

ARKANSAS
HEALTHCARE
TRANSPARENCY
INITIATIVE

Biennial Report

2024-2025



ARKANSAS
INSURANCE
DEPARTMENT



HEALTHCARE
TRANSPARENCY
INITIATIVE

Introduction

The Arkansas Healthcare Transparency Initiative (HTI) has served for more than a decade as Arkansas's primary, unified source for health data. It continues to support a broad spectrum of activities to inform researchers, healthcare leaders, and policymakers with actionable, data-driven insights into the healthcare landscape.

Recognizing the need for a more transparent healthcare system, the Arkansas General Assembly created the HTI under Act 1233 of 2015, the Arkansas Healthcare Transparency Initiative Act, championed by then-Sen. David Sanders. The stated aim was to create a new resource that would integrate health data from multiple sources and make it possible to transform that data into useful information to support health policy decisions, health research, quality improvement initiatives, and evaluation of health-related programs.

A core component of the initiative is the Arkansas All-Payer Claims Database (APCD), a central repository for medical, pharmacy, and dental health insurance claims data and provider and enrollment files submitted by public programs and private insurers in the state. The Arkansas APCD includes claims data for between 80% and 85% of all Arkansans with some type of healthcare coverage, submitted by between 65 and 70 insurers. About half of states have or are developing APCDs, but Arkansas's is a particularly robust database — for example, it is one of only 14 in the nation that collect dental claims data.¹

*Arkansas is one of only 14 states
that collect dental claims data.*

Additionally, the HTI has grown to encompass much more than just the APCD. Over the years, the General Assembly has authorized expanding the HTI to include not only claims data but also birth and death records, hospital discharge and emergency

department utilization records for the uninsured, cancer registry data, medical marijuana cardholder data, and workers' compensation data. The data are linked across sources — using encrypted IDs to ensure that no personal identifiers are included — which allows researchers to track an individual's healthcare utilization using multiple data sets that would be difficult or impossible to obtain and cross-reference in the absence of the HTI. The presence of more than

¹ An additional three states collected dental claims data in limited scope or are implementing collection of dental claims data.



a decade's worth of data in the HTI also allows researchers to track how an individual's healthcare utilization changes over time.

Since the inception of the HTI, the Arkansas Center for Health Improvement (ACHI), which administers the initiative, has fulfilled more than 150 data requests for projects conducted by state agencies, major universities across the country, and private organizations. Projects by Arkansas researchers have brought millions of research dollars into the state. In fact, of all the National Institutes of Health (NIH)-funded research projects across the nation using APCDs since 2012, nearly 20% originated in Arkansas.

The HTI has evolved into one of the most robust repositories of state-level health data in the country. This report offers a snapshot of the past two years (2024-2025), featuring achievements made possible through legislative support, collaboration with stakeholders, and input from data users.

20% of NIH-funded projects using APCDs use Arkansas data.

HTI Governance

The HTI is under the authority of the Arkansas Insurance Department (AID), with ACHI named as the statutorily designated administrator. The HTI Board advises AID, focusing primarily on the oversight of data requests and data outputs. To support its functions, two specialized subcommittees have been established: the Data Oversight Committee and the Scientific Advisory Committee. The Data Oversight Committee is tasked with reviewing data requests and making recommendations to the HTI Board, ensuring that data usage aligns with the initiative's objectives and privacy standards. The Scientific Advisory Committee provides a critical peer review function for academic research proposals, upholding the scientific integrity of projects utilizing HTI data. For a list of HTI board and committee members, see Appendix A.

Data Submission

HTI data include medical, pharmacy, and dental claims; enrollment and provider files; hospital discharge and emergency department data for the uninsured; cancer registry data; birth and death records; and medical marijuana qualifying patient data. Entities that submit to the HTI include issuers of fully insured commercial or dental plans; Arkansas Medicaid; Medicare (submitted by state Medicare administrators under an agreement with the federal government); state-funded plans, including the plans for state and public school employees, state-funded



colleges and universities, and the Arkansas State Police; pharmacy benefit managers; third-party administrators; managed care organizations, and Provider-led Arkansas Shared Savings Entities (PASSEs). Additionally, the HTI includes data assets from the Arkansas Department of Health and the Arkansas Workers' Compensation Commission.

AVAILABLE HTI DATA AS OF JULY 2026

ARKANSAS HEALTHCARE TRANSPARENCY INITIATIVE DATA ASSETS				
HEALTHCARE COVERAGE		COMMERCIAL	2013-2025	4,286,017 covered individuals
		AR MEDICAID	2013-2025	2,133,925 covered individuals
		MEDICARE	2013-2023	1,025,595 covered individuals
		AR STATE/SCHOOL EMPLOYEES	2013-2025	395,916 covered individuals
		AR WORKERS' COMPENSATION	2013-2025	70,385 covered individuals
		BIRTH CERTIFICATE	2013-2024	431,118 children
		DEATH CERTIFICATE	2013-2024	405,117 individuals
		HOSPITAL DISCHARGE*	2013-2023	124,328 individuals
		EMERGENCY DEPARTMENT*	2013-2023	719,578 individuals
		CANCER REGISTRY	2013-2021	151,443 individuals
		MEDICAL MARIJUANA CARDHOLDERS	2018-2025	218,970 individuals
 		* Self-pay and uninsured only		
				MEDICAL PHARMACY ENROLLMENT DENTAL PROVIDER

Current Data Requesters

HTI data are available by request through ACHI, as approved by AID. Data may be acquired for one-time use on a project or through a subscription that allows use for multiple projects. State agencies are eligible to receive a subscription without a fee. During 2024 and 2025, four entities had subscriptions: the Arkansas Biosciences Institute (ABI), ACHI, the Arkansas Department of Health, and AID.



Arkansas Biosciences Institute

Since 2018, ABI projects utilizing the APCD have secured more than \$20 million in funding, reflecting their significant contributions to health services research. The ABI subscription is used for projects by ABI-affiliated researchers at the University of Arkansas for Medical Sciences, the University of Arkansas, Arkansas Children's Research Institute, and Arkansas State University.

During 2024 and 2025, 46 approved ABI projects were initiated or remained active. These projects explored a variety of topics, including whether Arkansas's Medicaid expansion program has

ABI projects using the HTI have brought \$20 million into Arkansas.

shortened time to diagnosis for cancer patients, how the 340B Drug Discount Program impacts hospital services, and whether running out of mental health medications increases the likelihood of suicide. The 46 ABI projects, listed in Appendix B, leveraged diverse data sources and methodologies to address health and healthcare issues.

Collaboration With DHS and AFMC

To establish a more comprehensive record of healthcare services provided to children in foster care, ACHI is collaborating with the Arkansas Department of Human Services (DHS) and AFMC to provide historical diagnoses and treatment information. This project involves linking data from the APCD with records held by DHS and AFMC to enable accurate tracking and analyses of healthcare utilization over time for foster children to provide a more comprehensive profile of their healthcare history as they prepare for adoption.

Projects by Out-of-State Researchers

Many data requests come from out-of-state organizations and researchers. To be approved, the requests must align with the HTI's goals and purposes and demonstrate a benefit to Arkansas.

Projects by out-of-state researchers include the latest phase of the RAND Hospital Price Transparency Study, an employer-led initiative using claims data to compare hospital prices and enable employers to make informed decisions regarding health plans and provider networks.

DecisionQ is finishing a study examining the risk of undiagnosed chemical dependency or substance use disorders using data described in peer-reviewed journal articles.

A researcher from Brandeis University is assessing two different algorithmic tools, the Johns Hopkins Adjusted Clinical Group (ACG) System and the Resource Utilization Groups (RUGs)



system used by Arkansas's ARChoices in Homecare program, to understand the impact of algorithmic decision-making tools in health care.

The University of Maryland is executing a project to examine trends in prenatal care and associated outcomes in Arkansas across the population and in populations facing additional challenges accessing health care.

Yale University is studying the market structure of the U.S. hospital sector (e.g., hospital mergers, service line closures, insurer networks) to see how it is impacted by incentives offered by firms and how it affects patient outcomes.

ACHI

ACHI maintains a subscription for HTI data and conducted multiple projects in 2024 and 2025, focusing on issues such as Arkansas mothers' travel time to delivery facilities, the state's supply of OB-GYNs, acute behavioral health events, and prescribing rates of naloxone in response to the opioid epidemic. For more details on ACHI projects, see Appendix C.

Data Users Group

Since September 2019, ACHI has hosted quarterly meetings for the Data Users Group, a forum for data users to examine practical applications of APCD and HTI data. These sessions provide opportunities for participants to learn about specific data-related topics, receive guidance from ACHI experts, and present data use cases or analytic solutions. Meetings have included discussions of topics such as the risk of adverse infant outcomes associated with maternal mental health and substance use disorder, as well as tips on data use practices such as linking external data files to HTI data. All meetings are recorded and available for review at arkansasapcd.net. Additionally, ACHI maintains a repository of data tips and ways to address data variations across different entities and years, ensuring that users can effectively merge and analyze data. See Appendix D for more information on topics covered.

Enhancements to HTI Data Use

ACHI has implemented enhancements to its two primary stand-alone data assets, the Member

ACHI has developed a mother-baby linkage to support maternal health research.

Enrollment Selection Table (MEST) and the Mother and Child Cross-Reference File. The MEST, which allows data users to segment and identify study populations by



member enrollment, coverage activity, and payer type, has been enhanced with a new level of granularity, allowing users to know if a plan member was covered by medical, pharmacy, and/or dental coverage when enrolled and what relevant services were available to the member. The Mother and Child Cross-Reference File, which helps data users bring together claims and enrollment data for mothers and children, has been refined to better associate mother-and-child pairs with APCD enrollment and claims data, allowing users to mine data for their projects more efficiently.

Another enhancement is the development of multiple online dashboards that allow policymakers, healthcare leaders, and the public to view data on a variety of topics in an interactive format. Visitors to the ACHI website can explore dashboards displaying information on healthcare expenditures; the state's primary care physician, OB-GYN, and general surgeon workforces; Arkansas physician specialties; acute behavioral health events among all Arkansans and among pregnant and postpartum women; body mass indices among public school students; Medicare Advantage enrollment; Affordable Care Act marketplace plan selections and premiums; and telehealth utilization.

Together, these enhancements expand the utility of HTI data, supporting research and policy analyses to improve healthcare outcomes statewide.

Looking Ahead

The HTI continues to serve as an important resource for understanding healthcare utilization, spending, access, and outcomes across Arkansas. Several developments are underway that will shape the next phase of HTI work.

Act 483 of 2025 established the Arkansas Primary Care Payment Improvement Working Group to evaluate Arkansas's primary care delivery system, measure primary care spending relative to total healthcare spending, and recommend a primary care spending target designed to improve health outcomes and reduce healthcare costs. In its inaugural report, the working group found that statewide primary care spending represented 5.67% of total medical expenditures in 2022 and 5.36% in 2023, based on self-reported data. The group recommended adopting a 12% primary care spending target, reached through annual 1-percentage-point benchmark increases, along with a 5% minimum spending floor for all payers. The APCD is expected to play a role in this work as data submission capabilities evolve to include non-claims payments and other fields needed to measure primary care investment more consistently. Over time, APCD-based analyses could help Arkansas independently verify spending patterns, track



progress toward any adopted target, and support public reporting on primary care access, quality, affordability, and investment.

At the end of 2025, the HTI completed the Data Submission Guide Version 9.0.2025 update, which includes an expansion of the data elements that submitters will report. The material

Arkansas now collects data on non-claims payments and denied claims.

changes include new submission requirements

for non-claims payments, denied claims, and pharmacy rebate data, along with updates to required fields across several file types. One reason for these changes is to strengthen the APCD's ability to support the Arkansas Primary Care Payment Improvement Working Group's future analyses. These enhancements are expected to help HTI better capture how healthcare services are paid for, not only through traditional claims but also through value-based and other non-claims arrangements that are increasingly important to measure primary care investment.

The HTI is developing an enclave access model — a secure analytic environment — to support the use and accessibility of HTI data while maintaining privacy and security protections. The enclave will allow approved users to access HTI data through a controlled analytic environment rather than receiving raw HTI data directly. One purpose of this model is to create a more secure and efficient pathway for academic researchers to conduct analyses using HTI data with reduced technology infrastructure requirements. The enclave will also provide the benefit of advancing the education and training of student researchers. This approach can support broader research and policy analyses while limiting unnecessary data movement, improving

The HTI's planned enclave model will remove access barriers and facilitate research and analysis, particularly among student researchers to advance their education and training.

monitoring, and reinforcing data governance standards. As the enclave model develops, it may provide a pathway for approved academic and policy partners to conduct more advanced analyses within a secure framework.



Appendix A

ARKANSAS HTI BOARD MEMBERS

Bradley C. Martin (Chair)

Professor, Division Head of Pharmaceutical Evaluation and Policy, University of Arkansas for Medical Sciences

Cal Kellogg

Executive Vice President and Chief Strategy Officer, Arkansas Blue Cross and Blue Shield

Austin Porter*

Deputy Chief Science Officer, Arkansas Department of Health

Doug Weeks*

Executive Vice President, Baptist Health

Shan Pethaperumal

Division of Medical Services
State Systems Architect
Arkansas Department of Human Services

Chad Aduddell

Market Chief Executive Officer, CHI St. Vincent

Anne Santifer

Executive Director, Office of Health Information Technology
Arkansas Department of Health

Billy Roehrenbeck*

Owner, Pulaski County Title

John Ryan

President and CEO, Arkansas Health & Wellness Solutions

Dr. Kay Chandler

Arkansas Surgeon General

Jeff Brinsfield

Vice President of Information Systems, QualChoice

Jayme Mayo

Nabholz

Robert McGehee (ex officio, nonvoting member)

Arkansas Biosciences Institute

Consumer Organization Representative

Vacant

*Member of the Data Oversight Subcommittee



Appendix B

ABI PROJECTS USING THE HTI

Project Name	Project Summary
Impact of the 340B drug discount program on hospital services	This study will assess whether the 340B program expands the availability and utilization of hospital services, such as oncology, behavioral health, or obstetrics care.
Impact of the Affordable Care Act on racial disparity in endocrine therapy use among females with early-stage hormone receptor positive breast cancer	This project aims to determine the ACA's impact on racial disparity in: 1) insurance coverage; and 2) endocrine therapy initiation and adherence among non-elderly women with early-stage breast cancer.
Evaluation of healthcare utilization in patients with moderate and severe traumatic brain injury in the state of Arkansas	This study will review data to identify patients with moderate and severe traumatic brain injuries using the Glasgow coma scale score with the intent of evaluating the relationships between the severity of trauma, rehabilitation therapy, and healthcare utilization.
Arkansas home visiting evaluation	This study will evaluate the transition of delivery mode during the COVID-19 pandemic to comprehend the implications of this transition to effectively support home visiting programs in enhancing access to care, promoting engagement, and maximizing effectiveness.
Head and neck cancer in Arkansas	This is a retrospective study of head and neck cancer in Arkansas using de-identified data from the APCD and cancer registry databases to identify characteristics contributing to delays in diagnosis and treatment and poor clinical outcomes.
Variations in management of pediatric acute appendicitis at Children's Hospital vs. non-children's hospitals	This study will retrospectively review patients who underwent a laparoscopic appendectomy with the diagnosis of acute appendicitis at Arkansas Children's Hospital and non-children's hospitals.
Algorithmic fairness in predictive models to eliminate disparities in adverse infant outcomes: A case for race	This project aims to develop predictive algorithms for low birthweight births using insurance claims data and birth certificate data from the APCD.
Running out of meds: Potential trigger for suicide	This study aims to explore the immediate link between running out of mental health medications and the occurrence of suicide, employing a case-crossover study design to examine this temporal association.



Socio-environmental and clinical factors to tackle racial health disparities in breast cancer therapy toxicities	This project will make use of the Surveillance, Epidemiology, and End Results (SEER) Program and the Arkansas Central Cancer Registry linked to claims databases for a retrospective study design of a large number of women to determine the influence of multiple socio-environmental risk factors on the development of breast cancer therapy toxicities. The goal is to identify the main drivers of racial health disparities in this area and the interplay between these factors. This work will provide multilevel, integrated solutions to prevent chemotherapy-induced lymphedema and cardiotoxicity and may lead to evidence-based clinical practice guidelines for equitable care.
Optimizing telehealth	This study proposes to evaluate the benefits of telehealth delivery methods compared with in-person care (e.g., reductions in emergency room visits and contraindicated prescriptions) across diseases (e.g., multiple chronic conditions, stroke, etc.) and health outcomes (e.g., fewer emergency room visits, etc.) to understand how telehealth can best be integrated into care.
Variation in prescribing adherence and adverse outcomes for adult patients with major depressive disorder	This project intends to evaluate variation in prescribing patterns across providers, examine associations between medication adherence and adverse outcomes in a major depressive disorder sample, and apply a causal approach to assess such associations.
Mapping lung cancer screening	The uneven distribution of radiological imaging facilities may contribute to geographic disparities in lung cancer screening (LCS). To examine variation in LCS access over time in a diverse and rural state with a high lung cancer burden, this project will visualize the initiation and expansion of LCS services in Arkansas from 2015 to 2021. LCS claims will be identified by procedure codes from the Medicare, Medicaid, and commercial claims data. Provider location will be classified by city and county and will be mapped using ArcGIS Pro. Screening locations will be overlaid with county-level sociodemographic data from the American Community Survey (2018-2022) and lung cancer mortality data from the National Center for Health Statistics (2016-2020). The statewide map of screening locations will show the trends in LCS utilization over space and time.
Understanding utilization of diabetes self-management education and support using social network analysis	Access to the APCD is requested to complete the aims outlined in the recently awarded K25 grant from the National Institute of Diabetes and Digestive and Kidney Diseases, with a project period from September 1, 2024, to April 30, 2028.



Arkansas immediate post-partum long-acting reversible contraception (IPP-LARC) project	The goal of the IPP-LARC project is to implement Arkansas HB 1385, passed in April 2023, allowing birthing hospitals to obtain reimbursement for immediate postpartum LARC.
Breast cancer treatment use and cost	The proposed study will describe cancer treatment utilization and costs among Arkansas women with breast cancer and identify factors associated with treatment patterns and costs. We will use the Arkansas All-Payer Claims Database (for information on treatment, costs, and insurance coverage) linked to the Arkansas cancer registry database (for breast cancer-specific information) and death certificate database (for mortality). The linkage of the APCD to the Arkansas cancer registry and death certificate data will be through alias IDs already created by ACHI.
Spatially fractionated radiotherapy (grid) for bulky tumors: a large, single-institution experience	This study analyzed treatment outcomes in patients treated with grid radiotherapy at UAMS. It examined data on patient and treatment characteristics, treatment response, and toxicity data.
Five-year healthcare costs of infants by birthweight and gestational age	This study will produce descriptive statistics to summarize demographic and clinical characteristics across birth weight categories. Multilevel regression models will estimate healthcare costs while accounting for clustering within hospitals and geographic regions.
An economic evaluation of trauma transfers in the state	This study will evaluate the financial impact of potentially avoidable transfers for injured patients in Arkansas from January 1, 2022, through December 31, 2023, regardless of age or payer status.
Utilization and outcomes of pediatric surgical services in Arkansas	This data analysis may be used to design targeted interventions for areas of the state or groups of children with less ready access to surgical care.
Medical and non-medical supplemental benefits through Medicare Advantage: Determinants and health-related outcomes in Arkansas	This study will describe the prevalence, nature, and determinants of medical and non-medical supplemental benefits through Medicare Advantage in Arkansas during 2020-2023; assess the impact of supplemental benefits to health outcomes and healthcare utilization among older adults enrolled in Medicare Advantage in Arkansas; and assess the heterogeneous impact of supplementary benefits based on race, rurality, and dementia status of beneficiaries.
Evaluating the comparative effectiveness of biologic therapies for childhood asthma and allergies in Arkansas	This study will evaluate the effectiveness of biologic therapies among children with asthma and/or allergies in Arkansas.



Multifactorial asthma determinants in under-resourced pediatric populations	This study will examine multifactorial asthma determinants in under-resourced pediatric populations.
Understanding disparities in cardiovascular toxicity among breast cancer survivors in Arkansas	The overarching goal of this project is to determine how underlying disparities affect cardiovascular outcomes among breast cancer survivors in Arkansas, where wide disparities in health status exist between Black and White women, using APCD data.
Characterizing cardiometabolic late effects in Arkansas survivors of pediatric acute lymphoblastic leukemia	This retrospective study will characterize the incidence of cardiometabolic disease in Arkansas survivors who are five years or more from diagnosis of pediatric acute lymphoblastic leukemia and determine if rurality and low socioeconomic status are predictive of poor cardiometabolic outcomes.
Prenatal care utilization as a predictor of pregnancy outcomes in diabetic women	This study will examine prenatal care utilization as a predictor of pregnancy outcomes in women with diabetes.
Improving risk-appropriate access to maternal care in Arkansas	This study will explore redesigning the regionalized neonatal intensive care units and specialty maternal care network via analytic models to improve risk-appropriate access to maternal care in Arkansas.
Leveraging real-world data to investigate the interplay between healthcare utilization, treatment patterns, and mental health outcomes	This study will explore leveraging real-world data to investigate the interplay between healthcare utilization, treatment patterns, and mental health outcomes in temporomandibular joint disorders.
Detecting reuse patterns in RxNorm NDCs across historical and contemporary datasets	This project aims to identify and analyze instances of National Drug Code (NDC) reuse using the National Library of Medicine's RxNorm database and real-world clinical datasets such as the Arkansas APCD. Under some circumstances, drug manufacturers are permitted to reuse NDCs after a five-year retirement period, causing potential errors in retrospective data analyses based on NDCs — for example, associating an opioid code with a non-opioid medication due to historical reuse and the assignment of that code to two different products at different points in time.



Impact of newly recommended RSV prevention products	This study will assess the impact of newly approved respiratory syncytial virus (RSV) interventions in Arkansas by conducting a case-control study using APCD data. Cases of RSV among all persons of all ages will be matched to sex- and age-matched control patients. The study's central hypothesis is that reduction in RSV rates will be observed over time with increasing vaccination coverage.
Association of marijuana use and cardiovascular outcomes	This study will evaluate the incidence of cardiovascular disease, focusing on coronary artery disease, congestive heart failure, atrial fibrillation, hypertension, stroke, and certain cardiovascular adverse events, including myocardial infarction, stroke, and bleeding among patients with established cardiovascular disease, and the impact on overall healthcare utilization among Medicaid patients with cardiovascular conditions.
GLP-1 prescribing optimization: A data quality assessment	This retrospective observational cohort study will use three linked datasets from the APCD: pharmacy claims to identify GLP-1 prescriptions using National Drug Codes and drug names; medical claims to identify diagnoses of diabetes and obesity; and member enrollment files to define demographic characteristics, payer type, and coverage periods.
Using medical claims to explore differences in health outcomes in rurality	This study will analyze de-identified medical claims from the Arkansas APCD and examine differences in health outcomes using rurality as a comparison point for and a predictor of state-level population health outcomes. An indicator of rurality, the U.S. Department of Agriculture Rural-Urban Continuum Codes, will be appended to examine differences between rural and urban counties.
Examination of the prevalence of diabetic foot ulcers in Arkansas using the APCD	This study will use emerging hot spot analysis to: 1) identify geographic areas where diabetic foot ulcer rates are significantly higher than expected; 2) determine whether these hot spots represent new, persistent, or diminishing patterns over time; and 3) understand factors associated with the emergence and persistence of diabetic foot ulcer hot spots in specific communities.
Care-Kids HRSA Grant Project 1: Claims data analyses to identify deficits in pediatric quality of care	This study will use claims data analyses to identify deficits in pediatric quality of care to understand variability in pediatric quality of care and outcomes at the granular level, which is critical for identifying clinics and/or providers in most need of focused educational efforts. Furthermore, understanding the clinic-, provider-, area-, and patient-level characteristics associated with low quality of care and health will provide important information for refining outreach efforts.



Prescription stimulant use in patients with long-term COVID-19 sequelae	This study will explore the relationship between patients who have persistent long-term symptoms following COVID-19 and potential increased use of prescription stimulant medications in this population.
Comparing the referral to diabetes self-management and education and support programs	This project will use APCD data from 2013 to 2019 for fee-for-service Medicare and Medicare Advantage beneficiaries with type 2 diabetes. Beneficiaries will be identified using diabetes diagnosis codes with medical claims and diabetes medications. A prevalent case of diabetes will be identified based on at least: 1) one inpatient claim in the index year or the preceding two years, or 2) one outpatient diabetes claim in the index year and one inpatient or outpatient claim in the two years following the first claim. Incident cases will be defined as prevalent cases with a two-year period with no diabetes-related diagnosis codes at the beginning of the five-year window. The project will use pharmacy claims to build a Rx-Risk score. Rx-Risk is a reliable and validated instrument-based tool that uses pharmacy data to identify chronic conditions in a population. The score will be used for risk adjustment. The study sample will be flagged if the beneficiary has utilized diabetes self-management education and support (DSMES), a Medicare Part B benefit. The project will use HCPCS code G0108 and G0109 to identify utilization of DSMES and will conduct logistic regression to identify the odds for referral to DSMES for both the fee-for-service Medicare and Medicare Advantage populations.
Adolescent obesity and academic performance: Long-term outcomes and predictive factors	The purpose of this study is to inform education policy and delivery to improve student success and lifetime health and productivity.
Association of P-gp substrates with the development of Alzheimer's disease	This study will determine whether the use of medications that are substrates of P-glycoprotein (P-gp) are associated with increased risk of Alzheimer's disease.
Did the Medicaid private option shorten time-to-diagnosis for cancer patients? An analysis of the APCD	Early cancer detection greatly improves chances of long-term survival for cancer patients, especially among cancers whose patient symptom recognition and timely follow-up is critical for prognosis. This study assesses outcomes and has the potential to better understand how increased Medicaid reimbursement impacts cancer patients and whether the private option may be effective at reducing cancer disparities in access to specialized services.



Evaluating care in patients with brain tumors in Arkansas	This project will review Arkansas data from 2005 to 2022 from the inpatient/hospital discharge data linkage, the emergency department data linkage, and the cancer registry to identify patients who were diagnosed with a brain mass or a brain tumor and cross-link to inpatient/hospital discharge data and Arkansas Medicare data to identify patients who were treated with surgery and radiation therapy and when. Arkansas death certificate data would allow the researchers to know the date of death and understand if social determinants of health and different treatments would impact survivorship.
Assessing the quality of the linked Arkansas Cancer Registry Data and All-Payer Claims Database Data	The overall goal of this study is to examine the quality of the linked Arkansas Cancer Registry and APCD data to generate preliminary data for an R01 application focused on identifying reasons for elevated mortality in colorectal cancer patients.
Impact of school meal delivery on behavioral disorders among children in health disparity populations	This study combines educational data and APCD data to focus on several impacts of school meal delivery on behavioral disorders among children in health disparity populations.
Relationship of food insecurity and diabetes in Arkansas	This study seeks to determine whether rates of diabetes and diabetes complications are higher in ZIP Code Tabulation Areas with high food swamp scores after controlling for race, gender, income, and age.
Assessing the burden of colorectal cancer mortality and potential risk factors in persistent poverty counties compared to other counties in Arkansas	This study will demonstrate the capacity of conducting colorectal cancer research in Arkansas, especially in rural and persistent poverty areas where the colorectal cancer mortality rate is highest, and will obtain preliminary data to uncover the underlying mechanisms of colorectal cancer mortality in these areas.
Long-term risk of cardiovascular disease in mothers who have infants with congenital heart defects in Arkansas	This study will identify the long-term risk of cardiovascular disease in mothers with or without a history of congenital heart defect-affected pregnancy.
Constructing a hyperparameter tuning workflow	This study will develop and test a big data framework for a hyperparameter deployed to high-performance computing to optimize the classification of severely imbalanced big data while minimizing computational time requirements.



Appendix C

TRAVEL TIME TO DELIVERY FACILITIES FOR ARKANSAS MOTHERS

ACHI used birth records and birth-related insurance claims for an analysis of the travel times to delivery facilities for Arkansas mothers. Mothers' home ZIP codes and the addresses of delivery facilities were used to estimate mothers' median travel time to delivery facilities by county of residence, by region, and statewide. The analysis examined how median travel times have changed over time and showed that travel times increased sharply in certain counties following the closure of labor and delivery units at local hospitals.

TRAVEL TIME TO DELIVERY FACILITIES FOR ARKANSAS MOTHERS

JUNE
2024

Closures of labor and delivery services at Arkansas hospitals in recent years have led to longer travel times for mothers in some areas of the state. As of April 2024, 59% of rural hospitals did not provide labor and delivery services.¹ Increased travel times to delivery facilities have been associated with higher risks of adverse maternal and neonatal outcomes.²⁻⁴ ACHI reviewed data on birth events occurring between 2016 and 2022 to estimate travel times to delivery facilities.^a

Percentages of Arkansas Mothers Traveling 30+ or 60+ Minutes to Delivery Facilities

	2016	2022
30 MINUTES OR MORE	26% n = 9,500	28% n = 9,401
60 MINUTES OR MORE	7% n = 2,690	8% n = 2,808

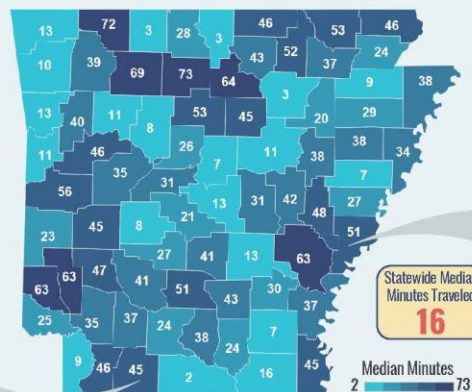
"n" = Number of Mothers

Columbia County

- The median minutes traveled by Columbia County residents increased fourfold from 2016 to 2022, the third-highest increase in any county.
- In 2016, Magnolia Regional Medical Center delivered around 68% of births in the county. The hospital's labor and delivery unit closed in 2021. The next closest birthing hospital for the majority of mothers is 52 minutes away.



Median Minutes Traveled to Delivery Facilities in 2022, by County of Residence



Phillips County

- The median minutes traveled by Phillips County residents increased eightfold from 2016 to 2022, the highest increase in any county.
- In 2016, Helena Regional Medical Center delivered around 65% of births in the county. The hospital's labor and delivery unit closed in 2020. The next closest birthing hospital for the majority of mothers is 47 minutes away.



¹⁻⁴ For references: achi.net/library/travel-time-to-delivery

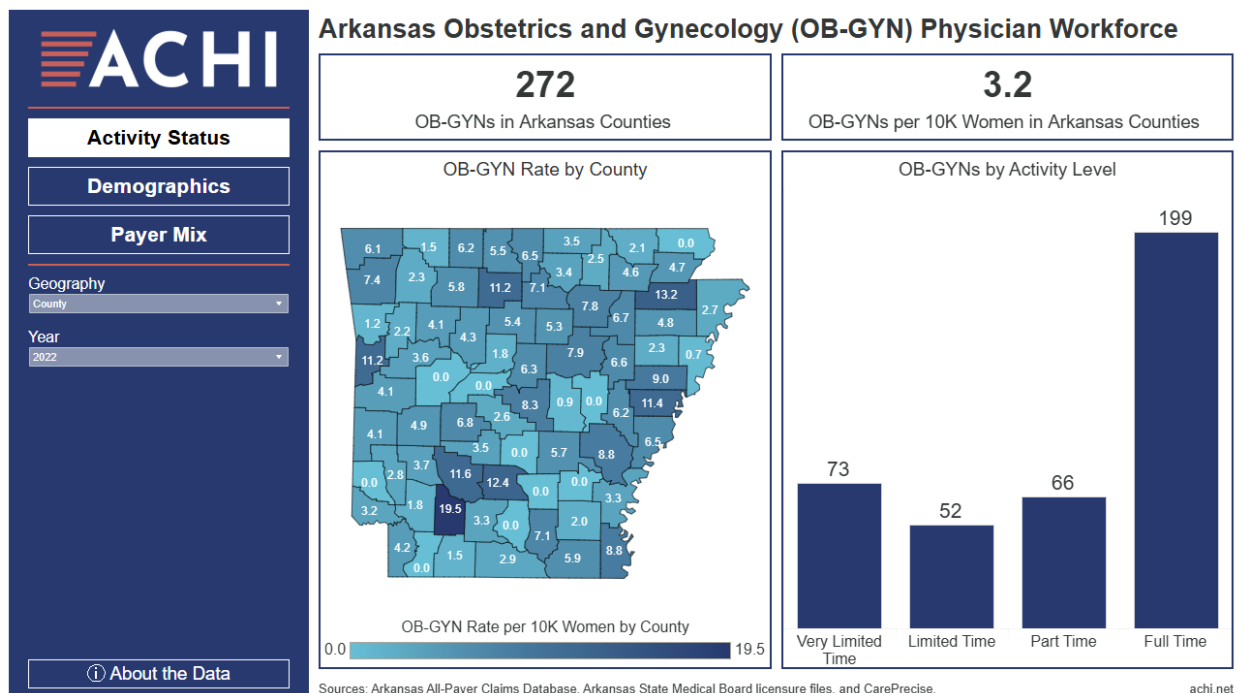
^a Mothers' home ZIP codes and delivery facilities' addresses were used to estimate travel times to delivery facilities, including some out-of-state facilities.
Data sources: Arkansas Department of Health birth records and Arkansas Healthcare Transparency Initiative's All-Payer Claims Database.

achi.net



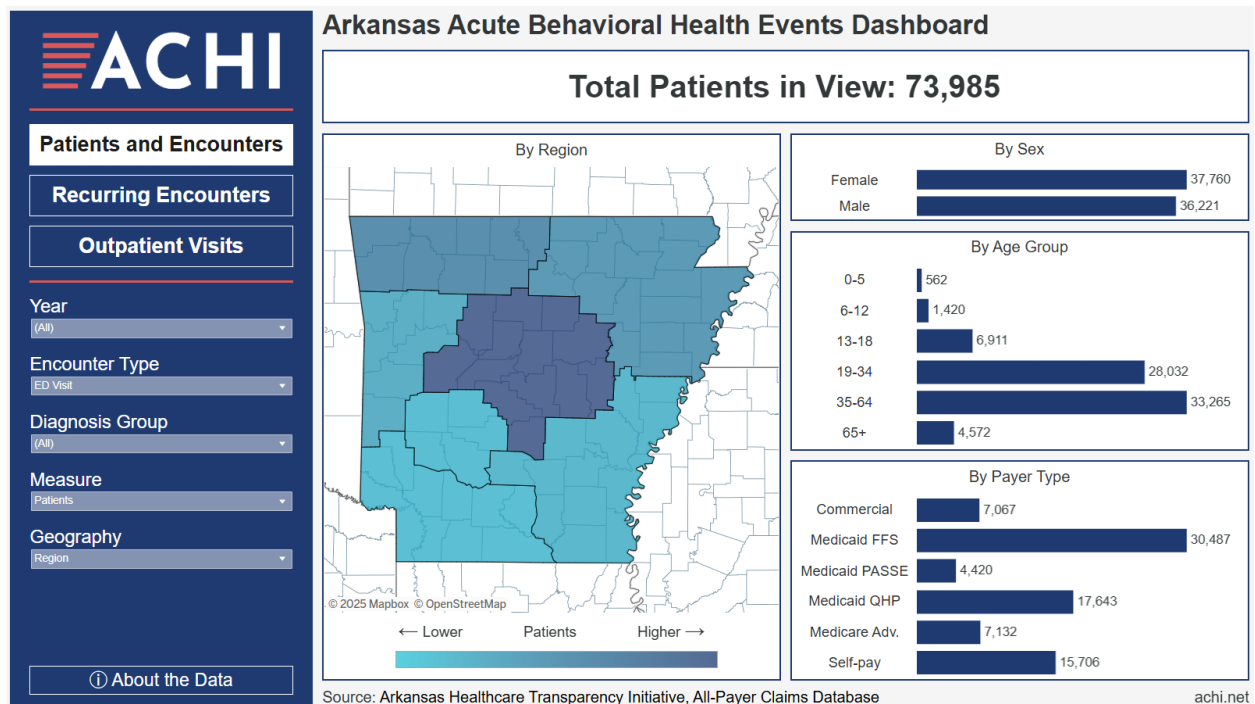
ARKANSAS OBSTETRICS AND GYNECOLOGY (OB-GYN) PHYSICIAN WORKFORCE DASHBOARD

ACHI leveraged multiple data sources, including Arkansas State Medical Board licensure files, the APCD, and physician files maintained by CarePrecise, to provide an accurate, comprehensive profile of Arkansas's OB-GYN workforce. This interactive tool offers insights into OB-GYNs' activity status, demographics, and payer mix. The data can be viewed in a dynamic dashboard that is intended to inform policymakers, healthcare leaders, and other stakeholders about the supply, characteristics, and distribution of OB-GYNs so they can make evidence-based decisions regarding provider access across Arkansas communities.



ARKANSAS ACUTE BEHAVIORAL HEALTH EVENTS DASHBOARD

ACHI used insurance claims, hospital emergency department data, and hospital discharge data to develop an interactive dashboard intended to allow policymakers, healthcare providers, and community leaders to research acute behavioral health events in Arkansas to better understand the behavioral health landscape and explore opportunities to improve care. The dashboard displays data on acute behavioral health events that took place in Arkansas between 2020 and 2023 and includes emergency department visits, inpatient stays, prior or follow-up outpatient visits, patient demographics, geographic distribution, and frequency of encounters.



NALOXONE PRESCRIPTION IN RESPONSE TO THE OPIOID EPIDEMIC IN ARKANSAS

ACHI used insurance claims to conduct an analysis of naloxone and opioid prescriptions for individuals enrolled in Medicaid or commercial insurance during state fiscal years 2017 through 2024. The analysis highlighted a significant decrease in opioid prescription fills during the study period and a significant increase in naloxone prescription fills in fiscal year 2022, following passage of a state law requiring a co-prescription of naloxone with every prescription of high-dose opioids. The analysis also found that naloxone fills decreased from fiscal year 2023 to fiscal year 2024, possibly because some patients had naloxone prescription fills from prior years that they had not used or they had access to naloxone through other means.

FIGURE 1: PERCENTAGE OF ENROLLEES WHO FILLED AT LEAST ONE OPIOID PRESCRIPTION, FY 2017 TO FY 2024

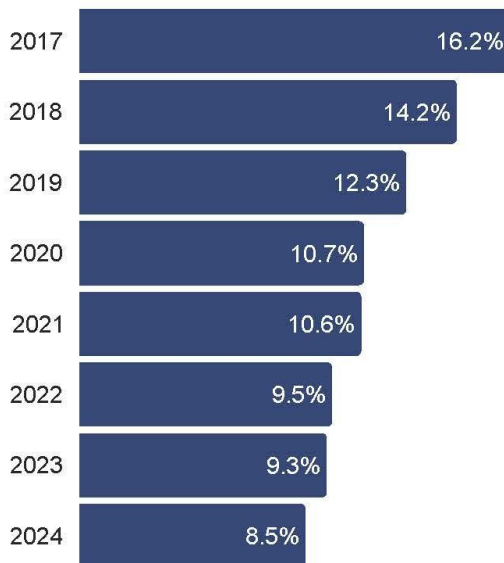
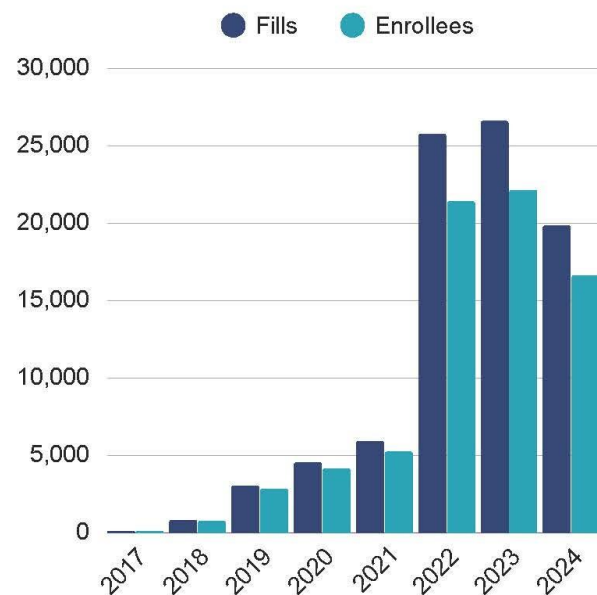


FIGURE 2: NALOXONE PRESCRIPTION FILLS AND ENROLLEES WHO FILLED NALOXONE PRESCRIPTIONS, FY 2017 TO FY 2024



Appendix D

DATA USER GROUP WEBINAR TOPICS

January 2024

- Featured topic — Linking external data files to Arkansas HTI data
- Data use cases from other APCDs
- New Medicare fee-for-service data (for state agencies)

April 2024

- Featured topic — Using Clinical Classifications Software-Refined (CCS-R) to support APCD analyses
- Refreshed Arkansas medical marijuana cardholder data
- New data asset offering: Member Enrollment Selection Table (MEST)

July 2024

- Featured topic — Maternal and infant health-focused analytics
- How to use the MEST

October 2024

- HTI Overview
- New HTI data products
 - Mother-Infant Crosswalk
 - Diabetes Analytic Data Mart

January 2025

- Demonstration of healthcare data dashboards
- Data user questions from other APCDs
- Survey: What counts would be helpful?

April 2025

- Featured topic — Risk of adverse infant outcomes associated with maternal mental health and substance use disorder
- Arkansas Workers' Compensation Commission data
- Medicare Advantage data identification
- Future data changes discussion

July 2025

- Linking external data files to HTI data
- Methodologies for managing high collision hash IDs/study IDs

October 2025

- Methods and considerations when using pharmacy claims from the Arkansas APCD
- MEST enhancement

