

# Empowering Information Driven Healthcare

CASE STUDY

## Health Data Management & Analytics

### CHALLENGE

- ✓ Identify new innovative ways to decrease expenditure and improve the quality of care
- ✓ Address the annual 8% increase cost of Medicaid
- ✓ Respond to the potential budget shortfall of \$140M

### SOLUTION

An advanced analytics tool that enables providers to evaluate and improve their systems of care by leveraging valuable, meaningful data

### OUTCOMES

- ✓ Quality rewards-based payment model
- ✓ Decreased Medicaid cost growth from 8% to 2%
- ✓ Program savings of \$720M in the last three years



## Arkansas Implements the First Rewards-based Payment Reform Initiative

### Challenge: Balancing the Cost of Healthcare

With the increasing cost of healthcare, state and local governments continue to search for new and innovative ways to decrease expenses while improving the quality of health among its populations. In 2011, Arkansas state officials were not only concerned with the estimated eight percent annual increase cost of Medicaid, but the Arkansas Division of Medical Services (DMS) was facing a potential budget shortfall of \$140 million. With possible service or benefit reductions and increased benefit limitations looming, state officials and commercial insurers began investigating new options to help manage their costs.

To lead the transformation from a fee-for-service payment structure to a value-based reward system, state and private payers developed the Arkansas Health Care Payment Improvement Initiative (AHCPII) – a cost containment program that rewards physicians, hospitals and specialists who provide patients with high-quality care at a commendable cost. The state seeks to control costs that are higher than acceptable through a risk share arrangement. Through the development of the patient-centered medical home model and the implementation of a new episode-based payment system, Arkansas became the first state to successfully enact a statewide payment reform initiative that incentivizes providers to deliver quality care via a cost-effective care system.

### Solution: Expanding Insight with Advanced Data Analytics

To meet the needs of the Arkansas Department of Human Services, DMS and the provider community, General Dynamics Health Solutions developed an advanced data analytics tool that enables providers to evaluate and improve their systems of care by leveraging valuable, meaningful data. Through its protected zoned infrastructure, the application identifies episodes of care (from claims data), calculates quality measures (from claims data and clinical data) and

“As a state system, we are now harnessing our data to give the providers more information about the care they give...we are helping the provider community come up with new systems of care and reward[ing] them for doing it well.”

– Arkansas Medicaid Medical Director William Golden, MD, MACP

determines bundle payments for principle accountable providers while ensuring all data is utilized in a secure manner. This “one-stop” solution provides the following business intelligence:

- Bundled payments for principle accountable providers
- Ad hoc analytics and dashboard reporting in a real-time environment
- Quality and utilization metrics for payers and provider systems
- Drill-down reporting for intelligent interaction capabilities
- Customized reporting based on role and identity
- Aggregated content from multiple data sources
- Notifications and alerts via e-mail and dashboards

Aligned with the objectives of the AHCPPI, the tool’s streamlined, intuitive interface allows healthcare payers and lawmakers to easily and accurately develop reports to assess and reward providers who successfully use the system to improve healthcare outcomes. Additionally, the reporting mechanisms help manage the growing success of AHCPPI and provider engagement.

## Results: Program Success with Advanced Data Analytics

Through the use of real-time reporting, this analytics solution provides Arkansas providers and policymakers with access to a range of significant healthcare data, empowering them with better insight into improving the quality of healthcare, rewarding physicians and reducing costs. Since the program launch in July 2012, more than 19,000 provider reports have been produced for 2,083 unique providers processing 318.1 million claims and calculating 3.12 million episodes. Additionally, the implementation of the patient-centered medical home initiative and episode-based payment system has produced many other benefits, including the following:

### Quality of Care Improvement

- **Reduced the use of antibiotics** for unspecified upper respiratory infections by 23.5%
- **Improved the screening of pregnant women** for Chlamydia by 9.3%
- **Decreased the C-section rate** for the perinatal episode of care by 7.4%
- **Improved the performance of strep tests** when antibiotics were prescribed by 33.6%
- **Decreased the 30-day outpatient observation care rate** by 7.9% for the heart failure episode
- **Improved the 30-day all cause readmissions rate** by 6.1% for the heart failure episode
- **Increased the heart failure episode with a follow up visit** within 14 days by 12.4%
- **Increased benchmark reach for perinatal quality metrics** linked to gain share by 8%

### Cost Savings

- **Decreased the Medicaid cost growth** from 8% to between 2-3% since the inception of the program – equating to approximately \$720M
- **Improved overall cost performance** or remained commendable (73% of Arkansas Medicaid providers)
- **Decreased average episode costs** between 2.9-9% for non-specific and sinusitis upper respiratory infections, cholecystectomies and colonoscopies

Our end-to-end health solutions – which expand insight, improve outcomes, drive efficiency and reduce risk – include:



### About General Dynamics Information Technology

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