

UAMS High-Risk Pregnancy Program

2021-22 Annual Report

"Sometimes... the smallest things take up the most space in your heart."


A.A. Milne





UAMS | Institute for Digital
Health & Innovation

High-Risk Pregnancy Program



From the Director



As the pandemic continues to affect us all, and the number of COVID-19 positive cases fluctuate, digital health continues to be a lifesaver and solution to many, especially high-risk pregnant mothers and the practitioners who provide their care. We've continued to pivot and adjust as necessary through the public health emergency, masking policies, best practices and all other recommendations that have accompanied the pandemic. During a lull in COVID-19 cases this spring, we were able to host a hybrid event, the 2022 Spring POWER Workshop, where attendees participated virtually and in-person. Our education team continues to create high-risk obstetrics (HROB) modules and host continuing education events that benefit providers across the state and beyond. The outreach team continues to support women's health, obstetric, and neonatal professionals across the state by offering obstetrics (OB) simulation drills, neonatal resuscitation courses, maternal safety bundles and teaching the STABLE program.

All our programs support the overall goals of promoting positive outcomes for pregnant mothers and their babies. To highlight but a few:

- Our Call Center continues to be a major hub of support and communication. Throughout the year, the Call Center received 127,595 calls, which resulted in 223 emergency care visits being avoided.
- Our telemedicine network continues to support the specific needs of high-risk pregnancies and postpartum women via genetic consults, mental health services and diabetes management care for hyperglycemia during pregnancy.
- The Arkansas Fetal Diagnosis and Management team utilizes a multidisciplinary approach to provide comprehensive care throughout the pregnancies of admitted cases, and the Evaluation and Research team provides invaluable feedback to the High-Risk Pregnancy Program.

Although 2022 has continued to bring challenges, I am proud of our team and our partners for coming together and keeping the bar high for the level of support and care this program provides - something we've been able to maintain for over 20 years. We've come far, but we're not done working as we strive to improve the health and wellness of Arkansans in every corner of the state.

Sincerely,

A handwritten signature in black ink, appearing to read 'JAS', is positioned to the left of the printed name.

Joseph A. Sanford Jr., M.D.

Director, Institute for Digital Health & Innovation

Joseph A. Sanford Jr, MD
Director
Institute for Digital Health & Information



High-Risk Pregnancy Program Overview

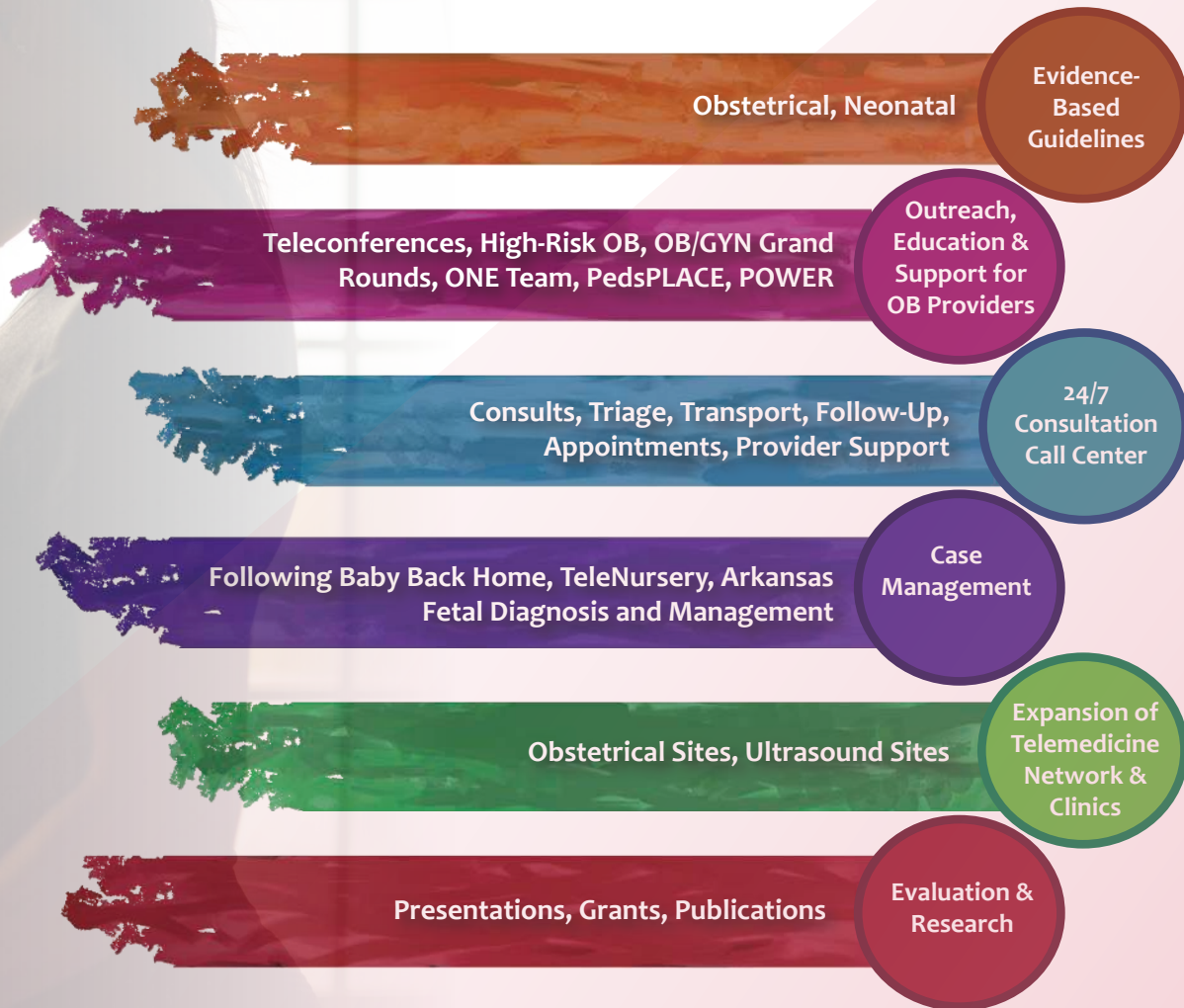


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Education & Support

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. Learn On Demand offers continuing education on a variety of health topics while 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. Resources developed by the IDHI Education team are used by health care professionals in all 75 Arkansas counties.



Education Team - First Row: Director, Stanley Ellis, PhD - Second Row: Kim Lamb, Kesha James - Third Row: Jo Ann Grace, Rita Tuggle, Candace Lewis - Fourth Row: CJ Fortune, Annemarie McGahagan, Brian Lee, Valerie Thomas, Philip White, Samantha Terry

Continuing Education

- CE Hours Awarded: 5,691.75
- Live Virtual Conferences and Events: 252
- Live and Archived Education Modules on LearnOnDemand.org: 423
- Other Live and Archived Videos or Modules: 907

Health Care Provider Activity

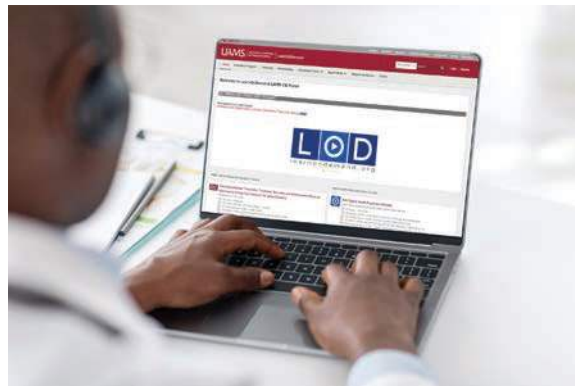
- Attended Live Events: 6,045
- Completed Enduring Materials: 12,862
- Accessed High-Risk Obstetrics (HROB) Modules: 3,039

Learn On Demand

LearnOnDemand.org New Users: 4,617

Top 5 HROB Modules Accessed

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



Patients Learn



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.

Top 3 Most Accessed Content

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

PatientsLearn.UAMS.edu Users: 7,514

Interactive Modules and Videos: 71

Counties in Arkansas with Registered Users: 57

Evidence-Based Guidelines

As an educational strategy to improve practice and reduce disparities in health care delivery, the guidelines intend to positively impact patient outcomes and enhance clinical decision-making. The Angels Guidelines 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 specialists and clinicians at remote sites throughout Arkansas.

More than 3,000 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 49 states and Washington, D.C., in addition to 36 other countries. This year's most frequently viewed guidelines include Hypertensive Disorders of Pregnancy, Diabetes in Pregnancy, Preterm Labor, Syphilis, Hypercoagulable States in Pregnancy and Pre-labor Rupture of Membranes.



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 Access

- Website page views: 17,377
- 195 first-time health care professional visitors this year (81% from Arkansas)
- Guidelines have been accessed by registrants from 69 of 75 Arkansas counties
- There are registrants from 49 states and D.C. plus 36 countries

Evidence-Based Guidelines Outreach Efforts

- Presented guidelines to 2,030 attendees, including physicians, advanced health care providers and medical students via in-person and virtual conferences.
- Provided guideline website information directly to 927 providers representing 28 counties during classes and on-site training, and to 97 leadership attendees representing 24 unique health care facilities in 19 counties during two statewide virtual nursing leadership conferences.
- Distributed guideline information to 851 Arkansas obstetrical and neonatal health care providers, delivering hospitals and health departments.
- Provided guideline updates during the HROB and PedsPLACE conferences and weekly email promotion to over 1,000 providers.
- Web link added from the Arkansas Children's 'For Providers' page directing to the neonatal guidelines.
- Web link added directing to the neonatal guidelines from the Arkansas Children's 'Nursery Alliance' section. Current members of the alliance include Ashley County Medical Center, CHI St. Vincent, Conway Regional Health System, Jefferson Regional Medical Center, and Medical Center of South Arkansas.
- 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

Fetal Heart Monitoring

The Association of Women's Health, Obstetric and Neonatal Nurses (AWHONN) is the recognized leader in fetal heart monitoring education. The Perinatal Outcomes Workgroup through Education and Research (POWER) outreach team is proud to provide AWHONN's Intermediate and Advanced Fetal Heart Monitoring courses for delivering hospitals across the state. In January 2022 AWHONN completely revised and updated the curriculum for both intermediate and advanced classes. Their convenient online and in-person formats are evidence-based and provide the essential tools necessary 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 every two months 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, call 501-526-6206 or email Shari Drakes, BSN, RNC-OB at SKDrakes@uams.edu.



Total Number of Participants

144

Obstetric Emergency Simulation Drills

The OB Emergency Simulation Drills offered by the POWER outreach team plays an important role 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 early recognition and treatment of a hypertensive crisis and a severe postpartum hemorrhage as well as what to do when a 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 an OB Emergency Simulation Drill in your hospital, call 501-526-6206 or email Shari Drakes, BSN, RNC-OB at SKDrakes@uams.edu.

325 Total Number of Participants

13 Total Number of Classes



Neonatal Resuscitation

In January 2022, the American Academy of Pediatrics (AAP) rolled out the 8th edition of their Neonatal Resuscitation Program® (NRP®) course. It conveys an evidence-based approach to the care of the newborn at birth and facilitates effective team-based care for health care professionals who care for newborns at the time of delivery. NRP utilizes a blended learning approach, which includes online testing, online case-based simulations and hands-on case-based simulation/debriefing that focus on critical leadership, communication and teamwork skills.

As lead instructors, Tina Pennington, MNSc., RNC-NIC and Shari Drakes, BSN, RNC-OB, travel the state assisting facilities with the hands-on simulation portion. It is very interactive and informative, giving the participants the skills needed to confidently assist newborns with transition immediately following birth.

To arrange a class at your facility, contact Tina at 501-686-7576 or penningtontinac@uams.edu.

16

Number of Classes

188

Number of Participants

Facilities

Conway Regional Health System
Delta Memorial Health System
Drew Memorial Health System
Great River Medical Center
Jefferson Regional Medical Center
Magnolia Regional Medical Center
Ouachita County Medical Center
UAMS
White River Medical Center



The STABLE Program

STABLE 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, STABLE stands for the six assessment and care modules in the program: **S**ugar, **T**emperature, **A**irway, **B**lood pressure, **L**ab work and **E**motional support. A seventh module, Quality Improvement, stresses the professional responsibility of improving and evaluating care provided to sick infants.

STABLE 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 interactively, 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.

Facilities

Baptist Health Medical Center – Fort Smith
Bradley County Medical Center
CHI St. Vincent – Hot Springs
Conway Regional Health System
Drew Memorial Health System
Mena Regional Health System
Mercy Hospital – Rogers
Mercy Hospital Fort Smith
National Park Medical Center
North Arkansas Regional Medical Center
Ouachita County Medical Center
Saint Mary's Regional Medical Center
Unity Health – Newport
Willow Creek Women's Hospital



118

Total Number of Participants

8

Total Number of Classes

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 led to improvements in maternal outcomes and decreases in 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.

37 Hospitals Participating

103 Number of Visits

146 Number of Participants

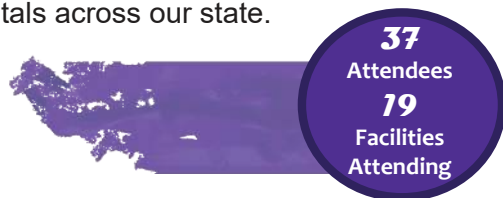
Outreach Team



Left to right: Angie Hunton, Tina Pennington, Shari Drakes, Dawn Brown, Clinical Program Director

Fall POWER Workshop 2021

On November 18, 2021, the IDHI POWER team brought together 37 attendees from 19 unique facilities to learn more about optimizing available pregnancy resources to provide the best outcomes for maternal patients across our state. Our keynote speakers were Barbara O'Brian and Sarah Johnson from the Oklahoma Perinatal Quality Improvement Collaboration to discuss the patient experience and how we can support our patients and families when there are unexpected outcomes. Zenobia Harris, D.N.P., MPH, BSN from Arkansas Birthing Project, along with Nicolle Fletcher of Ujima Maternity Network, highlighted programs in Arkansas that work to provide support for optimal birth outcomes. The POWER team provided information on the importance of support not only before birth but after. Each maternal safety bundle is designed with components that address support and its important role in the overall health of patients, families, and health care providers. A resources guide was developed and provided to all participants as well as all delivering hospitals across our state.



Spring POWER Workshop 2022

The 2022 Spring POWER Workshop was a successful hybrid event with 78 attendees from 22 unique facilities. The POWER team hosted a small group and broadcast the workshop to virtual attendees from the beautiful Winthrop Rockefeller Institute atop Petit Jean Mountain. Elizabeth Rochin, Ph.D., RN, director of the National Perinatal Information Center, served as our keynote speaker. She shared how the power of data can help to reduce maternal health disparities. Along with her keynote presentation, the workshop also provided information on the following:

- The importance of work-life balance
- An update on maternal safety bundle changes
- Nursing research and how it impacts the care we provide
- Highlights from the yearlong POWER Maternal Safety Bundle Recognition pilot.



The hybrid event format showed us that we can meet the needs of both in-person and virtual participants and will be something we will consider for future events.

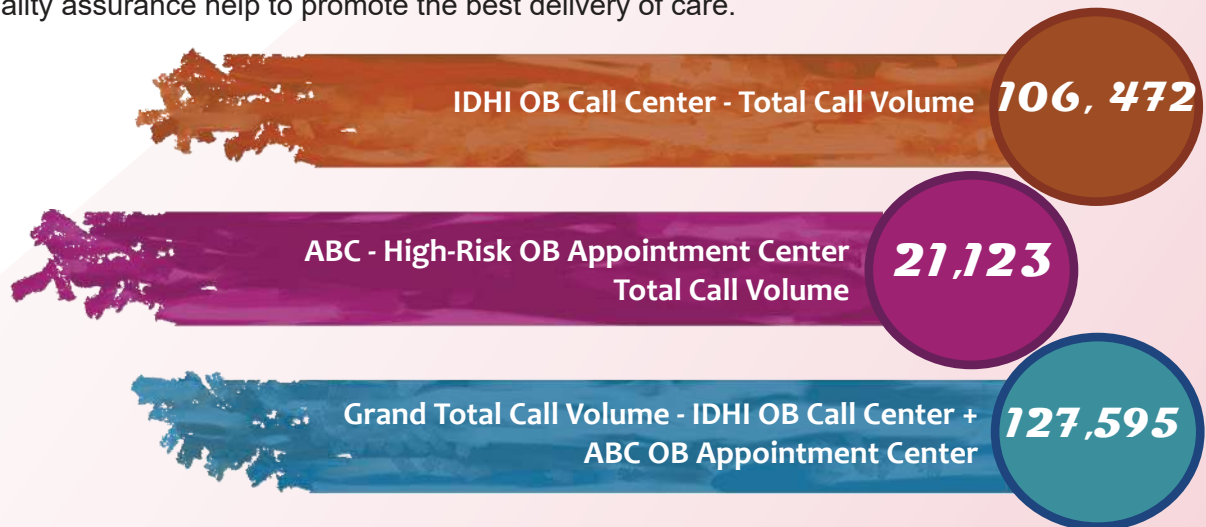


Call Center

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 help to promote the best delivery of care.

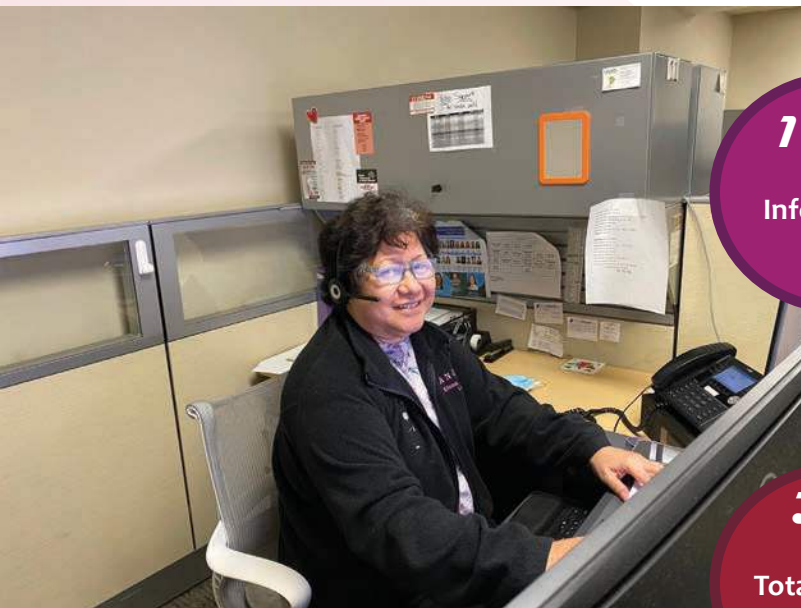


1,194

Patients Who Would Have Sought
Emergent Care

294

Emergency Care Visits Avoided



1,565

Information
Calls

762

Clinic RN
Calls

6,772

Triage
Calls

332

Total Arrived
Maternal
Transports

322

M.D. to M.D.
Consults

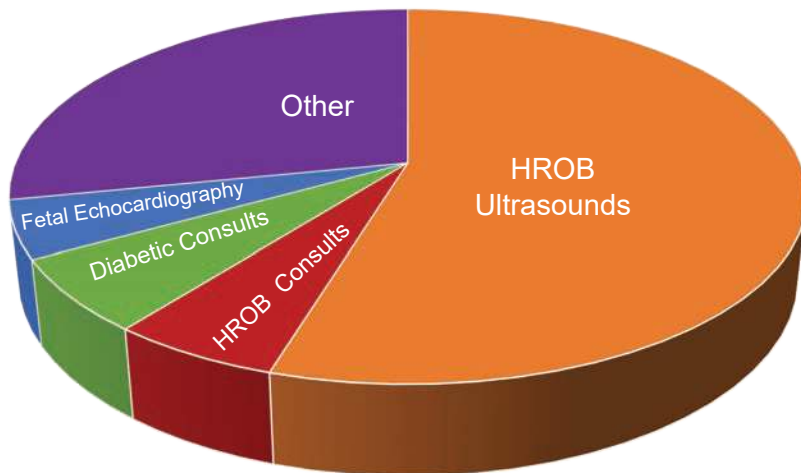
15,270

Follow-Up
Calls

Telemedicine Network & Clinics

The Telemedicine Network and Clinics team consists of maternal-fetal medicine specialists, advanced practice registered nurses, genetic counselors and registered diagnostic medical sonographers that provide high-quality, coordinated, personalized care.

3,582 Total Digital Health Visits



Rosalyn Perkins, MNSc, APRN IDHI High-Risk Program Director

1,960
HROB
Ultrasounds

211
HROB
Consults

226
Diabetic
Consults

177
Fetal
Echocardiography

1,008
Other
(Women's Mental
Health, Triumph)

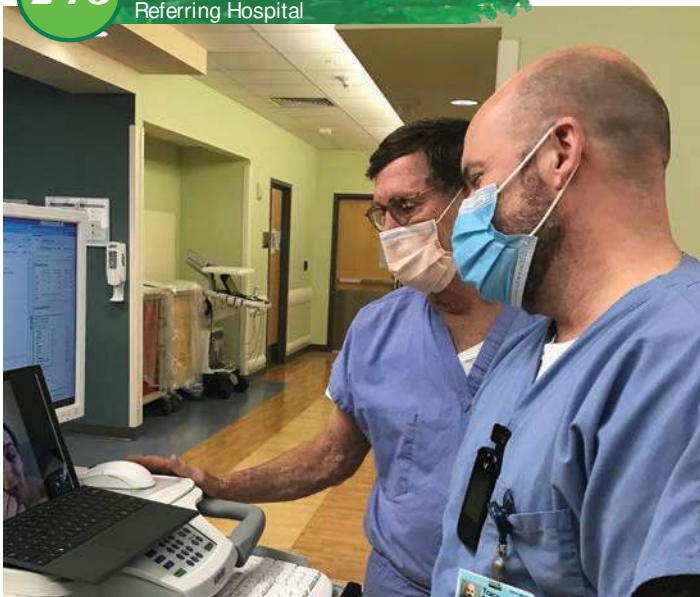
DIGITAL HEALTH IN THE NURSERY

Whit Hall, M.D., 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.

149 Virtual Rounding Events

576 Total Participants

248 Back Transports from UAMS to Referring Hospital



Telenursery Sites

Arkansas Children's
Arkansas Methodist Medical Center – Paragould
Ashley County Medical Center
Baxter Regional Medical Center
CHI St. Vincent – Hot Springs
CHI St. Vincent – Little Rock
Conway Regional Health System
Delta Memorial Hospital
Harris Medical Center – Unity Health
Jefferson Regional Medical Center
Medical Center of South Arkansas
Mena Regional Health System
Mercy Medical Northwest Arkansas
National Park Medical Center
North Arkansas Regional Medical Center
Ouachita County Medical Center
Saint Mary's Regional Medical Center – Russellville
Sparks Regional Medical Center – Fort Smith
St. Bernards Medical Center
St. Edward Mercy Medical Center
St. Michael Health System – Texarkana, TX
UAMS
Wadley Regional Medical Center – Texarkana, TX
Washington Regional Medical System – Fayetteville
White County Medical Center – Unity Health
Willow Creek Women's Hospital

WOMEN'S MENTAL HEALTH PROGRAM

The Women's Mental Health Program (WMHP) at the Psychiatric Research Institute provides specialized psychiatric evaluation, medication management, and therapy services for pregnant and postpartum women as well as women who are planning to become pregnant. 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. Outpatient care is offered at two locations to best serve the women of Arkansas. First, co-located psychiatric care is offered at the UAMS Women's Clinic for women who are receiving obstetrical care through the UAMS system. Secondly, Ray-Griffith and Hannah Williams, M.D., provide outpatient services at the Psychiatric Research Institute, expanding treatment access outside of the UAMS Health system. In 2021, the WMHP began providing dedicated individual therapy for pregnant and postpartum patients at the institute, under the care of Cecilia Trujillo, LCSW. The WMHP also offers digital health series at the institute, and this work accounts for 50-60% of appointments over the past two years.



First Row: Cecilia Trujillo, LCSW, Shona Ray-Griffith, M.D., Hannah Williams, M.D.

Second Row: Kately Durey, Jessica Coker, M.D., Director, Alperdis Keyes, RN

Primary goals of the Women's Mental Health Program

- Improve the mental health of pregnant and postpartum women across the state
- Improve access to care for pregnant women with mental illness, including those with substance use disorders
- Reduce obstetrical and neonatal complications
- Develop evidence-based guidelines for the management of psychiatric disorders



79 Telephone Consultations

2,850 Clinic Visits

85 Hospital Consultations

Jessica Coker, M.D., serves as medical director of the Women's Inpatient Unit and oversees inpatient services. She also provides consultation and liaison services to multiple disciplines within UAMS Medical Center in addition to digital health consultation services with providers through the UAMS Physician Call 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 and without co-occurring substance use disorders. In doing so, women who require psychotropics or those misusing/abusing illicit drugs receive comprehensive evaluations and individualized treatment plans. Available services include a risk/benefit analysis of treatment options; medication management; 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. The WMHP is also able to offer the following services for pregnant or postpartum women: electroconvulsive therapy (ECT) and brexanolone for postpartum depression.

"The 2021-2022 academic year saw continued growth in the Women's Mental Health Program with ongoing expansion of digital health services and the addition of a dedicated individual therapist. The provision of comprehensive and high-quality psychiatric care during pregnancy and the postpartum period across the state of Arkansas is at the heart of our program. We hope pediatric and obstetrical providers routinely screen for psychiatric illness throughout the perinatal period and remain confident in their referral to the Women's Mental Health Program."

Shona Ray-Griffith, M.D.

WMHP Faculty and Staff

Jessica Coker, M.D., psychiatrist
Shona Ray-Griffith, M.D., psychiatrist
Hannah Williams, M.D., psychiatrist
Cecilia Trujillo, LCSW, therapist
Alperdis Keyes, RN, research program manager
Katelyn Hawkins-Durey, BS, research assistant
Kelly Mulkey, peer support specialist

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. 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, 291 women with diabetes were managed by UAMS Health Women's Center. There were 7.6% with type 1 diabetes, 36.4% with type 2 diabetes and 56% with gestational 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 Diabetes Digital Health Clinic. This option for co-management 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.



110 women with diabetes were scheduled at UAMS Women's Center via digital health during this reporting period.

UAMS Obstetrical Diabetes Care Team

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

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		
Mean 1 st trimester HgA1C	Mean 2 nd trimester HgA1C	Mean 3 rd trimester HgA1C
9.87%	7.56%	7.26%

Type 2 Diabetes		
Mean 1 st trimester HgA1C	Mean 2 nd trimester HgA1C	Mean 3 rd trimester HgA1C
8.4%	6.94%	6.81%

WEB-BASED INSTRUCTION ON NUTRITION (WIN)

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 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 with nutrition questions via email. This course can be used in place of conventional face-to-face diabetes classes or as a supplement to traditional education methods.

Case Management

The Arkansas Fetal Diagnosis and Management Program (AFDM) is a team of specialty doctors, genetic counselors, nurses and other health care workers who work together to provide complete and comprehensive medical care and support to pregnant women and their families who have received a prenatal diagnosis of a congenital anomaly, chromosomal abnormality or genetic abnormality.

AFDM is a medical multidisciplinary and family-centered program that develops differential diagnoses, coordinates prenatal and neonatal treatment plans for the enrolled patient, and then collaborates with the referring physician for the best possible care.

MATERNAL FETAL MEDICINE (MFM) TEAM



Nafisa Dajani, M.D. Adam Sandlin, M.D. Pat Magann, M.D.

MFM Fellows

Megan Pagan, M.D.
Dayna Whitcombe, M.D.
Michael Wendel, M.D.

AFDM Genetics Team

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

AFDM Team

Nafisa Dajani, M.D.
Pat Magann, M.D.
Adam Sandlin, M.D.
Sara Peeples, M.D.

476 New Cases Admitted

316 Live Deliveries

501 Prenatal Consults

A Patient's Story

While in the care of the UAMS High-Risk Pregnancy Program, Latrice Henry was pregnant with her sixth child. The original due date was July 18th, but the pregnancy was induced on June 27th. When she was pregnant with her four-year-old, Latrice was diagnosed with gestational diabetes. It went away after her child was born, but two years later Latrice had developed “full-blown diabetes,” as she put it. With her new pregnancy, she knew it was going to be hard. “They say with diabetes, you have big babies and other things could be wrong with them,” Latrice said. At some point during the pregnancy, they were concerned Roderick Jr. didn’t have his right kidney because it didn’t show up on the ultrasound. Latrice’s diabetes were likely the cause of any potential kidney issues, and she was instructed to wait until the baby was delivered.

Knowing there could be complications, Latrice began going to weekly doctor’s visits at the UAMS Family Medical Center in Fort Smith. During the last month of the pregnancy, she was going to the center twice a week. Throughout the prenatal period, she had three ultrasounds, two of which she was able to consult with maternal-fetal medicine doctors in Little Rock. Latrice appreciated the UAMS High-Risk Pregnancy Program but wished she was told more about Roderick Jr.’s potential condition with his kidney. “With me not going through this situation before,” she said, “I just wish I had more information.” Overall, Latrice was in good hands and in the care of Elaina Murray, M.D., whom she described as “awesome.”

Latrice was told her baby would be born at 6 pounds, but when Roderick Jr. arrived, he weighed 9 pounds. The ‘big baby’ prediction was true after all. As it turned out, he was indeed missing his right kidney, but Latrice said he was healthy overall with just a few problems that they hoped to address shortly. When asked about future pregnancies, Latrice said, “this is it. I am getting my tubes tied. I’m getting old,” she laughed. “This is it.”

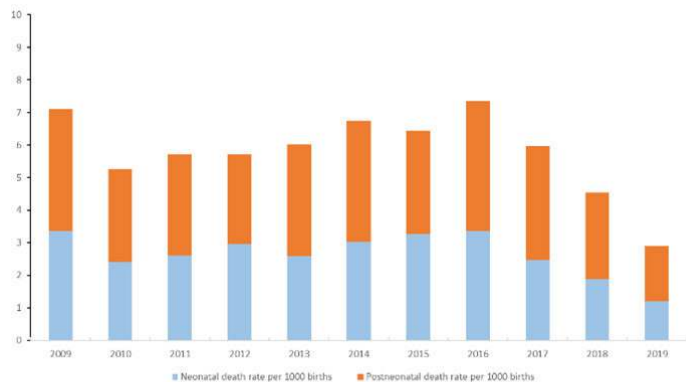


Evaluation & Research

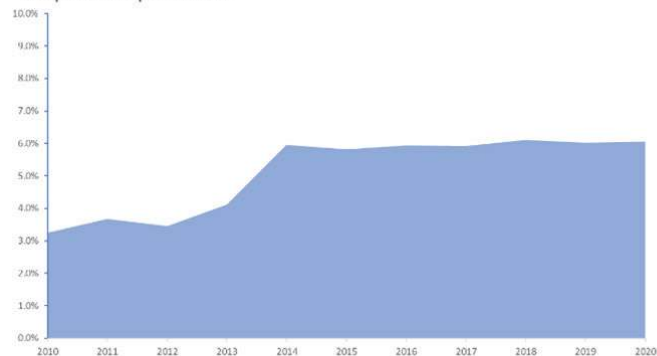
With the goal of evaluating the UAMS High-Risk Pregnancy Program (HRPP) and determining its effect on Arkansas mothers, babies and the health care system, the Evaluation and Research team created the HRPP Database, a linked database comprised of data from the Arkansas Department of Human Services (DHS) 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 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 the state's fiscal year 2019. For mothers covered by the Arkansas Medicaid program, the most current data available is through the first half of fiscal year 2020. Using the database, the Evaluation and Research team develops and updates dashboards comprised of standard metrics for mothers and babies. Furthermore, trends are assessed across fiscal years for the various maternal and infant metrics. The Evaluation and Research team also surveyed 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 Arkansas' Medicaid-covered population has consistently been lower in the years following the implementation of the HRPP in fiscal year 2003. Prior to the HRPP, infant deaths were recorded at 9.8 deaths per thousand live births. Over the last decade, the rate has fluctuated between 7.1 infant deaths per thousand live births in fiscal year 2009, to a low of 4.5 infant deaths in fiscal year 2018. The highest rate in the period following the implementation of the HRPP has been in fiscal year 2016, at 7.4 infant deaths per thousand live births. The rate has been steadily decreasing since then, and the most current data recorded the lowest rate yet, at 2.9 deaths per thousand live births during the first half of fiscal year 2019. 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 fiscal year, 2018, shows that deliveries of preterm babies at hospitals with NICU facilities took a dip to nearly 65% for babies that were born at less than 36 weeks of gestation. However,

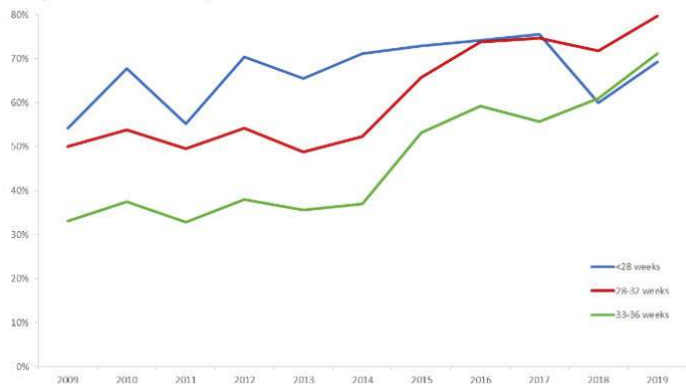
Infant Deaths Per Thousand Births



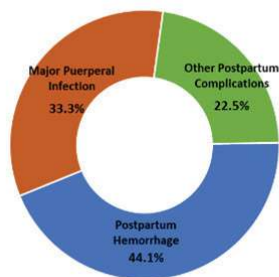
Postpartum Complication Rate



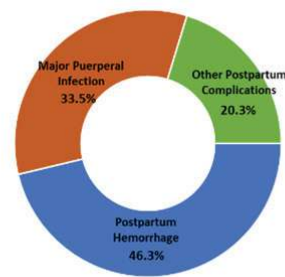
Proportion Delivered in Hospitals with NICU



Postpartum Complications in SFY2019



Postpartum Complications in SFY2020

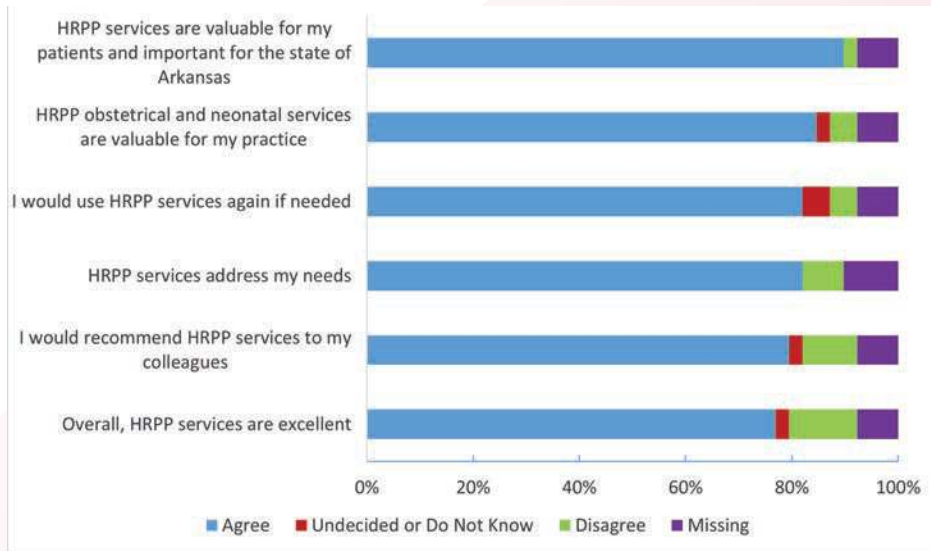


the rates have started to climb back up, with data from the first half of fiscal year 2019 showing 69.2%, 79.7% and 71.1% of babies born at less than 28 weeks of gestation, 28 to 32 weeks of gestation and 33 to 36 weeks of gestation were delivered at hospitals with NICU facilities respectively.

The rate of postpartum complications in Medicaid deliveries has fluctuated between 3.2% in fiscal year 2010 to 6.1% in fiscal year 2020. The rate has been relatively stable at nearly 6% over the last six years. Postpartum hemorrhage continues to be the leading contributor to postpartum complications, with more than 43% of the total complications attributed to this category in both fiscal years 2019 and 2020. In response to this issue, the POWER team 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.

Provider surveys were sent via mail and email to obstetrics and gynecology providers throughout the state to elicit their evaluation of HRPP services. A total of 39 providers returned the survey, yielding a response rate of 18.6%. All providers reported using HRPP services in the past 12 months.

Figure 1. Provider Evaluation of HRPP Services

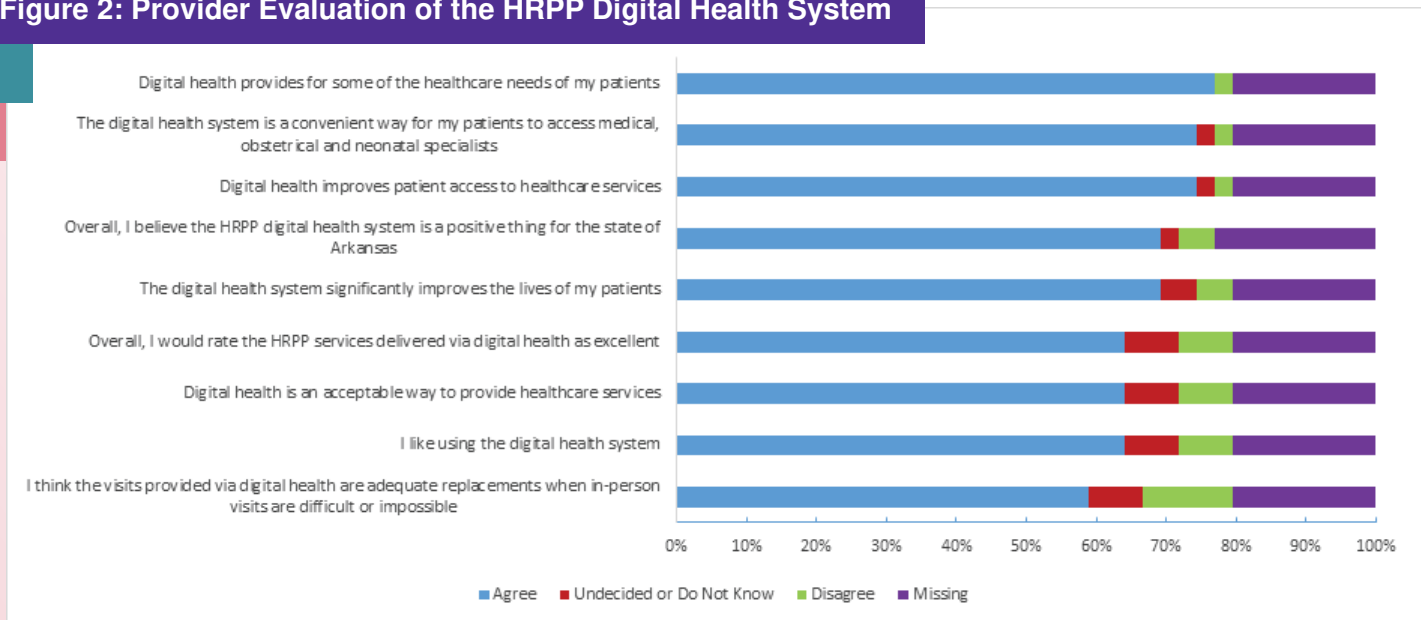


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Provider evaluations of HRPP Services (Figure 1) showed 89.7% of providers reporting HRPP services as valuable for their patients and important for the state of Arkansas. More than 80% reported that HRPP services are valuable to their individual professional practice, that these services address their needs and that they would use HRPP services again if needed. Nearly 80% of the providers reported that they would recommend HRPP services to their colleagues. Finally, 76.9% of providers reported that HRPP services are excellent.

Figure 2: Provider Evaluation of the HRPP Digital Health System



Provider evaluations of the HRPP digital health system reveal that 75% of providers agreed that the system improves patient access to health care services and is a convenient way for patients to access medical, obstetrical and neonatal specialists (Figure 2). About 70% of providers agreed that the HRPP digital health system is a positive thing for the state of Arkansas, and significantly improves the lives of their patients. About 65% of providers rated the HRPP digital health system as excellent, agreed that digital health is an acceptable way to provide health care services, and liked using the digital health system. About 59% of providers agreed that the digital health system is an adequate replacement when in-person visits are difficult or impossible.

A Provider's Story

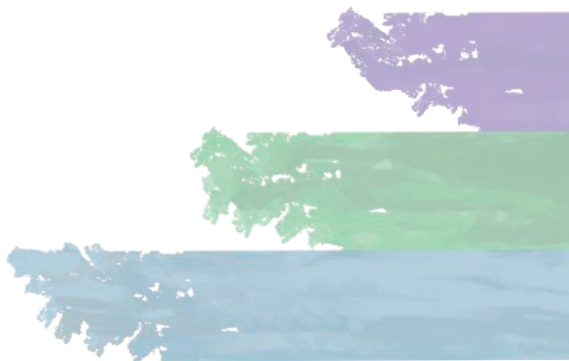


Carlos Rocha, M.D.

When asked if he had any notable success stories he wanted to share about the UAMS High-Risk Pregnancy Program, Carlos Rocha, M.D., replied, “numerous.” Working as an OB/GYN doctor in Mena, Arkansas for 21 years, he’s watched the program, originally named ANGELS, grow from consultations to co-managing. “Our patients are very happy with UAMS and the [High-Risk Pregnancy Program] but they would prefer to stay here,” says Rocha. “So, a lot of times, since we’re able to co-manage care, it works out better for the patients because they are able to stay here and deliver here whereas 20 years ago, they wouldn’t have been able to do that.” After he delivered his first baby, Rocha said it was “pretty obvious what I wanted to do.” He liked the idea of being an OB/GYN doctor because of the mixture of practice: consultations, operating room, deliveries and office time. “My father was a primary care provider, so he was in the office 24/7, it seemed, and that didn’t appeal to me at all, to be in the office all the time,” he said.

When he finished his residency at John Peter Smith Hospital in Fort Worth, Texas, Rocha found himself in Mena, Arkansas. He said he would give it a year, but after 21 years, he is still there. When he first moved to Arkansas, he realized the limitations of the local hospital: “We don’t have an ICU, so we can’t purposely deliver premature babies,” he said. Rocha attributes John Mesko, M.D., for introducing him to the UAMS High-Risk Pregnancy Program. “It’s been really easy for us,” said Rocha, “because they’ll help you with anything you need. If I call and have a question, one of the maternal-fetal medicine specialists or even the residents will get on the phone and discuss patients, and try to determine if they need to be transferred... can we treat them here? And if we ever need to transport someone, they never say, ‘no.’ It’s always, ‘just send them.’”

Rocha has been a fan of the High-Risk Pregnancy Program for a long time. “I’ve watched it from its infancy to where it is now,” he said. “It’s definitely changed a lot in that in the beginning it was very much a consultation, and we would send patients we were uncomfortable with.” As the program has grown, Rocha has been able to co-manage and his patients are happy with the High-Risk Pregnancy Program because they can stay close to home. In the beginning, patients had to travel to Little Rock for visits, but with digital health, now they can do a lot of what they need to do here at home.







High-Risk Pregnancy Program

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