

**2025 Application Summary**  
**John M. Eisenberg Patient Safety and Quality Award**  
**Local Innovation Awardee**

**University of Arkansas for Medical Sciences**  
**Improving Organ Transplantation Access in**  
**Underserved Communities**



**Executive Summary**

The University of Arkansas for Medical Sciences (UAMS) Solid Organ Transplant Program identified significant gaps in care for transplant patients in rural Arkansas and responded by establishing specialized transplant clinics. These clinics, strategically located in regions with the highest concentrations of transplant patients (Figure 1), improve access to care and reduce the need for costly travel to the main campus in central Arkansas. The first clinic opened in July 2019, and due to overwhelming community demand, six additional clinics have been established statewide. Since the implementation of these satellite clinics, UAMS has seen a substantial increase in kidney transplant referrals, a 40-day reduction in the average time from referral to evaluation, a 39-day reduction from evaluation to waitlist addition, a sustained decrease in post-transplant length of stay, and a 106% increase in patients added to the Kidney Transplant Waiting List annually. This initiative has greatly enhanced care accessibility and efficiency for rural transplant patients.

**Describe why the focus area for your initiative is/was important for patient safety and quality.**

The focus area of this initiative is critical for patient safety and quality because it addresses significant barriers that affect the health outcomes of transplant patients in rural Arkansas. Many patients are unable to pursue transplantation due to limited access to transportation and financial challenges, which hinder their ability to undergo necessary testing and follow-up appointments. This delay of care increases the risk of complications and readmissions, especially post-transplant. By improving access to care through regional transplant clinics, we ensure that patients receive timely evaluations, consistent monitoring, and necessary follow-up care, which are crucial to preventing complications and improving survival rates. This initiative directly addresses the disparities highlighted by Arkansas' low healthcare rankings (47th in healthcare, 49th in public health, and 39th in healthcare access) and ensures that rural patients have a viable pathway to receive life-saving treatments (U.S. News & World Report, 2024). With the average life expectancy for dialysis patients being just 5 to 10 years, increasing access to transplant care is vital for improving patient safety and quality of life (National Kidney Foundation, 2024).

**Describe how the problem was identified within your setting/organization.**

During routine community outreach events and communications with dialysis facilities and clinics across the state, concerns were consistently raised regarding the challenges patients faced in traveling to UAMS for testing, appointments, and post-transplant care. In response, we began collecting data and established a multidisciplinary task force to develop a solution. Our analysis revealed that more than sixty percent of our patient population resides in the Arkansas Delta's Distressed Region (Figure 2), with forty-five percent living in areas identified by the USDA as low food access communities, and twenty-five percent residing in low food

access zones (USDA, 2024). Additionally, we created a transplant timeline and incorporated feedback from patients, dialysis centers, and healthcare providers to identify critical points in the transplant journey that posed the highest risk for adverse safety events, as well as the most prevalent barriers to successful transplantation.

### **Explain how the project/initiative was implemented.**

After recognizing the need to expand access to transplant care, the program director collaborated with regional clinics and dialysis facilities to determine optimal locations and scheduling for the new transplant clinics. A comprehensive community outreach effort was conducted, and supplemental materials were distributed to promote the clinic openings. Transplant nurse coordinators play a key role in engaging with patients in the vicinity of the clinics, offering to schedule appointments, and coordinating with patients to identify the most convenient locations for labs and testing. To ensure the delivery of high-quality care and optimal patient outcomes, UAMS physicians and surgeons staff the clinics and maintain consistent schedules, allowing patients to build familiarity with their care providers. Prior to the clinics' opening, UAMS adjusted physician schedules to ensure adequate staffing and provided specialized transplant training to regional clinic staff. Additionally, training was extended to main campus staff to familiarize them with scheduling procedures and the specific testing and lab requirements for patients seen at the clinics. Throughout the implementation process, clear and accessible literature has been distributed across various locations surrounding the clinics, providing essential information about the clinics, transplant center contact details, and the services offered (Figure 3). This approach enables patients to educate themselves on the transplant process and feel empowered to discuss transplantation as an option with their local providers. Additionally, the clinics became embedded in the UAMS lab draw so labs result on the same day to the patient's chart for review by the provider. The system auto alerts the ordering provider and allows for review of critical results in real time improving compliance and patient safety. The first transplant clinic was established in Fayetteville, Arkansas, opening in July 2019. In response to the clear need for broader access to transplant care, additional clinics were launched in Jonesboro and Texarkana, Arkansas, in March 2021, Pine Bluff in November 2021, and Fort Smith in December 2022. The most recent clinics opened in Helena in October 2023 and in El Dorado in August 2024. While patients are required to travel to the main campus at the time of their transplant and a short post-operative period, the bulk of their evaluation and posttransplant care is now provided within their communities.

### **Describe your achievements and improved state.**

The UAMS Kidney Transplant Program has achieved significant improvements in both patient access and outcomes since the implementation of the satellite clinics. The number of referrals received has increased by 101%, rising from 895 to 1,797 (Figure 4). This surge in referrals reflects greater patient awareness and trust in the program. Additionally, the program has reduced the time from referral to evaluation by 40 days, ensuring that patients receive timely assessments (Figure 5). The average time from the first evaluation to being added to the Kidney Transplant Waiting List has decreased by 39 days (Figure 6), expediting the process for patients in need of a transplant. Post-transplant care has also improved, with a sustained reduction in the average length of stay immediately post-transplant from 5 to 3 days (Figure 7), supporting quicker recovery and reducing hospital-related risks.

Furthermore, the program has seen a 106% increase in the number of patients added to the kidney waiting list annually, growing from 145 to 298 (Figure 8). These achievements demonstrate a more efficient, accessible, and patient-centered approach to kidney transplant care, significantly improving outcomes for those in need.

## **Describe how the project/initiative represents an innovation or novel approach.**

This initiative represents a novel approach in addressing healthcare disparities by combining strategic resource management, collaborative partnerships, and a deep understanding of the unique challenges faced by transplant patients in rural communities. While identifying gaps in care is a common practice within healthcare, this initiative goes beyond traditional approaches by requiring a thoughtful and innovative strategy to navigate and operate a solution without the benefit of additional staff or financial resources. Our approach stands out in its ability to address a systemic issue, limited access to high-quality care, that affects the vast majority of our patient population. Unlike typical solutions that might focus on expanding services at a centralized campus, this initiative recognized that such an approach would not be sufficient to solve the problem for rural patients. We understood that the socioeconomic constraints of the patient population we serve is largely unchangeable, prompting the need for sustainable measures that ensured lasting improvements in patient outcomes.

Furthermore, the initiative's collaboration with both intraorganizational partners and local/regional stakeholders to determine the most efficient way to operate the clinics demonstrates a resourceful use of available assets. To improve interdisciplinary communication and continuity of care with a limited budget, we implemented the use of the EPICare Link for local providers not in the EPIC health care system. By creatively leveraging limited resources, including distributing clinic literature and coordinating schedules with local dialysis centers, the task force was able to ensure that patients received care from world-class providers within their own communities. This innovative and resource-conscious approach not only improved access to care but also fostered a more sustainable model that can be replicated in other underserved regions.

## **How do you monitor that the improvement is sustained?**

To ensure sustainability, key strategies have been implemented with a focus on maintaining high-quality care, patient engagement, and collaboration with healthcare partners. We regularly assess resource allocation for the regional transplant clinics to ensure financial sustainability. Strong relationships with regional clinics, dialysis centers, and community organizations are maintained to provide coordinated care and instill patient confidence in the program.

We engage in ongoing community outreach through informational sessions, updated literature, and local resources to keep patients and providers informed. Both regional and main campus staff receive continuous training on transplant care and best practices. A succession plan ensures that new providers are recruited and integrated into clinic operations. We regularly evaluate the program's effectiveness through data collection, patient feedback, and outcome analysis, identifying areas for improvement. Patient progress is tracked post-transplant, refining care protocols based on long-term outcomes. This approach ensures the continued delivery of accessible, high-quality transplant care in rural Arkansas and beyond.

## **Describe how the project/initiative has been or could be replicated across departments or organizations. Share experiences or suggestions on how others could implement.**

The key to successfully replicating this model lies in several strategic components that can be adapted to different settings. Other organizations can establish partnerships with local clinics to identify locations for expanding care. By collaborating with regional providers, organizations can leverage existing infrastructure and local expertise to efficiently serve patients in their communities. Organizations can use existing staff to engage with patients and coordinate care. The ability to utilize existing personnel helps to reduce costs and ensures that the clinics remain financially sustainable. Maintaining a consistent schedule of physicians at each clinic is key to

providing high-quality care. By ensuring that the same providers staff the clinics, organizations foster continuity in patient care and build strong relationships between patients and their care teams. Other organizations can start with a single clinic in a high-need area and expand based on patient demand. The careful collection of data will help organizations make informed decisions about where to expand next. In turn, this approach helps to ensure that services are aligned with community needs, improving access to care and fostering positive patient outcomes.

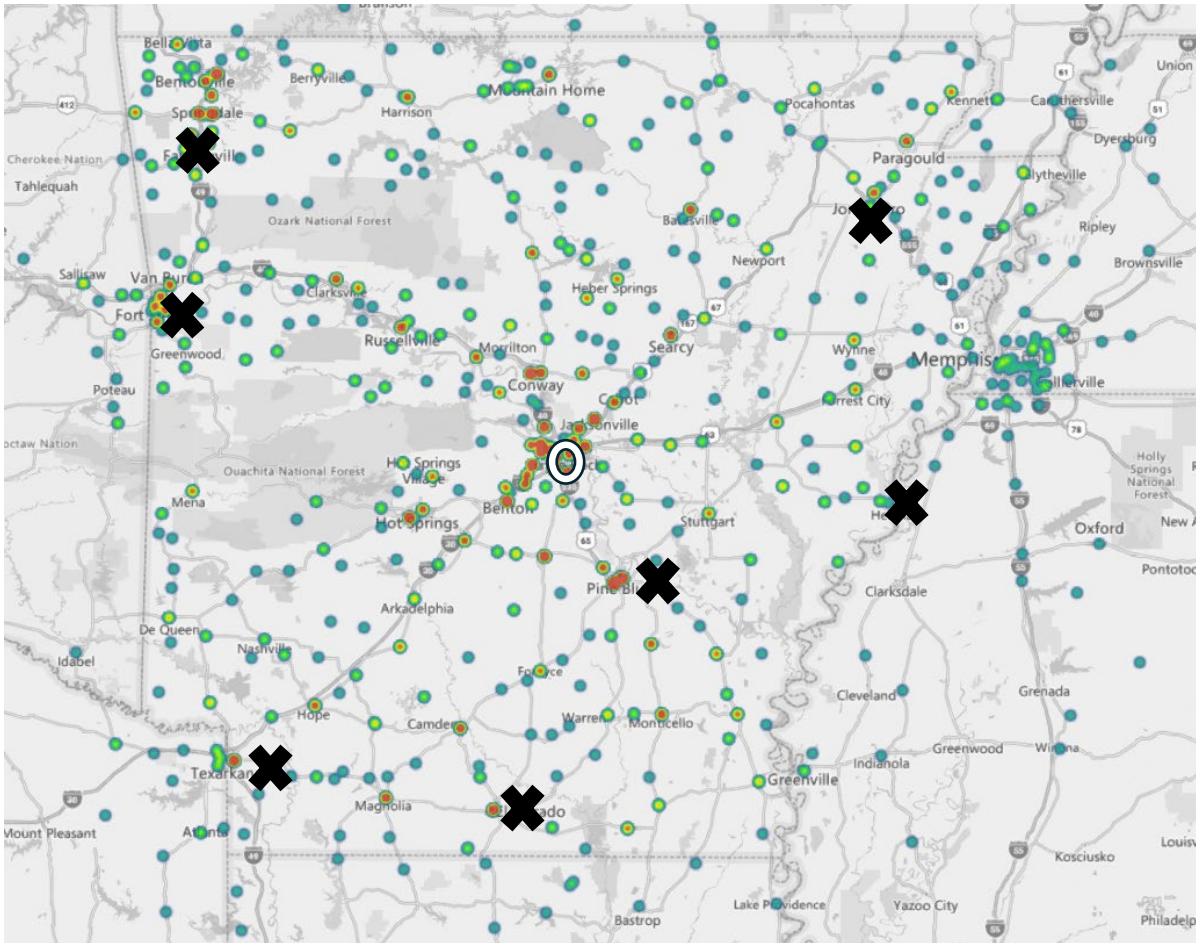


Figure 1: Heat Map for UAMS Solid Organ Transplant Patient Population with an X representing the Satellite Transplant Clinics and an O representing the main UAMS campus.

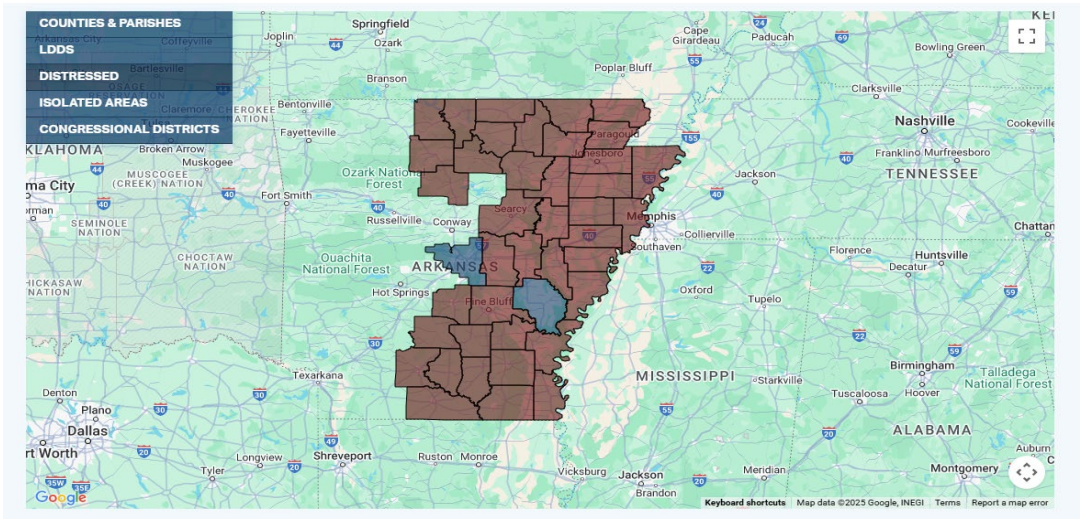



Figure 2: Delta Regional Authority Map showing the delta region counties within Arkansas with the red counties being “distressed”.



**UAMS Health Kidney and Liver Transplant Programs rank in the top 5 centers in the nation for transplants.**

**UAMS HEALTH TRANSPLANT AND LIVER CANCER PROGRAM**

**UAMS Health Transplant Satellite Clinics**

**SERVICES PROVIDED:**

- Liver, Kidney and Pancreas Care
- Dialysis Access Evaluation
- Liver, Pancreatic & Cancer Evaluation and Care
- Management of Disorders of the Bile Ducts
- Liver Failure/Liver Dysfunction Care


**PROVIDERS:**

- Sushma Bhusal, M.D.
- Lyle Burdine, M.D., Ph.D.
- Matthew Deneke, M.D.
- Michelle Estrada, M.D.
- Mauricio Garcia Saenz de Sicilia, M.D.
- Sumant Inamdar, M.D.
- Nasir Khan, M.D.
- Venkata Manchala, M.D.
- James Meek, D.O.
- John Montgomery, M.D.
- Tsukasa Nakamura, M.D., Ph.D.
- Raj Patel, M.D.
- Katie Rude, M.D.
- Ragesh Thandassery, M.D.

**UAMS Health Transplant Satellite Clinics**

<b>Fayetteville, AR</b> 1125 N. College Ave.	<b>Fort Smith, AR</b> 1301 S. East St.
<b>Jonesboro, AR</b> 311 E. Matthews Ave.	<b>Helena-West Helena, AR</b> 1393 Highway 242 South
<b>Pine Bluff, AR</b> 1601 W. 40th Ave.	<b>Texarkana, AR</b> 3417 U of A Way
<b>El Dorado, AR</b> 620 W. Grove St.	

Transplant patients are seen at the following UAMS Health Family Medical Center Locations:



**UAMS is the home of Arkansas' only adult kidney, pancreas and liver transplant center**, with transplants beginning in 1964 with the state's first kidney transplant. UAMS also performed the state's first liver transplant in 2005. The UAMS Organ Transplant team has performed over 1,800 kidney transplants and over 400 liver transplants.


UAMS has achieved wait times among the shortest in the nation, ranking 4th for kidney and 2nd for liver transplantation, as well as patient outcomes that consistently exceed national benchmarks.

**Multi-Disciplinary Organ Transplant Team**  
To ensure the most thorough and collaborative approach to care, UAMS uses a team of caring and compassionate staff including dedicated transplant surgeons, nephrologists (kidney doctors), hepatologists (liver doctors), nurse practitioners, and specially-trained support staff including nurse coordinators, pharmacists, dietitians, financial coordinators, and social workers.

**Patient-Centered Care**  
Our team's extensive expertise in organ transplantation means that Arkansans and those from the surrounding region can stay close to home and receive the world-class care they need before, during, and after an organ transplant.

We provide the best in patient education so that patients and their families can actively and informatively collaborate with the team in all stages of their care. Patients and families will receive in-person education to learn about transplantation requirements, information about the surgery, transplant-specific medications, and post-transplant lifestyle considerations.

**Nationally Ranked Kidney and Liver Transplant Program**  
The Scientific Registry of Transplant Recipients (SRTI) has again ranked UAMS' kidney and liver transplant programs among the top 5 centers in the nation for transplants. Nationwide, there are 256 kidney transplant programs and 147 liver transplant programs.




For more information or to refer a patient, visit [UAMS.Health/LiverKidney](https://UAMS.Health/LiverKidney)

**B-FIT Program**  
Bariatric-Focused Intervention for Transplant

Too many patients in need of an organ transplant are told they don't qualify because of their weight. The UAMS Health Transplant team is providing multidisciplinary and comprehensive care to overcome obesity as a barrier to transplant.

- Now accepting eligible patients with BMI 40-50.
- Must have a transplant referral and pass initial financial and medical screening for transplant.

Bariatric surgery makes transplants possible!



**UAMS HEALTH TRANSPLANT SATELLITE OUTREACH**

- El Dorado
- Fayetteville
- Fort Smith
- Helena-West Helena
- Jonesboro
- Pine Bluff
- Texarkana

**APPOINTMENTS**  
Kidney: 501-686-6640  
Liver: 501-686-8962

**UAMSHealth**

Figure 3: Example of materials distributed to regional clinics, dialysis centers, and other community health organizations.

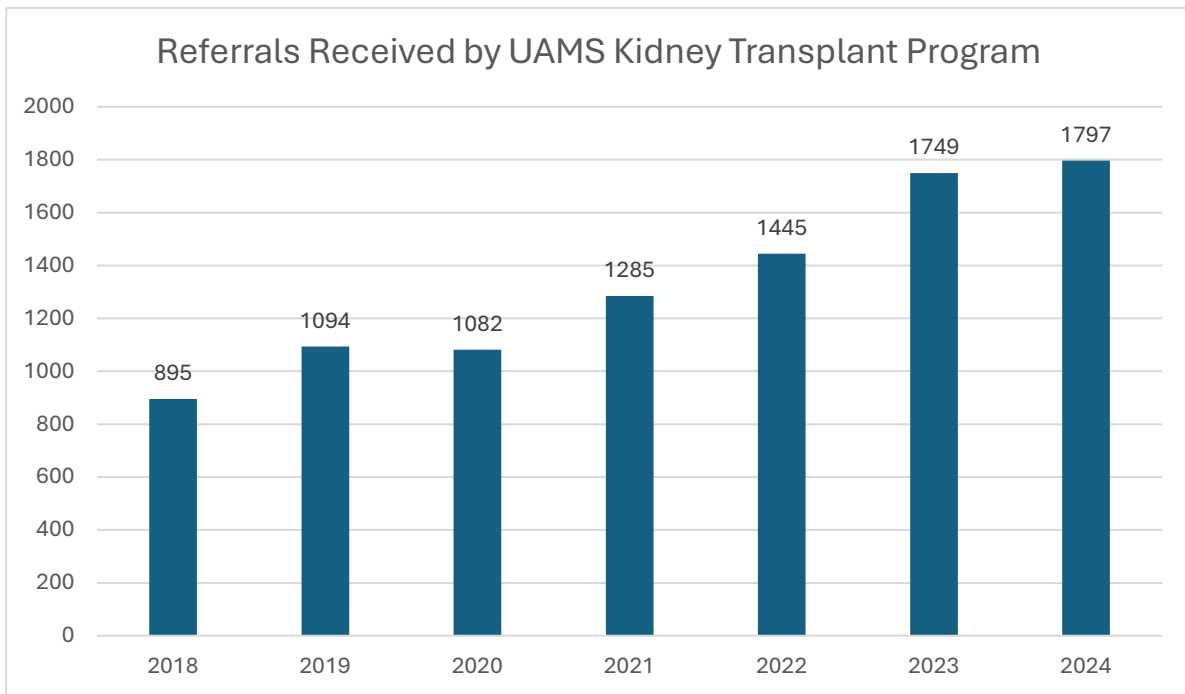


Figure 4: Graph with the total number of Kidney Transplant Referrals received by UAMS each year showing a 101% increase in the number of referrals received each year since implementation of the satellite clinics.

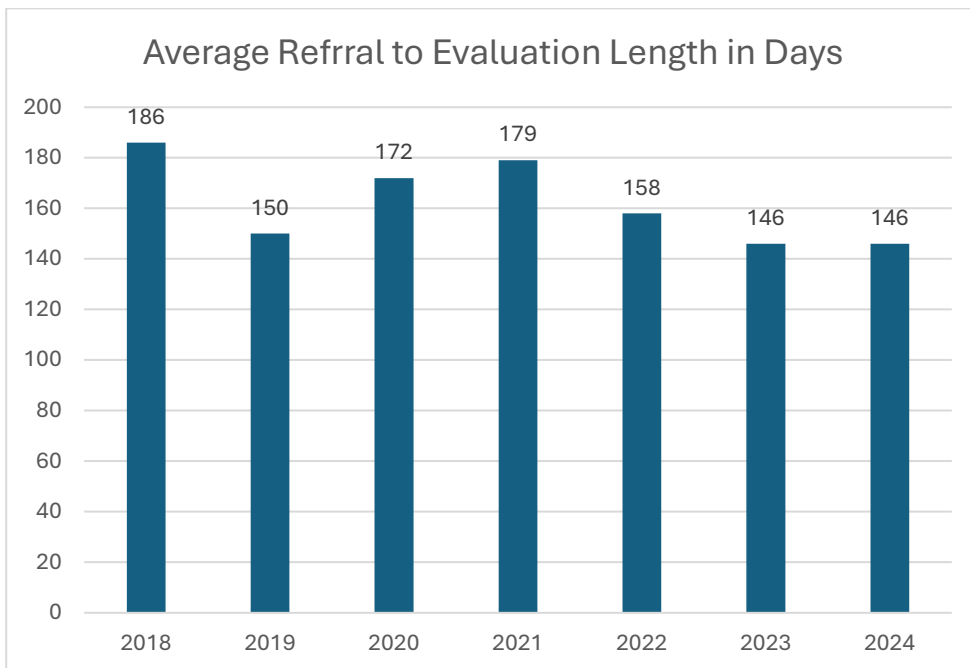


Figure 5: Chart showing the average referral to evaluation length in days. Of note, 2020 and 2021 remain below the average prior to the clinics opening despite facing closures and delays in care due to the COVID-19 Pandemic.

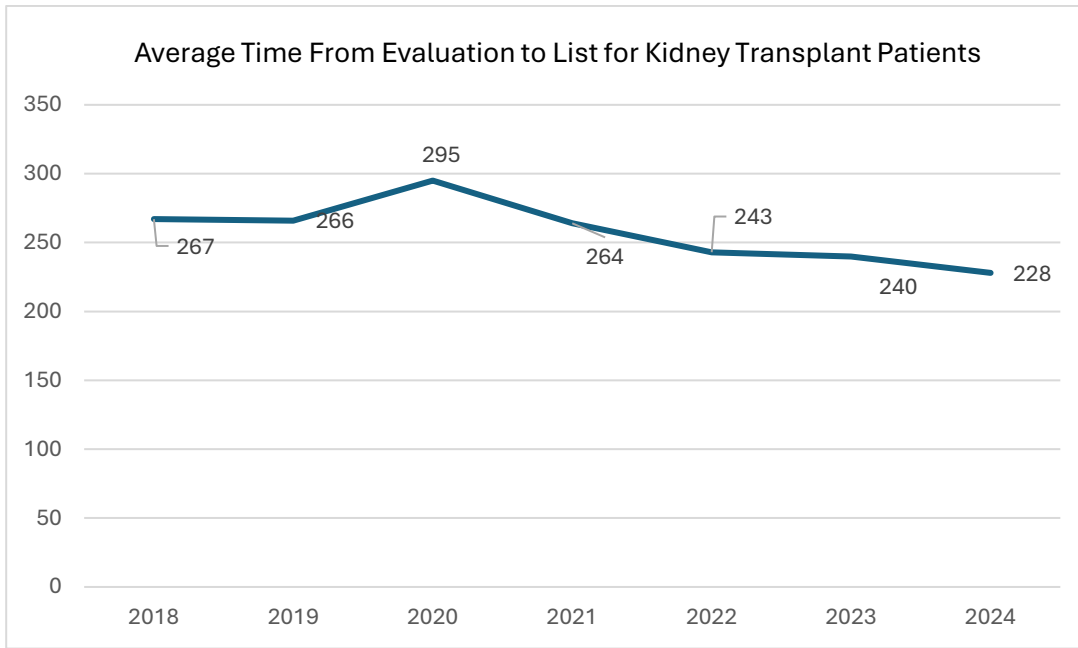


Figure 6: Chart showing the average time it takes for a patient to move through the evaluation process and be placed on the Kidney Transplant Waiting List.

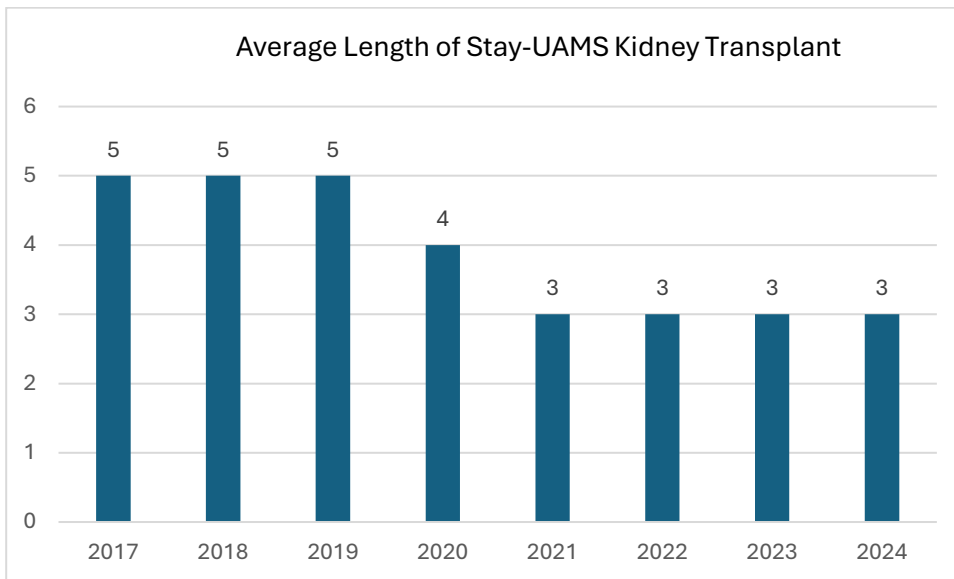


Figure 7: Chart showing the average length of stay for patients after a kidney transplant at UAMS. Note the sustained decrease after satellite clinics offering pre- and -post transplant care opened.

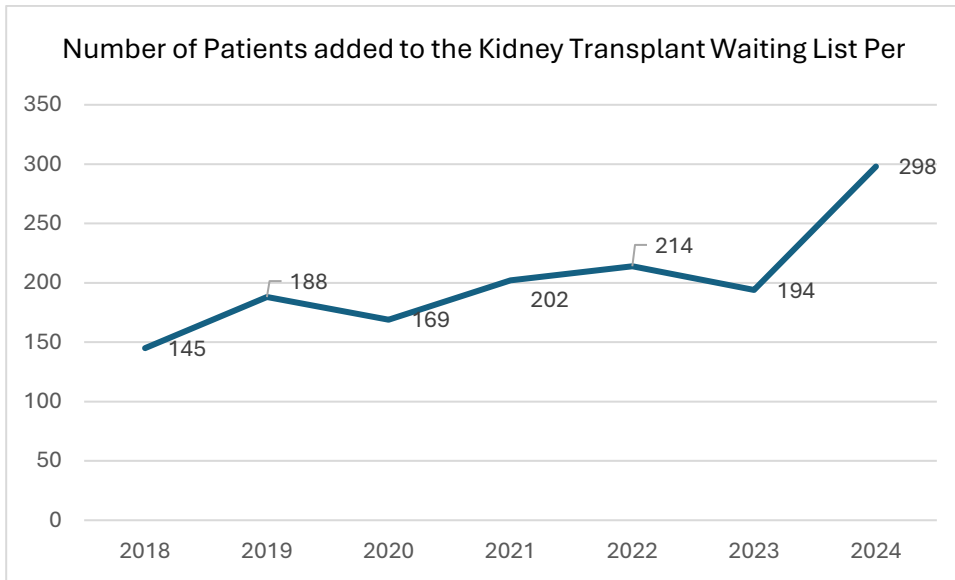


Figure 8: Graph shows the number of patients added to the Kidney Transplant Waiting List per year, demonstrating a 106% increase since 2018.

References:

Delta Regional Authority. (2024). *Economic development in the Delta Region*. Delta Regional Authority. <https://dra.gov/>

National Kidney Foundation. (2024). *Life expectancy on dialysis*. Kidney.org. <https://www.kidney.org/kidneytopics/dialysis#:~:text=Life%20expectancy%20on%20dialysis%20varies,and%20stay%20healthy%20on%20dialysis.>

U.S. Department of Agriculture, Economic Research Service. (2024). *Food Access Research Atlas*. USDA ERS. <https://www.ers.usda.gov/data-products/food-access-research-atlas/>

U.S. News & World Report. (2024). *Arkansas*. U.S. News & World Report. <https://www.usnews.com/news/best-states/arkansas>