2% in SFY2002, and currently stands at 5.2% during the last full year of data (SFY2021). The rate has been relatively stable at nearly 6% over the last decade. Postpartum hemorrhage continues to be the leading contributor to postpartum complications, with nearly 45% of the total complications attributed to this category in SFY2021 and nearly 54% in the first half of SFY2022. 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 implementation of maternal safety bundles.



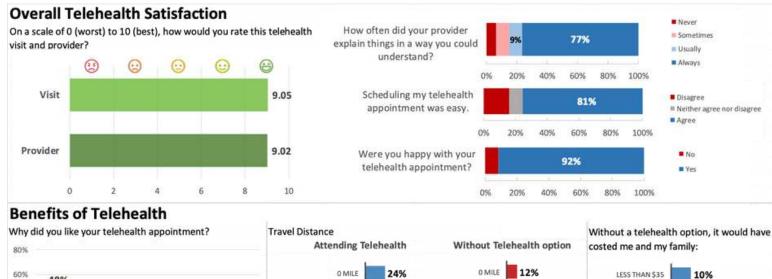
#### **Postpartum Complication Rate**

## **Evaluation & Research**

The HRPP Evaluation and Research Team continually gathers patient satisfaction data to inform our quality assurance program. Patients that receive telehealth consultations are surveyed, and 106 patients participated in the survey between November 2023 and May 2024. Survey respondents rated their telehealth providers very highly, with an average score of 9.02 on a scale of 10. The telehealth visit experience received a slightly higher score of 9.05 out of 10. Most patients (92%) reported that they were happy with their telehealth appointment. More than 85% 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, 58% of the patients that participated in telehealth appointments reported having to travel less than 30 miles, with 24% of those reporting no travel at all. More than half of all respondents (54%) 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 13% said that they did not have to find someone to take care of their children. If telehealth was not an available option, 65% of respondents reported that it would have cost them more than \$75, with 31% of respondents having to spend more than \$150 per visit.

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 to high-risk pregnancy women across Arkansas.



34%

21%

10%

10%

0% 20% 40% 60%

LESS THAN 30 MILES

31-50 MILES

51-70 MILES

MORE THAN 70

MILES

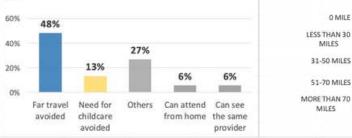
12%

15%

0% 20% 40% 60%

54%

8%





\$35-\$75

\$76-\$150

\$151-\$300

MORE THAN \$300

24%

21%

10%

0% 10% 20% 30% 40%

34%

### **Patient Story**

### Berneshia Rives

Pictured are Berneshia's twins Ermias (left) and Ezrin (right)

Berneshia Rives, a 30-year-old mother of three, resides in Texarkana, AR. At the time of our conversation, her youngest child was only three days old and still in the NICU. Berneshia's new baby girl, named Trulynee, was born on Sunday, August 4th. While her brothers haven't had the chance to meet their new sister yet due to NICU visitation restrictions for children under three, Berneshia remains optimistic about her family's adjustment. "So far, so good," she said, although she notes that she's hoping Trulynee will be able to go home before her projected discharge date of October 3rd.

Berneshia first discovered her pregnancy was high-risk during her 2017 pregnancy when she was diagnosed with type 2 diabetes. This diagnosis, along with chronic hyperplasia, marked her pregnancy as high-risk. "I lost children before I was able to have children," she shared. Despite these challenges, she found hope in her growing family.

When asked about her experience with the UAMS High-Risk Pregnancy Program, Berneshia describes a mixed journey. When first enrolled in the program during the COVID-19 pandemic in 2020, she felt unattended. However, by 2022 and 2024, she found the support provided by the program to be exceptional. "The doctors have been phenomenal," she noted.

Although Berneshia's baby is still in the NICU, she appreciates that post-delivery appointments for both her and Trulynee have been scheduled. "The hospital has arranged them for me. I believe the follow-up will be within a week or two after Trulynee is discharged." Berneshia said she would definitely recommend the High-Risk Pregnancy Program to others and when asked about future plans, she said her plans are to just love on her family.



BERNESHIA WITH TRULYNEE



## **Provider Story**

Angela Graves, APRN, WHNP-MNSC, is a dedicated and experienced women's health nurse practitioner. She has been with Genesis PrimeCare in Texarkana, AR, since 2020. Prior to that, she worked with the UAMS High-Risk Pregnancy Program (formerly known as ANGELS) from 2006 to 2020. Graves completed her Associate Degree in Nursing (ADN) in Texarkana in 1990 and obtained her Master's in Nursing from UAMS in 2004. She became credentialed in women's health in 2005 and began working with the High-Risk Pregnancy Program in 2006.

"When I was at UAMS," Graves recalls, "ANGELS hadn't really been up and going very long, maybe five years or so, and through Dr. Lowry - that's when he started the whole telemedicine program throughout Arkansas - at that point is when we were able to reach people in the Delta in Arkansas." Upon moving to Texarkana, Graves noticed a lack of maternal-fetal medicine (MFM) care and drew heavily on her experience with the MFM team at the UAMS High-Risk Pregnancy Program. "It gives me great access to the patients that I care for," she explained.

The demographics of Little Rock and Texarkana are similar, and at Genesis PrimeCare, 80% to 90% of Graves's patients are high-risk obstetric women. She relies on the High-Risk Pregnancy Program to manage these cases. "I'm able and I have the resources to give those patients the same care that they would get or close to the same care they would get if they were being seen at UAMS," said Graves. Graves utilizes the program every day she is in the office. Recently, she encountered a "very high-risk" patient and decided, "I'm going to have to transfer your care to UAMS." The patient was agreeable to this, as she resides in Magnolia.

Graves hopes that UAMS will eventually have staff available in Texarkana, although she considers the nearby telemedicine options to be "perfect." She acknowledges that while local care is a disadvantage due to the lack of MFM expertise, patients still receive a level of care.

"Listen, I love those people! I am so grateful for the UAMS MFM program," Graves said. She's worked with longstanding UAMS MFM specialists for years: Drs. Whitcombe, Dajani, Magann, and Wendell to name a few. "I love, I just, I cannot express the gratitude for the UAMS MFM [program], what they taught me," Graves continued. "I mean, I could not take care of the patients that I take care of here in Texarkana without their guidance and education. To this day, I miss that group tremendously, but I am grateful to have them as a resource for my patients that I see."

### Angela Graves, APRN, WHNP-MNSC



### **Program Leadership**

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