Data and analytics drive Arkansas' approach to Medicaid management

Arkansas' nationally recognized Medicaid program covers over 1 million Arkansans at $9 billion in SFY2022.* That includes more than 60% of the state's children. Medicaid also pays for about 60% of all births in Arkansas.

Further, Arkansas Medicaid works with more than 88,000 enrolled providers. They process about 1.6 billion records each week including Medicaid Management Information System (MMIS), All Payer Claims Database (APCD) and various reference data.

To help manage, assess, monitor and measure the Medicaid program's effectiveness – including the performance of providers – and help improve health outcomes, the Arkansas Department of Human Services (DHS) relies heavily on an enterprise data warehouse called the Decision Support System (DSS). DSS is implemented and supported by the state's technology partner, Optum.

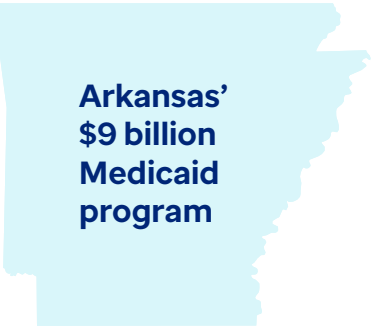
The DSS offers the department the ability to aggregate and analyze vast amounts of data from multiple systems, including:

- National Council for Prescription Drugs Program (NCPDP)
- All-payer claims database (APCD)
- Labs
- Correction files
- Transportation data
- Enriched data from Symmetry

It provides the state with the data quality and analytical capabilities to serve as the informational backbone for many key components of the Arkansas Medicaid program.

Arkansas' enterprise data warehouse assists with program integrity, payment reform and outcomes-based successes

Medicaid is one of the most vital and widely used government programs in Arkansas. It provides health care coverage for more than one-third of the state's residents, whose needs vary as much as the state's geography.



- Covers over 1 million Arkansans, including more than 60% of the state's children
- Arkansas Medicaid works with 88,000 enrolled providers
- Processes about 25.7M fee-for-service claims and 10.5M encounter claims annually

Optum

* Note: All figures in the introduction section of this document are from the Arkansas finance state fiscal year 2022 statistical reports.

The DSS currently contains more than seven years of claims data, plus lifetime claims that go back further. That equals some 260 million records (515 million records when claim detail-level records are counted). These include physician, professional, institutional, dental and pharmacy claims, as well as Medicare crossover claims. In addition to fee-for-service claims, the DSS holds capitation payments, premiums and bulk payments to providers.

In total, the DSS loads approximately

1 million claims every week

The data and analytical capabilities of the DSS have produced meaningful results for Arkansas Medicaid in the following areas:

- Medicaid expansion (now labeled Arkansas Health and Opportunity for Me [ARHOME])
- Payment improvement that bases physician payment on overall quality of care and health outcomes
- Legislative reporting

Here are a few examples and illustrations of how Arkansas is using the DSS to drive improvements in the state's Medicaid program, divided into program integrity and programmatic initiatives and successes.

Program integrity initiatives and successes

Provider Awareness Letters (PAL) Initiative

A senior official with the Office of Medicaid Inspector General (OMIG) called her office's Provider Awareness Letter (PAL) initiative "an endeavor of which I am truly proud, given its success and impressive return on investment."

Rather than OMIG conducting full-scale audits of providers who submit questionable Medicaid claims, the PAL initiative allows OMIG to reach providers in a less intrusive manner. It also educates and creates relationships with providers that lead to the overall improvement of the Medicaid program.

OMIG relies on the DSS to analyze claims and identify providers with anomalies in their billing practices. It also identifies providers whose number and type of claims deviated significantly from their peer group. Letters are sent to outlying providers requesting review of the claims, return of any improper payments and the submission of a corrective action plan to prevent future problems. This engages providers as partners in the effort to improve billing accuracy.

The Provider Awareness Letters (PAL) Initiative allows OMIG to reach providers in a less intrusive way, educating providers and building relationships with them.

Increased provider compliance resulted in more than **$300,000 in cost avoidance** and a **27% reduction in billing.**

"PAL is an endeavor of which I am truly proud, given its success and impressive return on investment."

– Senior official, Office of Medicaid Inspector General (OMIG)

Optum worked with the state to shape this initiative by providing statistical analyses and a ranked list of providers based on abnormal billing behaviors. It makes identifying providers with high-risk profiles easier than before. OMIG currently has more than 200 different peer-group profiles available in its study library that focus on a number of different Medicaid programs.

Among the issues the PAL initiative has focused on:

- **School district matching fund letters**
  School districts in Arkansas cover the state match portion for Medicaid services provided as part of a student's Individualized Education Plan (IEP). OMIG submitted 556 PALs to Arkansas school districts for state FY 2017, and also conducted awareness and education efforts outlining appropriate billing for Medicaid services and match payments.
- **Hospital inpatient one-day stays awareness letters**
  In state FY 2017, OMIG submitted 28 provider letters to hospitals requesting self-audits of certain inpatient claims. This resulted in more than $300,000 being returned to the Medicaid program. Cost avoidance for the same period totaled more than $580,000 for hospital inpatient one-day stays. An additional $8.4k was returned in FY2019 as a result of these ongoing efforts.
- **Emergency transportation billing awareness letters**
  OMIG used a combination of DSS analytics and outside referrals to identify potentially fraudulent billing of Advanced Life Support (ALS) codes for ambulance transportation claims of Medicaid patients. In addition to sending PAL letters to providers who showed high-risk behavior for ALS billings, OMIG provided education on the topic to a large group of ambulance providers at the Arkansas Ambulance Association EMS Expo. These efforts resulted in a $1.8 million program-wide reduction in total dollars paid for ALS codes and a more than 16% reduction in total ALS claims billed for the year. (Elizabeth Smith highlighted this initiative in a presentation at the National Association for Medicaid Program Integrity conference.)
- **Evaluation and management code billing awareness letters**
  Using analytics from the DSS, OMIG identified potentially abusive billing of high-level established evaluation and management (E&M) codes. In state FY 2017, OMIG sent 77 PALs showing high-risk behavior for billing high-level established E&M codes. An Optum analysis after the OMIG letters showed that increased provider compliance resulted in more than $300,000 in cost avoidance and a 27% reduction in billing.
- **Tobacco-cessation counseling billing awareness letters**
  DSS analytics helped OMIG identify potentially abusive billing of tobacco-cessation counseling services for children by dentists and physicians. A later review of billing practices resulted in a 74% reduction in total tobacco-cessation counseling claims.

The PAL initiative is based on a foundation of solid data and sophisticated analytics made possible by the DSS. It will continue to be a critical piece in OMIG's ongoing program integrity efforts and its goal of educating, training and maintaining productive relationships with Medicaid providers.

Additional PAL initiatives include:

- Outpatient behavioral health (FY 2022)
- Non-emergency transportation (FY 2021)
- Modifier 25 usage (FY 2019)
- Hospital "one-day-stays" (FY 2019)
- Locum Tenens billing (FY 2018)
- DME gloves correct pricing (FY 2018)
- Unauthorized personal care services (FY 2018)
- RSPMI codes 90885 and 90887 (FY 2018)
- DDS Direct Care Workers underpayment (FY 2018)
- Improper billing of codes 90887/90791/96111 (FY 2018)
- Improper billing of incontinence wipes (FY 2017)

Peer Group Profiling tool

OMIG uses a powerful DSS tool called Peer Group Profiling that statistically compares peer groups and analyzes behavior patterns of providers and beneficiaries to identify those who appear to be "abnormal" or outliers when compared to others in a particular group.

The tool can help identify high-risk areas prone to fraud, waste or abuse. With it, OMIG can build an unlimited number of reports or "studies" that can uncover potential issues by searching through dental, inpatient, pharmacy and professional claims.

OMIG regularly selects topics for Optum to build studies on and interpret results. Among these have been studies of:

- Podiatrists
- Tympanometry (ear and eardrum) providers
- Dentists (including orthodontic services, stainless-steel crowns on young children, and X-rays)
- Sleep studies

These have resulted in several OMIG audits and investigations.

The Peer Group Profiling tool helps identify high-risk areas prone to fraud, waste and abuse. OMIG can use it to uncover potential issues by searching through different types of claims.

Fraud and Abuse Detection System (FADS) case tracking

OMIG uses the Optum® DSS Fraud and Abuse Detection System (FADS) case tracking tool to maintain an audit case from initiation to completion. The system allows OMIG to effectively organize and manage an audit while maintaining all historic information pertaining to work completed on any case. Among the features of the FADS tool is the firewall Optum has installed to conceal all audit information entered by OMIG from other state agencies.

Program integrity summary

In addition to the cost-avoidance figures mentioned earlier, OMIG identified more than $8 million in Medicaid funds for recoupment and recovery during SFY 2022.* According to the OMIG report: "The increase … can be attributed to OMIG's ability to more accurately identify issues through the use of analytical tools, and an increase in provider reviews and contacts through the Provider Awareness Letter initiative resulting in increased self-reports." Both of these are a testament to the collaborative OMIG–Optum partnership in using the DSS to improve program integrity in the Arkansas Medicaid program. "The increased reliance on data analytics has contributed to more efficient and effective audits and investigations, as well as increased recoupment and cost avoidance," OMIG reports publicly.

OMIG and Optum collaborate on relationship building and educational outreach with Arkansas Medicaid provider organizations and associations.

* 2022 OMIG Annual Report

Payment improvement and outcomes-based initiatives and successes

Several years ago, Arkansas Medicaid, the Department of Human Services (DHS), along with key health care payers, partnered to transform the state's health care and payment systems in an effort called the Arkansas Health Care Payment Improvement Initiative.

The goal: Incentivize providers to shift to a higher quality and more cost-efficient system of care. And in so doing, improve access to care, increase the number of people who are insured and improve the quality of care patients receive.

For nearly a year, DHS and commercial payers worked closely with hundreds of physicians, hospital executives, patients, families and advocates. Together, they designed and built the new payment system — a bold and nationally recognized initiative tailored to the needs of Arkansas patients and providers. As part of this broad initiative, the DSS is used in a number of ways to monitor, measure and report on the progress and success of programs and initiatives grouped under the Medicaid transformation umbrella.

Following are several components of Arkansas' transformational approach to Medicaid, and the role of the DSS data and analytics that support it.

OMIG identified nearly $4 million in Medicaid funds for recoupment and recovery during state FY 2017, an increase of more than 28% from the previous year.

DSS Reporting and Analytics Team

The Division of Medical Services (DMS) Decision Support Services Lab (DSS Lab) is a dedicated group of on-site reporting analysts. This group attends to virtually all of the reporting requirements from the data warehouse and processes an average of 220 scheduled and 60 ad hoc requests per month. With a focus on collaboration and the team's expertise, Optum has been able to establish and maintain firm relationships at all levels of the organization. With several years of Medicaid experience—specifically Arkansas Medicaid—experts in the DSS Reporting and Analytics Team can recommend advanced analytical and reporting ideas using DMS data. The DSS Reporting and Analytics Team provides a solid entry point for breakthrough thinking to support Arkansas Medicaid.

A dedicated group of analysts enables Optum to establish and maintain firm relationships at all levels of the organization.

Medicaid expansion: From Arkansas Works to ARHOME

When Arkansas adopted its version of Medicaid expansion, called Arkansas Works, DHS needed to track all of the enrollment activities and expenditures related to the program. The initial reporting effort took several days each month to compile, requiring the effort of multiple analysts during that time.

The reason: Multiple reports were executed against the entire data warehouse and some required additional work after getting necessary data. Since data is updated each week, the DSS Lab had only one week to complete all of the related reports and make sure that all were executed against the same set of data.

Optum and DHS recognized that there had to be a better way.

The Optum technical team worked with the DSS Lab group to design and develop an easily repeatable process for the monthly set of reporting tasks by developing a data mart that used the existing logic as a roadmap. The mart, using the DSS as its foundation, contained all of the necessary dimensions and measures required for DMS' monthly reporting for the Arkansas Works program. What previously took several people days to complete, with several opportunities to introduce errors, is now done in an easily executable process. Several reports need the same data, but aggregated in different ways. DMS can now get its reports in hours – as opposed to days, or in some cases, weeks.

In addition to saving time, the data mart provides a monthly snapshot from which all program-related reports draw. The reports are now consistent, where previously various reports may not have always "matched" due to timing and possible logic differences.

In December 2021, the federal government approved Arkansas' request to replace Arkansas Works with the Arkansas Health and Opportunity for Me (ARHOME) program. Unlike Arkansas Works, ARHOME does not include work requirements. And after 2022, it will not charge premiums to enrollees.

Optum helped provide a seamless transition from one program to the next. The change required technical updates including:

- New FPL bands, code logic, and assigned plan updates
- Report updates
- Table/field updates (ETL)

Business definitions were written into Cognos so that reports pulled from different users remain consistent. This move away from hard coding allows for better accuracy. Optum also provides data and reporting for legislative quarterly reporting on the ARHOME program.

Legislative scorecard

Arkansas DHS provides the state legislature a quarterly report showing the monthly and year-over-year progress of several newly implemented program changes as part of its Medicaid transformation. These programs are designed to continue to provide an adequate level of service to Arkansas Medicaid members.

Analytics

To justify and monitor the success of the changes, state officials need to see how current enrollment and utilization compares to prior periods for the affected programs and populations before transformation can be implemented. The DSS provides these reports in a visual, easy-to-digest format. To help DHS monitor and track Medicaid programs and populations, the DSS Reporting and Analytics team has built several dashboards that serve as self-service tools for the users to monitor counts and amounts. These include using analytics datamarts for efficiency, consistency, and ease of reporting.

Arkansas DHS provides the state legislature a quarterly report showing the monthly and year-over-year progress of several newly implemented program changes as part of its Medicaid transformation.

The DSS team provides reports to the state in a visual, easy-to-digest format.

Examples

Point-In-Time Eligibility: This dashboard shows DHS-defined point-in-time eligibility information on a monthly basis. DHS leadership can go back to any previous reported month and confirm the enrollment number for DHS-defined eligibility groups and subgroups.

The DSS team has been supporting DHS throughout the pandemic with a variety of self-service dashboards. A few examples are: vaccinations, testing, treatment, therapies, weekly COVID-related expenditures financial impact analysis, and telehealth services.

Urban and Rural Classification for Eligibility: Uses 2019 Census data, the National Center for Health Statistics' (NCHS) Urban-Rural Classification Scheme for Counties, and current AR Medicaid recipient eligibility to demonstrate recipient distribution by county as a percentage of the 2019 census population. This is used to determine resource allocation at legislature.

Pharmacy: The DSS Reporting and Analytics Team has created a number of pharmacy-related dashboards including dashboards specific to 340B providers, JCODE analysis, and more recently, a new dashboard tracking activity based on a new state plan amendment that allows pharmacists to act as an ordering, rendering, and prescribing provider (ORP) beginning June 1, 2022.

In addition, OMIG has used DSS claims and recipient data in conjunction with incarceration data to find Arkansas Works premium payments that were paid erroneously. The DSS Business Solutions team has provided assistance with verifying OMIG's data analysis, and it is in the process of integrating incarceration data into the DSS to assist OMIG and the Program Integrity Unit (PIU) with future data analytics.

In addition, incorporating public health data — including vital statistics, immunization registry data and lead-screening data — into the DSS, and integrating these sources with Medicaid, is expected to improve DHS' ability to conduct quality-of-care and outcome analyses.

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Provider-led Arkansas Shared Savings Entity (PASSE) model

As part of its continuous effort to improve Medicaid outcomes and control costs, Arkansas has implemented the Provider-led Arkansas Shared Savings Entity (PASSE). PASSE is a new model of organized care that addresses the needs of certain Medicaid beneficiaries who have complex behavioral health and intellectual and developmental disabilities (I/DD) service needs.

Under this unique model, providers of specialty and medical services enter into new partnerships with experienced organizations that perform the administrative functions of managed care. Together, these groups of providers and their managed care partners form a business organization called a PASSE.

The PASSE model is built on the premise that better case management and care coordination will minimize costly acute services, such as emergency department visits, inpatient psychiatric stays and hospitalizations. The PASSE proactively manages health by coordinating the efforts of all providers used by the beneficiary. Currently, the PASSE model encompasses about 54,000 individuals with higher levels of need for behavioral health and developmental disabilities services. As ARHOME implementation continues, ARHOME participants will also be eligible for PASSE services. Arkansas spends about $1.3 billion on this targeted group annually (CY2021) via per-member-per-month payments (capitations).

PASSE was implemented in phases. In the first half of 2019, DHS began making "global payments" to the PASSE for each enrollee to cover the administrative costs and benefits for each patient, while ensuring a level of savings for the state.

DHS needed to assess who needs what services — which ones, how many and how often. In 2019, Arkansas DHS selected Optum to help the state improve outcomes and reduce costs in its public behavioral health, developmental disabilities and long-term care systems.

The partnership has been a success. Since 2019, Optum has completed more than 66,000 functional assessments each year. These assessments have focused mainly on Medicaid recipients who have at least one claim for behavioral health, substance use disorder or I/DD services.

The Optum independent assessment (IA) program was designed so that these high-risk beneficiaries receive the appropriate level of care. In addition, the assessment platform (called ARIA) interfaces with the DSS. ARIA is also implemented and operated by Optum. The enterprise data warehouse feeds beneficiary and provider data to the assessment system, which is used as a "source of truth." Once assessment results are complete, ARIA sends the file back to the DSS, which sends results to the state MMIS system.

Optum also designed a PASSE Transitions Dashboard, which shows client transitions in and out of the PASSE program and between PASSEs. Another dashboard shows current enrollment, sortable by plan, age, county and month-by-month enrollment trends. A Budget Prep report shows PASSE capitation cost analysis using rate cell codes, which can be broken down by state fiscal year, age groups and behavioral health tier. And the PASSE Network Provider Adequacy report is a diagram showing geographic coverage across the state for groups of provider types enrolled with each PASSE.

Since 2019, Optum has completed **more than 66,000** functional assessments each year.

The DSS is and will continue to be a key tool in providing claims data, and monitoring and measuring the results – both in outcomes and savings – of each PASSE and the overall program.

Arkansas Decision Support Services (DSS) Data Quality

States are required to send Transformed Medicaid Statistical Information System (T-MSIS) data extracts to the Centers for Medicare & Medicaid Services (CMS) on a monthly basis. These extracts contain utilization and claims data on eligible beneficiaries and are used by CMS to measure the overall performance of each state's Medicaid and CHIP programs.

The Outcomes Based-Assessment (OBA) is a data quality methodology used by CMS to measure reliability, completeness and usability of each state's monthly T-MSIS data extracts. This method consists of target-based priority criteria (critical, high, high-expenditures), which assess overall compliance against defined Data Quality standards. The color-grading system used to report final data quality assessment and compliance is shown online. States that fail on critical-priority issues are at risk of losing federal matching money from CMS to fund their Medicaid programs.

T-MSIS Early Warning System

The T-MSIS Early Warning System (EWS) is a tool created by Optum to analyze data coming into data warehouses that they manage. As data is loaded each week, the EWS runs data quality audits based on over 570 individual data quality measures that CMS uses in their OBA method. Data is analyzed as it is loaded each week to find anomalies or errors early in the process.

The EWS produces a report that summarizes data quality performance as well as details on data quality failures. It also provides visualizations available for analysts to monitor the T-MSIS data quality performance over time with drill-down capabilities for research purposes.

Arkansas has remained in Blue status since June 2021 and has consistently met 100% of all three OBA criteria. This system has provided Arkansas the ability to identify, research and resolve data quality issues before they hit Arkansas' official CMS monthly OBA assessment . The Arkansas T-MSIS team was recognized in the CMS National T-MSIS Webinar in June 2020 for their proactive approach to tackling data quality issues, often notifying CMS of issues and target timelines to close prior to the monthly data submission. More recently, the Arkansas team was proud to share their story and the successes they've seen since implementation of the EWS at the 2023 Medicaid Enterprise System Conference (MESC).

Spirit of collaboration

In a spirit of partnership and collaboration, Optum conducts monthly Analytics Ideas meetings with DHS leadership to discuss current trends in they hit Arkansas Medicaid, as well as current DHS needs.

The DSS Reporting and Analytics team focuses on gathering requirements for ad-hoc requests to provide accurate results. A formal requirements document is shared with the requestor before work begins. Reporting and dashboard trainings are provided so that users can focus on analysis rather than struggling to use a tool.

Summary

Since the launch of the DSS in early 2015, Arkansas DHS has dramatically improved the manner in which it relies on data and analytics to manage its Medicaid program. This is an important part of the effort to both reduce costs and improve health outcomes for Arkansans.

Arkansas DHS has become a national leader in implementing initiatives and special projects to change the way Medicaid is managed. It is taking a person-centered and provider-led approach in offering services. The result is a program that is focused on improving health outcomes, not on procedures performed. And from an expenditure standpoint, DHS has made program integrity a priority across the Medicaid spectrum.

DHS is incorporating additional data sets beyond Medicaid into its efforts to improve overall beneficiary health. The Optum-implemented DSS will increasingly become the critical data-and-analytics foundation upon which DHS will base both its immediate and long-term decisions about public health in Arkansas.

Arkansas DHS has made dramatic financial and service improvements after implementing a data and analytics system for its Medicaid program.

To learn how Optum can partner with your state, contact us at Optum.com/stategovcontact.

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