

HEALTHCARE INDUSTRY

Driving Medicaid Efficiency

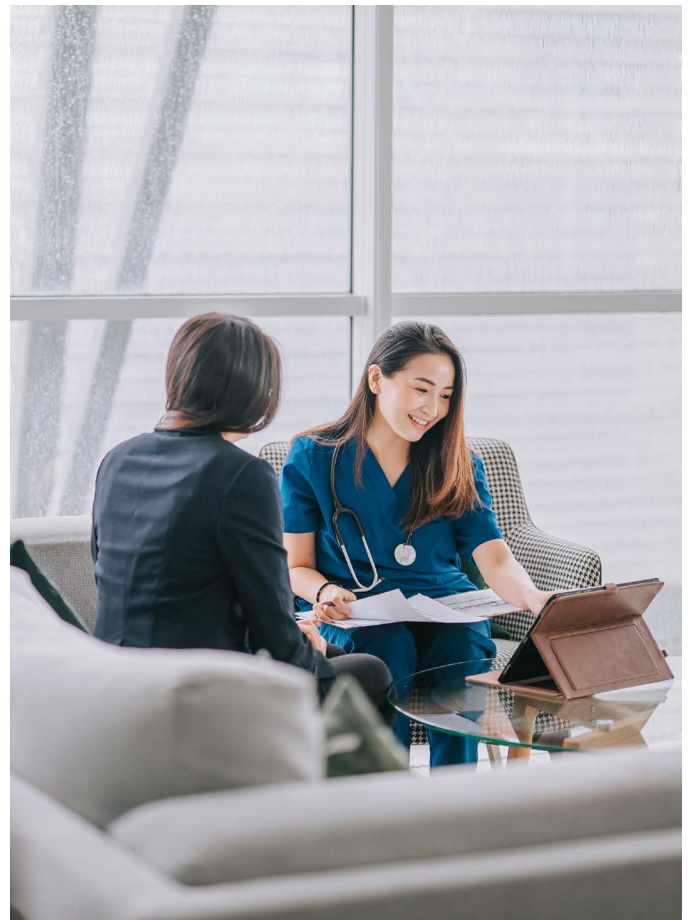
Leveraging Technology for Better Provider and Beneficiary Outcomes



In the U.S., approximately one out of every five dollars spent on healthcare is spent on Medicaid ([Kaiser Family Foundation \[KFF\], 2025](#)).¹ According to the most recent data provided by the National Health Expenditure, Medicaid spending grew by 7.9% to \$871.7 billion in 2023 ([CMS.gov, 2024](#)).² This spending growth puts additional pressure on state budgets, especially as some members of Congress are considering plans to cut nearly a third of projected federal Medicaid spending.

Alongside the financial strain, federally mandated requirements and key performance indicators for improving healthcare outcomes, like Streamlined Modular Certification (SMC), have led to increased pressure for state agencies. However, these metrics present a unique opportunity — the ability to redesign systems with a focus on human-centered design (HCD) (Medicaid.gov, 2022).³ For Medicaid Enterprise Systems (MES) transformations, HCD is driving the vision of a single digital front door where all members, providers, and stakeholders can easily access information and services. This approach, combined with loose coupling to modules, can make systems function more efficiently, driving down operational costs and reducing call center volume.

From an Integrated Eligibility standpoint, redesigned MES platforms also enable enrollees to access all health plan and decision-making data, while alleviating pressure on state Medicaid programs by using data to match enrollees with other potentially beneficial programs like the Supplemental Nutrition Assistance Program (SNAP) or Temporary Assistance for Needy Families (TANF). This integration can reduce administrative costs by streamlining the enrollment process and minimizing the need for multiple applications and verifications — improving the experience for citizens in the process.



Enterprise-based Medicaid platforms can make healthcare more equitable, secure, and transparent. Now is the time for public sector agencies to develop modernized systems that improve the user experience and realize significant cost efficiencies.

The Need for Improved Efficiency

A significant driver of administrative costs and data redundancies in legacy Medicaid systems occurs during the Integrated Eligibility process, which determines eligibility for citizens to access benefit programs. The Centers for Medicare and Medicaid Services (CMS) found that 36 states are operating outside of regulatory compliance with at least one federal requirement related to the renewal process ([CMS.gov](https://www.cms.gov), 2024).⁴ Factors like long call times and delayed application processing increase the risk of miscommunication and errors, which, in turn, translates to using additional funding to amend these errors. Additionally, regular operating costs such as labor expenses, call center support, and technical debt incurred from housing data on siloed legacy systems, can quickly add up and increase pressure on already strained state budgets.

According to a recent study, total spending on administrative services was about \$33.8 billion annually for Medicaid or approximately 5–6% of total expenditures (Health Management Associates, 2024).⁵

Moreover, these inefficiencies can lead to substantial delays and frustration for enrollees. A survey conducted by the Center on Budget and Policy Priorities found that 40% of Medicaid enrollees in numerous states experienced significant delays in processing applications due to administrative backlogs (Cbpp.org, 2025).⁶

A modern Medicaid enterprise platform offers a centralized, secure approach that can effectively manage administrative costs, which gives state health workers the freedom to allocate Medicaid funding in more meaningful ways. Being proactive about enrollee data also empowers state workers to shift from a reactive to a proactive stance in all aspects of their work.

The keys to creating an efficient, tech-forward Medicaid platform:



Adopting a human-centered approach to design



Developing a data and integrations architecture to unify data



Leveraging technology to improve program integrity

Human-Centered Design and Non-Medical Drivers of Health Improve Outcomes

Applying human-centered design principles and addressing non-medical drivers of health through connected, modular platforms enables state Medicaid programs to provide more comprehensive and preventive care. This not only improves individual health outcomes but also contributes to significant cost savings for a state's Medicaid system.

Applying HCD principles to a new Medicaid portal puts the users at the center — focusing on the needs of members, providers, and partners. Designing with this in mind could provide a one-stop shop for members, providers, and partners to see their (or their patient's) Medicaid healthcare data, find recent news and events, receive notifications, reach out for help, and much more.

Non-medical interventions can also make a significant impact, taking pressure off Medicaid funding and budgets and providing better outcomes for citizens. More state Medicaid programs are starting to offer wellness benefits such as stipends for GED test prep, vouchers for a dependent's summer camp, or a catalog of home health aides.

North Carolina's Healthy Opportunities Program found that non-medical interventions such as access to food and reliable transportation actually saved \$1,000 on expenditures per enrollee per year ([North Carolina's Department of Health and Human Services, 2025](#)).⁷ A major contributor to this decrease in spending was the reduction in emergency room utilization as a means for enrollees to avoid food insecurity and housing instability.

Connecting enrollees to custom programs through user data collected on enterprise platforms not only saves on costs, but it also empowers enrollees to make healthier, preventive choices for their long-term health and wellness.

Maryland's MD THINK initiative further demonstrates the impact of human-centered design and integrated platforms. By consolidating data across health and human service programs, Maryland reduces repetitive requests for information and delivers services faster, effectively addressing non-medical needs and improving overall health outcomes ([statescoop.com, 2024](#)).⁸

Integrated Architecture Addresses Data Silos

In Medicaid benefits management, data silos create inaccurate, fractured information that can drive up costs and prevent enrollees from accessing benefits and programs that can improve their overall health outcomes. A unified enterprise platform ensures that enrollee-related data is consistent across all touchpoints.

The Master Client Index (MCI) is a framework that uniquely identifies individuals across multiple databases to ensure accurate, consistent, and coordinated access to their records within healthcare or social services. Integrating MCI empowers state agencies to make more objective and transparent decisions regarding enrollee care and reduces confusion around decisions since all relevant parties — including the enrollee, state agencies, payers, and providers — can access the status of these decisions in real time. Having a single source of truth for enrollee data minimizes errors and redundancies, leading to more efficient operations and cost savings.

MCI is enabled through Master Data Management (MDM) — the process of creating a single, accurate source of critical data — which ensures that core information like member demographics, provider credentials, and plan enrollments remains consistent across all platforms. The CMS has invested heavily in a master data strategy for its own systems, focusing on “eliminating redundancy, inconsistency, and fragmentation” of data (CMS.gov, 2024).⁹



However, consistency alone is not enough. To make this data actionable in real time, many agencies are utilizing Event-Driven Architecture (EDA), which enables systems to react instantly to key events — such as an enrollee submitting a new application, a provider credential update, or an eligibility determination — by automatically triggering downstream processes and updates. This ensures that all parties receive timely alerts, reducing delays and allowing more responsive, proactive service delivery.

Key Advantages of EDA



Real-time information

Notifications and alerts are delivered instantly, reducing the number of records, applications, and other resources in limbo.



Ease of access to data

This reduces frustration for enrollees and state employees by ensuring transparency in all processes that everyone involved can reference.

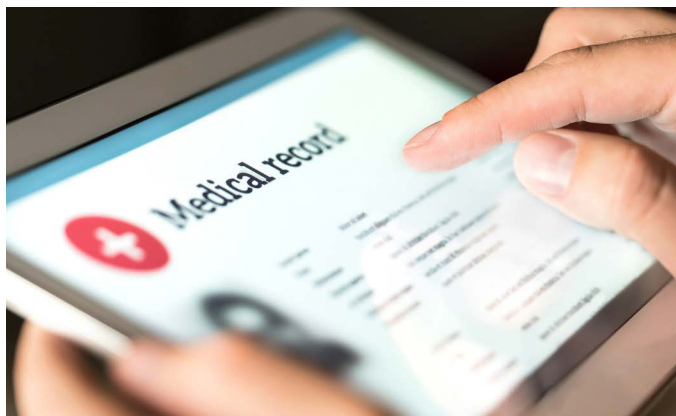
Technology Enhances Program Integrity

The Government Accountability Office found that over 15% of all Medicaid payments — nearly \$81 billion — were improperly dispersed ([U.S. Government Accountability Office, 2023](#)).¹⁰ This may not be the fault of the beneficiary, as beneficiaries may have multiple identification numbers accidentally assigned to them due to administrative errors — and very likely preventable with an MCI. Nevertheless, eliminating data silos relating to beneficiary applications, funds disbursement, enrollment, and other integral data reduces the likelihood of fraud, waste, and abuse.

A centralized state Medicaid database enables case managers and health and human service workers to leverage machine learning (ML) algorithms, which can detect suspicious activities in real time, preventing fraudulent outcomes before they occur. As an example, the CMS deployed an advanced fraud detection solution for Medicare, incorporating capabilities that automatically stopped payments of certain improper and non-payable claims. As of now, these improvements have generated an estimated \$2 billion in savings over a 5-year period (GAO, 2024).¹¹

Training artificial intelligence (AI) and ML algorithms to analyze expansive datasets also can reduce the administrative budget. For instance, while AI/ML algorithms identify potential fraud, health and human services workers have the bandwidth to attend to the more pivotal aspects of their work, including determining Medicaid eligibility for potential enrollees.

Preventing fraud, waste, and abuse not only makes data easily auditable for compliance purposes but also restores trust in your programs. By leveraging modern technology and integrated platforms, state Medicaid programs can enhance program integrity, ensuring that funds are used efficiently and effectively to serve those in need.





How a State Healthcare Agency Modernized Its Legacy System

State workers and enrollees faced numerous challenges when trying to access vital data on their state's fragmented legacy system. These challenges included long call times, delayed application processing, and multiple identification numbers assigned to beneficiaries due to administrative errors. In response, the state healthcare agency sought a solution that aligned with CMS guidelines, enhanced usability, and prevented fraud and duplicate data. CapTech partnered with the state healthcare agency to leverage human-centered design to create a modular, single access point for all Medicaid-related services.

It reduces administrative costs by streamlining the enrollment process and minimizing the need for multiple applications and verifications — creating a much simpler experience for users. It also relieves state workers of admin-related frustrations by enabling seamless data transfers, and by providing transparent and auditable data, which enhances security and trust.

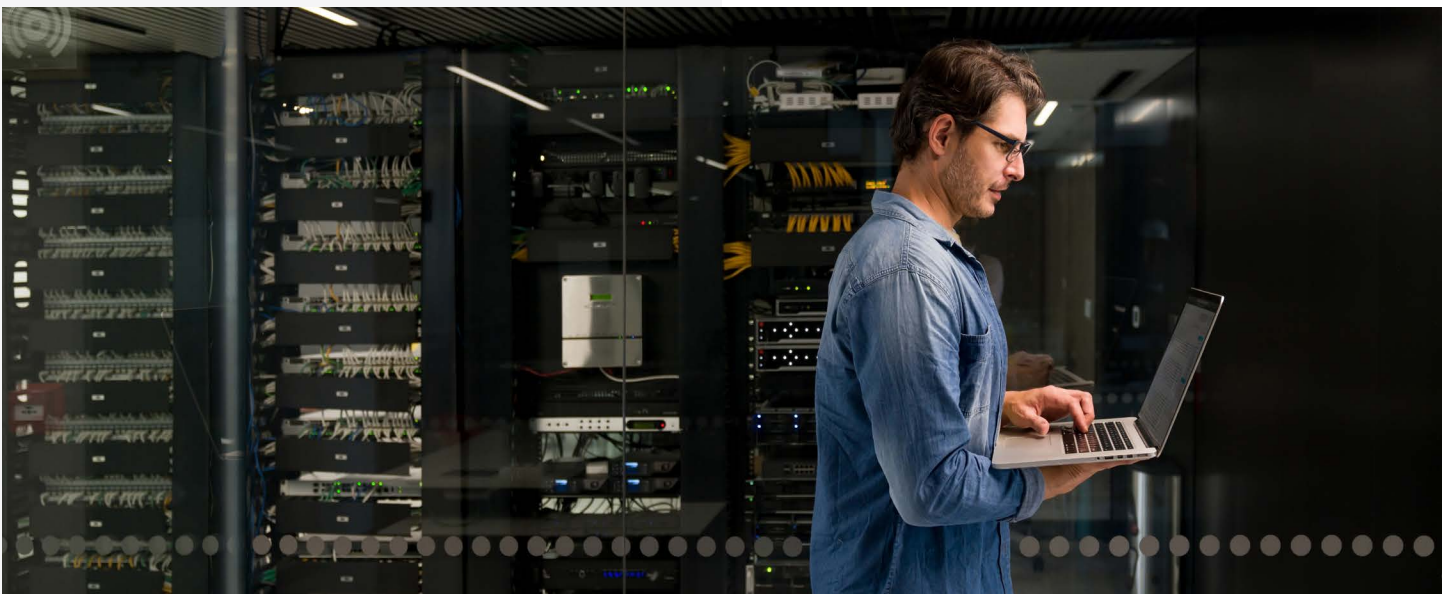
Enterprise Solutions Offer a Promising Path Forward

Enterprise-based solutions offer real-time information, enabling state Medicaid programs to proactively address challenges such as budget constraints or global health crises.

A revitalized platform also alleviates stress for both state workers and enrollees by providing real-time access to their data, restoring trust and bolstering cooperation in state processes.

Additionally, eliminating data silos protects states from fraudulent activity or nefarious actors attempting to steal sensitive medical data.

In the future, an enterprise platform could do even more — using advanced analytics to predict state-wide health trends, assisting state case workers in designing personalized care plans, and facilitating real-time collaboration across agencies. While the full potential has yet to be realized, the benefits are already clear: enterprise Medicaid portals offer a promising path forward for state agencies.



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⁶Center on Budget and Policy Priorities (2025). Unwinding Watch: Tracking Medicaid Coverage as Pandemic Protections. [Cbpp.org](https://www.cbpp.org)

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¹¹U.S. Government Accountability Office (2024). Medicare and Medicaid: Additional Actions Needed to Enhance Program Integrity and Save Billions. [gao.gov](https://www.gao.gov)



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