HIGH-RISK PREGNANCY PROGRAM

ANNUAL REPORT 2020-2021

UAMS | Institute for Digital Health & Innovation

High-Risk Pregnancy Program

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It is the mission of the High-Risk Pregnancy Program to ensure that every woman in Arkansas at risk of having a complicated pregnancy receives the best possible perinatal care.

Leadership

Joseph Sanford, MD, IDHI Medical Director

Rosalyn Perkins, MNSc, APRN, WHCNP-BC, IDHI APRN Coordinator, High-Risk Pregnancy Program Director

Tracie Hill, IDHI Administrative Services Director

Anne Lasowski, MIS, MBA, Program Administrator, Episodes of Care, DMS/DMS Healthcare Improvement Initiative

Janet Mann, Director, Division of Medical Services, AR DHS

Leadership Letter

2021 has been a year of rapid change. Despite the availability of vaccines for COVID we have seen another surge in cases that, in many ways, exceeded what was experienced last winter. Questions about vaccination, particularly in the context of pregnancy, and improved ways to treat the disease illustrate the value and importance of the UAMS Institute for Digital Health & Innovation (IDHI) High-Risk Pregnancy Program (HRPP).

In addition to our collaborative guideline team providing best practice documents to several thousand providers our teams have hosted frequent webinars, simulation training, and outreach education on both best practices and the latest therapies and research. This outreach covers neonatal resuscitation, maternal safety bundles, fetal heart monitoring, COVID care, and more. Our 24/7 call center continues to serve Arkansans well, with over 170,000 calls in the last fiscal year. Over 10,000 of those calls were related to COVID-19. HRPP Telemedicine continues to excel with over 2,700 OB related digital health visits to provide expert care and consultation on mental health, telenursery, diabetes care, nutrition, and genetics care.

We are thankful for the partnership of our colleagues at UAMS and across the state. Together we can support the health and wellness of our friends and neighbors through the highest quality clinical care, education, and research.

Sincerely,

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

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

Evidence-Based Guidelines	Outreach, Education & Support for OB Providers	24/7 Consultation Call Center	Case Management	Expansion of Telemedicine Network & Clinics	Evaluation & Research
Obstetrical	Teleconferences	Consults	Following Baby Back Home	Obstetrical Sites	Presentations
Neonatal	High-Risk OB	Triage	Tele-Nursery	Ultrasound Sites	Grants
	OB/GYN Grand Rounds	Transport	Arkansas Fetal Diagnosis and Management		Publications
	ONE Team	Follow-Up			
	PedsPLACE	Appointments			
	POWER	Provider Support			

UAMS Institute for Digital Health & Innovation

High-Risk Pregnancy Program

Education & Support

The IDHI Education Team ensures that busy health care professionals have access to innovative learning opportunities and continuing education to meet their specific needs. Learning opportunities include on-site education, simulation drills, virtual conferences, and online training modules. COVID-19 education is addressed in a timely manner through targeted virtual conferences and resource documents, which are available on LearnOnDemand.org.

These education and support efforts have served health care professionals in all 75 Arkansas counties.

Education Team

Back row (left to right):
Brian Lee, Samantha Wilson, Valerie Thomas, Kesha James, CJ Fortune

Front row (left to right):
Rita Tuggle, Kimberly Lamb, Jo ann Grace, Stanley Ellis, EdD, Director, Candace Lewis

Not pictured:
Lily Valibaba-Sullivan

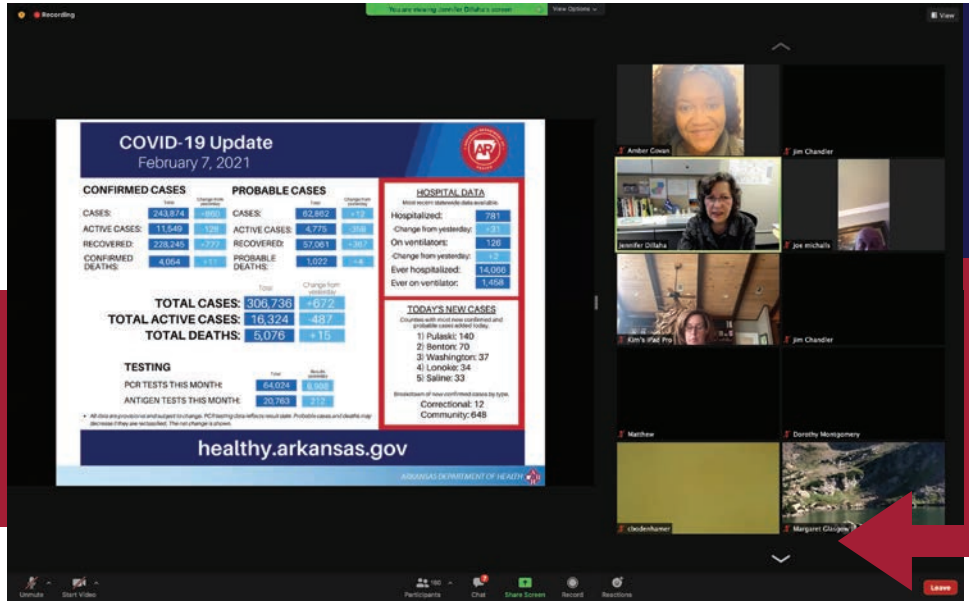
Education & Support

Continuing Education

CE Hours Awarded: 5,419.5
Live virtual conferences and Events: 236
Live and Archived Education Modules on LearnOnDemand.org: 312
Other Live and Archived Videos or Modules: 506

Health Care Provider Activity

Attended Live Events: 5,056
Completed Enduring Materials: 11,427
Accessed High-Risk Obstetrics (HROB) Modules: 2,742



LearnOnDemand.org
New Users

6,200

Connecting Across Professions Virtual Conference Webinar Series

Evidence-Based Guidelines

Obstetrical

Guidelines include: Hypertensive Disorders of Pregnancy, Diabetes in Pregnancy, and Preterm Labor

Neonatal

The causes of serious morbidity and mortality related to pregnancy and childbirth are multifaceted and include significant health care disparities within the state. Clinicians as well as mothers and newborns stand to benefit from a consensus approach of providing obstetrical and neonatal care across the state of Arkansas. Guidelines serve as a powerful tool for making better informed decisions and improving care.

The Angels guidelines are an integral part of the HRPP effort to bridge the expertise of maternal-fetal medicine and neonatology specialists across Arkansas. As an educational strategy to improve practice and reduce disparities in health care delivery, the intent of the guidelines is to positively impact patient outcomes and enhance clinical decision-making.

A mobile-friendly and freely available website, 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 2,900 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 48 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, and Hyperemesis Gravidarum.

Evidence-Based Guidelines

HRPP Outreach Efforts

- Presented guidelines to 2,169 attendees, including physicians, advanced health care providers, and students via virtual conferences as well as in-person or virtual classes.
- Provided guideline website information directly to 610 providers in 28 counties during classes and on-site training, in addition to 102 leadership attendees representing 18 unique health care facilities in 13 counties during two statewide virtual nursing leadership conferences.
- Distributed guideline information to 774 Arkansas health care providers, delivering hospitals, and Regional Program providers.
- Collaborated with UAMS Regional Campuses, Arkansas Foundation for Medical Care, and UAMS Physician Relations to include guideline information in their communications to providers.
- Provided guideline updates during the HROB and PedsPLACE virtual conferences and weekly email promotion to 2,726 providers.
- Featured 10 guidelines by physician presenters during HROB virtual conferences with 117 providers in attendance.
- Collaborated with UAMS Physician Relations to distribute 200 guideline promotional flyers during their masked face-to-face physician visits.
- Featured the guidelines for the “IDHI Tip of the Day” through the UAMS announcements email with a focus for all UAMS clinical staff.

Quick Facts About the ANGELS Guidelines

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

HRPP Guidelines Access

- Website page views: 19,211
- 185 first-time health care professional visitors this year (85% from Arkansas)
- Guidelines have been accessed by registrants from 69 of 75 Arkansas counties

There are registrants from 48 states and D.C. plus 34 countries

Community Outreach Education

OB Emergency Drill Simulation

The Obstetric (OB) Emergency Drill Simulation program offered by the Perinatal Outcomes Workgroup Education and Research (POWER) outreach team faced various challenges this past year. Despite COVID-19 restrictions on travel and limited class sizes, the POWER team continuously managed to meet these challenges head-on and bring the OB Emergency Drill Simulation to 13 different delivering hospitals throughout the state. The team shifted the didactic portion of the program to an online format so participants could access and review lectures before attending the in-person, in-situ simulation drill. Class sizes were also reduced from 10 to six participants to maintain proper social distancing. This year's OB Emergency Drill Simulation focused 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.

For more information, call 501-526-6206 or email Shari Drakes, BSN, RNC-OB at SKDrakes@uams.edu.

258
Total Number of Participants

15
Total Number of Classes

Participating Facilities

Arkansas Methodist Medical Center
Ashley County Medical Center
Baptist Health Medical Center-Conway
CHI St. Vincent Hot Springs
Conway Regional Health System
Delta Memorial Hospital
Drew Memorial Health System
Mena Regional Health System
Mercy Hospital Northwest Arkansas
National Park Medical Center
Ouachita County Medical Center
Saline Memorial Hospital
Willow Creek Women's Hospital

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 for delivering hospitals across the state. They offer both in-person and online formats that are convenient, evidence-based, and provide the essential tools needed to educate the entire perinatal team. They also offer an online Basic Fetal Heart Monitoring course located on LearnOnDemand.org that is geared toward anyone who is new to caring for obstetric patients and needs to learn the basics before taking intermediate or advanced fetal heart monitoring courses.

For more information, call 501-526-6206 or email Shari Drakes, BSN, RNC-OB at SKDrakes@uams.edu.

105

Total Number of Participants

Participating Facilities

Baptist Health Medical Center-Little Rock
CHI St. Vincent's Hot Springs
Conway Regional Health System
Drew Memorial Health System
Jefferson Regional Medical Center
Johnson Regional Medical Center
Mena Regional Health System
National Park Medical Center
Saline Memorial Hospital
University of Arkansas for Medical Sciences

Community Outreach Education

STABLE

Since 1996, The S.T.A.B.L.E. Program™ assists facilities to improve neonatal outcomes through its evidenced-based educational program. Designed to follow the ABC's of Neonatal Resuscitation, S.T.A.B.L.E. (Sugar/Safe Care, Temperature, Airway, Blood Pressure, Lab Work, Emotional Support) provides a standardized method of treatment for common issues related to illness, anomalies and prematurity.

S.T.A.B.L.E. facilitator and instructor, Tina Pennington MNSc, RNC-NIC, has been teaching S.T.A.B.L.E. professionally since 2006. She delivers a wealth of clinical experience and knowledge. During the travel restrictions in place during the pandemic, IDHI switched every S.T.A.B.L.E. class to interactive video, and with The S.T.A.B.L.E. Program™ allowing participants to watch from home, the schedule flow was never disrupted.

For more information about S.T.A.B.L.E., contact Tina Pennington at penningtontinac@uams.edu or 501-686-7576.

Participating Facilities

Arkansas Methodist Medical Center
Ashley County Medical Center
Baptist Health Medical Center-North Little Rock
Baptist Health-Fort Smith
Bradley County Medical Center
Conway Regional Health System
Delta Memorial Health System
Drew Memorial Health System
Helena Regional Medical Center
Medical Center of South Arkansas
Mercy Hospital Northwest Arkansas
Mercy Hospital Fort Smith
National Park Medical Center
Northwest Medical Center-Bentonville
Ouachita County Medical Center
Saline Memorial Hospital
White River Medical Center
Willow Creek Women's Hospital

103

Total Number of Participants

The Neonatal Resuscitation Program

The Neonatal Resuscitation Program® (NRP®) course conveys an evidence-based approach to care of a newborn at birth and facilitates effective team-based care for health care professionals who provide care for newborns at the time of delivery. NRP utilizes a blended approach, which includes online testing, online case-based simulations, hands-on case-based simulation/debriefing that focus on critical leadership, communication, and teamwork skills (American Academy of Pediatrics, 2021).

Tina Pennington MNSc, RNC-NIC and Shari Drakes BSN, RNC-OB facilitate instructor-led events. It is very important for the participants that these events are conducted in situ to familiarize the team with their own environment and clinical processes. This became somewhat of a challenge during the height of the COVID-19 pandemic. Facilities did not allow visitors, so no classes were held from February 12 through June 24. Upon resumption, the class adhered to a limited number of participants and distancing requirements, as this was a class that required an in-person delivery style.

The 8th Edition of Neonatal Resuscitation Handbook is coming out soon. To order a book or schedule a class, contact Tina Pennington at penningtontinac@uams.edu or 501-686-7576.

"Best class I have ever taken for NRP!" - Attendee

123

Total Number of Participants

Participating Facilities

Baptist Health Medical Center-Conway)
Delta Memorial Hospital
Drew Memorial Health System
Helena Regional Medical Center
Magnolia Regional Medical Center
Mena Regional Health Center
Northwest Medical Center-Bentonville
Ouachita County Medical Center
UAMS North Central–Batesville
Willow Creek Women's Hospital

Community Outreach Education

Maternal Safety Bundle Outreach

The POWER team travels across the state, providing resources to support the implementation of maternal safety bundles in Arkansas' 39 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.

127

Total Number of Participants

Hospitals participating: 39
Number of visits: 99

Community Outreach Team

Left to right:
Shari Drakes, BSN, RNC-OB
Dawn Brown, BSN, RNC-ONQS
Tina Pennington, MNSc, RNC-NIC

POWER Fall and Spring Events

Fall 2020

On November 19, 2020, the IDHI POWER team was able to join 40 attendees from 15 different facilities to learn what roles they can play in the reduction of ethnic and racial disparities within health care. Debra Bingham, Ph.D., RN, FAAN, served as the keynote speaker. Bingham is an associate professor for Health Care Quality and Safety at the University of Maryland School of Nursing and also the founder and executive director of the Institute for Perinatal Quality Improvement. Bingham delivered an empowering speech, providing useful resources and the knowledge needed to make a difference in their respective work environments. The POWER team also presented a portion of the Four R's (Readiness, Recognition, Response, and Reporting) from the safety bundle on reducing peripartum ethnic and racial disparities. The POWER team was able to reinforce Bingham's information, bringing home the message that everyone can make a difference. Members of the team include Dawn Brown, BSN, RNC-ONQS; Tina Pennington, MNSc, RNC-NIC; and Shari Drakes, BSN, RNC-OB.

40 Attendees From 15 Facilities

Spring 2021

The 2021 Virtual Spring POWER Workshop was a successful event with 63 attendees. Obstetrician and gynecologist Michael Smith, M.D., and neonatologist Sara Peeples, M.D., served as keynote speakers. Both speakers are UAMS physicians and each of them serve as the safety officer for their respective divisions. The focus of the workshop was to build a comprehensive patient safety program for each unit. Breakout sessions included the following:

- Current tools to track quality indexes for postpartum hemorrhage and severe hypertension of pregnancy.
- An update on current Joint Commission and state accreditation standards.
- Examples of quality improvement programs for infants/ NICU.

A pilot program was also introduced to recognize the facilities that are working hard to stay abreast of the current practice guidelines.

63 Attendees From 15 Facilities

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 as well as 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 piece of the case management program.

102,850
OB Call Center Call Volume

69,496
OB Appointment Call Volume

172,346
Grand Total Call Volume

5,786
Triage Calls

768
Clinic RN Calls

1,247
Information Calls

968
Patients Who Would Have Sought Emergent Care

223
Emergency Care Visits Avoided

12,098
Follow-Up Calls

287
MD to MD Consults

413
Total Arrived Maternal Transports

Telemedicine Network and Clinics

Telemedicine Team:

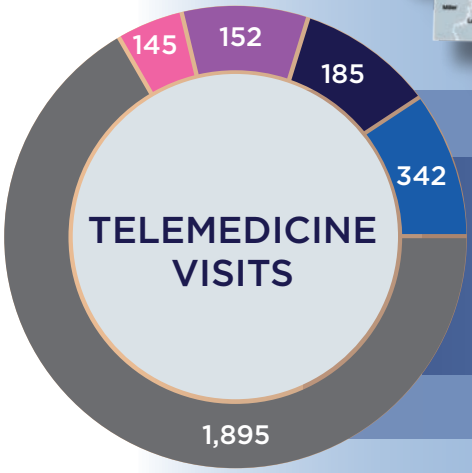
Rosalyn Perkins, MNSc, APRN
Stacey Johnson, APRN
Jeni Warrior, APRN
Sarah Green, MS, CGC
Jordan Foster, MS, CGC
Angie Hunton, RN
Brooke Keathley, APRN
Mandi Vickers, RDMS
Lori Heil, RDMS
Bill Hickey, RDMS
Lynne Tate, RDMS
Lisa Cain, RDMS

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

Telemedicine Sites

2,719

Total Telemedicine Visits



- OB Ultrasounds: 1,895
- HROB: 145
- Fetal Echocardiography: 152
- Diabetes: 185
- Other: 342

Telemedicine in the Nursery

Whit Hall, M.D., is a professor of neonatology in the UAMS College of Medicine who leads virtual census rounds three-times-a-week in 26 nursery sites statewide (including UAMS). These rounds include neonatology and subspecialty consultations, coordination of transports and back transports, follow up on neonatal and maternal transports, collaboration, and education.

145 UAMS Signed-On and Led Telenursery Virtual Rounds

492 Telenursery Rounds Census Participants Between All Sites

235 Back Transports from UAMS to Referring Hospitals

(not including transfer decisions made outside of telenursery rounds)

Telenursery Sites

Telemedicine Network and Clinics

Women's Mental Health

Program (WMHP) at the UAMS Psychiatric Research Institute provides comprehensive psychiatric evaluation and medication management for pregnant and postpartum women as well as women who are planning to become pregnant. Arkansas has one of the highest rates of maternal mortality in the nation, and addressing mental illness is paramount to improving maternal health. The WMHP is the only program in the state to focus primarily on psychiatric illnesses, including substance use disorders from pre-conception through the postpartum period. In collaboration with obstetrics, anesthesia, and neonatology, the WMHP aims to improve both obstetrical and neonatal outcomes for mothers with mental illness.

The program is overseen by co-directors, Shona Ray-Griffith, M.D., (outpatient services) and Jessica Coker, M.D. (inpatient services). Outpatient care is offered at two locations in order to best serve the women of Arkansas. Psychiatric care is offered at the UAMS Health Women's Center for women who are also receiving obstetrical care through the UAMS system. Secondly, Ray-Griffith and Hannah Williams, M.D., provide outpatient services at the UAMS Psychiatric Research Institute, expanding access to treatment for women outside of the UAMS Health system. The WMHP also offers digital health visits for prospective and current patients and hopes to continuously expand the use of digital health to reach pregnant and postpartum women in rural Arkansas. For patients who need inpatient psychiatric services, Coker also directs the UAMS Health Women's Inpatient Unit at the UAMS Psychiatric Research Institute and provides consultations for obstetrical patients hospitalized at UAMS. The High-Risk Pregnancy Program Call Center, formerly known as ANGELS), serves as a primary source of referrals to the WMHP.

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 or abusing illicit drugs receive comprehensive evaluations and individualized treatment plans. The latter includes a risk and 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, as needed, for pregnant or postpartum women: electroconvulsive therapy (ECT) and brexanalone for postpartum depression.

79
Telephone Consultations

3,014
Clinic Visits

85
Consultations

Primary Goals of 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

Women's Mental Health Team

Left to right:
Ariel Morrow, Research Assistant
Tojuana Greenlaw, Peer Support Specialist
Bettina Knight, RN, Program manager
Jessica Coker, MD, Psychiatrist
Hannah Williams, MD, Psychiatrist
Shona Ray-Griffith, MD, Psychiatrist

"The 2020-2021 academic year was challenging for health care and our patients in many ways. The Women's Mental Health Program has continued to expand and has met the needs of women across the state. We increased the amount of digital health visits to lower the risk of COVID transmission and have adapted in new and exciting ways. We hope that obstetrical providers throughout the state continue to screen for mental illness and are confident in referring patients to our program." Jessica Coker, MD

Telemedicine Network and Clinics

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 diabetes education provided to patients complies with comprehensive national standards. The program includes a weekly group-setting diabetes education class taught in-person or virtually in both English and Spanish. In the past 12-month reporting period, 293 women with diabetes were managed by the UAMS Health Women's Center: 10% with type 1 diabetes, 37.5% with type 2 diabetes and 52.5% 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 through the IDHI High-Risk Telemedicine 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 and to the patient's home. To find out how patients can access diabetes education via digital health, please contact the HRPP at 1-866-273-3835.

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 1st trimester AIC	Mean 2nd trimester AIC	Mean 3rd trimester AIC
8.76%	7.04%	6.88%

Type 2 Diabetes		
Mean 1st trimester AIC	Mean 2nd trimester AIC	Mean 3rd trimester AIC
8.41%	6.87%	6.37%

UAMS Obstetrical Diabetes Care Team

Front row:
Nafisa Dajani, MD, Program Director

Back row (left to right):
Mary Kate Clarkson, PharmD, BCACP, Program Coordinator
Brooke Keathley, APRN, CDE
Andrea Tappe, RD, LD, CDE
Laura Sanders, MS, RD, LD

82

Women with diabetes received consultations from UAMS women's Center via telemedicine

Web-based Instruction on Nutrition (WIN)

The WIN program is an online, self-directed curriculum (module) designed by the UAMS Obstetrical Center 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 slides, 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. Additionally, downloadable PDFs that list portion sizes for various food groups are also 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 classes or as a supplement of traditional education methods.

Case Management

Maternal-Fetal Medicine Team

Maternal-Fetal Medicine Team:
Front row (left to right):
Nafisa Dajani, MD
Dawn Hughes, MD

Back row (left to right):
Adam Sandlin, MD
Paul Wendel, MD
Pat Magann, MD

Maternal-Fetal Medicine Fellows (Not pictured):
Dayna Whitcombe, MD
Megan Pagan, MD
Julie Whittington, MD

547
New Cases Admitted into AFDM Program

288
Live Deliveries at UAMS

477
Prenatal Consultations

Arkansas Fetal Diagnosis and Management (AFDM)

The Arkansas Fetal Diagnosis Management (AFDM) team is a group of neonatologists, maternal-fetal medicine specialists, genetic counselors, specialty nurses and subspecialists who work together to provide comprehensive medical care and personal support throughout the mother's pregnancy and during the baby's neonatal course. AFDM is a medical multidisciplinary, family-centered program designed for women who are carrying fetuses that are prenatally diagnosed with one or more major congenital anomalies or genetic and chromosomal abnormalities. AFDM develops differential diagnoses, coordinates prenatal and neonatal care and establishes treatment plans for enrolled families in collaboration with referring physicians.

Arkansas Reproductive Genetics Team

Shannon Barringer, MS, CGC
Hyelim Kim, MS, CGC
Noelle Danylchuck, MS, CGC
Lindsay Ouzts, MS

AFDM Team

Paul J. Wendel, MD
Sara Peeples, MD
Shannon Barringer, MS, CGC
Hyelim Kim, MS, CGC
Shannon Lewis, RN, BSN

A Patient's Story

Amanda Jordan

"They always answered my questions and made me feel comfortable about everything."

On May 27, 2021, Amanda Jordan gave birth to a beautiful baby girl, Aurora. During the 10th week of the pregnancy, Jordan wanted to learn the gender of her unborn child, and during the test, it was revealed that the baby had Triple X syndrome also called Trisomy X. According to the Mayo Clinic, Triple X syndrome is present when a female has three X chromosomes rather than the normal number of two. Signs and symptoms are different for all who are affected, but it does have the potential to produce noticeable side effects.

Because of this revelation, Jordan traveled to UAMS where she tested positive for inter uterine growth restriction. They also discovered that Aurora had a hole in her heart, and she was transported to Arkansas Children's Hospital where Jordan was told the condition would heal on its own.

From the 20th week of her pregnancy until Aurora's birth, Jordan traveled to UAMS every two weeks for check-ups. She also traveled to Johnson Regional Health Center in Clarksville for a digital health visit. Through it all, Jordan felt at ease. "They always answered my questions and made me feel comfortable about everything," she said. "Whenever I didn't understand something they talked me through it." Her frequent visits and number of ultrasounds made her feel better because she could see her baby. "I was worried she was going to be a lot smaller," Jordan confided. "She looked small on the ultrasounds, but she came out good and healthy." Aurora weighed 6 lbs., 6 oz. at birth.

When asked how she felt about the High-Risk Pregnancy Program, Jordan said, "It was great! Everybody was amazing. All the doctors would talk to me for 30 minutes if they needed to. They never let me leave without fully understanding what was going on or what the next step was."

Amanda and Aurora

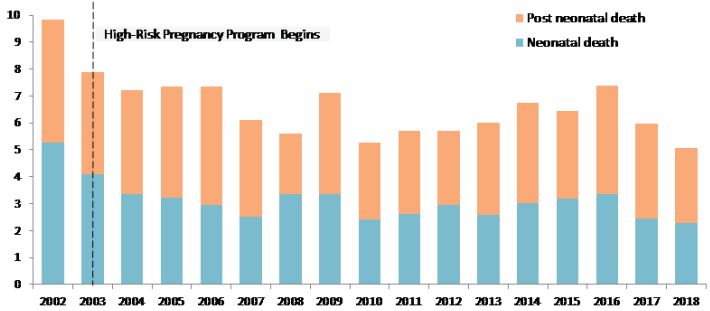
Evaluation and Research

To evaluate the UAMS High-Risk Pregnancy Program (HRPP) and determine its effect on Arkansas mothers, babies, and the healthcare system, the Evaluation and Research Team created a linked database of Arkansas Medicaid claims data and Arkansas Department of Health data (i.e., infant birth and death certificate records, and hospital discharge records). For infants, data is now available up to the first half of SFY2018, while for mothers, data is available through the first half of SFY2020. This data was used to update the dashboard of standard metrics, and trends were analyzed from two years prior to the implementation of the program through 17 years of its operation. In addition, the team created and delivered web-based standardized satisfaction surveys to patients who had received high-risk obstetrics consults over telehealth during their pregnancies through HRPP. Patient satisfaction was assessed between March 2020 and March 2021 as a quality indicator of HRPP telehealth services.

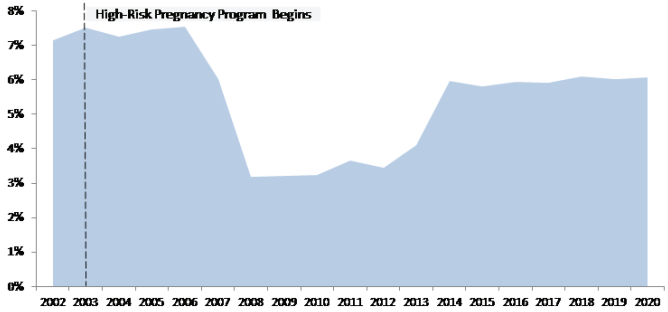
The infant mortality rate in the Arkansas' Medicaid-covered population decreased in the years since the HRPP's implementation, with a downward trend across years. The rate had increased slightly after 2010 and until 2016. However, the infant mortality rate has declined in the past two years. Data from SFY2017 showed an infant mortality rate of 6.0 per 1000 live births, while data from the first half of SFY2018 shows the lowest rate since the start of the HRPP, at 5.0 deaths per 1000 live births. The team also tracked preterm deliveries that occur in hospitals with a neonatal intensive care unit (NICU). The plot shows a slight upward trend in deliveries at NICU hospitals since the HRPP began. However, data until the first half of SFY2018 shows that NICU delivery levels have declined to 65% for preterm babies born before 33 weeks of gestation, and about 54% for preterm babies born between 33 and 36 weeks of pregnancy.

The rate of postpartum complications in Medicaid deliveries decreased significantly three years following the implementation of the program, with the lower rate maintained for the next six years before the spike in SFY2014. Since then, the rate has been stable at around 6% each year up to the first half of SFY2020. The team identified postpartum hemorrhage as the primary reason, with more than 40% of the total complications attributed to this in both SFY2019 and SFY2020. In response to this issue, POWER (Perinatal Outcomes Workgroup through Education and Research) 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.

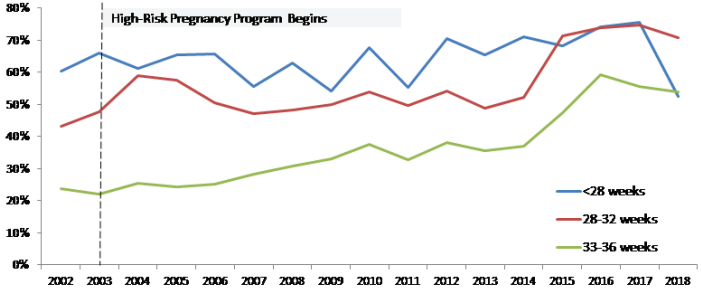
Infant Death Per Thousand

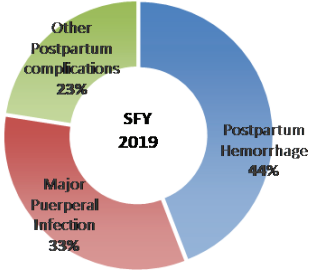


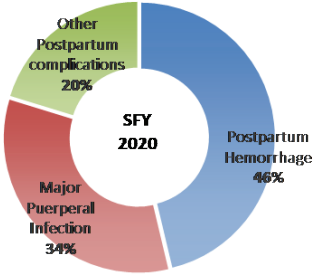
Postpartum Complication Rate



Delivered in Hospitals with NICU Setting

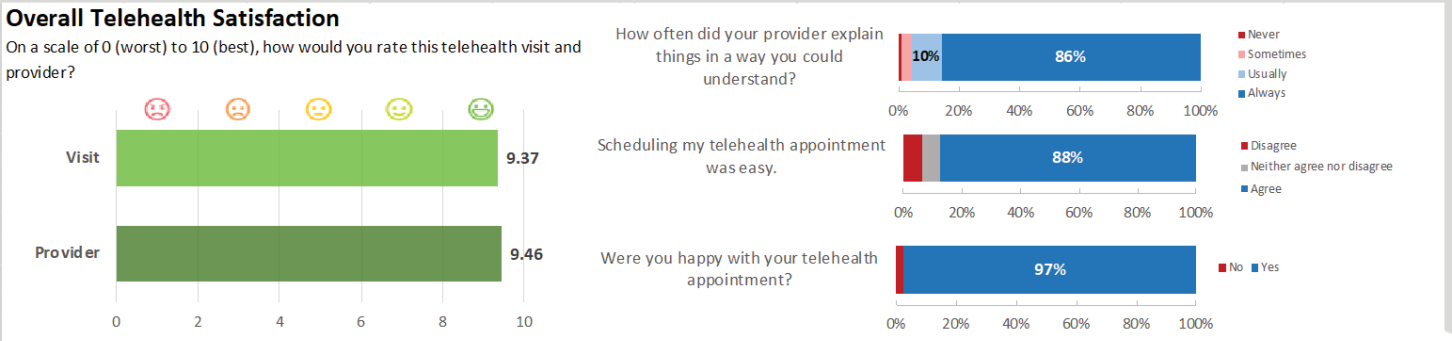






Evaluation and Research

Our HRPP Evaluation team continues to collect patient satisfaction to inform our quality assurance program, the team surveyed patients who received telehealth consults. From 300 patients who completed the survey from March 2020 to March 2021, the majority highly rated telehealth providers (9.37 out of 10) and their visits (9.46 out of 10). Moreover, 97% of surveyed patients reported that they were happy with their telehealth appointments. About 96% of patients stated that their telehealth providers usually or always explained things in a way that they understood. The majority (88%) also reported that scheduling the telehealth appointment was easy.



Telehealth not only allows patients to receive care close to home but it also saves patients' travel time and costs. 62% of the surveyed patients traveled less than 30 miles to attend their telehealth appointments, and 60% of the respondents would have traveled more than 70 miles if there were no telehealth services available. When we asked "why they liked telehealth services," 50% indicated that they were not required "to travel to the telehealth appointment" and 10% said that "they did not have to find someone to take care of their kid(s)". The cost savings because of a shorter travel time varied, but on average, self-reported saving per visit is $75 to $150.

In summary, patients were extremely satisfied with the HRPP telehealth services as they rated both providers and telehealth visits highly. This reflects the high quality of HRPP telehealth services that we continue to offer to high-risk pregnancy women across Arkansas.

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Technology

PatientsLearn.org 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. Pregnancy and Childbirth Resources
2. Arkansas Geriatric Education Collaborative Modules
3. Diabetes Education Courses

6,793
Users

48
Interactive Modules and Videos

45
Counties in Arkansas Have Registered Users

A Provider's Story

Dr. Omar Aziz

Unity Health - Harris Medical Center, Newport

The small community around the Unity Health - Harris Medical Center located in Newport, Arkansas, has all the common features that lend itself to utilizing the UAMS High-Risk Pregnancy Program. Omar Aziz, M.D., started his maternal-fetal medicine (MFM) training in the country of England, but finished his residency in Lubbock, Texas, where the hospital had a NICU. There was no need to refer patients out from that facility, but now, Aziz is at Unity Health and has been using the High-Risk Pregnancy Program since the beginning. "I have to refer patients to a tertiary center if we have a pre-term labor or a person that needs MFM input," said Aziz. "In general, the patients I try to refer or I try to get a consult on have been straight forward, and it has been very easy to speak to someone at UAMS."

The local community is small, but the clinic covers a large area. Dr. Aziz says he sees patients from Pocahontas, Jonesboro, Batesville and areas over an hour away, but this is still a much shorter trip than having to travel to Little Rock for services. UAMS provides digital health consults to anyone needing to visit with an MFM at the Harris Medical Center, and Aziz commends this process as "extremely easy." But for those who need a "higher level of input," it has been no problem arranging transport from the Harris Medical Center to the OB department in Little Rock. "It's been astonishingly easy to transfer patients to their facility," said Aziz, about the High-Risk Pregnancy Program in general.

"I have not had any issues or hurdles in terms of talking to an MFM and the consultation is exceptionally great," said Aziz. "I do not remember a patient who didn't understand what they said or who wasn't aware of the plan when they left the clinic."

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High-Risk Pregnancy Program

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